SELF STUDY REPORT

SUBMITTED BY

GOVT. ZIRTIRI RESIDENTIAL SCIENCE COLLEGE

Aizawl : Mizoram

Ramthar Veng, Aizawl – 796007, Mizoram

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PREFACE

Govt. Zirtiri Residential Science College, Aizawl possesses the unique position of being the first and only science college in the State of Mizoram, NE India. It was established by an act of the State Assembly in 2000 with the primary vision of providing science education. Since then, the defined goal of the college is to ensure quality education for empowering the native people - who are educationally backward in science education - by enhancing the status of science and technology. Since then, the college is now proudly marching towards its second decade of existence.

The College is affiliated to Mizoram University and offers 10 UG course, besides 1 certificate course as a value-added course. It is registered under 2(f) & 12-B of UGC Act under the nomenclature 'Govt. Zirtiri Women's College' in 1989, which was later re-named to its present form in 2000. Home Science, Biochemistry and Electronics are courses available in the college which are not offered anywhere else in the State. It is also the first college in Mizoram to start BCA programme.

The college is currently located in the heart of Aizawl, the capital city on temporary buildings with inadequate space for Classrooms, Computer laboratories, Auditorium, Science laboratories and Library. After much cajoling and frequent submission of pleas, the State Government has allocated land for its permanent campus where construction works have commenced for hostel facilities in the new campus.

The College was accredited with Grade B by NAAC in 2009. Re-collecting and reflecting on our quality status during these past years, and endeavouring to live true to the motto, 'Lighted to Lighten' the College has now volunteered for a second accreditation cycle. In spite of the seemingly difficult situations and working conditions, we choose to persevere. All efforts within our capacity are taken into perspective to involve the stakeholders – students, faculty members, alumni, parents, and the Government to ensure quality sustenance and enhancement.

<div style="text-align: right">

(LALTANPUIA)
Principal

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EXECUTIVE SUMMARY

Govt. Zirtiri Residential Science College, Aizawl is a multi-faculty co-educational college with three streams of UG course - Science, Home Science, and Computer Science. Presently, there are 60 teachers out of which 43 are permanent, and 17 are temporary. The current enrolment of students in 2014 is 647. The affiliating University has switched over to Semester System from the Annual System in 2011. Several rank holders have been produced and faculty members have been accorded National Awards in recognition of their achievements and contributions.

It is a government institution established to address the need for enhancing science education since Mizoram is lagging behind the rest of the country in the field of science & technology. Continuing and adhering to the mission upon whom it has been established, it has now emerged into the premier science college in Mizoram. Currently, the set-up is on temporary basis in the neighbourhood of Ramthar Veng, Aizawl. This campus, congested as it is, provides a quiet and idyllic academic environment devoid of ragging and gender discrimination.

A suitable plot of land has been allotted for establishing permanent campus at Durtlang along NH-54 *vide* Government's order no. DLL- 2 of 2010. Recently, almost Rs 10 crore has been allocated from the State's Special Plan Assistance scheme for construction of Main Building Block-I, Library Building, & Hostels (Girls & Boys). Construction works of some of the buildings have commenced.

The IQAC is the main body that sets quality goals and objectives. It prepares academic calendar of events and activities for every semester. Several Committees and Cells have been designated to spearhead their respective assigned quality enhancing activities. For example, under the initiatives of the Cleanliness Committee, the college has been adjudged the third '*Cleanest College of Aizawl City*' by the Municipal Council during the commemoration of State-level Cleanliness Week in October, 2014. The IQAC has conducted faculty enrichment programmes on topics like - use of ICT, effective classroom management, and training on service matters.

The curricula for Home Science, Biochemistry, Electronics, BCA, Environmental Studies, History of Science, and General English have been suggested and developed by our faculty members, which were eventually approved by respective School Boards and then the University Academic Council. Some of our teachers are members of the University's Subject/ School Boards that are responsible for preparing UG curricula.

Research laboratories funded by national agencies have been established through which, scholars have been awarded PhD degrees. A number of original research papers have been published by faculty members. Research projects have been undertaken and completed by our teachers. At present, 18 teachers are actively pursuing their PhD degrees. Modernised laboratories & infrastructure have been created in the field of Biotechnology, Radiation Monitoring, Ecology & Environment, and Spoken English.

The college has been chosen by BARC (Mumbai) as an 'IERMON Centre', which is a nationalised network of centres for monitoring background radiation. The Dept. of Biotechnology, New Delhi has also chosen the college as an 'Institutional-level Biotech Hub'.

The main Library is a compact hub of activities where students and teachers converge to

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collect study materials. It has been fully automated using INFLIBNET's SOUL-2 software. A CCTV is installed for security measure. The Library also hosts 'UGC Network Resource Centre' which is provided with computers and free internet access. However, lack of space is the main drawback which renders it almost impossible to further enlarge the infrastructure.

The campus is Wi-Fi enabled and all students and staff have free internet access. The College website *gzrsc.edu.in* has provided an excellent platform for disseminating necessary information to the public, and for dissipating and collecting information regarding college news, academics, downloads, and a hub for socialising among students and other stakeholders.

Since students come from heterogeneous backgrounds - rural and urban - with majority being SC/ST population, a sizeable portion of them come from weak financial and academic backgrounds. This heterogeneity necessitates the situation to provide all possible student support services in varied forms to facilitate transformation among the students. A summary of student support is given below:

- *'Personality Development'* programme covering various life skills & soft skills - resume writing, etiquette, travel tips, first aid technique, spoken Hindi & spoken English, etc.
- Introduction of add-on course (Certificate Course in Computing)
- Field trips and exposure visits to laboratories and local factories
- Incentive cash awards given annually to 6 meritorious students/achievers
- Cash support given annually to 14 students and, remittance of fees on instalment-based payment options for financially weak
- Remedial classes for academically weak students
- Mental health counselling, Career counselling & Mentoring support

Extra-curricular activities are essential part of college life which provides lively atmosphere against the backdrop of serious academic obligations. Government recognised '*Senhri Cultural Club*' maintained by the Students Union (SU), has performed in several functions within and outside the State. Our students actively participate in state-level competitions such as University sports meets, quiz competitions, debates, cultural dance competitions, etc. A separate 'SU Fund' is designated to meet the necessary logistics of these activities. The SU also conducts annual weeklong inter-class competitions. It also publishes its annual magazine 'Red Vanda' which facilitates students to showcase their thoughts and literary calibres.

The practices of conducting Parent-Teacher Meets, Students' Feedback System & Mentoring of Students have been institutionalised. The Students' Feedback is more of an evaluation on curriculum and evaluation of teachers by students. Parent-Teacher Meets are conducted for fresh students of every batch and have always proved fruitful in making plans to deal with students hailing from varied backgrounds. Alumni of past pupils are also active in their endeavour to provided support whenever called for.

Our NSS Units are perhaps the most active of all units in the State. They have rendered community service in the form of tree planting projects under Green Mizoram Movement, construction of *tuikhur* (springwater) shelters for water-scarce communities, construction of resting sheds for farmers in remote villages, mass voluntary blood donations, free health camps, and campus cleaning projects. Student volunteers have been sent to participate in international and national events. One of our NSS Programme Officers has received the prestigious National Award from the President of India.

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Faculty members have rendered consultancy services to government and other public agencies. Extension programmes are organised for Higher Secondary School students to provide them information in science education & choice of career. Free 'Computer Clinics' are often organised for neighbouring communities; free services are rendered to old age homes, orphanages, and special schools for handicapped. The college conducts coaching classes to provide support for competitive exams (UPSC, SSC, & State Service exams).

Optimum utilisation of available fund & infrastructure, and perseverance are keywords adopted by the college to ensure quality sustenance and enhancement. In spite of inadequate classroom size, laboratories and library space, it is the policy of the college to utilise all available nooks and space. Student intake increases annually, always exceeding the limits we have tentatively set during the time of fresh admissions. In order to effectively utilize hard sought funds, for instance, faculty members volunteer to supervise minor construction works by hiring necessary skilled and unskilled workers. Students and teachers come on holidays to render extra manual helping hands during such construction activities. The DBT Biotech Hub, the multi-purpose Auditorium, extension works of college building & new canteen have been constructed in this manner with minimum expenditure, without the need of hiring Contractors or Professional Builders. Major construction works however, are the purview of the Government.

In the present condition, it has been an endearing challenge for the college to deliver its commitments and promises. It is envisaged that with the support of the Government machinery, the college will be fully residential in the near future - equipped with necessary infrastructure to act as a catalyst for bringing about change, and kindle a ray of light wherever there is darkness, because our motto still remains 'Lighted to Lighten'.

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SWOC OF THE INSTITUTION

STRENGTHS

The college is located in the State capital in a quiet neighbourhood. Being a government institution, there is a sense of 'public ownership' which results in a heterogeneous intake of students. The faculty is comparatively young, ready to adapt with changes. We are the only govt. college established purely for science course. Biochemistry, Electronics, and Home Science are not offered anywhere else under the University. Teachers are now well-recognised and appointed in State and University-level Committees. Lately, the State Govt. has sanctioned huge amounts of money to initiate our transformation into a fully residential institution.

WEAKNESSES:

The present infrastructure is temporary and was not designed for a science college. Space constraints are evident in classrooms, labs, & student amenities. Library needs to be further strengthened. Lab equipments need to be upgraded. The college needs more ICT infrastructure like smart classes, electronic books & journals, and installation of computer projectors in classrooms. Sports infrastructure needs to be developed. Number of regular staff is inadequate. Appointment of faculty rests solely upon government policy & budget allocation. More faculty members must engage in research activities.

OPPORTUNITIES:

There are very few colleges in the State offering science courses. We are the only UG College having Home Science (H.Sc.) to facilitate students who want to pursue the subject. Once permanent campus is established, more student intake capacity with modernised infrastructure and vocational programmes could be created. There is lot of scope to pursue pioneering research works in the State.

CHALLENGES:

The work-culture of students needs improvement. Students having desirable academic quality and backgrounds prefer professional and technical courses. Curriculum and course options must undergo a paradigm shift in order to cope with modern demands.

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'SECTION B: PREPARATION OF SELF-STUDY REPORT

1. Profile of the Affiliated / Constituent College

1. **Name and Address of the College:**

Name:	**GOVT. ZIRTIRI RESIDENTIAL SCIENCE COLLEGE**		
Address:	**RAMTHAR VENG**		
City: **AIZAWL**	Pin: **796007**		State: **MIZORAM**
Website:	**www.gzrsc.edu.in**		

2. **For Communication:**

Designation	Name	Tel. No.	Mobile	Fax	Email
Principal	LALTANPUIA	O: 0389-2345644 R: 0389-2345976	9436152-176	0389-2306252	tanpuia@rediff mail.com
Vice Principal	-	-	-	-	-
Steering Committee Coordinator	ZIRLIANNGURA	O: 0389-2305848 R: 0389-2306112	9436156-330	0389-2306252	zirata@rediff mail.com

3. **Status of the Institution:**
    Affiliated College   √
    Constituent College
    Any other (specify)

4. **Type of Institution:**
    a. By Gender
        i.   For Men
        ii. For Women
        iii. Co-education   √

    b. By Shift
        i.   Regular   √
        ii. Day
        iii. Evening

5. **It is a recognized minority institution?**
    Yes
    No   √

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If yes specify the minority status (Religious/linguistic/ any other) and provide documentary evidence

6. **Sources of funding:**

Government	√
Grant-in-Aid	
Self-financing	√
Any other	

7. **a. Date of establishment of the college**: 01.08.1980
(as 'Zirtiri Women's College', later changed to its present nomenclature)

b. University to which the college is affiliated: Mizoram University

c. Details of UGC recognition:

Under Section	Date, Month & Year (dd-mm-yyyy)	Remarks(If any)
i. 2 (f)	06-10-1998	Recognition obtained as 'Govt. Zirtiri Women's College', later changed to its present name in the year 2000. No.F.8-5/98(CPP-I)
ii. 12(B)	06-10-1998	-do-

(Enclose the Certificate of recognition u/s 2 (f) and 12 (B) of the UGC Act)

d. Details of recognition/approval by statutory/regulatory bodies other than UGC (AICTE, NCTE, MCI, DCI, PCI, RCI etc) Not Applicable

Under Section/ clause	Recognition/ Approval details Institution/Department Programme	Day, Month and Year (dd-mm-yyyy)	Validity	Remarks
i.	Institution			
ii.				
iii.				

(Enclose the recognition/approval letter)

8. **Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?**

Yes ☐   No √

If yes, has the College applied for availing the autonomous status?

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Yes ☐   No ☐

9. **Is the college recognized**
   a.   by UGC as a College with Potential for Excellence (CPE)?

   Yes ☐   No ☐ √

   If yes, date of recognition: ……………………. (dd/mm/yyyy)

   b.   for its performance by any other governmental agency?

   Yes ☐   No ☐

   If yes, Name of the agency …………………… and
   Date of recognition: …………………… (dd/mm/yyyy)

10. **Location of the campus and area in sq.mts:**

Location *	Urban
Campus area in sq. mts.	4670 sq. mts.
Built up area in sq. mts.	950 sq. mts.

(* Urban, Semi-urban, Rural, Tribal, Hilly Area, Any others specify)

11. **Facilities available on the campus** (Tick the available facility and provide numbers or other details at appropriate places) or in case the institute has an agreement with other agencies in using any of the listed facilities provide information on the facilities covered under the agreement.

   ▪ **Auditorium/seminar complex with infrastructural facilities** | 1 (Auditorium) |
   ▪ **Sports facilities** | 1 (Seminar Room) |

   *   play ground   ☐ √
   *   swimming pool   ☐
   *   gymnasium   ☐

   (Community playground available adjacent to the college campus)

   ▪ **Hostel**
   *   **Boys' hostel**
            i.   Number of hostels | Under Construction |
            ii.   Number of inmates | Nil |
            iii.   Facilities (mention available facilities)

   *   **Girls' hostel**
            i.   Number of hostels | Under Construction |
            ii.   Number of inmates | Nil |
            iii.   Facilities (mention available facilities)

   *   **Working Women's hostel**
                                               | Nil |

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      i.   Number of hostels

      ii.   Facilities (mention available facilities)

- **Residential facilities for teaching and non-teaching staff** (give numbers available - cadre wise)
    - Cafeteria -   One
    - Health centre -   Nil

- **First aid, Inpatient, Outpatient, Emergency care facility, Ambulance**

    Qualified doctor   Nil   Full time   Nil   Part-time   Nil

    Qualified Nurse   Nil   Full time   Nil   Part-time   Nil

- **Facilities like banking, post office, book shops:**

    Branches of State Bank of India, Mizoram Rural Bank and Post office are situated close to the College campus.

- **Transport facilities to cater to the needs of students and staff:**

    The College has one 30-seater bus to cater the needs of students and staff.

- **Animal house:**   Nil

- **Biological waste disposal:** Nil

- **Generator or other facility for management/regulation of electricity & voltage**: Power backup using 15 KVA diesel generator is available for regulation of electricity and voltage.

- **Solid waste management facility:**

    Solid wastes are incinerated in the designated place after they were segregated and collected from the college by the Municipal Council through PPP mode.

- **Waste water management:**

    Wastewater from laboratories, canteen and other outlets are disposed underground in specially constructed soak pits.

- **Water harvesting:**

    Rainwater is harvested and stored in cisterns during the monsoon in two locations:

    (a) Rooftop of Main building (for use in the canteen for washing utensils, etc.)

    (b) Rooftop of Lab building (used for cleaning/ washing glassware, etc.)

12. **Details of programmes offered by the college** (Give data for current academic year)

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Sl. No.	Programme Level	Name of the Programme/ Course	Duration	Entry Qualification	Medium of instruction	Sanctioned/ approved Student strength	No. of students admitted
1	Under-Graduate	a). B.Sc. b). B.C.A. c). B.Sc. (Home Sc.)	3 Years 3 Years 3 Years	Class XII Class XII Class XII	English English English	300 120 100	405 137 111
	Post-Graduate	-					
	Integrated Programmes PG	-					
	Ph.D.	-					
	M.Phil.	-					
	Ph.D	-					
	Certificate courses (for outgoing Students)	Course on Computer Concepts (CCC)	1 month	-	English	-	20 – 30 students annually
	UG Diploma	-					
	PG Diploma	-					
	Any Other (specify and provide details)						

13. **Does the college offer self-financed Programmes?**

Yes [√]   No [ ]

If yes, how many?   1 - (Bachelor of Computer Applications)

14. **New programmes introduced in the college during the last five years if any?**

Yes	√	No		Number	1 – (Geology)

15. **List the departments:** (respond if applicable only and do not list facilities like Library, Physical Education as departments, unless they are also offering academic degree awarding programmes. Similarly, do not list the departments offering common compulsory subjects for all the programmes like English, regional languages etc.)

Faculty	Departments (eg. Physics, Botany, History etc.)	UG	PG	Research

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Science	1. Chemistry	UG		
	2. Physics	UG		
	3. Mathematics	UG		
	4. Electronics	UG		
	5. Zoology	UG	-	-
	6. Botany	UG		
	7. Biochemistry	UG		
	8. Geology	UG		
Arts	-			
Commerce	-			
Any Other (specify):				
Home Science	1. B Sc (Home Science)	UG		
Computer Science	1. BCA	UG		

16. **Number of Programmes offered under** (Programme means a degree course like BA, BSc, MA, M.Com…)

a.	annual system	-
b.	semester system	3
c.	trimester system	-

17. **Number of Programmes with**
  a. Choice Based Credit System
  b. Inter/Multidisciplinary Approach   **11**
  c. Any other (specify and provide details)

18. **Does the college offer UG and/or PG programmes in Teacher Education?**

  Yes ☐   No ☑

  If yes,
  a. Year of Introduction of the programme(s)………… (dd/mm/yyyy)
     and number of batches that completed the programme
  b. NCTE recognition details (if applicable)
     Notification No.: …………………………………
     Date: …………………………… (dd/mm/yyyy)
     Validity:………………………
  c. Is the institution opting for assessment and accreditation of Teacher Education Programme separately?
     Yes ☐   No ☑

19. **Does the college offer UG or PG programme in Physical Education?**

  Yes ☐   No ☑

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If yes,

a. Year of Introduction of the programme(s)…………… (dd/mm/yyyy) and number of batches that completed the programme

b. NCTE recognition details (if applicable)
Notification No.: …………………………………
Date: ……………………….. (dd/mm/yyyy)
Validity:……………………….

c. Is the institution opting for assessment and accreditation of Physical Education Programme separately?
Yes [ ]   No [√]

20. Number of teaching and non-teaching positions in the Institution:

Positions	Teaching faculty								Non Teaching staff		Technical staff	
	Professor		Associate Professor		Asst Professor		Guest Lecturer					
	*M	*F	*M	*F	*M	*F	M	F	M*	F*	*M	F*
Sanctioned by the UGC / University / State Government *Recruited*	0	0	15	22	6	10	10	3	7	3	3	7
Yet to recruit	0	0	0	0	0	0	0	0	0	0	0	0
Sanctioned by the Management/ society or other authorized bodies *Recruited*												
Yet to recruit	0	0	0	0	0	0		0	0	0	0

21. Qualifications of the teaching staff:

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./D.Litt.							
Ph.D.	-	-	6	1	-	-	7
M.Phil.	-	-	1	1	-	-	2
PG			9	19	1	5	35
Temporary teachers							
Ph.D.	-	-	-	-	-	2	2
M.Phil.	-	-	-	-	-	-	-
PG					5	4	9
Part-time teachers							
Ph.D.	-	-	-	-	1	-	1

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M.Phil.	-	-	-	-	-	1	1
PG					8	1	9

22.   **Number of Visiting Faculty/Guest Faculty engaged with the College:** Nil

23.   **Furnish the number of the students admitted to the college during the last four academic years.**

Categories	Year 1 (2011-12)		Year 2 (2012-13)		Year 3 (2013-14)		Year 4 (2014-15)	
	Male	Female	Male	Female	Male	Female	Male	Female
SC	0	0	0	0	0	0	0	0
ST	306	242	331	267	312	261	340	304
OBC			3	1	0	1	0	2
General	4	7	1	7	1	6	5	2
Others	0	0	0	0	0	0	0	0

24.   **Details on students enrolment in the college during the current academic year:**

Type of students	UG	PG	M. Phil.	Ph.D.	Total
Students from the same state where the college is located	653	0	0	0	653
Students from other states of India	0	0	0	0	0
NRI students	0	0	0	0	0
Foreign students	0	0	0	0	0
Total	653	0	0	0	653

25.   **Dropout rate in UG and PG (average of the last two batches)**

UG   2%   PG

26.   **Unit Cost of Education**

(Unit cost = total annual recurring expenditure (actual) divided by total number of students enrolled)

(a)   **including the salary component**   Rs 69475000/653 = Rs 106393.00

(b)   **excluding the salary component**   Rs 1975000/653 = Rs 296.00

27.   **Does the college offer any programme/s in distance education mode (DEP)?**

Yes   No   √

If yes,

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a)   is it a registered centre for offering distance education programmes of another
     University

     Yes ☐   No ☑

b)   Name of the University which has granted such registration

     ☐

c)   Number of programmes offered ☐

d)   Programmes carry the recognition of the Distance Education Council

     Yes ☐   No ☐

28.   Provide Teacher-student ratio for each of the programme/course offered

29.   Is the college applying for

Accreditation :   Cycle 1 ☐   Cycle 2 ☑   Cycle 3 ☐   Cycle 4 ☐

Re-Assessment: ☐

(Cycle 1refers to first accreditation and Cycle 2, Cycle 3 and Cycle 4 refers to reaccreditation)

30.   Date of accreditation* (applicable for Cycle 2, Cycle 3, Cycle 4 and re-assessment only)
Cycle 1: **29th January 2009**
Accreditation Outcome/Result : **B Grade (2.22)**
Cycle 2: ……………… (dd/mm/yyyy)   Accreditation
Outcome/Result……….
Cycle 3: ……………… (dd/mm/yyyy)   Accreditation
Outcome/Result……….
* Kindly enclose copy of accreditation certificate(s) and peer team report(s) as an annexure

31.   Number of working days during the last academic year

     180 days

32.   Number of teaching days during the last academic year
(Teaching days means days on which lectures were engaged excluding the examination days)

     160 days

33.   Date of establishment of Internal Quality Assurance Cell (IQAC)
IQAC 03. 04.2009 (dd/mm/yyyy)

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34.	**Details regarding submission of Annual Quality Assurance Reports (AQAR) to**

	NAAC
	AQAR (i)	03.05.2011	(dd/mm/yyyy)
	AQAR (ii)	01.05.2012	(dd/mm/yyyy)
	AQAR (iii)	03.04.2013	(dd/mm/yyyy)
	AQAR (iv)	03.07.2014	(dd/mm/yyyy)

35.	**Any other relevant data (not covered above) the college would like to include. (Do not include explanatory/descriptive information)**

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2. Criteria - Wise Inputs

CRITERION I: CURRICULAR ASPECTS

1.1   Curriculum Planning and Implementation

1.1.1   State the vision, mission and objectives of the institution, and describe how these are communicated to the students, teachers, staff and other stakeholders.

Mission

The College was established by the Govt. of Mizoram to be the premier Science College to cater to the need for science education in Mizoram, a remote corner of NE India. Since there are very few institutions in the State offering science programmes, the College has been instituted to fill this void.

Objectives & Goals

The principal goal is to cater to the need for higher learning in the college level in various fields of science & technology in Mizoram. It is envisaged that the knowledge and skills gained from the institution, with the degree obtained, would facilitate students for future employment opportunities. It strives to produce students who are responsible citizens equipped with educated information in science and basic life-skills, which would be utilized for the development of the State as well as the Nation.

The mission and objectives of the college are communicated to teachers and other staff during general body meetings, and to the students & other stakeholders in the College Prospectus, website, Parent-Teacher Meets etc.

1.1.2   How does the institution develop and deploy action plans for effective implementation of the curriculum? Give details of the process and substantiate through specific example(s).

Individual teachers prepare lesson plans and maintain log-books entries of their allotted teaching assignments. The entries in the Log-books are inspected regularly by the Principal to ensure diligence and to oversee the continuity of topics covered and maintenance of teaching plans.

The syllabi are unitized and weightage of marks are accordingly allocated. Teaching schedules and lesson plans are made by teachers to keep in line with this. Completion of lessons and topic coverage is monitored through inspection of entries made in the teacher's log books.

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1.1.3 What type of support (procedural and practical) do the teachers receive (from the University and/or institution) for effectively translating the curriculum and improving teaching practices?

a) The University normally organizes orientation programmes on the syllabi, especially when the curriculum is revised or new subjects are introduced in the curriculum, which are attended by the concerned teachers from time to time.

b) The IQAC of the institution has been offering training programmes on "Effective teaching strategies" to enhance the teaching quality.

c) All regular teaching faculties have been provided with teaching aids in the form of laptops, iPad, tablets from the grant received from UGC.

d) The institution also makes provision for ICT facilities such as computers, projectors, Wi-Fi, internet etc. to promote and enhance the teaching practices of its faculty.

1.1.4 Specify the initiatives taken up or contribution made by the institution for effective curriculum delivery and transaction on the Curriculum provided by the affiliating University or other statutory agency.

While all affiliated colleges follow the curriculum prescribed by Mizoram University (MZU), our college is perhaps the most proactive in contributing curriculum development and delivery.

a) Many of our teachers are members of the Boards of Studies and are actively involved in curricular design.

b) Study materials are updated according to the syllabus with the latest knowledge in each field of study and the students are taught accordingly.

c) The syllabus contents are divided among the teaching faculty who maintain individual log books to ensure effective translation of the curriculum.

1.1.5 How does the institution network and interact with beneficiaries such as industry, research bodies and the university in effective operationalization of the curriculum?

a) The college maintains strong network and interact with research bodies and the university. It co-ordinates actively with the university in matters pertaining to curriculum design, its implementation, conduct of university examinations.

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b) Research laboratories established in the college have been instrumental in the delivery of the curricular contents especially in conducting practical classes. For example, equipments procured under DBT Bio-tech Hub are used by our students for analysis and measurements in their practical classes. Radiation monitoring lab is utilized by research scholars and UG students for collection and analysis of data.

1.1.6 What are the contributions of the institution and/or its staff members to the development of the curriculum by the University? (Number of staff members/ departments represented on the Board of Studies, student feedback, teacher feedback, stakeholder feedback provided specific suggestions etc.

The institution is one of the major contributors in the development of the curriculum by the university. It takes active part in suggesting revisions, framing and submitting proposals. These exercises are outcomes of discussions in Teacher's General body meetings and seminars organised by the college. The following are few examples of initiatives taken by the institute:

a) Syllabus for Home Science: The institute, being the sole Home Science College in the State, makes major contribution to the revision and framing of the syllabus. The teachers of the department have been appointed to frame the syllabus and submit proposals to the concerned BUGS for approval of the Academic Council of MZU.

b) Syllabus for BCA: BCA syllabus has been revised and re-framed by the teachers of this college. It was approved by the University's Academic Council and is now in use.

c) Syllabus for General English: The syllabus for General English for Science, Home Science and BCA have been revised and framed by the teachers of English department of the college. Their proposal has been accepted by the Academic Council and is now in use. The Arts and Commerce streams have now adopted the syllabus used by the Science and Home Science Stream.

d) Syllabus for Science: Many teaching faculty of the science stream are members of the University Board of studies and take active part in restructuring, redesigning and framing of new syllabus. Apart from the syllabus on science the faculty members of our college have been responsible for re-structuring and simplifying the common paper 'History of Science'.

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At present, faculty members are represented on the various Boards of studies of the University.

1.1.7 Does the institution develop curriculum for any of the courses offered (other than those under the purview of the affiliating university) by it? If 'yes', give details on the process ('Needs Assessment', design, development and planning) and the courses for which the curriculum has been developed.

Curriculum development is solely the purview of the affiliating University. However, the institution has been particularly active and instrumental in the curriculum design and preparation of the following subjects:

(a) Home Science
(b) Computer Science
(c) Biochemistry
(d) Electronics
(e) Environmental Studies
(f) General English

(Our teachers were assigned to prepare drafts to be discussed in the respective Board of Studies of the University)

1.1.8 How does institution analyse/ensure that the stated objectives of curriculum are achieved in the course of implementation?

Every teacher acquaints himself/herself with the stated objectives of the curriculum and imparts the same to the students. The following are some of the mechanisms for ensuring implementation of the objectives of the curriculum:

a) The College encourages teachers to undergo training /refresher course seminars on relevant course contents.

b) Performance of students monitored through assignments, written tests, and classroom discussions.

c) Feedback system is used to monitor the teacher's performance and the status of syllabus completion.

d) Regular review meetings are held both at the departmental and college level.

e) General Body meetings review university examination results and receive feedback from the teachers regarding course coverage and the achievement of students.

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2.   Academic Flexibility

1.2.1 Specifying the goals and objectives give details of the certificate/ diploma/ skill development courses etc., offered by the institution.

Certificate Course on Computer Concept (CCC): The Training is intended as a value-added course for the outgoing students of Science & Home Science streams to provide them with basic computer knowledge. The Course follows the syllabus prescribed by NIELIT for their 'Certificate Course on Computer Concept' (CCC). At the end of the course, they sit for an examination under NIELIT which offers them the CCC certificate.

In addition, the following skill development initiative is also designed for the outgoing students:

Personality Development Programme: The Programme is designed for students of all streams. The course aims at equipping our students with necessary knowledge and skills, not only in academics, but also in job-hunting and establishing careers. The Programme contains training on life values such as – use of ICT, communication skills, interview skills, writing resume, first-aid skills, psychological development in stress and anger management, time management, spoken Hindi, and various social skills. Certificates were awarded to participants at the end of the Programme.

1.2.2 Does the institution offer programmes that facilitate twinning/ dual degree? If 'yes', give details.

No. There are no twinning/dual degree Programmes.

1.2.3 Give details on the various institutional provisions with reference to academic flexibility and how it has been helpful to students in terms of skills development, academic mobility, progression to higher studies and improved potential for employability. Issues may cover the following and beyond:

- **Range of Core / Elective options offered by the University and those opted by the college**
  Students are allowed horizontal mobility for change of core/elective options if they wish

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- **Choice Based Credit System and range of subject options:**
  None

- **Courses offered in modular form:**
  None

- **Credit transfer and accumulation facility:**
  Not under the purview of the College

- **Lateral and vertical mobility within and across programmes and courses**

  University does not allow vertical/ lateral mobility <u>across</u> Programmes.

- **Enrichment course:**
  a) Personality Development programme is organised every year as an enrichment course for all outgoing students
  b) NIELIT's CCC is offered as a value-added course

1.2.4 Does the institution offer self-financed programmes? If 'yes', list them and indicate how they differ from other programmes, with reference to admission, curriculum, fee structure, teacher qualification, salary etc.

Yes. The Institution offers one self-financed course - BCA (Bachelor of Computer Applications).

a) Admission: Admission into the course is done through   a written test and personal interview.

b) Fee: Being self-financed, the fee structure is higher than the other streams. However the college tries to fix the fees at a relatively lower rate than other institutions offering BCA , keeping in mind the student population which consist largely of rural and economically weaker sections.

c) Curriculum: The teaching faculty were instrumental in collecting materials for framing the BCA syllabus and submit drafts to the concerned Board of Study for subsequent approval by the Academic Council of Mizoram University.

d) Teacher's qualification and salary: Teachers are recruited as per AICTE norms. The State Govt. has recently approved payment of salary to permanent teachers, whereas temporary teachers are partially funded both by the institute and the State government.

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1.2.5 Does the college provide additional skill oriented programmes, relevant to regional and global employment markets? If 'yes' provide details of such programme and the beneficiaries.

At present, the college does not offer additional skill oriented programmes. However, the institute is making a collaborative effort with ICFAI to start a certificate course on Spoken English   in the new academic session.

1.2.6 Does the University provide for the flexibility of combining the conventional face-to-face and Distance Mode of Education for students to choose the courses/combination of their choice" If 'yes', how does the institution take advantage of such provision for the benefit of students?

No such facility provided by the University

1.3   Curriculum Enrichment

1.3.1 Describe the efforts made by the institution to supplement the University's Curriculum to ensure that the academic programmes and Institution's goals and objectives are integrated?

The following efforts and initiatives are made by the college:
a) Personality Development: Communication skill is the need of the hour, especially in relation to regional and global employment markets. Short term courses on Personality Development is annually organised to hone various skills such as communication skills, oral communication skill, interview skills, Spoken Hindi. This programme targets the final year students who are expected to go for higher studies and job-hunting both at the regional and global job market. Short term courses on computer application have also been regularly organized for both teachers and outgoing students.
b) Certificate Course on Computer Applications (CCC): The Course is designed for the outgoing Science and Home Science students. The course intends to provide basic computer knowledge to our outgoing students. The course follows the syllabus prepared by NIELIT for their certificate course Certificate Course on Computer Concept (CCC). At the end of the course they sit for an examination under NIELIT which offers them a certificate for CCC.
c) Workshop on Skill Development: The institute has been working in close

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co-ordination with NEDFI (a financial institute that develops industries in the N.E India), to provide additional skill oriented programmes. Apart from training on private entrepreneurship our students have successfully undergone skill development programmes on chocolate making, weaving, candle making etc.

The institution strives towards overall development of students and quality enhancement of learners. Value added courses, seminars, club activities, training on communication skill, leadership training, group discussions, mock-interviews, panel discussions and awareness programmes on various aspect of the university curriculum such as environment issues, women empowerment, consumer Rights, moral and ethical values are imparted to the students for fulfilment of the institution's goal.

1.3.2 What are the efforts made by the institution to enrich and organize the curriculum to enhance the experiences of the students so as to cope with the needs of the dynamic employment market?

The Institution makes necessary suggestions to the university which is the final authority in Curriculum designing for inclusion of certain matters to enhance the experiences of students.

a) The English department had recently submitted its suggestion to add communicative skills as a component of the syllabus for Science and Home Science as communicative skills have become an integral part of job-hunting. Their proposal has been accepted by the Academic Council of MZU and is now in use. The case is same for General English for BCA where communicative English as well as Personality &Soft skills Development has been included.

b) **Home Science**: The department has integrated into its syllabus relevant papers such as Dietetics, clothing and textile, Home Management, Extension Education, Human Development. The rising demand for dieticians, fashion designers, housekeepers, and social workers in the job markets are met with the inclusion of these subjects.

c) **BCA**: Many of the course content have recently been updated to cater to the dynamic job markets. Programming language, Financial Accounting, Web Technology, Database Management System are some of the subjects included in the BCA syllabus.

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d) **SCIENCE**: Several aspects of Bio-technology have been included in the syllabus for zoology and Botany. Industrial chemistry has also been included in the syllabus content for chemistry.

1.3.3 Enumerate the efforts made by the institution to integrate the cross cutting issues such as Gender, Climate Change, Environmental Education, Human Rights, ICT etc., into the curriculum?

Teachers keep themselves aware of current events and the changing trends in different aspect of learning and make suggestions for inclusion of these cross-cutting issues into the curriculum. The following topics are extensively covered in the curricula:

a) **Climate Change**: Climate change is included as a component of Environmental studies, which is a compulsory paper for third semester Science and Home Science.

b) **Environmental Education**: Environmental education is imparted through the paper on Environmental Studies which is included in the syllabus for 3rd Semester Science and Home Science. Environment and ecology is included in the syllabus for 4th semester BCA.

c) A major proportion of the syllabus for BCA is devoted towards education on ICT. Syllabus for Botany, Zoology, Physics, Chemistry and mathematics includes essential topics on ICT.

1.3.4 What are the various value-added courses/ enrichment programmes offered to ensure holistic development of students?

a) Moral and ethical values: The Student's Evangelical Union, with the help of the Evangelical cell organizes weekly meetings and discussions on moral and spiritual matters. Ethical values are imparted to the students at College functions.

b) Employable and life skills: Personality development course are organised every year for the final year students to impart employable and life skills such as communication skills, spoken English and Hindi, Basic computer knowledge, interview skills, Private Entrepreneurship etc. The career counselling Cell ties up with corporations like NEDFI which gives hands-on trainings on chocolate–making, weaving, candle making, and other forms of private entrepreneurship.

c) Better career options: The career counselling and Placement cell regularly conducts Career counselling classes, panel discussion, symposiums for all streams where various career options are offered to the students.

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d) Community orientation: The Home science Department regularly carries out community services at Children Homes, school for spastics, pre-schools etc. The BCA department annually conducts a week-long Free Computer Clinic as part of the community service programme. All these programmes form a part of their syllabus. The NSS unit of the college regularly organizes community outreach programmes such as construction of public urinals and waiting sheds, tree plantations, blood donation camps in collaboration with the Red Ribbon Club of the college.

1.3.5 Citing a few examples enumerate on the extent of use of the feedback from stakeholders in enriching the curriculum?

a) Feedbacks from students are collected every semester through a form prescribed by QAC cum CDO in line with NAAC guidelines.
b) Feedbacks received from student-participants at Personality development courses are useful in re-structuring the course content of the skill development courses offered by the institute to make the programme Need-based.
c) Annual Parent-Teacher Meetings are instrumental in collecting feedback from parents.

After analyzing and reviewing feedback from stakeholders at general body meetings of the teaching faculty, suggestions are offered to the university Board of studies as and when required.

1.3.6 How does the institution monitor and evaluate the quality of its enrichment programmes?

Enrichment programmes are monitored and evaluated through a feedback process from participants/students which are collected at the end of such programmes. Suggestions offered and feedbacks collected are analyzed by concerned departments/organizers which take necessary actions.

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1.4   Feedback System

1.4.1 What are the contributions of the institution in the design and development of the curriculum prepared by the University?

The Institution is one of the most pro-active colleges under Mizoram University to put forward suggestions and innovations regarding quality enhancement in the course contents & curricula. We have wherever possible, submitted agenda for discussion in conference/meetings of Teachers' Association, concerned BUGS meetings. The following are specific contributions:

a) Faculty members of the college contribute in curriculum designing, redesigning and developing curricula as members of the Board of studies/school Board.

b) General English: Faculty of English has proposed inclusion communicative skills as a component of the syllabus for Science and Home Science. Their proposal has been accepted by the Academic Council of MZU and is now in use. The case is same for General English for BCA where communicative English as well as Personal Development has been included.

c) Home Science: The syllabus has been designed and proposed by the faculty of our college for approval by the Academic Council of Mizoram University.

d) BCA: The institution is the first college in the State to introduce BCA. The prescribed syllabus for BCA was proposed by teachers of our college.

e) Biochemistry & Electronics: The ground works for framing UG syllabi for Biochemistry and Electronics was initiated and performed by the faculty members of our college.

f) Environmental Studies & History of Science: The faculty member of our college has designed and submitted the syllabus for interdisciplinary subject 'Environmental Studies' which was ultimately prescribed by the University in 2006. Since 2012, the syllabus was redesigned for Science & Home Science stream by converting it into History of Science. The Teachers' Association of this college has submitted suggestions for alterations. These proposals have been subsequently accepted by the University in June 2014.

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1.4.2 **Is there a formal mechanism to obtain feedback from students and stakeholders on Curriculum? If 'yes', how is it communicated to the University and made use internally for curriculum enrichment and introducing changes/ new programmes?**

a) The QAC cum CDO, Higher &Technical Education had prepared a Students Feedback form in line with NAAC guidelines to maintain uniformity in all colleges /institutions.

b) The Parent-Teacher meets held annually reflect the opinion of parents. After analyzing the Feedback, the institute submits its suggestions to the Board of studies for curriculum enrichment and redesigning as and when required.

1.4.3 **How many new programmes/courses were introduced by the institution during the last four years? What was the rationale for introducing new courses/programmes?)**

Any other relevant information regarding curricular aspects which the college would like to include.

Number of new courses introduced – 1 (Geology)

- The natural resources of the State are yet to be systematically tapped. The State Government has begun to prioritize oil and natural gas exploration.
- Further, the State of Mizoram is located in earthquake and landslide prone area. Mitigation of natural calamities is essential.
- Construction of buildings and bridges requires the supervision of geologists.

Hence, the subject has been introduced for enhancing the potential of students, provide technological knowhow, and create job opportunities in this field.

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Criterion II: TEACHING - LEARNING AND EVALUATION

2.1   Student Enrolment and Profile

2.1.1   How does the college ensure publicity and transparency in the admission process?

The institute ensures wide publicity in the admission process through advertisements in daily local newspapers, local TV channels, notifications in college notice Boards, and College website.

An admission committee (consisting of Heads of Department) is constituted to lay down the norms and conditions of eligibility for admission. All the departments are directed to comply with the decisions taken by the Committee. Individual departments carry out the instructions by conducting Candidate-screening (either by review of academic records or by interview, or both) for admission into their respective course. Computer Science Department conducts entrance examinations. List of selected candidates are put up at prominent places of the college campus. Accordingly, admission is done by selected candidates.

In this way, it is ensured that the admission process is transparent, fair and unbiased for all candidates.

2.1.2   Explain in detail the criteria adopted and process of admission (Ex. (i) merit (ii) common admission test conducted by state agencies and national agencies (iii) combination of merit and entrance test or merit, entrance test and interview (iv) any other) to various programmes of the Institution.

Selection of students is done through interviews and on merit basis. They are admitted to the college as per the rules of the Mizoram University and Government of Mizoram

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2.1.3 Give the minimum and maximum percentage of marks for admission at entry level for each of the programmes offered by the college and provide a comparison with other colleges of the affiliating university within the city/district.

There is no minimum cut-off mark prescribed by the institution other than that prescribed by the University for entry into their affiliated colleges. Depending on the number of first division applicants, the institution sometimes offer direct admission to first division applicants.

2.1.4 Is there a mechanism in the institution to review the admission process and student profiles annually? If 'yes' what is the outcome of such an effort and how has it contributed to the improvement of the process?

Yes. The college has the following mechanisms to review admission process and students profile:
a) Meeting of heads of department and the MCTA (the college teacher's association of the college) which makes preliminary review of the admission process
b) The General Body Meeting of the teaching Faculty is the ultimate authority for reviewing the admission process.
c) Individual departments are made responsible for reviewing students profiles

The student Mentoring System which was introduced in 2012 has proved to be very useful in helping teachers/mentors keep track of academic record of their students. This system is an effective measure of student's academic potential.

2.1.5 Reflecting on the strategies adopted to increase/ improve access for following categories of students, enumerate on how the admission policy of the institution and its student profiles demonstrate/ reflect the National commitment to diversity and inclusion.

a) SC/ST
Majority of our students are from Scheduled Tribes as the college is situated in a tribal area. They are admitted according to the norms prescribed by the college.
b) OBC
No discrimination made on this ground.
c) Women
No discrimination is made on ground of sex. Women enjoy all facilities of the

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college at par with their male counterparts.

d) Differently-abled:

The college has no specified provision/fund for this purpose and schemes are unavailable with the State govt. for this category of students.

e) Economically weaker sections

Students from economically weaker sections are given admission without any bias. They are provided Post Matric scholarship by the State Government. College with relatively Higher Proportions of SC/ST/OBC Cell under UGC-merged Schemes annually distributes financial assistance to selected students from economically weaker sections. Selection is done through submission of application and personal interview through which deserving students are selected.

f) Minority community

Students from minority community do not face any problem in admission.

g) Any other

2.1.6 Provide the following details for various programmes offered by the institution during the last four years and comment on the trends i.e. reasons for increase/ decrease and actions initiated for improvement.

Programmes*	Number of applications	Number of students admitted	Demand Ratio
Year : 2011 1. B.Sc. 2. B.Sc. (Home Sc.) 3. BCA	SEE DEPT PROFILE		
Year : 2012 1. B.Sc. 2. B.Sc. (Home Sc.) 3. BCA			
Year : 2013 1. B.Sc. 2. B.Sc. (Home Sc.) 3. BCA			
Year : 2014 1. B.Sc. 2. B.Sc. (Home Sc.) 3. BCA	310 70 82	150 55 50	

* UG (Admission into First Year only)

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2.2   Catering to Student Diversity

2.2.1   How does the institution cater to the needs of differently-abled students and ensure adherence to government policies in this regard?

The college has no fund/provision for this purpose. No schemes/funds are available with the State Govt. for this category of student. So far, there have been two partially deaf students. Most students are not aware of their plight because all possible assistance was given to the students by the teachers to overcome their handicap.

2.2.2   Does the institution assess the students' needs in terms of knowledge and skills before the commencement of the programme? If 'yes', give details on the process.

Yes. Orientation classes are conducted at the beginning of each academic session where the concerned teachers assess students' needs in terms of knowledge and skills through discussions and interaction with students.

2.2.3   What are the strategies adopted by the institution to bridge knowledge gap of the enrolled students Bridge/Remedial/ Add-on/Enrichment Courses, etc.) to enable them to cope with the programme of their choice?

a) To Bridge the knowledge gap of enrolled students, Remedial Coaching cell of the institution organizes remedial classes on holidays especially for the first semester students. Remedial classes for students with back papers have also been organised.

b) The Department of Computer Science annually organizes a crash course in mathematics as a bridge course for its new students.

2.2.4   How does the college sensitize its staff and students on issues such as gender, inclusion, environment etc.?

a) The College sensitizes the staff and students through Panel Discussions, Seminars and other awareness programmes.

b) The Institute collaborates with State Legal authority and Legal Aid cell, Mizoram law College to spread awareness on gender issues.

c) The Seminar Committee, under the aegis of Mizo Academy of Science organizes seminar on environment issues every year, especially on science day.

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2.2.5 How does the institution identify and respond to special educational/learning needs of advanced learners?

a) Advanced Learners are generally identified through their performance in the last qualifying examinations, tests and Assignments

b) Under the Mentoring system, the Mentors keep track of the academic record of all students under his /her mentorship. This helps in identifying advanced learners.

c) Teacher develops a self-designed mechanism whereby such students are utilized for presentation of papers at college level seminars etc. Such students are felicitated and encouraged at college functions by awarding them with cash incentives.

2.2.6 How does the institute collect, analyse and use the data and information on the academic performance (through the programme duration) of the students at risk of drop out (students from the disadvantaged sections of society, physically challenged, slow learners, economically weaker sections etc. who may discontinue their studies if some sort of support is not provided)?

The student mentoring system has been adopted by the institution whereby each teacher is allotted 10-15 students, the number varying with student population. The mobile numbers and other necessary information of the students are provided to the teacher-mentor. The teacher-mentor is responsible for monitoring the academic performance of each student under his/her mentorship.

The monthly attendance of each student is calculated and put up on notice Boards. Students with poor attendance or poor academic performance are counselled by the teacher/mentor who tries to find out reasons for the poor attendance and performance of the students. Parents and guardians are approached if and when necessary.

This system is further utilized to identify slow learner, physically challenged students.
Financial Assistance is given to economically weak students from UGC grants, college funds and sometimes from contributions of teachers. The Government also provides annual scholarship to these students.

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2.3   Teaching-Learning Process

2.3.1   How does the college plan and organize the teaching, learning and evaluation schedules? (Academic calendar, teaching plan, evaluation blue print, etc.)

The Academic Calendar designed by the university is incorporated into the Academic calendar prepared by the IQAC at the beginning of every semester. The IQAC in preparing the Academic calendar gives due consideration to integrate the teaching, learning and evaluation process.

Teachers prepare lesson-plans and maintain Log-Book entries of their allotted teaching assignments. Teaching schedules and lesson plans are prepared in line with the syllabi which are unitized and weightage of marks accordingly allocated. Completion of lessons and topic coverage is monitored through inspection of entries made in log-books of teachers. To gauge students' learning capacity, monitoring of students performance is done through internal examination, class tests, home assignments, field works, and seminars.

The college is based on the guiding principle that to gauge the extent of interest among students, regular attendance input is one of the main criteria. Hence monthly scrutiny and review of attendance record is an important exercise for monitoring the performance of students.

2.3.2   How does IQAC contribute to improve the teaching –learning process?

The IQAC collects feedback on teachers every semester which aims at self-improvement for teachers in their teaching methodology. It regularly organizes faculty enrichment programmes on effective teaching methodology, use of ICT etc.

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2.3.3 How is learning made more student-centric? Give details on the support structures and systems available for teachers to develop skills like interactive learning, collaborative learning and independent learning among the students?

The institution attempts to make its learning programmes more student-centric and participatory in nature.

Interactive Learning is encouraged through Group discussions. Students are normally divided into groups and are made to discuss relevant topics. Sometimes they are given a group assignments which they present through group seminars, panel discussions etc.

Collaborative learning is imparted through joint projects given to students as assignments.

Activity based learning is always encouraged. In this area, practical classes held in each subject to facilitate activity based learning.

Assignments, paper presentations, mock interviews are employed to augment individual learning.

2.3.4 How does the institution nurture critical thinking, creativity and scientific temper among the students to transform them into life-long learners and innovators?

Imparting scientific temper in our students is a major concern for our institution.

Students are taken on Field trips, visits to industrial units, veterinary farms, Zoological parks, homes etc. and are made to analyse their visit and submit a written report.

Students are made to take part in debates and quizzes on current issues.

The Seminar committee regularly organizes Panel discussion, awareness programmes, and seminars on burning issues.

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The college magazine serves as a forum through which the creative minds of the students are nurtured.

2.3.5 **What are the technologies and facilities available and used by the faculty for effective teaching? E.g.: Virtual laboratories, e-learning - resources from National Programme on Technology Enhanced Learning (NPTEL) and National Mission on Education through Information and Communication Technology (NME-ICT), open educational resources, mobile education, etc.**

All regular teaching staff were provided Laptops, iPad, tablets etc. as teaching aid from UGC Fund.

The college campus has been made Wi-Fi enabled. Teaching faculty as well as students can access the internet for teaching-learning materials during working days.

The college website has been elaborately updated recently so as to encourage interaction between teachers and students through a common forum. Notes can be easily downloaded from the college website.

2.3.6 **How are the students and faculty exposed to advanced level of knowledge and skills (blended learning, expert lectures, seminars, workshops etc.)?**

Teachers and students are encouraged to attend seminars and workshops organised by the college and other institutions in and outside the state. The Cells under UGC merged schemes regularly invites expert lectures for students.

The Seminar committee has been organising seminars panel discussions on different topics relating to advanced knowledge and skills.

The institution collaborates with Legal Aid clinic, Mizoram Law College and State legal authority to facilitate blended learning.

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2.3.7 **Detail (process and the number of students/ benefitted) on the academic, personal and psycho-social support and guidance services (professional counselling/ mentoring/ academic advice) provided to students?**

The teachers in charge of the Evangelical Union provide personal and moral support to students in need of such assistance.

The institute has a grievance cell which provides psycho-social support to students.

The institute had introduced a student mentoring system where students are divided into groups and are assigned to a teacher/mentor who is responsible for keeping track of their attendance Record and performance in internal tests and exams.

The career counselling and placement cell regularly invites renowned resource persons, including psychologists to provide professional counselling. The teachers make themselves available to offer academic advice as and when required by the students.

The institute, in collaboration with Department of Psychology, Mizoram University provides group counselling on Mental Health to its students.

2.3.8 **Provide details of innovative teaching approaches/methods adopted by the faculty during the last four years? What are the efforts made by the institution to encourage the faulty to adopt new and innovative approaches and the impact of such innovative practices on student learning?**

The teaching faculty was made to undergo a workshop on "**Effective Teaching strategies**" organised by the IQAC This gave the teachers an impetus to initiate innovative teaching methods such as group discussion, team teaching, symposiums and other activity based teaching methodology.

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The IQAC also organised a short term course on computer applications to the teaching faculty to make them IT literate. Consequently, teachers have been utilizing IT-enabled pedagogy in their classroom teaching. Power-point presentations have been effectively employed by the teachers.

With the establishment of a language Laboratory, the English Department has been imparting spoken language skills to the students.

2.3.9 How are library resources used to augment the teaching- learning process?

The Library remains the main hub of learning. Teachers make full use of Library books to prepare for their classes lectures. Library periods are allotted to final year students as they have core subjects. Students are made to regularly visit the library to collect learning resources for their assignments, tests and exams.

The library dually functions as the UGC network resource Centre. The internet facilities available at the Library are utilized by students and teachers alike. The Library also keeps a collection of old university questions which students use for exam preparation.

2.3.10 Does the institution face any challenges in completing the curriculum within the planned time frame and calendar? If 'yes', elaborate on the challenges encountered and the institutional approaches to overcome these.

Yes. Sometimes unforeseen and unavoidable circumstances impede the completion of courses. Such anomalies are handled by decisions taken in General Body meetings. The normal practice is to conduct extra classes in the event when such a challenge arises, even on non-working days.

2.3.11 How does the institute monitor and evaluate the quality of teaching learning?

The IQAC is made responsible for spearheading quality enhancement. Student Feedback collected by the IQAC every semester induces and encourages self-reflection as well as self-improvement on the part of the teachers.

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An example of a mechanism that have been developed for monitoring and evaluating teaching-learning quality is open discussion in review meetings that are held periodically both at the departmental and institutional-level. These review meetings are held after subject-wise analyses of student's performance have been made after internal and university examinations.

2.4   Teacher Quality

2.4.1   Provide the following details and elaborate on the strategies adopted by the college in planning and management (recruitment and retention) of its human resource (qualified and competent teachers) to meet the changing requirements of the curriculum.

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./ D.Litt.							
Ph.D.							
M.Phil.							
P.G.							
Temporary teachers							
Ph.D.							
M.Phil.							
P.G.							
Temporary teachers							
Ph.D.							
M.Phil.							
P.G.							

2.4.2   How does the institution cope with the growing demand/ scarcity of qualified senior faculty to teach new programmes/ modern   areas (emerging areas) of study being introduced (Biotechnology, IT, Bioinformatics etc.)? Provide details on the efforts made by the institution in this direction and the outcome during the last three years.

The IQAC provides training on basic computer applications to the teaching staff to enable them to cope with the changing trend in the teaching-learning process. This has greatly benefitted the teaching staff, especially the senior

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faculty members in coping with the teaching of new programmes.

The Bio-tech Hub of our college also organised a special workshop for college teachers on 'Techniques in Bio-technology and Bio-informatics' during 21-23 august 2013 in collaboration with Bio-tech hub of Pachhunga University college and State bio-tech hub, Mizoram university. Altogether,28 participants from science colleges across the state participated in this workshop.

The college also provides internet facility and has made the college campus Wi-Fi enabled to help teachers handle new programmes and modern areas of study.

2.4.3 Providing details on staff development programmes during the last four years elaborate on the strategies adopted by the institution in enhancing the teacher quality.

a)   Nomination to staff development programmes

Academic Staff Development Programmes	Number of faculty nominated
Refresher courses	
HRD programmes	
Orientation programmes	
Staff training conducted by the university	
Staff training conducted by other institutions	
Summer / winter schools, workshops, etc.	

b)   Faculty Training programmes organized by the institution to empower and enable the use of various tools and technology for improved teaching-learning

Teaching learning methods/approaches:
IQAC organizes Faculty enrichment programmes regularly on "Effective Teaching Methodology"

Handling new curriculum:
Department wise orientation programmes are organised as and when new curriculum is introduced.

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Content/knowledge management:
Log books maintained and lesson plans prepared to ensure content/knowledge management.

Selection, development and use of enrichment materials:
Individual Department are given training on how to facilitate materials from the internet through a training programme organised by the IQAC

Assessment:
Other than the training organised by the university from time to time the examination cell provides training on assessment methodology

Cross cutting issues:
Experts are regularly invited for talks on cross cutting issues (IT, Biotechnology, Environmental issues)

Audio Visual Aids/multimedia:
The institute provides computers, projectors for PowerPoint presentations. The language lab also serves as a useful audio –visual aid.

OER's
Teaching learning material development, selection and use

c)   **Percentage of faculty**

  * invited as resource persons in Workshops/ Seminars/ Conferences organized by external professional agencies

  * participated in external Workshops/Seminars /Conferences recognized by national/ international professional bodies

  * presented papers in Workshops/ Seminars/ Conferences conducted or recognized by professional agencies

2.4.4 What policies/systems are in place to recharge teachers? (eg: providing research grants, study leave, support for research and academic publications teaching experience in other national institutions and specialized programmes industrial engagement etc.)

The Institution motivates and supports teachers to pursue research. At present there are 18 teachers pursing their Ph.D. Since the teachers are government employees the institution itself does not provide research grants. It only provides its recommendations to deserving candidates.

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2.4.5 Give the number of faculty who received awards / recognition at the state, national and international level for excellence in teaching during the last four years. Enunciate how the institutional culture and environment contributed to such performance/ achievement of the faculty.

Mr.Laltanpuia, the Principal of the college was awarded Bharat Shiksha Ratan (2012) for outstanding contribution in education accorded by Global Society for Health and Educational Growth, New Delhi.

2.4.6 Has the institution introduced evaluation of teachers by the students and external Peers? If yes, how is the evaluation used for improving the quality of the teaching-learning process?

Yes. Students Feedback is collected every semester through a prescribed form. The teaching faculty collect Feedback from students and use them to reflect upon their evaluation for self–improvement. This system had greatly improved the teaching-learning process.   Feedback from external peers has not been collected.

2.5   Evaluation Process and Reforms

2.5.1 How does the institution ensure that the stakeholders of the institution especially students and faculty are aware of the evaluation processes?

At the beginning of every academic session students are gathered at the college auditorium and the evaluation process is explained to them in great detail by the examination committee.

The institution annually organizes a PARENT-TEACHER MEET where parents of first semester students are invited. In such a meet the evaluation process is explained in detail to the parents .A question hour is opened for parents to clear any doubt relating to the college administration including the evaluation process.

The college prospectus which is given out at the time of admission contains details of evaluation process.

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2.5.2 **What are the major evaluation reforms of the university that the institution has adopted and what are the reforms initiated by the institution on its own?**

Since the introduction of the Semester system by Mizoram University to which the college is affiliated, all major evaluation reforms are made in line with the university guideline. The semester system has initiated the internal marking system where 25% of the total mark allotted to a subject is to be evaluated in the College. Consequently three continuous internal assessments are conducted every semester in which the third assessment may be conducted in the form of assignment, seminar, etc.

2.5.3 **How does the institution ensure effective implementation of the evaluation reforms of the university and those initiated by the institution on its own?**

The Examination cell is responsible for ensuring effective implementation of the evaluation system. Any major evaluation reform introduced by the university as well as the institution itself is tabled at the general body meeting for discussion and adherence. Review meetings on examination reforms are held periodically to ensure effective implementation of these reforms.

2.5.4 **Provide details on the formative and summative assessment approaches adopted to measure student achievement. Cite a few examples which have positively impacted the system.**

Two internal examinations are conducted every semester. A third round of assessment in the form of assignments, paper presentations etc is also conducted. The marks of all the three tests are recorded and are analyzed and compiled at the end of every semester.

These assessments help in maintaining a relatively high standard of academic performance by the students.

Attendance is strictly maintained. Monthly records of student's attendance and performance at internal exams are maintained and assessed by teacher/mentor who inculcates sincerity in studies and class attendance.

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2.5.5 Detail on the significant improvements made in ensuring rigor and transparency in the internal assessment during the last four years and weightages assigned for the overall development of students (weightage for behavioural aspects, independent learning, communication skills etc.

The evaluated answer scripts of the students in tests and internal exams are always returned to the students for scrutiny. Their test and internal examination marks are compiled and put up on notice boards to ensure transparency. The weightage of marks for all kinds of assignments are communicated to the students by individual teachers before the commencement of each evaluation.

2.5.6 What are the graduates attributes specified by the college/ affiliating university? How does the college ensure the attainment of these by the students?

The graduate attributes specified by the college are that students should not only be academically educated, but should be equipped with necessary knowledge and skills required for job-hunting and establishing careers. The college seeks to impart holistic development to its students through programmes such as personality development, training on computer application, training on public speaking and oral communication etc.

All outgoing students are made to undergo a short-term course on Personality development before they leave the college which consist of a condense course on life values such as communication & interview skills, social skills, Psychological development-anger, stress, and time management, personal grooming, basic first aid skills. Moral values are imparted to our students through evangelical cell which aims at moulding our students into sincere and responsible beings.

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2.5.7 **What are the mechanisms for redressal of grievances with reference to evaluation both at the college and University level?**

The Examination cell takes responsibility for redressal of grievances relating to evaluation both at the college and university level. Any error in evaluation is brought to the notice of the Cell which in turn consults and gives directions to concerned department for rectification of such errors. Re-evaluation of answer-scripts may also be suggested for seemingly unfair/mistake in evaluation during university examinations

2.6. **Student performance and Learning Outcomes**

2.6.1 **Does the college have clearly stated learning outcomes? If 'yes' give details on how the students and staff are made aware of these?**

Yes. The College has clearly stated learning outcomes which are made known to the staff through staff meetings. Students are given awareness at the beginning of the academic session.

2.6.2 **Enumerate on how the institution monitors and communicates the progress and performance of students through the duration of the course/ programme? Provide an analysis of the students results/achievements (Programme/ course wise for last four years) and explain the differences if any and patterns of achievement across the programmes/ courses offered.**

The institution conducts two internal examinations every semester. A third round of assessment is made through assignments, paper presentations, group discussions and unit tests. The progress and performance of individual statements are recorded by the concerned departments and made known to the students. Monitoring of students' progress and performance has been taken up by teacher-mentor after introduction of the mentoring system.

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2.6.3 How are the teaching, learning and assessment strategies of the institution structured to facilitate the achievement of the intended learning outcomes?

The teaching, learning and assessment strategies are so structured so as to facilitate the achievement of intended learning outcomes.

Innovative teaching methods such as learn through activities, panel discussions mock interviews, combined classes, use of ICT etc. are some of the teaching methodology adopted to facilitate achievement of intended learning outcomes. Apart from class tests and internal examinations, assessment of students is made on the performance of students in these activities.

2.6.4 What are the measures/initiatives taken up by the institution to enhance the social and economic relevance (student placements, entrepreneurship, innovation and research aptitude developed among students etc.) of the courses offered?

The institution has a career counselling and placement Cell which navigates ways and means of enhancing students' placement in a state like Mizoram which falls behind metropolitan cities in creation of a thriving job-market. The students of computer science have been provided employment through campus exams organised in collaboration with local computer firms.

The cell has also established links with NEDFI (a financial institute) which has provided the institution with knowledge and skills relating to private entrepreneurship. Recently a number of our students have been trained by NEDFI in starting small scale business in chocolate-making. The cell endeavours to train more people in other areas such as candle making, beauty culture and weaving.

Further, the cell has also opened up links with Heritage Mizoram to help generate self-employment.

The Research committee was recently set up to cultivate the research aptitude of both students and teachers.

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2.6.5 How does the institution collect and analyse data on student performance and learning outcomes and use it for planning and overcoming barriers of learning?

Student learning outcomes are collected and analyzed by the institution through class tests, assignments, seminars, internal examinations and end semester results published by the university from time to time. On the basis of these results, remedial/tutorial classes are organised to help overcome barriers of learning.

2.6.6 How does the institution monitor and ensure the achievement of learning outcomes?

The mentoring and monitoring system which has been introduced since the past two years has been responsible for monitoring and ensuring the achievements of learning outcomes.

Individual departments has been actively monitoring the performance of students and learning outcomes by reviewing, planning and making essential changes.

2.6.7 Does the institution and individual teachers use assessment/ evaluation outcomes as an indicator for evaluating student performance, achievement of learning objectives and planning? If 'yes' provide details on the process and cite a few examples.

Yes, student's performance, achievement of learning objectives and planning are evaluated through assessment such as class tests, internal exams, and assignments.

a) Mentoring of students is an effective method of evaluating student's performance. Every mentor collects the marks obtained by his/her mentees and reviews them.

b) Review of student's performance is also made at the department level at the end of every assessment.

c) The general body meeting reviews the performance of students at the end of every semester and after the declaration of university results.

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2.6.8 Any other relevant information regarding Teaching-Learning and Evaluation which the college would like to include.

None

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CRITERION III : RESEARCH, CONSULTANCY AND EXTENSION

3.1   Promotion of Research

3.1.1   Does the institution have recognized research center/s of the affiliating University or any other agency/organization?

Yes. The institution has recognized research centres which are instrumental in providing facilities and necessary data required by the Research Scholars in obtaining their Ph.D. degrees. These centers are:

a) **Institutional DBT-Biotech Hub**: This centre is sponsored by Department of Biotechnology, New Delhi vide sanction letter No. BT/22/NE/2011 dated 30.11.2011. Presently the following part-time staff are engaged:

  (1) Coordinator
  (2) Assistant Coordinator
  (3) One JRF/SRF
  (4) One student Trainee

The following Research Scholars are utilizing the centre for their Ph.D. works:

  (1) Lalrosangpuii , Zoology Department, Mizoram University
  (2) S.Thangrimawii, Zoology Department, Mizoram University.
  (3) K.Zosangpuii, Zoology Department, Mizoram University.

Main activities Biotech Hub:

  (1) Basic research in Biotechnology
  (2) Organize Training programmes to College Teachers & students
  (3) Outreach programmes to Higher Secondary School students

b) **Radiation Monitoring Laboratory:** Radiation Monitoring Laboratory funded by Board of Research in Nuclear Sciences, Govt. of India vide BRNS Project Sanction No.2007/36/67-BRNS is being utilized by Ph.D. students of Mizoram University, who are Research Fellows of the Research Project taken up by the faculty of this institution. All the data that have been procured by this institution has been utilized by the Research Fellows for obtaining their Ph.D. degrees. M.Sc. (Physics) final students from Mizoram University also utilize the NaI(Tl) detector from this centre in writing their final dissertations.

The following Research Scholars have utilised the facilities of this laboratory for their Ph.D. works:

  (1) Lalmuanpuia Vanchhawng, awarded Ph.D. degree in Physics by the Mizoram University vide F.No. Ex/Ph.D/9-19 (SPS)/10 Dt. 8.11.2012.

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(2) P.C.Lalmuanpuia, submitting thesis to Department of Physics, Mizoram University.

The centre is also a recognized IERMON (Environmental Radiation Monitoring Network) Centre under Environmental Assessment Division, BARC, Mumbai since June 2011. It is one of the few institutions that have been provided with Radiation Monitoring System in North East India. IERMON system monitors natural radiation background and is plays an important role in public awareness regarding natural radiation.

3.1.2 **Does the Institution have a research committee to monitor and address the issues of research? If so, what is its composition? Mention a few recommendations made by the committee for implementation and their impact.**

Yes. The institution has a Research Committee to monitor and address the issues of research undertakings. The Committee consists of:

     (1)   Dr. B.Zoliana, Chairman

     (2)   Dr. Lalsangluaii Fanai, Secretary

     (3)   Dr. Rosangliana, Member

Some of the recommendations made by the Committee are:

(1) To promote research culture and inspire the faculty members to pursue research works. Positive responses have been obtained since the last NAAC accreditation in 2009. Four Faculty members have obtained their Ph.D. degree since then, and 18 members are either pursuing research works or submitting their synopses.

Faculty Members involved in Research Works
Research Scholars:

1.	Lalrinmawia	Zoology, NEHU
2.	P.C. Rohmingliana	Physics, MZU
3.	Lalzahawmi Chenkual	Environmental Science, MZU
4.	S. Thangrimawii	Zoology, MZU
5.	Zoramthara	Geology, MZU
6.	Ricky Lalhhmangaihzuala	Physics, MZU
7.	Lawrence Zonunmawia	Physics, MZU
8.	Lalhmingliana Hnamte	Chemistry, MZU
9.	Lalrosangpuii	Zoology, MZU
10.	Zosangpuii	Zoology, MZU
11.	Lalhmangaihzuala	Mathematics, MZU
12.	Lalngaihawma	Mathematics, MZU

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13. L.B. Singh   Mathematics, MZU, Assam. Univ.
14. Zirlianngura   Chemistry, MZU
15. C.Lalrinawma   Computer Science
16. Lalhruaitluanga   Computer Science, BU Coimbatore
17. C. Lalremruatfela   Geology, MZU
18. C. Lalchhanhima   Geology, MZU

Ph.D. Awarded:
1. Dr. Lalsangluaii Fanai   HAMP, MZU
2. Dr.PC Lalrinfela   Biotech, MZU
3. Dr. R.Lalengmawia   Botany, NEHU
4. Dr. K.B. Singh   Chemistry, BHU
5. Dr. Urmilla Pandey   Mathematics, DRML Avadh Univ.UP
6. Dr. Rosangliana   Physics, MZU
7. Dr. B. Zoliana   Physics, NEHU
8. Dr. Arup Kumar   Physics,, Jadavpur University
9. Dr. Skariah P.C.   Botany, Gujarat Univ. Ahmedabad
10. Dr. Lalmuanpuia Vanchhawng   Physics, MZU (*now teaching in PUC*)
11. Jimmy Lalnunmawia   Geology, MZU (*now teaching in MZU*)
12. Lalundanga   Botany, NEHU (*now teaching in MZU*)
13. Zaithanzauva Pachuau   Physics, NEHU (*now teaching in MZU*)

(2) To organize workshops/seminars: The Committee in collaboration with IQAC and some of the departments regularly organises faculty seminars as well as seminars for students.

(3) To recommend and encourage faculty members to publish research papers and also to publish books. Some faculty members are presently involved in preparing a textbook to be published as combined authors.

(4) The Committee is making preparations to publish four books bearing ISBN numbers. Necessary groundwork's have been completed for the purpose.

3.1.3 What are the measures taken by the institution to facilitate smooth progress and implementation of research schemes/projects?

- Autonomy to the Principal investigator: The Coordinator of any Project & Principal investigators has full autonomy regarding the project.

- Timely availability or release of resources: Resources or fund received are handed over to the investigator without delay. Sometimes funding agencies may delay release of further instalment. In such situations, financial assistances from the college funds are accorded for recover as and when the funds arrive.

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- Adequate infrastructure and human resources: All necessary assistances were provided by the college in terms of human resources whenever such need arises. Adequate space/infrastructure has always been provided in spite of congested spaces.

- Time-off, reduced teaching load, special leave etc. to teachers: Regular teachers engaged in research works for Ph.D. degrees avail study leave as per State government rules. Principal Investigators/Coordinators of Projects are also given special leave whenever their works demand.

- Support in terms of technology and information needs: Laboratory instruments &Library facilities are being used to carry out research works. Teachers can avail the ICT facilities of the college like computers, printers, Xerox, scanners and Broadband internet for web resource.

- Facilitate timely auditing and submission of utilization certificate to the funding authorities: The Principal Investigators prepare the accounts for timely auditing and approval. The UCs are then forwarded to funding agencies by the Principal without any delay.

3.1.4 What are the efforts made by the institution in developing scientific temper and research culture and aptitude among students?

Students are oriented to develop a culture of research mindedness while guiding them in field/laboratory works. They are encouraged to attend seminars and interact with research scholars. Scholars are also invited to give lectures on their research works and interact with the students for inspiration.

3.1.5 Give details of the faculty involvement in active research (Guiding student research, leading Research Projects, engaged in individual/collaborative research activity,) etc.

As per the existing norms of Mizoram University to the college is affiliated, faculty members are not eligible to be main-supervisors of M.Phil./Ph.D. students. However, a Joint-supervisorship is allowed in which one of the faculty members is involved vide MZU/Acad-6/5/09/1631 Dt. 13.9.2009. Under this scheme, two Research Scholars are enrolled into Ph.D. programmes in the Department of Physics, Mizoram University. One had obtained his Ph.D. in 2012 and another student will submit very shortly.

At present there are six faculty members involved in the research project works. During the reporting period two projects had been finished satisfactorily. There are 18 faculty members have enrolled as research

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scholars in various Universities. Some are in the initial stage of submitting their synopsis and others are registered as Ph.D. students. More than 10 faculty members have obtained their Ph.D. degrees while working in this college. Five of them have been awarded the degree during the reporting period.

3.1.6 Give details of workshops/ training programmes/sensitization programmes conducted/organized by the institution with focus on capacity building in terms of research and imbibing research culture among the staff and students.

(1) 10th Regional workshop on 'Computational Information Process', jointly organised with Electronics Communication Sciences Unit, ISI Kolkata during 10 - 12 November 2010

(2) Panel Discussion on Career Option for students and opportunities available in higher studies and research, Dt. 9.11.2011 in which Dr. Lanunziri from MZU and eminent panellists namely Mr. R.K.Lianzuala (journalist), Mr Vanneihtluanga (Columnist) and Mr. Lalnghinglova (Sport columnist) were resource persons.

(3) Faculty Development Programme on 5-16 March, 2012 and 7-25 May, 2012 with Mr. Thangkhanhau, Faculty member of Computer Science Dept. as Resource person on basic computer knowledge and internet related technology for doing Research.

(4) Talk on 'Study abroad and Research in foreign countries' conducted (12.12.2012) with Ms Lalchhandami, Research Scholar (Post-doctoral of National University of Singapore).

(5) Career Counselling into Services and Higher studies: The IQAC of the college and the Career Counselling Cell organise several of these programmes for the students covering career & placement opportunities, as well as in higher studies and research works.

(6) Project works assigned to students each year to enable them in imbibing research culture by collecting data, and analyzing these data with scientific approaches to draw conclusions.

(7) Symposium on '***Research Innovation and Popularization***' Dt. 30.9.2014 in which several Ph.D. awardees and Research scholars presented their Research works.

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3.1.7 Provide details of prioritized research areas and the expertise available with the institution.

The prioritized research areas and the expertise available with the institution are:-
a) Environmental Radiation
b) Plant Biotechnology
c) Cosmology
d) Flora of Mizoram

3.1.8 Enumerate the efforts of the institution in attracting researchers of eminence to visit the campus and interact with teachers and students?

Research Committee has been established in order to initiate, develop and promote research activities among the faculty as well as students. The Committee organizes seminars in collaboration with Career Counseling Cell and the IQAC in which researchers from within and outside the state are invited to present papers.

3.1.9 What percentage of the faculty has utilized Sabbatical Leave for research activities? How has the provision contributed to improve the quality of research and imbibe research culture on the campus?

Currently, 3 (three) faculty members are availing study leave to pursue their research works and for writing their thesis. One of them was awarded Ph.D. degree and the other two are completing their thesis shortly.

More faculty members who enrolled as PhD scholars will be availing study leave to enhance the pace of their research works. These activities have improved the quality of teaching and popularizing research culture in the college.

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3.1.10 Provide details of the initiatives taken up by the institution in creating awareness/ advocating/ transfer of relative findings of research of the institution and elsewhere to students and community (lab to land)

The Research Centres in the institution and faculty members have been providing data through seminars, conferences and symposia among the academia and students. Public awareness of the finding are also made through local newspapers and relevant websites.

a) Radiation Monitoring Lab has provided data regarding indoor radon gas concentration which is suspected to contribute increased incidence of lung cancer in the state.

b) The Biotech Hub also provided data to the faculty who are engaged in research works and gives training to the faculty. It also conducts outreach programmes for popularization of Biotechnology among higher secondary school students.

c) Lab to Land: Soil Bioengineering technology for mitigation of soil erosion and slope protection has been brought into local context by faculty members of or college using the age-old native technique of constructing cribwalls with locally available materials. Since Mizoram is susceptible to landslides, the technique adopted by us has been applied the Mizoram PWD in several affected areas along Aizawl-Lunglei (168 km highway) corridor which has proved successful in stabilizing the slopes.

3.2   Resource Mobilization for Research

3.2.1   What percentage of the total budget is earmarked for research? Give details of major heads of expenditure, financial allocation and actual utilization.

No budget earmarked for research with respect to individual govt. colleges.

3.2.2   Is there a provision in the institution to provide seed money to the faculty for research? If so, specify the amount disbursed and the percentage of the faculty that has availed the facility in the last four years?

The College has no provision for the purpose.

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3.2.3 What are the financial provisions made available to support student research projects by students?

Students were assigned to carry out project works as per syllabi of the University. These works involved minimal amount of funds. The state Govt. also sanctions money from time to time to be utilized for study tours, subsidized devices and materials to carry out their project works.

3.2.4 How does the various departments/ units/ staff of the institute interact in undertaking inter-disciplinary research? Cite examples of successful endeavours and challenges faced in organizing interdisciplinary research.

The Electronics Department of our college, in collaboration with Environment Assessment Division (EAD), BARC, Mumbai is engaged in a collaborative project on Environmental Radiation Monitoring in Mizoram through the project funded by Board of Research in Nuclear Science (BRNS), Govt. of India. The co-PI is from Mizoram University and PC is from EAD. Under this Project, several research papers have been published involving faculty members from Botany, Biochemistry, and Physics.

3.2.5 How does the institution ensure optimal use of various equipment and research facilities of the institution by its staff and students?

Library facilities, computers and laboratory equipments and internet can be fully availed of by the staff and students for research works.

a) The facilities of DBT-Biotech Hub is being utilised by some of the faculty researchers who are registered under Mizoram University for their Ph.D. degree.

b) The Radiation Monitoring Lab has been utilised by two JRFs in obtaining their Ph.D. degrees from Mizoram University. Besides, M.Sc. students from Mizoram University also use the facilities and data in writing dissertations.

c) Chemistry lab is being used by research scholars of MZU for research works.

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3.2.6 **Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facility? If 'yes' give details.**

The institution received finance through projects in order to develop research facility from research funding agencies:

a) Board of Research in Nuclear Science (BRNS), Govt. of India.
b) Department of Biotechnology, New Delhi (for 'Establishment of Institutional-level Biotech Hub').
c) Faculty members are awaiting sanctions for research grants (in the form of research projects/ fellowships) and from UGC.

3.2.7 **Enumerate the support provided to the faculty in securing research funds from various funding agencies, industry and other organizations. Provide details of ongoing and completed projects and grants received during the last four years.**

Nature of the Project	Duration Year From To	Title of the project	Name of the funding agency	Total Grant		Total grant received till date
				Sanct-ioned	Received	
Minor projects						
Major projects						
Interdiscipli-nary projects						
Industry sponsored						
Students' Research projects						
Any other (specify)	2011 - 2014	Est. of Biotech Hub	Dept. of Biotech., New Delhi	27 lakhs	23.5 lakhs	23.5 lakhs

3.3 **Research Facilities**

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3.3.1 What are the research facilities available to the students and research scholars within the campus?

a) Institutional Biotech Hub
b) Radiation Monitoring Lab
c) Chemistry Lab

College students and Research Scholars can avail library facilities like books, journals and free internet access.

3.3.2 What are the institutional strategies for planning, upgrading and creating infrastructural facilities to meet the needs of researchers especially in the new and emerging areas of research?

To update and meet the needs in emerging areas of research, facilities are created in the college through grants from projects. Currently, 2 faculty members are awaiting sanctions already approved by funding agencies. Teachers have submitted new proposals and are awaiting approval.

3.3.3 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facilities? If 'yes', what are the instruments/ facilities created during the last four years.

Yes. Research facilities have been created and the following equipments have been procured:-

a) Radiation monitoring lab:
  1) Gamma Spectrometry
  2) RAD-7 Detector and associated accessories
  3) Reference Standard
  4) Twin cup dosimeters
  5) SSNTD and associated accessories
  6) GPS set
  7) Background radiation detector system (IERMON)

b) DBT-Biotech Hub:
  1) UV-visible Spectrophotometer
  2) Master cycler PCR machine
  3) High-speed centrifuge
  4) Laminar airflow
  5) Microwave oven

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6) Refrigerator & Deep freezer (-20° C)
7) Gel Electrophoresis apparatus with power pack
8) UV transilluminator with Gel doc system
9) Assorted Micropipettes
10) Computer with Projector
11) 10 KVA online UPS Power back up

3.3.4 What are the research facilities made available to the students and research scholars outside the campus/ other research laboratories?

There are no research facilities made available to the students and research scholars outside the campus except that the Head of the Institution can write a letter of reference or recommendation for them. They can also receive fellowship from the scholarship Board, Govt. of Mizoram.

3.3.5 Provide details on the library/ information resource center or any other facilities available specifically for the researchers?

The internet, books, journals and computers which are available in the college and its library could be availed by the researchers. There are no special library/information resource centres in the institution.

3.3.6 What are the collaborative research facilities developed/ created by the research institutes in the college. For ex. Laboratories, library, instruments, computers, new technology etc.

The NaI(Tl) Detector in the institution provided under BRNS Project is meant to be utilised by researchers other the PIs of North Eastern Region whose projects are also funded by BRNS. As this instrument is costly, the sanctioning authority desires it to be shared by as many researchers as possible. University students and research scholars are using the facility.

3.4   Research Publications and Awards

3.4.1 Highlight the major research achievements of the staff and students in terms of

* Patents obtained and filed (process and product)

* Original research contributing to product improvement

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     ✱   Research studies or surveys benefiting the community or improving the services

     ✱   Research inputs contributing to new initiatives and social development:

Radiation monitoring in Mizoram has been carried out by this institution in collaboration with BARC, Mumbai.

a) The results are published in peer reviewed journals or presented at conferences.

b) The research findings have been highlighted to the public through newspapers and radio/TV programmes. It may be mentioned that Mizoram has the highest cancer incidence in India as per Population-based Cancer Registry (India) report.

Research inputs contributing to new in initiatives and Social Development

a) **Radiation monitoring**: The findings have been useful in dispelling public skepticism that there are other agencies involved in causing high lung cancer incidence besides smoking and eating habits in the State. The data obtained from radiation monitoring lab has proved that low concentration of indoor radon gas which is much below the action level specified by WHO may not be contributing to increased lung cancer incidence.

b) **Hands-on Training & Outreach service**: The Biotech Hub provides data to the faculty who are engaged in research works and also conducts hands-on training to faculty members of various colleges in Mizoram. It also conducts outreach programmes to various higher secondary schools.

c) **Landslide Mitigation**: 'Vegetated Bamboo Cribwall' structure designed by our faculty members have proved to be a promising technique for slope protection and mitigation of landslides in Mizoram since it is easy to install and cost-effective, easy to imitate and uses only local labour.

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3.4.2 Does the Institute publish or partner in publication of research journal(s)? If 'yes', indicate the composition of the editorial board, publication policies and whether such publication is listed in any international database?

Dr. B.Zoliana, Associate Prof. of this college is involved as Editorial Board in research journal *Science Vision* published by Mizoram Academy of Science, and has ISSN (print) 0975-6175, ISSN (online) 2229-6026. It has an Impact value (ICV) 4.12 (2013).

3.4.3 Give details of publications by the faculty and students:

For details on the following, please refer the section on **Profile of Departments**

    ∗   Publication per faculty

    ∗   Number of papers published by faculty and students in peer reviewed journals (national / international)

    ∗   Number of publications listed in International Database (for Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)

    ∗   Monographs

    ∗   Chapter in Books

    ∗   Books Edited

    ∗   Books with ISBN/ISSN numbers with details of publishers

    ∗   Citation Index

    ∗   SNIP

    ∗   SJR

    ∗   Impact factor

    ∗   h-index

3.4.4 Provide details (if any) of

    ∗   **Research awards received by the faculty**:

    During the reporting period, four researchers were awarded Ph.D. degree.

    ∗   **Recognition received by the faculty from reputed professional bodies and agencies, nationally and internationally**:   Nil

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* **Incentives given to faculty for receiving state, national and international recognitions for research contributions**:   Nil

3.5   Consultancy

3.5.1 Give details of the systems and strategies for establishing institute-industry interface?

Practically no relevant industry/factory exists in Mizoram for establishing institute-industry interface.

3.5.2 What is the stated policy of the institution to promote consultancy? How is the available expertise advocated and publicized?

No specific stated policy for promoting consultancy. However, our faculty members are encouraged to render their expertise when called for. Such services are being rendered to the following govt. agencies:
a) Mizoram PWD (monitoring of environmental effects due to road construction)
b) Health & Family Welfare Dept. (potential effects of X-ray in medical diagnosis)

3.5.3 How does the institution encourage the staff to utilize their expertise and available facilities for consultancy services?

The institution encourages the staff to utilize their expertise by adjusting teaching work load and granting short leave of absence to those involved during the period of engagement.

3.5.4 List the broad areas and major consultancy services provided by the institution and the revenue generated during the last four years.

List of faculty involved in Consultancy in various capacities:
1) **Dr. B.Zoliana, Associate Prof.**:
   Technical Adviser, Radiation Safety Committee, (Health & Family Welfare Department, Govt. of Mizoram)

2) **Lalrinmawia, Associate Prof:**
   Member, Mizoram Environmental Consultants (consultancy service to Mizoram PWD under World Bank funded road construction project)

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3) **Ms. Lalrammawii, Associate Prof.**:
   a. Member, Monitoring Committee on Midday Meals Scheme, Govt. of Mizoram.
   b. State-level Coordination Committee on Midday Meal, Govt. of Mizoram.
   c. Member, Board of Studies in Clinical Nutrition Course, North Eastern Hill University (NEHU), Shillong.

4) **Mr. Laltanpuia, Associate Prof.**:
   a. Member, Committee for Preparing Science Text Books (Class VI-VIII), SCERT, Govt. of Mizoram
   b. Member, Mizoram Environmental Consultants (consultancy service to Mizoram PWD under World Bank funded road construction project)

5) **Dr. R.Lalengmawia, Associate Prof.**:
   a. State Level Working Chairman on National Children Science Congress, Mizoram.
   b. Member, Technical Committee, Science Promotion Wing, SCERT, Mizoram.
   c. Member, Mizoram Environmental Consultants (consultancy service to Mizoram PWD under World Bank funded road construction project)

Mizoram Environmental Consultants are based in the college. The consultancy service rendered by the group is purely need-based and token honorarium is paid to each member. There is no revenue generated by the consultancy services rendered by other faculty members.

3.5.5 What is the policy of the institution in sharing the income generated through consultancy (staff involved: Institution) and its use for institutional development?

The funds are utilized by them for travels, submission of reports and honorarium. Students engaged in these activities are given free travel expense, DA, and free food & lodging.

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3.6   Extension Activities and Institutional Social Responsibility (ISR)

3.6.1   How does the institution promote institution-neighbourhood-community network and student engagement, contributing to good citizenship, service orientation and holistic development of students?

The institution renders free extensions activities to enhance institutional social responsibility to the neighbourhood which has raised awareness regarding the need to render extension services among our students. Some of the activities are:

1) Free 'computer clinics' (Dept. of Computer Science)
2) Blood Donation Camps organised regularly by N.S.S and Red Ribbon club of the college
3) Extension activities of Home Science: Extension Education is a part of the curriculum. The following are the services rendered by students and teachers
   a)   Extension service to selected neighbouring families for awareness drives on topics like food preservation, nutritional content of foods, etc.
   b)   Visits and voluntary services to homes, orphanages, pre-schools, schools for the disabled.

3.6.2   What is the Institutional mechanism to tracks students' involvement in various social movements/ activities which promote citizenship roles?

Committees & Cells make programmes to encourage ensure involvement of students in social movements/activities. These are:

a) The Students Union in-charge Committee
b) National Service Schemes
c) Red Ribbon Club
d) Committees under UGC Merged Schemes (Career Counselling & Placement cells, Coaching for Entry in Services)
e) Committee for Mental Health Counselling & Evangelical Union (which mobilises student's involvement in society and impart civic sense)

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3.6.3 How does the institution solicit stakeholder perception on the overall performance and quality of the institution?

The institution has always welcomed feedbacks from the stakeholders. Their perception on the overall performance and quality of the institution is solicited through various meetings/get together like Parent-Teacher Meets organised by the college. Students are empowered to analyse the teaching quality of each faculty members through the Feedback forms given to them.

3.6.4 How does the institution plan and organize its extension and outreach programmes? Providing the budgetary details for last four years, list the major extension and outreach programmes and their impact on the overall development of students.

The institution plans and organises its extension and outreach programmes depending on the need of the local people and also on awareness programmes initiated by the government.

There are no specific budgetary provisions. The funds received through NSS and Red Ribbon Club are mainly used for:
a) Community oriented services (construction of public urinals, waiting sheds, water-reservoirs, cleaning of markets and streets, adoption of villages for development, AIDS/HIV/Malaria awareness campaigns, tree plantation, standard living campaigns like nutritional quality, food adulterations, hygiene, etc. campaigns and blood donations.
b) Street Cleaning during observation of Cleanliness Week annually during the 1st Week of October.

3.6.5 How does the institution promote the participation of students and faculty in extension activities including participation in NSS, NCC, YRC and other National/ International agencies?

The institution tries its best to promote the participation of students in various extension activities by providing suitable platforms through NSS, Red Ribbon Club, Students Evangelical Union, etc. The faculty members motivate and encourage the students by acquainting them with the need and benefits of such activities. Students participating in such activities are acknowledged and are felicitated with certificate of appreciation by the college and also by different NGOs. We have facilitated participation of sour

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NSS volunteers in regional, national and international meets.

3.6.6 Give details on social surveys, research or extension work (if any) undertaken by the college to ensure social justice and empower students from under-privileged and vulnerable sections of society?

No social surveys conducted. The NSS and Students Evangelical Cell has visited orphanages, de-addiction centres and drop-ins for voluntary works and to bring about awareness in different areas depending on the need of the inmates.

The Radiation Monitoring Centre monitored some of the caves visited by tourists and made sure that there is no harmful presence of concentrated background radiation in these caves.

3.6.7 Reflecting on objectives and expected outcomes of the extension activities organized by the institution, comment on how they complement students' academic learning experience and specify the values and skills inculcated.

The institution tries to integrate extension services and academic learning to cultivate responsible social behaviour among students. Thus, the extension services rendered by the students nurtured many values and skills which help in their academic learning. The values and skills inculcated are - team works which helps in communication and social skill; decision making skills, problem solving skill and counselling techniques.

3.6.8 How does the institution ensure the involvement of the community in its reach out activities and contribute to the community development? Detail on the initiatives of the institution that encourage community participation in its activities?

Since most of the activities are community oriented, local beneficiaries involve themselves voluntarily and participated in these programmes by rendering manual works and providing food & lodging. The local stakeholders are also consulted when such activities are to be conducted to create a sense of ownership and cooperation. Almost all NSS activities are executed with the collaboration of the local communities.

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3.6.9 **Give details on the constructive relationships forged (if any) with other institutions of the locality for working on various outreach and extension activities.**

The institution has a good relationship with various governmental departments like Forest Department, Local Administrative Department, Health Department and the Municipal Corporation. It has collaborated with them on various extension services like planting of trees, cleaning of streets, construction of waiting-sheds and blood donation. It also maintains healthy relations with various NGOs like Young Mizo Association (YMA), MUP and MHIP in rendering services to the benefit of Society.

Free Eye camps and blood donations are always done with collaborations from medical experts from Aizawl Civil Hospital, Durtlang Hospital, and Faculty from RIPANS, Aizawl.

3.6.10 **Give details of awards received by the institution for extension activities and/contributions to the social/community development during the last four years.**

a) Mr. Zirlianngura, our Programme Officer of NSS unit received Indira Gandhi NSS National Award 2012 in Service Excellency from the President of India. Faculty and students who worked in various extension services have received citations/certificate from NGOs and governmental departments.
b) The college has been award the Third Cleanest College by the Aizawl Municipal Council during observation of Cleanliness Week 2014 in recognition of our attempts of cleaning the campus and the neighbourhood.

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3.7   Collaboration

3.7.1 How does the institution collaborate and interact with research laboratories, institutes and industry for research activities. Cite examples and benefits accrued of the initiatives - collaborative research, staff exchange, sharing facilities and equipment, research scholarships etc.

a) **Collaboration with Bhabha Atomic Research Centre (BARC), Mumbai and Mizoram University**: through Coordinated Research project provided by BRNS to the faculty. In the Coordinated Research Project, PI was appointed from the institute, and Co-PI from Mizoram University and Principal Collaborator from BARC. The expertise and scientific methods were provided by scientists from BARC through the PC and the institution provided space for establishing the facility. The equipments procured through this project are to be utilised by other PIs whose projects are sanctioned by BRNS.

b) **With other Biotech Hubs**: The Institutional Biotech Hub collaborates with other Biotech Hubs of Biotechnology Dept., (Mizoram University) and Pachhunga University College, Aizawl by sharing resources and jointly organising trainings.

3.7.2 Provide details on the MoUs/collaborative arrangements (if any) with institutions of national importance/other universities/ industries/Corporate (Corporate entities) etc. and how they have contributed to the development of the institution.

In collaborating with BARC, the host institute provides all the necessary rooms, electricity, etc. and the Research Institute (BARC) provides expertise and necessary scientific method. Experts from Mizoram University were also consulted. From this collaboration, the institution is able to establish research centre and this institution provide necessary data to research scholars in order to obtain their Ph.D. degrees.

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3.7.3 **Give details (if any) on the industry-institution-community interactions that have contributed to the establishment/ creation /up-gradation of academic facilities, student and staff support, infrastructure facilities of the institution viz. laboratories / library/ new technology /placement services etc.**

Career counselling and Entry into services committee has regularly organised lectures on career and job opportunities for the students in which officers from the Army, Airforce, Bank personnel, entrepreneurs, were invited. Experts were invited for skill enhancement of students. Job prospect in interior decoration and demonstration class of flower arrangement for Home Science students were organised. These interactions enriched the young minds of the students and direct them to half the right mentality.

3.7.4 **Highlighting the names of eminent scientists/participants who contributed to the events, provide details of national and international conferences organized by the college during the last four years.**

No eminent scientists/participants.

3.7.5 **How many of the linkages/collaborations have actually resulted in formal MoUs and agreements?**

No linkages established resulting in MoUs/agreement

3.7.6 **Detail on the systemic efforts of the institution in planning, establishing and implementing the initiatives of the linkages/ collaborations.**

Vision for future development in Research, Consultancy and Extension Services for the college may be highlighted as:

Research and Faculty Development Support:
a) To establish more research facilities through funded projects
b) Faculty improvement and upgradation through research activities leading to Ph.D. degree

Enhanced Interaction with Industry:

a) Provision of opportunities for students through campus interviews
b) Tie-up with industries in the near future

Collaboration with other Institutes:

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a) To provide opportunities for students, collaborative activities is being planned with some of the nearby institutes like NIT-Mizoram, Mizoram University, Regional Institutes, Hospitals, Central Agricultural University at Selesih (Aizawl), etc. for hands-on training and practical demonstration.

Student-enabled Projects:

a) It is suggested that project works will be designed in order to mould students towards cultivating the culture of scientific inquisitiveness & research. These would be carried out under the supervision of teachers of the Institutions. It is also envisaged that more collaborative studies and projects will be carried out, wherever possible, with students/faculties of other institutions.

3.7.7 Any other relevant information regarding Research, Consultancy and Extension which the college would like to include.

The following enrichment and extension programmes were carried out by the institution:

o '**Faculty Enrichment on Service Matter**' on 24.8.2011 with resource person as Mr. R.Lalrinsanga, Under Secretary, DP&AR, Govt. of Mizoram.
o Panel Discussion on opportunities available in Higher Studies and Research. Dt. 19.11.2011, Resourse persons and panelists from Mizoram University,
o Faculty Development Programme on 5-16 March, 2012 and 7-25 May, 2012 with Mr. Thankhanhau Faculty member of Computer Science Dept. as Resource person on basic computer knowledge and internet related technology.
o One-day Faculty Training Programme on 'Effective Teaching Strategy' on 23.1.2013 with Dr. Vanlalhruaii, Principal IASE, Aizawl
o Student Placement: The Department of Computer Science has organised student placement in collaboration with Computer firms in the local area. Student Placement Cell under UGC merged scheme also organised placement with Firms coming from Bangalore
o Consultancy: Consultancy services are rendered by some of the faculty members. However, there is no formal MOU signed for these services

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CRITERIA IV - INFRASTRUCTURE AND LEARNING RESOURCES

4.1 Physical Facilities

4.1.1 What is the policy of the Institution for creation and enhancement of infrastructure that facilitated effective teaching and learning?

Basic infrastructure such as Administrative & Academic building, Laboratory building, Library infrastructure, teaching aids, etc. are provided by the State Government. Additional funds for extension, renovation and purchase of equipments are sought from agencies like UGC, DBT, BRNS, etc.

It is the policy of the institution to ensure optimum utilisation of all available funds received for creating infrastructure. To accomplish this, instead of engaging professionals/contractors, the works are executed through concerted voluntary efforts by faculty members. Few examples are:

a) <u>DBT-Biotech Hub</u>: Construction was executed Building Committee through voluntary efforts of teachers. Skilled and unskilled daily labourers were engaged for the purpose.
b) <u>Constructing of multipurpose Auditorium (2012)</u>: The College engaged skilled/unskilled labourers and teachers are assigned to take turns in overseeing the construction works on voluntary basis. Teachers also contributed a considerable sum of money to augment the meager fund. The task was completed with minimum cost.
c) <u>Extension of College building & College Canteen (2014)</u>: The canteen which was constructed 5 years ago with minimal fund from monetary contributions by teaching faculty with additional inputs of voluntary manual works was dismantled this year. A new RCC structure has been constructed in the manner described above with considerable manual labour inputs from students and teachers, especially during holidays.

The Government of Mizoram has recently allocated funds for construction of Main Building-I, Library and Hostels for Girls & Boys to develop the new campus at Durtlang. Mizoram PWD is the designated govt. agency for executing major construction works and the College cannot exercise its policies to ensure optimum utilization of funds.

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4.1.2 Detail the facilities available for

a) Curricular and Co-Curricular Activities-

Classrooms: There are 19 class rooms which are just sufficient to simultaneously conduct classes during peak hours. However, due to increase in intake of students in recent years, some of the rooms are not large enough to accommodate students comfortably.

Technology-enabled Learning Spaces: Few classrooms are equipped with LCD projectors. Wi-Fi and wired internet connectivity is available in the campus.

Seminar Halls: The multipurpose Auditorium with a capacity of more than 400 is being used for conducting seminars, trainings as well as for conducting exams. While most classrooms and laboratories are being used for class seminars, there are 2 rooms equipped with LCD Projectors in the college which are specifically dedicated for conducting seminars & training for small audience.

Tutorial Spaces: Tutorials and remedial classes are conducted in the seminar rooms, classrooms and laboratories during holidays on need-based programmes.

Laboratories:

a) Laboratories are small but moderately well-equipped viz. Physics, Chemistry, Botany, Zoology, Biochemistry, Electronics, Mathematics, Computer Science, Geology, and Home Science (2 labs). Few of them are provided with computers and LCD projectors.
b) Two research labs have been established that specialize in Plant Biotechnology and Radiation monitoring respectively.
c) A workable Language Lab has been established by integrating it with BCA lab due to space constraint.

Botanical Garden: The College will be having a Botanical Garden in the new campus wherein suitable plot(s) have already been identified.

Specialized Facilities and Equipment for Teaching:

a) Free access to broadband internet (Wi-Fi and wired) facility is available in the campus.
b) DBT Biotech Hub provides state-of-the-art facilities & equipments for

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teaching molecular biology practicals as well as doing project works.

c) BCA computer lab with networked environment is integrated with a Language Lab which is equipped with excellent hardware and latest language software.

d) The Library hosts the UGC Network Resource Centre and is provided with computers with free internet access.

e) Seminar room established which is provided with Computer Projectors which is used throughout the year for teaching.

Research Space:

(a) A well-equipped DBT sponsored Biotech Hub has been established that is used for conducting projects works/practical classes, and research activities.

(b) Research lab sponsored by BRNS has been established for studying environmental radiation mainly radon and its progenies. Teachers avail these facilities for carrying out minor and major project works.

(c) Electronics Department Lab hosts the IERMON Center which sends background radiation level 24 hours a day via satellite to the main hub in BARC (Mumbai) so that data collected is used by researchers working on the field.

Intercom Facility: The College has intercom (EPBAX) which interconnects strategic points with one another for rapid and easy communication.

b) Extra-Curricular Activities:

Sports:

Indoor Infrastructure: There is a small indoor facility where students can play Table Tennis, Carom, Chess, & Chinese Checker. A Detailed Project Report has been submitted to the UGC (NERO) for the establishing a new Indoor facility which will be constructed whenever the proposal is approved.

Outdoor Infrastructure: The College has easy access to a playground adjacent to the main building which is utilized for playing Football, Cricket, Hockey, Volleyball, Athletics, etc.

Auditorium: The multipurpose Auditorium has a seating capacity of more than 400. Separate toilets for girls and boys and a store room are attached at the back. A good Public Addressing system is installed and is

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extensively used for all sorts of functions.

NSS: The College has an active NSS cell comprising of four units- I, II, III and IV. Each NSS Unit enrolls 100 volunteers for a term of three years with the purpose of rendering community extension services.

a) NSS volunteers are actively involved in creating community assets - construction of public urinals, roadside market/waiting sheds for farmers, hygienic enclosures for community spring-water *tuikhur*, etc. They are well-associated with Tree plantations, health camps, and year-round voluntary blood donation.
b) NSS volunteers of the college have participated in life enhancing programmes for the youth in international, national and regional levels.
c) Rendering service to promote public health and environment protection issues.
d) Mr Zirlianngura, NSS-PO of the college was awarded Indira Gandhi NSS Award in 2012.

Cultural Activities: Various competitions on cultural items are conducted in the annual College Week. The College has a young but pro-active *Senhri Cultural Club* recognized by the Art & Culture Dept., Govt. of Mizoram.

a) The Club has performed and show-cased its potential in a number of state-level as well as college functions.
b) Cultural Days are observed under the initiatives of the Club.
c) Has performed outside the State at Zero, Arunachal Pradesh in a recent NE India Meet.

Public Speaking, Communication Skill Development, Health & Hygiene:

a) Annual College Week competitions include Public Speeches, News Reading, Extempore Speech, Debates, Essays, and Singing. Students seek support from teachers for tips and pointers to hone their skills.
b) Support given to outgoing students through training in various life skills including soft skills (Spoken English, Spoken Hindi, Communication Skills, Manners/Etiquettes, Job Prospects, Travel Tips, Entrepreneurship, use of ICT, etc.) under "Personality Development Programme" which is designed and executed collaboratively by 'Coaching for Entry in Services' and 'Career Counselling & Placement' cells.
c) The Cleanliness Committee chalks out activities with the aim of imbibing personal hygiene among students and for maintenance of a clean & healthy campus (viz. campus cleaning projects, distribution of responsibilities - sweeping duties and other cleaning up activities,

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etc.).

d) The Canteen Committee ensures that the College Canteen is kept clean and supplies only healthy food items by giving instructions and also by laying down guidelines for the management/caterer.

4.1.3 **How does the institution plan and ensure that the available infrastructure is in line with its academic growth and is optimally utilized? Give specific examples of the facilities developed/augmented and the amount spent during the last four years (Enclose the Master Plan of the Institution/ campus and indicate the existing physical infrastructure and the future planned expansions if any).**

Master Plan of the New Campus

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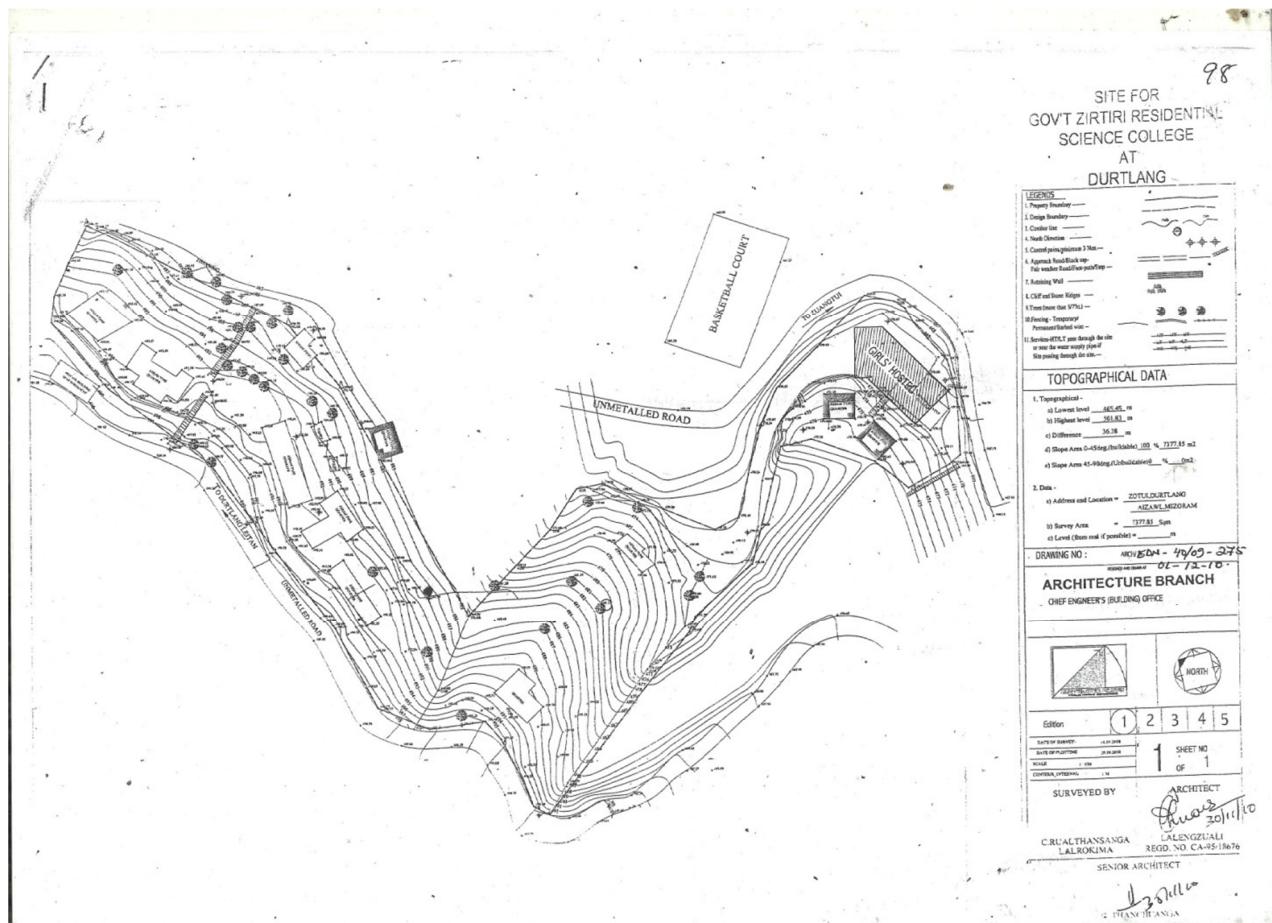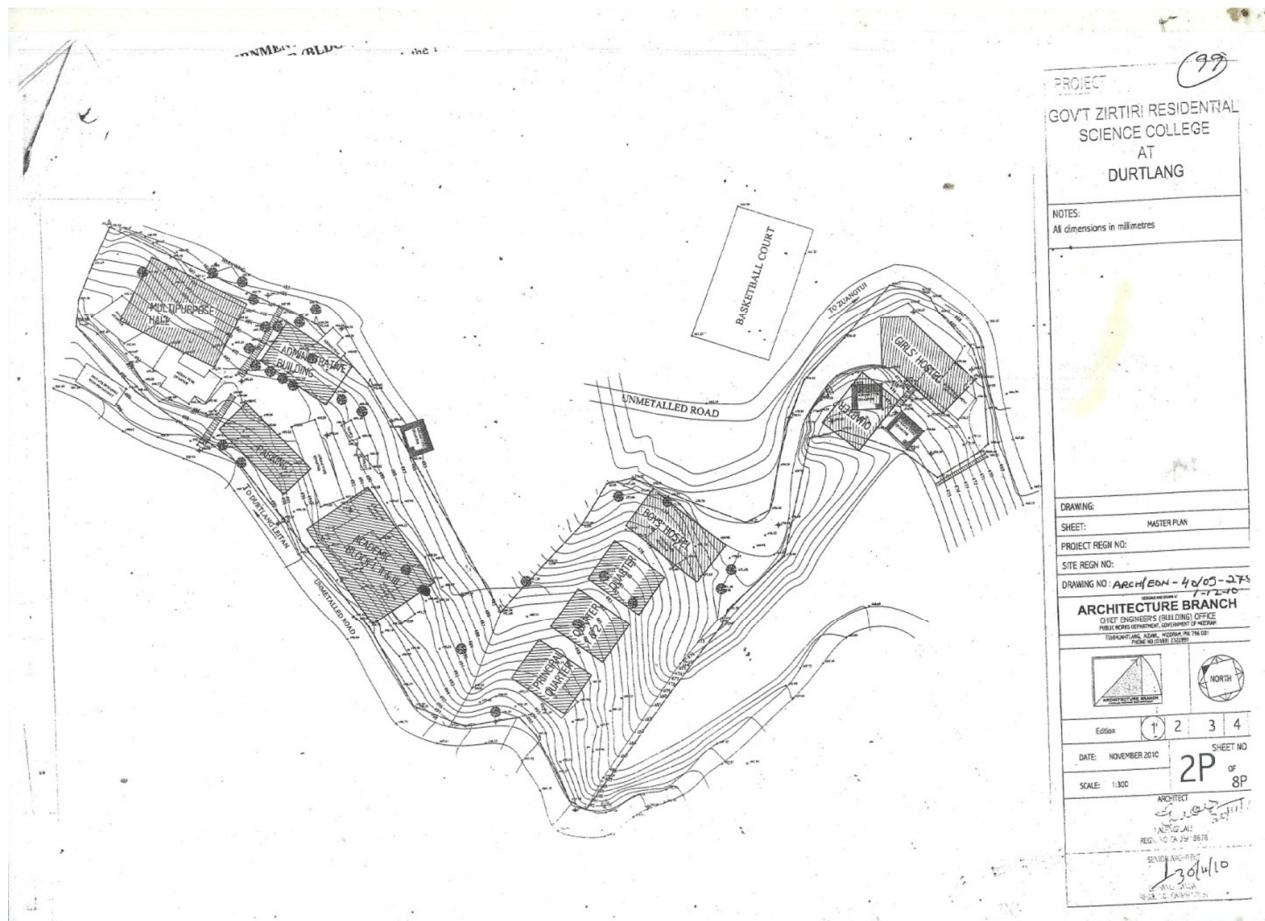
The College constantly strives to acquire adequate infrastructure to cope with the demands of modern world. It is envisioned that the new campus

PROBABLE FLOOR AREA AND COST FOR THE DEVELOPMENT OF GOVT. ZIRTIRI RESIDENTIAL SCIENCE COLLEGE CAMPUS AT DURTLANG.

A. BUILDINGS

Sl No	Building Blocks	Nos	Area (Sqm.)	Rate	Amount (in Rs)
1	ADMINISTRATIVE	1	736.00		
2	LIFE SCIENCES	1	1560.00		
3	PHYSICAL SCIENCES	1	2176.00		
4	HOME SCIENCES & COMPUTER SCIENCES	1	786.50		
5	QUARTERS (26 Units)	1	1566.00		
6	MULTIPURPOSE HALL	1	500.00		
7	HOSTEL (BOYS & GIRLS)	2	920.00		
8	WARDEN'S QUARTERS	2	170.00		
	TOTAL OF 'A'		8414.50	Rs. 25,000.00	Rs. 210,362,500.00

B. RAINWATER HARVESTING			5%	of Building Cost	Rs. 10,518,125.00

C. SPORSTS FACILITIES

		Nos		Rate	Amount (in Rs)
1	Volley Ball court	1		Lump Sum	Rs. 1,300,000.00
2	Basket Ball Court	1		Lump Sum	Rs. 1,500,000.00
3	Tennis Court	1		Lump Sum	Rs. 800,000.00
				Total	Rs. 3,600,000.00

D. OUTDOOR/LANDSCAPE		1	2%	of Building Cost	Rs. 4,207,250.00

GRAND TOTAL (A + B + C +D)					Rs. 228,687,875.00
				Say	Rs. 228,688,000.00

Rupees Twentytwo Crores, Eightysix lakhs and Eightyeight thousands) only

(LALENGZUALI)
Architect
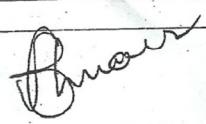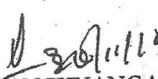
(C. PHANCHUANGA)
Senior Architect

at Durtlang will have adequate infrastructure to expedite academic growth. Since the existing infrastructure is inadequate, the following quality initiatives are being pursued:

a) Daily routine are so designed to ensure all available classrooms and laboratories are engaged to the maximum, keeping in mind that some classrooms need to be shared by different batches of students. Still, due to inadequate availability of facility, teachers often have to rush ahead of colleagues for use of the seminar rooms.

b) To augment the shortage of space and keep up with latest developments, all faculty members have been provided with HP Notebook and those who lack working knowledge of computers have been given the necessary training.

c) Teaching aids and ICT instruments such as PCs, laptop, internet resources, and LCD/overhead projector are being used for effective teaching-learning activities. Teachers and students avail free internet facilities during college hours. The Library remains open on all working days. Once the construction works in the new campus are completed, Smart classes will be installed as per requirement.

Facilities Developed/augmented during last 4 years:

1. Establishment of Biotech Hub 2010-11 (cost Rs 15 lakhs)

2. Library Computerisation /Automation 2010-11 (cost Rs 1.5 lakhs)

3. Construction of Multipurpose Auditorium 2011-12 (cost Rs 22 lakhs)

4. Construction of Girls Hostel at New Campus 2011-12 (Rs 80 lakhs)

5. Construction of Boys Hostel at New Campus 2012-13 (Rs 80 lakhs)

6. Provision of HP Laptop computers to all teachers 2013 (Rs 11 lakhs)

7. Construction of College Canteen 2014 (cost Rs 15 lakhs)

8. Construction of Library Building, Oct. 2014 (ongoing, Rs 144 lakhs)

9. Extension & Renovation of Classrooms 2014 (ongoing, cost not determined)

10. Augmentation of existing Library, Lab equipments, and ICT accessories (ongoing, cost not determined)

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Future Plans:

The future plan of the College is to be fully residential for creating a conducive environment towards teaching-learning science so that the institute remains true to its mission in providing quality service to the people of Mizoram. Approval has been accorded to the College to achieve this goal as follows:

a) Presently, the College is located in the heart of Aizawl city. In 2010, Mizoram Govt. has allotted land for new campus Durtlang, Aizawl.

b) Construction of Boys' and Girls' Hostel funded by North Eastern Council is nearing completion. Construction of Library Building has commenced under State SPA scheme

c) A sum of 722.22 lakhs has been allotted for construction of Main Building-I under Special Plan Assistance (SPA) from the State Govt.

d) Concept paper submitted to the State Govt. to solicit funds for construction of Main Building-II and Laboratory Buildings.

e) Proposal to install 30 KWp solar PV facility submitted to ZEDA (agency to execute Solar City Project under Min. of Energy)

4.1.4 How do institutions ensure that the infrastructure facilities meet the requirements of student with physical disabilities?

No physically disabled person has sought admission till today and the College does not have specific facilities for such students. A female student of Home Science stream having slight hearing problem has graduated successfully from this College. At present there is another student in science stream with the same problem. They have been given due attention and were always seated nearest to the teachers' station during lectures.

The buildings that would be constructed in the permanent campus will have provisions to meet the requirements of persons with disabilities.

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4.1.5 Give details on the residential facility and various provisions available within them:

Hostel Facilities

a) Girls' Hostel for new campus – capacity 30 (>90% construction works completed)
b) Boys' Hostel for new campus – capacity 30 (ongoing works)

Note: The Hostels are yet to be commissioned after provision of basic amenities (electricity, running water supply with purified water-coolers, recreation, TV & computers, etc.)

Residential facility for staff

a) One residential quarter allotted near the existing building for Chowkider-cum-watchman with free electricity and running water.

4.1.6 What are the provisions made available to students and staff in terms of health care on the campus and off the campus.

There is no established healthcare centre in the campus. The following on-campus care and facilities are provided:

a) First Aid Kit with SoS medicines are available for students and staff.
b) Free medical camps (especially ophthalmology and general medicine) for faculty and students are frequently arranged in collaboration with technical staff from Aizawl Civil Hospital, Presbyterian Hospital Durtlang (Aizawl), RIPANS etc.
c) Training programmes conducted for students & staff on First Aid & Emergency Medical Response
d) Free Blood Group Detection performed by students & teachers and Blood Group data are recorded

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e) Immediate care and response are always provided to sick students & staff in case of emergency during office hours. There are hospitals located within 1-3 km radius from the College where patients are taken for medical attention/ treatment.

Off-campus care and facilities for employees of the College:

a) All regular and contract employees are entitled to avail Medical Reimbursement schemes of the State Govt.
b) Medical Leave facility as per provision of relevant Rules available for employees.

4.1.7 Give details of the common facilities available on the campus - spaces for various units:

IQAC

Provisions available as per UGC's fund to IQAC for: equipments (table, chair, almirah, computer etc.) and honorarium for the Coordinator/ Asst. Coordinator.

Teachers' Common-room

The faculty common room is equipped with cable TV, refrigerator, safe drinking water and PCs with printers, separate toilets for male & female, etc. The space though small and congested, is a hub for recreation and provides an environment of friendly interactions.

NSS Units

No separate office; NSS units have been provided with store-room, almirah etc.

Students' Grievance

The College website has space for attending to grievances. A grievance box is placed in the campus which is managed by the Principal's Office. The Students'

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Union and the Class Representatives are instrumental in bringing forward students' grievances, if any, to appropriate bodies.

UGC-merged schemes - Career Guidance/ Coaching for Entry in Services/ Remedial Coaching Cells, etc.

Adequate common space (office room) is available for executing UGC-merged schemes. Computers and printers are provided with other office equipments.

Students' Union (SU)

The College SU is provided with rooms for office and a recreation room. The space allotted for recreation, even though inadequate, is well utilised.

College Canteen

The college has a clean canteen centrally located in the premise. There is an attached toilet, a kitchen area with running water, refrigerator, ceiling fans, etc. Patronage far exceeds its capacity of 50 during breaks/ peak hour.

Safe Drinking-water & Toilet/urinal

Safe drinking-water is provided in the form of water-coolers equipped with filters, and toilets/urinals at various vantage points in the campus.

4.2   Library as a learning resource:

4.2.1 Does the library have an Advisory committee? Specify the composition of such a committee. What significant initiative has been implemented by the committee to render the library, students /user friendly?

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The College has an active Library Committee whose members are given below:

Chairman: Laltanpuia, Principal

Member-Secretary: CH Lalchhingpuii, Librarian

Committee members

1). T.Zothangpuii Asst. Librarian

2). Dr Arup Kumar Associate Professor

3). Lalrammawii Associate Professor

4). R.Lalmawipuii Asst. Professor

5). R.Zothansanga Head Assistant

6. Vice-President of the Students' Union

Initiatives /Role of the Committee: The Committee meets together to -

(a) Discuss steps for upgradation and development of the infrastructure
(b) To receive and preview the procurement of library books/ materials
(c) Prepare 'Guidelines' so as to render the Library more accessible and user
friendly

User friendly initiatives:

- Asst. Librarian functions as Help Desk for users
- The Library staff maintains a clean and conducive environment for quiet reading
- Automation of Library and barcoding system provides ease of borrowing and
return of materials. Reading room is clean and well ventilated with adequate
light. Uninterrupted power supply and CCTV are provided in the Library.
- The Library notice board is useful for displaying information to users and
content display of new arrivals.
- All regular employees and students are members so that each member can avail
free internet access and the xerox facility at nominal charge.

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4.2.2   Provide details of the following:

- Total area of the library (in Sq. Mts.) – 325 square meters (approx)
- Total seating capacity – 55 users at a time
- Working hours – 9 am to 4 pm (on working days; the Library remains closed on holidays)
- Layout of the library – Help Desk on entry provided by Asst. Librarian; Librarian's cubicle; Reprographic facility; Separate reading rooms/spaces for students and teachers; Stack, Journals & Reference section with systematically placed shelves according to subject/ contents provides ease of browsing for books and reading materials; the Library also houses 'UGC Network Resource Centre' which enables users to browse the internet for e-resources

4.2.3   How does the library ensure purchase and use of current titles, print and e-journals and other reading materials? Specify the amount spent on procuring new books, journals and e-resources during the last four years.

Continuous contacts are maintained with a number of publishing houses. The College purchases books with the funds received from the State Government and UGC. In order to ensure optimum utilization of available funds, Library Committee and Purchase Committee approves final purchases. The requirements are basically made by faculty members through their respective Departments.

Total number of books in Library: 10,980

Number of titles of magazines subscribed: 8

Number of titles of Journals subscribed: 5

Library holding	2010 -2011		2011-2012		2012-2013		2013-2014	
	No.	Total cost	No.	Total cost	No.	Total cost	No.	Total cost
Text books	541	Rs 2 lakhs	1,037	Rs 3.1 lakhs	370	Rs 2.1 lakhs	508	Rs 2.7 lakhs

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Reference books	101	1 lakh	95	1.2 lakh	40	Rs 5,780	30	Rs 25,000
Journal	15	Rs 7,500	19	Rs 8,900	22	Rs 8,900	27	Rs 12,300
e-resources	6	Rs 2,000	2	Rs 1,340	-	-	11	Rs 550
Any others	-	-	-	-	-	-	-	-

4.2.4 Provide details on the ICT and other tools deployed to provide maximum access to the library collection?

- OPAC - Accessible
- Electronic Resource Management package for e-journals: Free access to DELCON repository with 500 plus e-resources is under process
- Federated searching tools to search articles in multiple databases - NIL
- Library Website - NIL
- In-house/remote access to e-publications - NIL
- Library automation – The College library was automated in 2010, the system has been working without glitches till today. Transaction is done using SOUL 2.0 server designed by INFLIBNET
- Total number of computers for public access - 4
- Total numbers of printers for public access – (available on demand)
- Internet band width/ speed - 10 mbps fixed line & WiFi connectivity
- Institutional Repository – Text books, Reference books, internet facility, Journal, Newspaper and Reprographic service (Xerox).
- Content management system for e-learning - NIL
- Participation in Resource sharing networks/consortia (like Inflibnet) – License/ permission awaited from DELCON

4.2.5 Provide details on the following items:

- Average number of walk-ins - 92 per day
- Average number of books issued/returned - 55 per day
- Ratio of library books to students enrolled - 18:01
- Average number of books added during last three years – 794 p.a.
- Average number of login to OPAC – 20/day

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- Average number of login to e-resources – 30/day
- Average number of e-resources downloaded/printed – not accounted
- Number of information literacy trainings organized – Training/ orientation for first time users given to every batch
- Details of "weeding out" of books and other materials – 300 nos.

4.2.6   Give details of the specialized services provided by the library

- Manuscripts - NIL
- Reference – Newspaper clipping, current content list etc. provided
- Reprography – Reprographic service provided to users at nominal cost
- ILL (Inter Library Loan Service) - NIL
- Information deployment and notification (Information Deployment and Notification) – Information concerning to the staff and the students are displayed in the Notice Board of the Library.
- Download – not accounted; users browse for important information download materials as per requirements
- Printing – Print jobs not yet introduced
- Reading list/ Bibliography compilation - Yes
- In-house/remote access to e-resources – Provided through internet.
- User Orientation and awareness – It is organized for new users/ students at the beginning of the Session.
- Assistance in searching Databases - Nil
- INFLIBNET/IUC facilities –SOUL 2.0

4.2.7 Enumerate on the support provided by the Library staff to the students and teachers of the college.

a) User Orientation and Awareness sessions are provided for freshly admitted students as well as new teachers.
b) User support initiatives:
Reference service provided - classification, cataloguing, compiling old question papers

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Current awareness service provided - Newspaper clipping and notifying current content lists, display of new arrivals

c) Suggestion Box is placed in the Library for improving library services.

4.2.8 **What are the special facilities offered by the library to visually/ physically challenged persons? Give details.**

Fortunately, there are no visually/ physically challenged persons, as such special facilities are not yet offered as of today.

4.2.9 **Does the library get the feedback from its users? If yes, how is it analyzed and used for improving the library services. (What strategies are deployed by the Library to collect feedback from users? How is the feedback analyzed and used for further improvement of the library services?)**

The library gets feedbacks from users through the Suggestion Box. Feedback/ suggestions are also received by the Library staff through face to face communication. These are analyzed in the Library Committee meetings, if and when deliberations are called for, so as to make improvements/ rectifications.

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4.3   IT infrastructure

4.3.1 Give details on the computing facility available (Hardware and software) at the institution.

Number of computers with configuration (provide actual number with exact Configuration of each available system)

Sl/No	Configuration	Number
1	i5 with 4GB RAM and 500 GB HDD	5
2	i5 with 2GB RAM and 500 GB HDD	15
3	I3 with 2GB RAM and 500 GB HDD	15
4	Core 2 DUO with 2GB RAM and 250 GB HDD	20
	Total	55

No. of computers - 55

Computer-Student ratio - 11:1 (610/55)

Stand alone facility - 10

LAN facility - Yes

Licensed software - Windows 7 with MS-Office

Number nodes/ computers with Internet facility –There are 45 numbers of computers with internet facility.

Any other –

(a)   All teaching staff are provided with Laptop computers purchased under 'Additional Assistance' fund received from UGC (NERO) in 2013.

(b)   Seminar Rooms & BCA labs are equipped with computer projectors

(c)   Two PCs and Printers with broadband internet connectivity are provided

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for teachers in the Teachers' Common Room.

(d) Fully functional Language Lab with licensed Sanako software is integrated with the BCA computer lab.

4.3.2 Detail on the computer and internet facility made available to the faculty and student on the campus and off campus?

Computer for students:

a) UGC Network Resource Center (Library) - 4 nos.
b) Language Lab – 10 nos.
c) Students' Union office – 1 computer with printer
d) BCA Lab – 40 nos.

Computer for teachers:

a) Common Room – 2 nos. with printers
b) Examination cell – 1 no. with printer & Xerox machine
c) UGC-merged Schemes – 4 nos.
d) Physics, Mathematics labs. – 4 nos.

Internet Facility:

The College is 'Wifi-Enabled Campus' and free internet access is provided via security passwords. Broadband internet connections are available in the Teachers' Common Room, College office and BCA Laboratory. UGC Network Resource Center is established in the Library which also provides separate internet access for students during college hours.

4.3.3 What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?

Non-working/ non-functional PCs and accessories are replaced; upgradation

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with latest configurations done wherever required. Some of the strategies and future plans are:

a) To provide higher bandwidth internet access in the near future.

b) Provision of classrooms and labs with facilities for Powerpoint presentation is an immediate future plan. (To ensure optimum use, IT enabling programmes for teachers have been already conducted with resource persons within the faculty).

c) The college also plans to establish few Smart-classes in the near future

4.3.4 Provide details on the provisions made in the annual budget for procurement, upgradation, deployment and maintenance of the computers and their accessories in the institution (year wise for last four year)

No specific provisions in the annual budget for computers and their accessories. Funds received from the State Government and UGC from time to time are utilized for purchase and maintenance of computers.

However, due priority is accorded to procurement, upgradation, deployment, & maintenance of computers and accessories as far as possible. The following table depicts the actual expense incurred in the last 4 years:

Sl/No	Particulars	2011	2012	2013	2014
1	New PCs/ Laptops	Rs 2,13,000/-	Rs 8,23,040/-	Rs 3,13,000/-	Rs 1,13,200/-
2	Upgradation	Rs 67,000/-	Rs 32,000/-	Rs 44,000/-	Rs 57,000/-
3	Maintenance	Rs 5,000/-	Rs 7,000/-	Rs 8,000/-	Rs 17,000/-
4	Accessories (Printers, Projectors)	Rs 3,13,000/-	Rs 1,13,500/-	Rs 2,27,000/-	Rs 1,17,000/-
5	Internet charges	Rs 43,000/-	Rs 45,000/-	Rs 48000/-	Rs 50,000/-

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4.3.5   How does the institution facilitate extensive use of ICT resources including development and use of computer aided teaching learning materials by the staff and students?

a) Teachers are given assistance and exposed to use ICT resources by (i) "Enrichment of Teachers" programmes, (ii) Colleagues helping out each other

b) Students are taught how to browse the internet for collecting study materials

c) Office staff are assisted and encouraged to use computers through hands-on training by those faculty members well versed in computers

d) Faculty members developed their assigned course/topics using Powerpoint presentations

e) Scheduling of seminar rooms equipped with computer projectors for students' presentation

f) Soft copy of study materials handed out to students

g) Audio-visual presentations (movie/ animation clips on course materials)

h) Provision of interactive forum and downloads in the College website

4.3.6   Elaborate giving suitable examples on how the learning activities and technologies deployed access to on line teaching/learning spaces etc. by the institution place the student at the centre of teaching learning process and render the role of facilities for the teacher.

The College has not established any on-line learning access facility. Teachers render student-centric services by

a) utilizing the interactive spaces provided in the College website

b) uploading course materials, and

c) participating in group discussions

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4.3.7 Does the Institution avail on the National knowledge Network connectivity directly through the affiliating university? If so, what are services availed of?

The College has not been apprised of the provision for access and availability of National Knowledge Network connectivity through Mizoram University.

4.4 Maintenance of Campus Facilities:

4.4.1 How does he institution ensure optimal allocation and utilisation of the available financial resources for maintenance and upkeep of the following facilities (substantiate your statements by providing details of budget allocation during last four year)

The College Planning Board finds out areas which need urgent development/future development. The College then approaches the Government of Mizoram/funding agencies for financial assistance. The available resources are utilized by the College under the supervision of various committees.

4.4.2 What are institutional mechanisms for maintenance and up keep of the infrastructure facilities and equipment of the college?

The State Government & UGC provides limited fund to be utilized as maintenance expenses of infrastructural facilities and equipments. The College ensures that available infrastructural facilities are well maintained by establishing the following mechanisms:

a) Systems Assistant is employed for care and maintenance of computers & accessories

b) The Head Assistant of the College supervises the up-keeping of office furniture/ and oversees that stocks and materials are updated

c) The Building Committee ensures all necessary repairs/ minor works and annual white-washing are executed

d) Individual Departments keep log books and maintenance registers for

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consumables and non-consumable items including equipments/ lab apparatus

4.4.3   How and with what frequency does the institute take up calibration and other precision measures for the equipment /instruments/?

No specific frequency. Any requirement of troubleshooting and precision calibration of equipments is done by service personnel designated by the Suppliers on demand.

4.4.4   What are the major steps taken for location upkeep and maintenance of sensitive equipment voltage fluctuations, constant supply of water etc.

a) A diesel generator (15 KVA) was purchased in 2010 with the funds received from UGC (NERO) to ensure uninterrupted power supply in the College premises. All stand-alone PCs are equipped with UPS (1KVA/500 VA) to protect the computers from voltage fluctuation.

b) DBT Biotech Hub has procured a 10 KVA online UPS (2-phase output, backup time 120 minutes) from Better Power with grant received from DST to ensure power backup in the Laboratory building.

c) The College has four (4) piped-water connections from the public supply for constant water access in the premise. Rainwater harvesting systems are installed wherever feasible to ensure abundant water supply during the monsoons.

Presently, a proposal for installing 32 KWp Solar PV facility has been submitted to ZEDA, Aizawl for onward submission to Ministry of Renewable Energy, Govt. of India to be included as a component of "Solar City" Project for educational institutions.

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CRITERION V: STUDENT SUPPORT AND PROGRESSION

5.1 Student Mentoring and Support

5.1.1 Does the institution publish its updated prospectus/ handbook annually? If 'yes', what is the information provided to students through these documents and how does the institution ensure its commitment and accountability?

Yes. The College publishes the following materials:

(a) Handbook/Prospectus containing College Profile and its objectives, Fee Structure, Rules of the College, etc. (an electronic version is published in the website)

(b) Syllabus/Course outline with academic calendar (for B.Sc. Life Sciences)

(c) Syllabus/Course outline with academic calendar (for B.Sc. Physical Sciences)

(d) Syllabus/Course outline with academic calendar (for B.HSc. stream)

(e) Syllabus/Course outline with academic calendar (for Computer Science stream)

Frequency of publication: The materials mentioned above are published whenever changes are made with regards to course structure/course contents & Academic Calendar by the University, and also when necessary updates are required to be incorporated

In order to ensure adherence to the commitments laid down for the beneficiaries/stakeholders, various committees are instituted to carry out specific functions, viz. IQAC, Staff Welfare, Teachers' Association, Alumni, Separate Cells to administer UGC-merged Schemes, Examination i/c, Purchase Committee, Building Committee, Canteen Committee, Research Committee, Cell, Students' i/c, Website Management Committee, etc.

5.1.2 Specify the type, number and amount of institutional scholarships /freeships given to the students during the last four years and whether the financial aid was available and disbursed on time?

Type/ Source of Scholarship etc.	2010-11		2011-12		2012-13		2013-14	
	No. of students	Amount (lakhs)	No. of students	Amount (lakhs)	No. of students	Amount (lakhs)	No. of students	Amount (lakhs)
UGC*	20	1.2	20	1.2	20	1.2	20	1.2
Post Matric								

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Studentship (project)	Nil	-	nil	-	nil	-	1	0.72
Other schemes in the Institution:								
Instalment-based fee remittance		Not speci-fied		Not speci-fied		Not speci-fied		Not speci-fied
Provision for late remittance of fees	590	-	585	-	597	-	615	-

Financial Aid to students under UGC scheme "Colleges with Relatively Higher Proportion of SC/ST/ OBC Students"

a) The scholarships are disbursed on time.

b) Special Aid to Student(s): Special support is given to deserving cases through charity contributions by Faulty members. Since, this practice is a spontaneous humanitarian response of teachers as the case arise, no fixed fund is earmarked.

5.1.3 What percentage of students receives financial assistance from state government, central government and other national agencies?

Since >95% of the students belong to ST community, almost all students are eligible to receive Post-matric Scholarship funded by the MHRD, Govt. of India. However, eligibility is based on annual income of families.

5.1.4 What are the specific support services/ facilities available for

✓ **Students from SC/ST, OBC and economically weaker sections**
   o Equal support accorded to all students since more than 95% belong to either one of this category. Applications of those eligible to receive scholarships are processed evenly

✓ **Students with physical disabilities**
   o There is no case of student with physical disability.

✓ **Overseas students**
   o No Overseas students

✓ **Students to participate in various competitions/ National and International**
   o Students are encouraged to participate in State/ National competitions. Free tutoring/ coaching & adequate financial support will be given when the need arise.

✓ **Medical assistance to students: health centre, health insurance etc.**

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- o The college conducts free health camps and healthcare programmes viz. General Health check-up, Free Eye clinic; preparing blood-type data of students in case of emergency; Blood donations programmes; invited talks on health-related issues like mental health, nutrition & body-care; anti-drug/tobacco drives, etc.

✓ **Organizing coaching classes for competitive exams**
- o The college organizes – (a) coaching for entry in services under Staff selection Commission, (b) free coaching for entry in competitive exams conducted by Mizoram Public Service Commission, (c) counselling sessions in choosing careers for outgoing students under an innovative course "Personality Development Programme", (d) other programmes like Counselling, Invited Talks, Panel Discussions, etc.

✓ **Skill development (spoken English, computer literacy, etc.,)**
- o The college organizes - (a) Coaching classes for value-added course in CCC (computer course), (b) Spoken English classes with support through the college Language Lab, (b) Spoken Hindi, (c) Skill development activities like Home Management, Cooking, Garment making & designing, Computer repair & maintenance, Flower arranging, Chocolate making, and organizing programmes on development of general entrepreneurial skills.

✓ **Support for "slow learners"**
- o Mentoring System: Mentors are assigned to all students to gauge the caliber and follow the performance of students. Slow Learners are supported with tutorial/ remedial classes & counselling sessions.
- o Remedial Classes: For regular students, free Tutorials/ Remedial classes are conducted as per need-base.
- o Remedial Classes for Repeaters: Most Slow Learners are burdened with back papers/back-logs. Need-based Remedial Classes are arranged for such students.

✓ **Exposures of students to other institution of higher learning/ corporate/business house etc.**
- o Visits are arranged for students to various establishments:
  - Lab Visits to relevant and selected Departments of Mizoram University
  - Study Trip to Govt. sponsored centres like Khadi & Village Industries, Sericulture Farm, ISPAT Industry (manufacturers of iron rod building material) at Lengte, etc.

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✓ **Publication of student magazines**
  o The College Students' Union publishes its the Annual Magazine every year. The current edition is entitled 'Red Vanda' which is 12th in the chronological line of publication. While serving as an invaluable memoir, the Annual Magazines have been instrumental in providing a student-centric platform for exposing their potential, and to express their hopes, ideas & aspirations.
  o 'GZRSC TODAY': This is a News Bulletin published by the Students' Union for imparting vital information among students on current matters. Contributed articles and views from students and each class representative are featured in the Bulletin.

5.1.5 Describe the efforts made by the institution to facilitate entrepreneurial skills, among the students and the impact of the efforts.

Promotion & Development of Entrepreneurial Skills:
(a) Career Counselling & Placement Cell: Conducts and collaborates skill development programmes covering a variety of life skills that includes – Fashion Designing, Interior Designing, Chocolate Making, etc.
(b) Institutional Biotech Hub: Organizes entrepreneurial programmes like mushroom cultivation, vermicomposting for faculty & students of the college
(c) Home Science Department: Organizes life skill programmes including pickle making, food processing, dress making & design, etc. as a part of the regular course content.
(d) Computer Science Department: Computer hardware maintenance & repairing, software design, etc.
(e) Electronics Department: Basic skills of electronic design and repair of home appliances & equipments, electric wiring skills for domestic use, etc.

5.1.6 Enumerate the policies and strategies of the institution which promote participation of students in extracurricular and co-curricular activities such as sports, games, Quiz competitions, debate and discussions, cultural activities etc.

∗ **Additional academic support, flexibility in examinations**

∗ **Special dietary requirements, sports uniform and materials**

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*   **Any other**

Institutional Strategy for Promotion of:
(a) <u>Students' Participation in Co-curricular activities</u>: For this purpose, 'Students' Union (SU) Fund Pool System' has been instituted to meet most of the logistics pertaining to co-curricular activities. For instance, the amount of SU Pool Fund that accumulated during 2014-15 session is Rs. 6,85,650.00 (excluding previous year's unspent balance)

(b) <u>Participation in extracurricular activities</u>: Students participated every year in State-level and University-level competitions like Inter-college Sports Meet organized by Mizoram University, Inter-college Debates, State-level Cultural Dance competition, Inter-college quiz competition, State-level Poetry Writing competition.

(c) <u>Mentoring/ Coaching support</u>: Teachers provide support wherever possible, e.g. quiz/debate & essay writing competitions. There are provisions of incentive award(s) for those who excel in such competitions.

(d) <u>Academic Support/Flexibility in Exam</u>: As situation demands, students are allowed to sit in exams in spite of shortage in stipulated attendance. They are also granted special leave of absence if and when the need arise.

(e) <u>Sports materials/ dietary requirements</u>: Financial support towards meeting dietary requirements/ purchase of sports equipments/uniforms & materials are available from the College SU pool fund

5.1.7 Enumerate on the support and guidance provided to the students in preparing for the competitive exams, give details on the number of students appeared and qualified in various competitive exams such as UGC-CSIR- NET, UGC-NET, SLET, ATE / CAT / GRE / TOFEL / GMAT / Central / State Services, Defence, Civil Services, etc.

a) The college conducts coaching for entry in services including combined Mizoram Civil Service examinations, UPSC & SSC exams, etc. Study materials were prepared and disbursed free of charge. The coaching programme has been conducted for the past 3 years.

b) Several career counselling programmes have been conducted

c) Awareness Program for entry into various branches of Defence Services

d) A separate book-shelve containing materials purely on NET/CAT/ JEE/ CAT, UPSC, etc. is placed in the College Library

e) Broadband internet connection is provided under UGC Network Resource Center.

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Number of students appeared & qualified: No record maintained.

5.1.8 What type of counselling services are made available to the students (academic, personal, career, psycho-social etc.)

(a) Career-oriented awareness programmes conducted by Career Counselling & Placement Cell.
(b) Intensive career counselling programmes for outgoing students included in the Personality Development Programmes.
(c) One-on-one counselling by Mentors to deal with personal & psycho-social aspects.
(d) The college Evangelical Union (EU) conducts invited lectures & group meetings for awareness programs against social evils, personal spiritual wellbeing, etc.
(e) The college conducts mental health workshops in collaboration with the Department of Psychology, Mizoram University on occasions like World Mental Health Week.

5.1.9 Does the institution have a structured mechanism for career guidance and placement of its students? If 'yes', detail on the services provided to help students identify job opportunities and prepare themselves for interview and the percentage of students selected during campus interviews by different employers (list the employers and the programmes).

The college has 'Career Counselling & Placement Cell' under UGC-merged Scheme. The Cell has been actively pursuing to support career opportunities for students. The following support services are provided:

a) **Campus exam**: Organised campus recruitment for students of BCA where a number of our students have been recruited in local computer firms.
b) **Career awareness programmes**: Invited lectures from eminent resource persons such as bureaucrats, bank officers, army personnel, and private entrepreneurs are conducted from time to time for career awareness.
c) **Skill development programmes**: Skill development programmes such as the Personality Development programme organised annually for outgoing students to equip them with life skills such as communicative skill, interview skills etc.
d) **Private entreneurship**: Ties with corporate bodies like NEDFI and private

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Entrepreneurs like 'Heritage Mizoram' have been established to facilitate skills in chocolate making, candle making weaving, flower arrangement.

e) **CCC**: Training programme on basic computer skills for its outgoing students are conducted and at the end of the training, students sit for an exam conducted by NIELIT which awards successful candidates with a Certificate on Computer Concept. This additional qualification enhances the employability of our students.

5.1.10 Does the institution have a student grievance redressal cell? If yes, list (if any) the grievances reported and redressed during the last four years.

Yes. The college provides means for mitigating and redressing students' grievances, if any, in the website. A grievances box is strategically placed in the college for general use and 'suggestion' box is also placed in the Library. These are attended by the Students in-charge Committee and Library Committee respectively.

Grievance redressed (last 4 years):

Sl. No	Year	Grievance redressed/ reported
1	2010-11	Nil
2	2011-12	Nil
3	2012-13	Nil
4	2013-14	Nil

5.1.11 What are the institutional provisions for resolving issues pertaining to sexual harassment?

The College has appointed a 'Security Committee' consisting of a Chairman and 6 Faculty members to deal with all aspects of security issues.

Fortunately, no single incidence of sexual harassment has been recorded nor dealt with since inception of the college.

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5.1.12 Is there an anti-ragging committee? How many instances (if any) have been reported during the last four years and what action has been taken on these?

No. There is no Anti-Ragging Committee since ragging is not practiced. The college is ragging-free campus.

5.1.13 Enumerate the welfare schemes made available to students by the institution.

a) The following committees have been established to administer funds from UGC (merged schemes) for catering to various student-oriented welfare measures:

- College with Relatively Higher Proportion of SC/ST/OBC: to execute financial support to comparatively disadvantaged students.
- Remedial Coaching Committee: organizes and coordinates general remedial classes as per demand and identifies particular papers/subjects which require remedial teaching (i.e. need-based classes)
- Coaching for Entry in Services Committee: conducts coaching classes, collects study materials, and collaborates with Career Counselling Cell for organizing invited lectures, etc.
- Career Counselling & Placement Cell: conducts career counselling programmes, seminars, and Personality Development Programmes (in collaboration with Coaching for Entry in Services Committee)

b) Mentoring System: Mentoring system has provided an excellent means of bridging gaps between students & teachers.

c) Personality Development Program designed specifically for all final year students

d) Value-added/ Add-on course on CCC: This computer course is valuable as an add-on course.

e) Internet Facility: The college is WiFi enabled campus (i.e. teachers & students can freely access internet via wireless technology). In addition, UGC Network Resource Center of the college provides dedicated broadband internet connection for collecting supplementary study materials. Students have access to free download and other various information from these facilities.

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f) Establishment of Language lab for competency and proficiency in English.

5.1.14 Does the institution have a registered Alumni Association? If yes', what are its activities and major contributions for institutional, academic and infrastructure development?

Yes. The Alumni Association has an interactive page in the College website where an alumni can get registered and contribute suggestions by posting them in the website.

Alumni members provide data on students' progression of past pupils. This information helps in locating alumni who are available on request to render their service as 'guest teachers'. The College is yet to receive major contributions for infrastructure development.

5.2 Student Progression

5.2.1 Provide the percentage of students progressing to higher education or employment (for the last four batches) highlight the trends observed.

There is no systematic monitoring regarding progressing of students to higher education or employment. Estimated figures are given in the table below:

Student progression	%
UG to PG	60%
PG to M.Phil.	-
PG to Ph.D.	5%
Employed • Campus selection • Other than campus recruitment	Campus selection - Nil Other recruitment - 15% Unemployed - 20%

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5.2.2 **Provide details of the programme-wise pass percentage and completion rate for the last four years (cohort wise/ batch wise as stipulated by the university)? Furnish programme-wise details in comparison with that of the previous performance of the same institution and that of the Colleges of the affiliating university within the city/district.**

a) Programme-wise Pass Percentage:

Stream	Programme (Core Subjects)	2011	2012	2013	2014
B.Sc.	Botany	100	100	71	73
	Zoology	100	100	63	57
	Chemistry	75	57	54	55
	Mathematics	100	33	64	65
	Physics	100	63	44	55
B.HSc.	Home Science	100	100	100	74
Comp. Science	BCA	88	100	64	65

b) Comparison of College Pass Percentage with University (overall):

Stream	Core Subjects	2011		2012		2013		2014	
		GZRSC	MZU	GZRSC	MZU	GZRSC	MZU	GZRSC	MZU
B.Sc.	Botany	**100**	87	**100**	88	**71**	70	**73**	71
	Zoology	**100**	85	**100**	92	**63**	65	**57**	56
	Chemistry	**75**	71	**57**	60	**54**	50	**55**	50
	Mathematics	**100**	90	**33**	45	**64**	65	**65**	60
	Physics	**100**	90	**63**	71	**44**	54	**55**	48
B.HSc.	Home Science	**100**	100	**100**	100	**100**	100	**74**	74
Comp. Science	BCA	**88**	80	**100**	89	**64**	62	**65**	641

5.2.3 **How does the institution facilitate student progression to higher level of education and/ or towards employment?**

Progression to higher level of education: The College endeavors to ensure that students progress further towards PG studies and other employment through the following:

(a) Career Counseling & Placement Cell guides the students to make the right career choice and organizes employment-oriented programmes. Coaching for Entry in Services Committee conducts coaching classes and provides free study materials for competitive exams like combined Public

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Service exams (MCS, UPSC, SSC, etc.)

(b) Reading Materials: The Library is equipped with latest guidebooks and information on further studies/ competitive exams and job prospects.

(c) Students utilize the free WiFi in the campus as well as a broadband internet facility in the Library for collecting employment opportunities and browsing for information regarding avenues for further studies.

5.2.4 Enumerate the special support provided to students who are at risk of failure and drop out?

a) Failed candidates as well as those students having back-log papers who are at risk of drop-out are facilitated with three (3) examination chances per paper.

b) A student is allowed a moratorium of 2 additional years to complete the Three-Year Degree Course i.e. total duration for completion - 5 years.

c) Remedial classes are organized to help weak students.

d) Student-mentoring system is an excellent platform to render special support to such students.

5.3 Student Participation and Activities

5.3.1 List the range of sports, games, cultural and other extracurricular activities available to students. Provide details of participation and program calendar.

College Academic Calendar is prepared every semester by the IQAC in consultation with the teachers' body and the annual calendar notified by Mizoram University. The final draft is approved by the General Body Meeting of the teaching faculty. Main features and activities are:

a) Annual College Week: This is basically an inter-class sports & cultural competition organized by the Students' Union. Items include outdoor and indoor games, debates, quiz, fashion shows, painting, essay writing, etc.

b) Freshers'-cum-Graduation Day/ Prom Night (Annual event): The Students' Union organizes these events. University toppers, class toppers and other meritorious students felicitated. Based on character, commendable academic performance, and good looks, College 'Miss' & 'Mister' are selected and felicitated. College Week closing functions are celebrated with grand feast, followed with Prom Night.

c) University Sports Meet (Annual event): Participates in assigned items

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every year viz. Football, Volley Ball, Basket Ball, Table Tennis, etc.

d) '**Senhri Cultural Club'**: A govt. recognized cultural club participates in competitions, performs in outside the State, and also performs shows during college functions. The club, in collaboration with the College SU organizes Social & Cultural Day. Whenever senior members leave the college on completion of UG course, new members are inducted to maintain continuity.

5.3.2 Furnish the details of major student achievements in co- curricular, extracurricular and cultural activities at different levels: University/ State/ Zonal/ National/ International, etc. for the previous four years.

	Year	Items/ Events & Major Achievement	Remarks
	2013	(a) Aug. 2, Inter-college Poetry Writing Competition, organized by HTE Dept., Art & Culture Dept., & MIELS (b) 20-22 Sept., performed at Ziro Festival of Music, Arunachal Pradesh (c) Sep 25-27, Inter-College Quiz organized by Mizoram Rural Bank	
	2014	(a) 26-28 Feb., Inter-college Quiz on 'Water Challenge' sponsored by PHE, Govt. of Mizoram. (b) 5 Mar., Inter-college Extempore Speech competition on *Mizoram Bamboo Day*	3rd in the Water Challenge Quiz

5.3.3 How does the college seek and use data and feedback from its graduates and employers, to improve the performance and quality of the institutional provisions?

a) Feedback from Employees: The Principal conducts meetings for Teaching Faculty, Non-Teaching Staff and also a general meeting of all employees at regular intervals. These meetings are used as opportunities for collecting opinions and feedbacks. Resolutions/ vital decisions which were made in such meetings have been useful for improving the performance and quality of work.

b) Feedback from Graduates: The Feedback collected from outgoing graduates of the college at the end of the course is valuable in making improvements and for gauging the needs of students.

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5.3.4 How does the college involve and encourage students to publish materials like catalogues, wall magazines, college magazine, and other material? List the publications/ materials brought out by the students during the previous four academic sessions.

a) Annual Magazine: Published by Students' Union is a document that provides a platform for students to showcase their literary talents. The college finances all publication cost from the SU Fund and is distributed free of cost to all students.

b) GZRSC Today: A bulletin published class-wise by the Students' body. It functions as a news-update for dissipating information among students.

c) Web Blog: The college website gzrsc.edu.in provides space for posting materials and discussion forum pertaining to academics, college activities, etc.

d) Wall Magazine: Wall Magazines serves as useful forum for putting up news & views, current events, general knowledge, etc.

5.3.5 Does the college have a Student Council or any similar body? Give details on its selection, constitution, activities and funding.

Yes. The college has an active student body known as "Students' Union" which is under the Chairmanship of the Principal. The college appoints 4/5 teachers as SU in-charge. Some important organs of the college like Library Committee, Planning Committee, etc. have representatives from this SU body.

Election & Function of Students' Bodies: The Executive members of the SU are democratically elected during July-August every two years. Class Representatives (CRs) are also elected through secret ballot in every class. The CRs convey the problems and needs of their respective class to the SU and also to the faculties/ Principal. The functions and activities of the SU are clearly chalked out in its constitution. The SU submits the needs of the students to the college authority and also meets with Govt. officials to submit petitions on matters pertaining to the welfare of students.

EU body: Another student body is the Evangelical Union. With well-defined doctrinal guidelines/ constitution, this body caters to the mental/ psychological aspects for safeguarding the youth against depression, social evils, etc. It organizes weekly meetings, counseling sessions, invited talks, social service, fund raising drives, etc.

Funding: SU activities and programmes utilize the SU Pool Fund. It also utilizes token 'fines' that are collected from absentees in certain important

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functions organized by the SU. The EU raises its own fund accrued through its fund raising programmes, donations, etc.

5.3.6 Give details of various academic and administrative bodies that have student representatives on them.

The following bodies have student representatives:
a) Library: 1 (one) – Vice President of the Students' Union
b) Planning: 1 (one) – Vice President of the Students' Union
?

5.3.7 How does the institution network and collaborate with the Alumni and former faculty of the Institution.

Collaboration with Alumni & Former Faculty: There is no defined practice of collaboration with former faculty members. For the last 3 years, a faculty who had joined Mizoram University is an external member o f the IQAC. A number former students/ Alumni are being engaged as 'guest teachers' whenever the need arise and are paid honorarium on pay-per lecture basis.

5.3.8 Any other relevant information regarding Student Support and Progression which the college would like to include.

a) Mentoring System: Teachers are assigned mentorship responsibilities to render support and follow the continuous progress of students. In the present circumstance, 10 students (average figure) are assigned to each faculty member.
b) Student Feedback System: The IQAC has devised a format for this purpose. It facilitates students to confidentially assess teachers' performance so as to enable the teachers to self-recollect and contemplate upon the points highlighted by the students for improvement.
c) Attendance of students: In order to combat absenteeism, attendance are strictly monitored and accounted at the end of every month.
d) Personality Development Programme: This is innovated for the outgoing students as a mini 'Finishing School' programme which is practiced elsewhere. Duration of the programme varies from 2–4 weeks depending upon the availability of time. Course content of the Programme inlcudes – choice of career & employment opportunities, personal grooming, travel tips, studying abroad, etiquette & manners, and aspects of life skills like - communication skill, spoken English, Spoken Hindi, soft skill, interview tips, etc.

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CRITERION VI: GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1   Institutional Vision and Leadership

6.1.1   State the vision and mission of the Institution and enumerate on how the mission statement defines the institution's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, institution's traditions and value orientations, vision for the future, etc.?

Vision & Mission:
To impart science education under the motto '**Lighted to Lighten'** and uplift the status of Science & Technology in Mizoram

Relevance of the Mission:
Compared to rest of the country, Mizoram is relatively backward in education. The College has been established to address and cater to this need, emerging into a premier centre of learning and the only Science College in the State. Students come for science education from all over the State with increasing numbers, even though existing infrastructure is inadequate to accommodate the aspirations of all the applicants it seeks to serve. Nevertheless, the institution continues to serve the need of the society and, endeavoring to uplift the status of science S&T in Mizoram.

Future vision:
a) To be fully residential
b) To provide wider range of infrastructure for basic research   by establishing additional facilities
c) To introduce add-on courses (any or some of these courses viz. Spoken English, Computer Course, Skill Development/ Vocational-oriented Programmes)

6.1.2   What is the role of top management, Principal and Faculty in design and implementation of its quality policy and plans?

Teachers are appointed in various Committees & Cells constituted for specific purposes. Thus, they are collectively responsible for the design & implementation of quality initiatives by getting involved in planning and execution of decisions made by the Committees. The IQAC is the main body for the design & planning of quality initiatives in the College.

The Principal chairs key committees as per UGC guideline(s) wherever specified. He sanctions and approves execution of works. Faculty members

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are tasked with managing and executing their assigned responsibility. A meeting Heads of Dept. makes most major decisions in academic matters. All major decisions regarding admission policy, exam-related policies, new ventures/projects wherein huge expenditures are to be incurred are tabled and endorsed by General Body Meetings. The functions and activities of various Committees & Cells are outlined the section "Post Accreditation Initiatives"

6.1.3 What is the involvement of the leadership in ensuring:

- **The policy statements and action plans for fulfilment of the stated mission**
- **Formulation of action plans for all operations and incorporation of the same into the institutional strategic plan**
- **Interaction with stakeholders**
- **Proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders**
- **Reinforcing the culture of excellence**
- **Champion organizational change**

The policy of the college is to decentralise power to provide opportunity to all the members of the staff to function under various committees. Teaching and non- teaching staff and students have their representatives in these committees. Hence, a significant role is played by teachers and members of non-teaching staff and students in implementation of activities in different spheres of institutional functioning. In this way, it is ensured that the policy statements and action plans are fulfilled in accordance with the stated mission of the institution.

Under the chairmanship of the Principal, the Heads of Department Meeting takes up issues concerning the normal business of teaching and learning processes as well as academic improvement plans, The IQAC makes plans for various aspects of institutional quality improvement. Major decisions are discussed and ratified in the General Body meetings which are held regularly, thereby performing multiple functions of:

- Framing of Institutional Policies and Financial management.
- Work frame Planning.
- Faculty welfare and Development planning.
- Ratification of various action plans for almost all operations and incorporation of the same into the institutional strategic plan.

6.1.4 What are the procedures adopted by the institution to monitor and evaluate

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policies and plans of the institution for effective implementation and improvement from time to time?

Procedures for Monitoring & Evaluation Policies:
a) IQAC: IQAC prepares quality initiative plans and assigns committees/ bodies to execute the works.
b) Planning Committee: Prepares new initiatives for enhancement and development of infrastructure.
c) Heads of Department Meeting: This is the principal body that reviews & monitors the general progress of the college
d) General Body Meeting: It reviews suggestions for new initiatives (admission policy, academic calendar, formation of new committees, etc.) and endorses all important suggestions.

6.1.5 Give details of the academic leadership provided to the faculty by the top management?

The following functions concerning academics are executed by teaching faculty of the college:
a) Heads of Department Committee: The Committee makes major decisions pertaining to admission policy, all teaching-learning processes as well as evaluation of students' performance.
b) Examination Committee: The Committee takes care of exam-related matters, prepares exam routine for the continuous assessment system, details exam duties, and documents the marks obtained by students.
c) Departmental Committee: The respective Departmental Meeting which is chaired by the Head of Dept. chalks out work distribution and submits departmental requirements & suggestion for enrichment/ development of their respective Department.
d) Planning Committee: The Committee which is composed of teaching and non-teaching staff prepares and reviews plans for maximum utilization of funds available for academic development.

6.1.6 How does the college groom leadership at various levels?

a) Teaching Faculty: Leadership grooming is facilitated by assigning responsibilities. In order to carry out and oversee specific functions and activities, a number of committees have been constituted. Coordinators

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and members are appointed among faculty members to make plans and execute programmes chalked out by the respective Committees.

b) Non-Teaching Staff: Each staff is assigned specific task upon which he/she is responsible for effectively executing the assigned job. The office Head Assistant, in consultation with the Principal, prepares allotment of work for each staff.

6.1.7 How does the college delegate authority and provide operational autonomy to the departments/ units of the institution and work towards decentralized governance system?

As mentioned in 6.1.5 (c) above, the respective Departmental Meeting chalks out work distribution among its own faculty members, monitors students' performance; makes resolutions for development and enrichment of their respective Department. Major decisions on intake capacity of students, finalisation of marks/scores obtained by students, etc., rest upon the resolutions of this Committee, wherein each teacher has a say. The Departmental Committee monitors the academic output and performance of students with regards to attendance, marks obtained in tests, etc., document them and notify it to the students.

6.1.8 Does the college promote a culture of participative management? If 'yes', indicate the levels of participative management.

Yes. There is participative management at all levels of activities. Mentioned below are few points to ratify the statement:

a) Management of Exam-related matters: When certain resolutions pertaining to examination matters are endorsed by the General Body Meeting, the Exam Committee executes management of such decisions.

b) Administration of Funds: The Building Committee administers funds received for executing renovation/extension works endorsement by the appropriate body. On completion, the expenditure statements are submitted with supporting vouchers to the Principal for subsequent checks & audit.

c) Participative cooperation: Whenever college-level or state-level seminars are organized, Seminar Committee, Refreshment Committee, Decoration Committee, and other related Committees work in tandem.

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6.2   Strategy Development and Deployment

6.2.1 Does the Institution have a formally stated quality policy? How is it developed, driven, deployed and reviewed?

No formally stated policy. The IQAC lays down policies and means of enhancing quality by addressing specific factors and activities. Initiatives are made and executed by concerned committees/ bodies.

6.2.2 Does the Institute have a perspective plan for development? If so, give the aspects considered for inclusion in the plan.

Perspective Development Plan:

The Planning Committee has laid down a number of goals for development as follows:

a) To search for suitable land for permanent campus of the college (accomplished in 2010)

b) To establish hostel facilities (partially accomplished – capacity Girls Hostel & Boys Hostel constructed in the new campus is below the actual requirement)

c) To seek funds for construction of buildings (Govt. of Mizoram has allocated Rs 144.4 lakhs and Rs 722.22 lakhs for Library building and Main Building Block I respectively)

d) Academic Building & Residential Complex for Faculty (no fund received yet)

e) Installation of Solar Power back-up (approval received from ZEDA (Aizawl) under Solar City scheme)

f) Development of sports infrastructure (DPR submitted to UGC-Nero, awaiting approval and sanction)

The perspective Institutional Development Plan has also been prepared and submitted to State Higher Education Commission as per norms laid down by the Rashtriya Uchattar Shiksha Abhiyan (RUSA).

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6.2.3 Describe the internal organizational structure and decision making processes.

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                    ┌───────────┐
                    │ Principal │
                    └─────┬─────┘
            ┌─────────────┴─────────────┐
      ┌───────────┐              ┌──────────────┐
      │ Teaching  │              │ Non-Teaching │
      │  Faculty  │              │   Faculty    │
      └─────┬─────┘              └──────┬───────┘
      ┌───────────┐              ┌──────────────┐
      │  Heads of │              │    Head      │
      │ Department│              │  Assistant   │
      └─────┬─────┘              └──────┬───────┘
      ┌───────────┐              ┌──────────────┐
      │  Teachers │              │  UDC/Cashier │
      └─────┬─────┘              └──────┬───────┘
      ┌───────────┐              ┌──────────────┐
      │ Technical │              │     LDC      │
      │ Support   │              │              │
      │ Staff     │              │              │
      │(Lab.Assists.)│           │              │
      └─────┬─────┘              └──────┬───────┘
      ┌───────────┐              ┌──────────────┐
      │ Lab Bearers│             │   VI Grade   │
      └───────────┘              └──────────────┘
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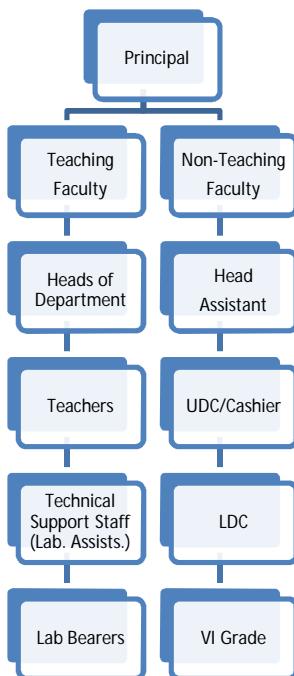
6.2.4 Give a broad description of the quality improvement strategies of the institution for each of the following

- Teaching & Learning
- Research & Development
- Community engagement
- Human resource management
- Industry interaction

Teaching &Learning:

- Recruitment of qualified and competent teaching faculty on merit basis is the purview of the Govt.
- IQAC frames and monitors various aspects of quality improvement strategies.
- Library facilities are being constantly upgraded with internet access for students and teachers to be put to for better learning outcomes.
- ICT tools are used for teaching and learning.
- Teachers are always encouraged to participate in self-enrichment courses and to attend seminars/conferences to update their knowledge.
- Laboratories and equipments are being upgraded.
- Self-appraisal method to evaluate the performance of faculty.
- Study tours and visits for students are organized for comprehensive study.
- Mentoring of students for student support and conducting programmes

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for enhancement of skill of students.
- Feedback System to evaluate teachers' performance are in practice.

Research & Development:
- Research Committee of the college addresses most issues pertaining to R&D
- Provision of study leaves to faculty members as per govt. rules to involve themselves in Research and Development work.
- A culture of involvement of teachers in research is being introduced; teachers are encouraged to take up minor projects and major projects.
- Laboratories are being upgraded and new research facilities have been created.
- In-house student projects are being planned to orient students towards research activities.
- Programmes on career options in various scientific researches were conducted for science stream in Higher Secondary School students.

Community Engagement:
The college has various units like NSS, Red Ribbon Club, Eco-club etc. which organize outreach programmes to enable the students to respond to the larger issues of society.
- Awareness programmes on vital issues like Drug Addiction, HIV/AIDS, Environment Pollution etc. are conducted.
- Visits and free services rendered to orphanage, old-age homes and special school for handicapped are actively carried out.
- NSS units render community services like blood donation days, tree plantation, construction of public assets (urinal, spring water shelters, resting sheds for farmers & commuters) adult literacy campaigns, etc.).
- Teachers have rendered consultancy service like monitoring of environmental effects due to road construction.
- A number of free computer clinics for communities of living in the neighbourhood of the college have been conducted.
- Awareness/outreach programmes to school students on choice of career in science were conducted.

Human Resource Management:
- The college has specific bodies for addressing to the welfare of its employees like Teachers' Association and Staff Welfare Committee. These committees seek to redress grievances, if any, and cater to issues like employees' welfare, advancement and enrichment of capacities.
- Recruitment of faculty members and staff is done as per the guidelines adopted and provided by the State Govt.
- For supporting staff, best efforts are made to recruit such workers as are competent enough to work on computers and are expert in their field.
- Faculty development and enrichment programmes are organized

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periodically to update the knowledge base of the staff.

- Job distribution/distribution and workload for teachers is assigned by respective Heads of Department; allotment of duties and responsibilities of non-teaching staff is done by the Principal in consultation with office Head Assistant.
- There are established systems for appraisal of performance of teachers and non-teaching staff.
- For other responsibilities, the concerned Committees and Cells take up the responsibility of entrusting relevant personnel to carry out the jobs.

Industry Interaction:
There are practically no industries/factories in the State that would render meaningful placement opportunities for students. However, we have established ties with corporate bodies like NEDFI and private Entrepreneurs like 'Heritage Mizoram'

6.2.5 **How does the Head of the institution ensure that adequate information (from feedback and personal contacts etc.) is available for the top management and the stakeholders, to review the activities of the institution?**

The Principal convenes the following meetings from time to time to ensure proper communication of information between stakeholders:
a) Students Union meeting
b) Parent-Teacher Meeting
c) General Body Meeting
d) Meeting of Non-teaching Staff

These meetings are conducted so that adequate time is utilized for reporting activities on new developments with and discussion/ interaction.

6.2.6 **How does the management encourage and support involvement of the staff in improving the effectiveness and efficiency of the institutional processes?**

Staff Encouragement & Support:
Welfare fund is used for felicitation or condolence (as the case may be) of staff which helps in inculcating a sense of ownership. The tradition of visiting and offering token money to hospitalized/ sick each other among colleagues has been in practice for a very long time which is encouraged and is still in vogue.

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6.2.7 Enumerate the resolutions made by the Management Council in the last year and the status of implementation of such resolutions.

The College does not have a Management Council. It adheres to the Government's notifications/orders as and when they are communicated.

a) As directed by the Govt., Geology subject has been introduced from 2012-13.
b) RUSA scheme has been initiated in the college by appointing a RUSA Committee which has prepared and submitted a Perspective Development Plan to the concerned body for inclusion in the State plan.

6.2.8 Does the affiliating university make a provision for according the status of autonomy to an affiliated institution? If 'yes', what are the efforts made by the institution in obtaining autonomy?

No. There is no provision for autonomy of affiliated colleges under the University.

6.2.9 How does the Institution ensure that grievances/ complaints are promptly attended to and resolved effectively? Is there a mechanism to analyze the nature of grievances for promoting better stakeholder relationship?

Suggestion/ Grievance Box is placed at strategic location in the college. The Heads of Department sitting is the main body to resolve grievance, if any from stakeholders other than the student community. The SU in-charge Committee hears complains/grievance from students. However, stakeholders have not tabled any complaint that calls for such action to be addressed.

6.2.10 During the last four years, had there been any instances of court cases filed by and against the institute? Provide details on the issues and decisions of the courts on these?

No court case has ever been filed against the college.

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6.2.11 Does the Institution have a mechanism for analyzing student feedback on institutional performance? If 'yes', what was the outcome and response of the institution to such an effort?

Yes. The IQAC has prepared a format for student feedback mechanism. The feedback is collected for each batch/ cohort of students during even semesters. A simplified summary of the most recent feedback collected has transpired into the following:

a) Teaching-learning practices of the college are satisfactory
b) Request for use of local vernacular language for teaching certain scientific concepts since many students hail from weak language background
c) Suggestions for improvement of classroom infrastructure
d) More remedial measures for slow learners

6.3 Faculty Empowerment Strategies

6.3.1 What are the efforts made by the institution to enhance the professional development of its teaching and non-teaching staff?

Enhancement of Professional Development:

a) Training – by deputing staff both teaching & non-teaching staff to relevant training programmes available with Govt. agency like ATI, University, etc.
b) By organizing 'Faculty Enrichment Seminars' for teaching staff
c) Encouraging use of computers and ICT among teaching faculty in classrooms. Laptops/ Notebooks are supplied to them for use as teaching aid.
d) Providing broadband internet connection for all faculties accessible through WiFi technology.

6.3.2 What are the strategies adopted by the institution for faculty empowerment through training, retraining and motivating the employees for the roles and responsibility they perform?

Strategies for faculty empowerment through training and motivation:

a) For teaching faculty: Provision of laptop as teaching aid and giving training on use of computers/ ICT
b) Training on use of ICT – for all
c) In-campus access to WiFi internet connection – for all
d) Invited Lectures to motivate the faculty

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6.3.3 Provide details on the performance appraisal system of the staff to evaluate and ensure that information on multiple activities is appropriately captured and considered for better appraisal.

a) ACR system for non-teaching staff
b) PBAS-API scheme for teaching staff

6.3.4 What is the outcome of the review of the performance appraisal reports by the management and the major decisions taken? How are they communicated to the appropriate stakeholders?

> Outcome usually reviewed and necessary recommendations are given to concerned faculty. The outcomes are generally reflected in positive actions.

6.3.5 What are the welfare schemes available for teaching and non-teaching staff? What percentage of staff have availed the benefit of such schemes in the last four years?

Welfare schemes available:
a) Medical Re-imbursement Scheme: Regular and Contract based employees (both teaching and non-teaching staff) are entitled to re-imbursement medical expenses as per Govt. rules.
b) Retirement benefits: Full retirement benefits, as per Govt. rules, are assured to employees.
c) Staff Welfare Fund: The pool fund that accumulates from contributions from teaching & non-teaching faculty is used for marriage felicitation, condolence in case of death in the family, and other endowment schemes in case of ill-health & calamities as specified in the execution of Welfare Fund Rules.
d) Payroll Saving Scheme: Fixed Deposit Payroll Saving Scheme has been endorsed and introduced in the college. Besides redemption of the amount subscribed along with interests, employees are entitled loan facilities under this scheme.

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Number of staff that have availed various welfare schemes (last 4 years)

Schemes	2010 – 11	2011 – 12	2012 - 13	2013 - 14
Medical Reimbursement	23	29	38	34
Pay Roll Saving Scheme	20	32	16	21
Pension Scheme	1	Nil	Nil	1
Staff Welfare Fund	5	2	4	3

6.3.6 What are the measures taken by the Institution for attracting and retaining eminent faculty?

No defined measures taken

6.4   Financial Management and Resource Mobilization

6.4.1 What is the institutional mechanism to monitor effective and efficient use of available financial resources?

The following checks are the mechanisms for monitoring effective & efficient use of the financial resources:
a) Heads of Dept. Sitting for endorsement of requirements submitted by various committees/bodies.
b) Purchase Committee for approving purchase of equipments and books.
c) Library Committee to monitor and verify the requirement of books.

6.4.2 What are the institutional mechanisms for internal and external audit? When was the last audit done and what are the major audit objections? Provide the details on compliance.

On matters of checks and audit, the following mechanisms of checks are done on the accounts of the college:
a) Internal Audit: Audit of accounts by Government designated Auditors.
b) General Audit: Audit of accounts by audit party from the office of the Principal Accountant General, Mizoram.

Audit Report: A general audit on the accounts of the college was done during

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10 – 17 May, 2013 by the audit party from the office of the Principal Account General, Mizoram, Aizawl. The audit Report was sent to the college vide Memo No. OA-II/IR/31-2(C)/Pr., GZRSC, Aizawl/2013-14/1468 Dated 26.07.2013.

Audit Objections: Objections raised include non-compliance of Govt. order regarding purchase of computer/accessories worth more than Rs. 10,000, allegation of unauthorised use of fund collected for Computer Science Dept., and the alleged shortage of submission of fees collected for govt. revenue.

Compliance with audit objections:
a) Requirement of NOC from the Govt.: The College has obtained NOCs from the Dept. of IT for further purchase of computer/accessories exceeding Rs. 10,000/- as per norms.
b) Usage of BCA fund: The self-financing nature of BCA course was overlooked by the auditors and hence letter of authority for using the funds was demanded. The programme has been established since 2007 as a self-financing course. After remitting the stipulated amount of revenue to the Govt. and Mizoram University, the remaining amount is retained in the college for running the BCA programme (remuneration/honorarium to teachers, purchase of materials, maintenance of equipments, etc.). This has been communicated and rectified with the concerned authority.
c) Shortage of stipulated fund remitted to Govt. revenue: The shortage of fund remittance was detected by the party, the reason being late admission of some students. The matter has been rectified and the amount accordingly remitted.

6.4.3 What are the major sources of institutional receipts/ funding and how is the deficit managed? Provide audited income and expenditure statement of academic and administrative activities of the previous four years and the reserve fund/corpus available with Institutions, if any.

Major sources of funding:
a) Govt. grants including salary & non salary components (Plan & Non Plan).
b) Grant from UGC (College Development grant, Merged-Scheme, Additional Assistance).
c) Fees from students.

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Sl. No	Fiscal Year	Govt. Fund (Plan) (Rs)	Govt. Fund (Non Plan) (Rs)	UGC (all compo-nents) (Rs)	Fees (Rs)	Corpus/ reserve Fund
1	2010-11	148.48 lakhs	174.96 lakhs	19.17 lakhs	9.98 lakhs	Nil
2	2011-12	155.97 lakhs	189.87 lakhs	43.40 lakhs	10.99 lakhs	Nil
3	2012-13	300.00 lakhs	365.25 lakhs	12.19 lakhs	12.99 lakhs	Nil
4	2013-14	305.00 lakhs	389.75 lakhs	12.94 lakhs	13.70 lakhs	Nil

6.4.4 Give details on the efforts made by the institution in securing additional funding and the utilization of the same (if any).

The College has submitted a number of proposals and concept papers for development and construction of infrastructure facilities.

Apart from regular grants from the Govt. and UGC, the following grants have been recently received:

a) Establishment of DBT-Biotech Hub
b) Grant for construction of Girls Hostel (NLCPR Fund)
c) Grant for construction of Boys Hostel (NLCPR Fund)
d) Special Plan Assistance for construction of Library
e) Special Plan Assistance for construction of Main Building Blaock-1

As of today, proposals have been submitted for soliciting the following grants from these agencies.

a) Concept Paper for eliciting funds from Ministry of DONER/NEC
b) Proposal for establishment of Star College Scheme to DBT, New Delhi.
c) Development of Sports Infrastructure to UGC-NERO

6.5   Internal Quality Assurance System (IQAS)

6.5.1 Internal Quality Assurance Cell (IQAC)

a. Has the institution established an Internal Quality Assurance Cell (IQAC)? If 'yes', what is the institutional policy with regard to quality assurance and how has it contributed in institutionalizing the quality assurance processes?

Yes. The college has a well-established Internal Assurance Quality Cell. The Cell was established as stipulated by NAAC as a part of the post-accreditation exercise since 2009-10 academic sessions. Members of the

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college IQAC were appointed as per UGC guidelines. All quality-related initiatives were executed through the activities of the IQAC. Through initiatives of the IQAC Mentoring System, Students' Feedback on teachers, and other Specific Committees for executing quality-related activities have been institutionalized in the college.

b. How many decisions of the IQAC have been approved by the management/ authorities for implementation and how many of them were actually implemented?

The following suggestions of IQAC have been implemented:
   a) Formation of various Cells & Committees
   b) Mentoring System
   c) Academic Calendar
   d) Students' Feedback on Teachers
   e) Personality Development Course
   f) Add-on course on CCC
   g) Examination system regarding continuous assessment of student
   h) Documenting & Maintenance of PBAS/API of teaching faculty

c. Does the IQAC have external members on its committee? If so, mention any significant contribution made by them.

Yes. The following are the external members of IQAC:
a) Prof. Lalnundanga, Mizoram University
b) Dr. Varparhi (former Principal of this college)

These external IQAC members rendered valuable suggestions for enhancing the quality of education and improving the work culture of students.

d. How do students and alumni contribute to the effective functioning of the IQAC?

No significant contribution. However, opinions and suggestions posted by students/ alumni in the discussion forum of the college website are getting more valuable.

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e. **How does the IQAC communicate and engage staff from different constituents of the institution?**

Various Committees and Cells play a key role in order to ensure engagement and participation of all staff from different constituents of the institution. Responsibilities are assigned to these committees in which everyone is a member of a Committee or a Cell.

6.5.2 Does the institution have an integrated framework for Quality assurance of the academic and administrative activities? If 'yes', give details on its operationalisation.

- All permanent employees of the college are governed by CCS (Conduct) Rules which is designed to integrate quality assurance in service. Any breach of the Rules calls for relevant course of action which may lead to Disciplinary Proceedings against offenders. The Conduct Rules also lays down conditions in which quality of service are rewarded to deserving employees.
- The IQAC is the internal body established for integrating various aspects of quality assurance.

6.5.3 Does the institution provide training to its staff for effective implementation of the Quality assurance procedures? If 'yes', give details enumerating its impact.

Yes. The institution provides the following training programmes for teaching faculty:
a) On-day Training on Service matters
b) Training on Effective Teaching Strategy & Classroom Management
c) Hands-on Training on use of Computers for faculty
d) Various faculty enrichment seminars

The training programmes conducted by IQAC pertaining to service matters have proved useful and the teachers are now conversant with office procedures and service matters like leave rules, conduct rules, etc. More than 90% of teachers are now confident of using ICT and computers for collecting teaching materials from the internet and for MS Powerpoint presentations.

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6.5.4 Does the institution undertake Academic Audit or other external review of the academic provisions? If 'yes', how are the outcomes used to improve the institutional activities?

The affiliating University, i.e. Mizoram University has performed an Academic Audit. Suggestions were tabled before the team when the college was visited. The team suggested on measures of improving the academic performance of students. However, the suggestion to enhance the number of teaching faculty where the number falls short of the requisite number is the government's prerogative, and is beyond the control of the institution.

6.5.5 How are the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies/regulatory authorities?

There are two levels of external regulatory authorities:
a) The Dept. of Higher & Technical Education, Govt. of Mizoram
b) The affiliating University (Mizoram University, Aizawl)

The college makes the compliances as per their conditions and requirements while taking various quality assurance initiatives.

6.5.6 What institutional mechanisms are in place to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome?

Institutional mechanisms for continuous review:
a) Meeting of Heads of Department: The HoD Meetings execute decisions/ resolutions regarding enhancement of teaching-learning quality made in the general body meeting.
b) Departmental Meeting: Meetings of respective Departments are organized to review and analyse results of students in University/ College exams.
c) IQAC Meeting (review & planning): The IQAC suggests quality enhancing ventures to be endorsed by the general body of the teaching faculty.
d) Students' Attendance: Monthly Evaluation of students' attendance to monitor and students' diligence.
e) Continuous Assessment System: The introduction of semester system in the University w.e.f. 2010 entails continuous assessment of students'

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performance. In a semester, the average of the best 2 out of 3 assessments is taken as the final internal assessment for all papers.

6.5.7 How does the institution communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders?

Communication of quality assurance policies to stakeholders:
a) Through the prospectus
b) Communicated to assembly of students during Freshers'/Graduation Day, etc.
c) Annual Parent-Teacher Meetings
d) In the College website

6.5.8 Any other relevant information regarding Governance Leadership and Management which the college would like to include.
None

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CRITERIA VII: INNOVATIONS AND BEST PRACTICES

7.1 Environment Consciousness

7.1.1 Does the Institute conduct a Green Audit of its campus and facilities?

No. The College does not conduct Green Audit.

7.1.2 What are the initiatives taken by the college to make the campus eco-friendly?

∗ **Energy Conservation**
   a) To avoid unnecessary use of electricity, IV Grade staff is deputed to check all rooms and ensure that lights and fans are switched off. Students are also given responsibilities floor-wise to ensure lights/fans are switched off, and that computer and other devices in the labs are switched off.
   b) The College office practices re-using reverse side of used papers.
   c) The first page from old and unusable University answer sheets are removed so that the blank pages can be used for conducting class tests.
   d) Use of electronic means for transaction is encouraged and practised as much as possible. Important notices are published in the website. To minimise use of paper, some computers in the campus are networked for sharing of documents.

∗ **Use of Renewable Energy**
   a) Proposal to install 32 KWp Solar PV Cells has been submitted and expected to be commissioned soon under Solar City scheme of the Govt.
   b) Plans for use of solar water heaters in the hostels are being considered.

∗ **Water Harvesting**
   Rooftop Rainwater harvesting system has been implemented in the following locations -
   a) Auditorium (stored rainwater is used in some of the laboratories situated below the Auditorium)
   b) Main Building (collected rainwater is used in some of the toilets and in the College canteen for cleaning purposes during rainy seasons)

∗ **Efforts for Carbon neutrality**
   a) Minimisation of carbon footprints: The UG curriculum contains a compulsory paper 'Environmental Studies'. The course material is being augmented by the faculty teaching the subject to instill a life-style of minimising carbon footprint to the students.
   b) Seminars: Seminars and awareness programmes dealing with the need for environmental conservation are often conducted in the campus.

∗ **Plantation**

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a) Tree Plantation Programmes: Tree plantation is one major activity of our NSS Units. Seedlings are collected from Env. & Forest Dept. during planting seasons (May – August) for roadside plantations which is encouraged by the State Government. Locations covered so far- Airport roadside at Sihhmui along National Highway 44-A, and roadside plantation along NH 54 towards Hmuifang village

b) Soil Bioengineering: Our faculty members have rendered consultancy service to Mizoram PWD during construction of highway (2008 – 2010) to monitor and assess environmental impacts due to road construction activity along a corridor of 168 kms. A simple method of slope protection and mitigation of landslides using Soil Bioengineering technique using cheap materials was suggested and implemented. The structure is called 'Vegetated Bamboo Crib Wall'. The cribwalls were accordingly constructed on affected slopes in combination with plantation of selected species. The structure has proved to be very effective - more than 90% has stabilised and were found to check further landslides in the affected and prone areas

c) Intensive plantation is being planned as one campus greening effort in the new college site at Durtlang.

∗ **Hazardous Waste Management**

a) Disposal of harmful wastes: Chemical wastes from laboratories which might be harmful are disposed off underground designated for the purpose

b) Other wastes: Spoilt/old chemicals are sent for incineration (collected in dump trucks through 'PPP Mode' under the Municipal Council)

∗ **e-Waste Management**

a) Scavenging for usable items from spoilt computers and accessories are done and disposed off at nominal prices. Re-saleable items are either sold or auctioned off

b) Unutilisable wastes are sent for incineration (collected in dump trucks through PPP mode under the Municipal Council)

7.2   Innovations

7.2.1   Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the college.

1. Student Feedback system: The College has implemented a mechanism of Student Feedback system on Teachers under the initiatives of the IQAC. The following impacts have been observed:

    a) The whole exercise has provided a mechanism for self-introspection and self-reflection among teachers

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b) Teachers are motivated by the system to improve work culture.

2. <u>Monthly Accounting of Students' Attendance</u>: Daily attendance records of all the students were accounted month-wise using Card System. Attendance Cards were sent to parents for signatures and returned for the next cycle. With increased intake of students, the system has undergone modifications since the exercise involved huge amount of time and manpower. Students are strictly obligated to tender minimum 75% attendance, failing which they are not allowed to appear in the end-semester exams. Students are apprised of their records on monthly basis to enable them to make up shortages if any. The impacts are:

a) The practice is an effective means of ensuring enhanced students' attendance

b) The general trend in attendance has increased (many students achieved 95 – 100 % attendance)

c) The system provides a convenient mechanism for Mentors to follow performance of students in attendance for rendering of necessary counselling.

3. <u>Personality Development Programme</u>: Personality Development Programmes are conducted for all outgoing students. It is a condensed extracurricular course with the aim of providing support to students in various essential life-skills.

The positive impacts are:

a) The programmes were conducted after the final semester exams. Feedbacks received indicated that participants wholeheartedly welcome the programme in spite of their eagerness to go for post-exam vacations.

b) It is an excellent extracurricular support for outgoing students since most of the topics chosen in the Programmes are not covered in the regular UG course.

c) Though the course is condensed, the contents of the course have rendered the participants to feel more confident in dealing with various life-skills. It has started to emerge as 'value-added initiative' innovated in the College.

d) The course, if designed in a systematic manner, can be incorporated as an interdisciplinary subject within the UG Programme in almost all colleges.

(The details are given Best Practice-1)

4. <u>Mentoring of Students</u>: Student Mentoring system has been

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implemented under the initiatives. Mentors are assigned to students in groups of 10 – 15. A Mentor's Guide and format/proforma is prepared by the IQAC to ensure uniformity. The following positive impacts have been observed:

a) It enables Mentors to conveniently follow the academic activities and performance of students.

b) It facilitates closer interaction of mentors with smaller groups /or individual students for making concrete plans in executing tutorials, counselling and discussion

(Details given in Best Practice-2 below)

7.3   Best Practices

7.3.1   Elaborate on any two best practices **in the given format at page no. 98,** which have contributed to the achievement of the Institutional Objectives and/or contributed to the Quality improvement of the core activities of the college.

<u>BEST PRACTICE - 1</u>

1. Title of the Practice: PERSONALITY DEVELOPMENT PROGRAMME (PDP)

2. Goal (aim and underlying concept ~ 100 words)

Young adults today are under tremendous pressure in order to carve out a niche for survival in life. They are subjected to fierce competitions with peers not only in academics, but also in job hunting and establishing careers. It has long been felt that besides prescribe curricula, our students must be given additional training in relevant aspects so designed to widen their outlook and perspectives.

Accordingly, a student-centric module for 'Personality Development' is innovated to train our students, keeping in mind that the programme should be simple to manage, but rich in content and values. The goals are to -

a) develop life-skills and enhance potential of students
b) enrich mind-sets of students towards establishing their own career

3. The Context (features, issues addressed & design ~ 150 words)

a) Nowadays, the fresh graduate is caught in a whirlwind of the need for innovative ability, efficiency, and speedy execution of assigned tasks. Multi-tasking and quality life-skills are catchwords for young professionals in order to survive.

b) Contents of the prescribed UG curricula are inadequate for gaining the necessary life-skills to confront modern-day demands, especially which is

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especially true for our students because an overwhelming majority of them hail from remote villages.

c) **Target group**: PDP has been innovated and practised in this institution to impart necessary training in life skills to all outgoing students.

Design of the Course: The course is designed to cover various soft skills, communication skills, facing interviews, basics of IT, travel tips, first-aid techniques, etiquettes, personal grooming, entrepreneurship, resume writing & career prospects, etc. The Practice is an outcome of our quest to prepare students to face the future with poise and confidence as they leave the College.

The Programme is a condensed form of 'Finishing School' designed and executed for short durations because most parents eagerly await the home-coming of sons & daughters for additional helping hands in the family.

4. The Practice (implementation, uniqueness & constraints ~ 400 words)

Outgoing students of all Streams undergo a short-term course on Personality Development. It is now a regular feature which is conducted at the end of the final University exams. The course usually stretches over a period of two weeks during which training on various life-skills are imparted to the students. An example of the course/module is depicted below:

Program for Week 1

Date	10 am - 12 noon	Resource Person		12.30 pm – 2.30 pm	Resource Person
15.4.2013 (Mon)	IT for Everybody	H. Thangkhanhau	**B R E A K**	Basic skills of Computer Application	c/o Ms. M.S. Dawngliani
16.4.2013 (Tue)	IT for Everybody	H. Thangkhanhau		Basic skills of Computer Application	Faculty from Comp. Science
17.4.2013 (Wed)	Common Errors in English	Ms. Tluangkimi / Ms. Malsawmi		Basic skills of Computer Application	Faculty from Comp. Science
18.4.2013 (Thu)	Communication Skills	Lalrinsangi Nghinglova		Basic skills of Computer Application	Faculty from Comp. Science
19.4.2013 (Fri)	Basic First Aid Skills (in collaboration with RIPANS)				

Program for Week 2

Date	10 am - 12 noon	Resource Person		12.30 pm – 2.30 pm	Resource Person

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22.4.2013 (Mon)	Interview Skills	Ms. Golda	B R E A K	Manners & Etiquettes/ *Mizo Tlawmngaihna*	Lalthanpuii/ Lalzahawmi
23.4.2013 (Tue)	Psychological Development	Dr Zothanzami		Travel Tips & Going Abroad	Mr. Sangzela Tlau Freelance Journ.
24.4.2013 (Wed)	*No Program*			*No Program*	
25.4.2013 (Thu)	Time Management	Ms. Vanlallawmi		Personal Grooming & Colour schemes	Lalsangliani Khawlhring
26.4.2013 (Fri)	Studying Abroad	Ms. Kim-kimi		Career Counselling/ Job Prospects	<u>Comp. Science:</u> Lalhruaitluanga <u>BSc (Phy.Sc.):</u> Dr. B Zoliana <u>BSc (Life Sc)</u> Lalrinmawia <u>Home Science:</u> Lalhmingliani

For BCA: 17th - 18th April 2013 - SOFT SKILLS (Ms. Rinthanpuii)

Over the last years, the contents have been enriched as a result of feedbacks received from beneficiaries/ participants. Some of the additions are:

a) Basic First-aid Skill
b) Spoken Hindi
c) Private Entrepreneurship
d) Visual Communication and Animation

Resource Persons & Collaboration: Resource Persons were engaged from the teaching Faculty of the College as well as local experts who are well-known in their professions. The College collaborated with qualified Medical Doctors of Aizawl Civil Hospital as well as faculty from Regional Institute of Paramedical and Nursing Sciences (RIPANS), Aizawl for teaching the basics of First Aid skills.

Uniqueness of PD Programme:

Most students from remote villages of Mizoram lack exposure to corporate modern day demands and are unaware of the nature and fierceness of competition for survival. The contents of the Programme are designed to augment and provide the following information on life-skills -

a) Computer Basics - for the less unfortunate who do not have the opportunity of owning & learning computer basics
b) Travels & Studying Abroad - eye-opener on ticketing & travel tips for those who do not have the privilege nor opportunity of travelling outside the State

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    c) Spoken Hindi/ English – to arouse interest and provide pointers on common errors in spoken communications

    d) Communication & Interview Skills – for future job interviews

    e) Life Skills – First aid; Manners & etiquettes; Mental health & coping with depressions; Personal grooming & hygiene

Constraints:

    a) Since PD Programmes are scheduled for post-final semester exams, those students from middle-class & poorer backgrounds are reluctant to participate because most parents look forward to having extra helping hands in their family affairs.

    b) For those staying in rented houses, it means paying extra for rental and food.

5. Evidence of Success (targets achieved & reviews ~ 200 words)

a) The programmes always met with an astounding response from participants. When it was first launched, most students eager to enjoy post-exam breaks and yearning to return to their respective hometowns, reluctantly come for the Course. However, at the end of the Programme, suggestions for longer duration and wider topic coverage always featured in the Feedback/ Evaluation sheets.

b) Since its launch, more than 230 outgoing students (approx. 96%) have actively participated and benefitted from the Course.

c) More than 90% of the topics were found to be relevant. The Course provided students with necessary facilities and tools to face challenges that pertain to the lifestyles and scenario faced by young adults in today's world.

d) The performance against targets and benchmarks, and the reviews gave strong indication that the Institutional Best Practice on "Personal Development" course can be successfully integrated in UG Colleges as an Add-on Course because it is innovative, flexible and student-centric.

6. Problems Encountered and Resources Required (~ 150 words)

a) The Course is designed to accommodate all outgoing students from three Streams - Science, Home Science and Computer Science. Since the final semester examinations ended on different dates, we faced minor problem in setting a time slot that would be convenient for all Streams.

b) Secondly, some students from rural areas are unable to attend the course as they often have to go back to their homes as soon as they complete their final semester examinations.

c) Thirdly, choosing topics that would benefit students from various streams of studies, with differing interests, and finding suitable Resource Persons proved

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to be a little challenging.

The financial requirements (payment of honorarium to Resource Persons, preparation of course material & handouts, lunch, conveyance charge for off-campus visits) for conducting the PD Programme were met from grants from UGC-NERO. Once financial assistance is stopped, it may not be possible to continue the Practice. Presently, financial support under 'UGC-Merged Schemes' were utilised and the two Cells under the scheme responsible for conducting the Course are:

a) Coaching for Entry in Services
b) Career Counselling and Placement Cell

7. Notes (relevance for adoption in other institutions ~ 150 words)
Classical subjects prescribed for UG curricula are becoming more and more irrelevant and redundant in most colleges of India with respect to employability in today's job markets. Many institutions are undergoing paradigm change by incorporating vocational and career-oriented course. Professional and technical courses have now been incorporated in colleges throughout the country to address this issue. Some colleges resort to integrate Add-on Courses and Value-added Courses to cope with the current trends.

It is envisaged that a course on Personality Development would enhance the potential and attitude of the UG student if administered with the right approach and flexibility in design. The performance against targets and benchmarks, and the reviews accorded to the Programme in our College gave strong indication that the Institutional Best Practice on 'Personality Development' can be successfully implemented in most UG Colleges of India, either as one of the regular Interdisciplinary Courses in the UG curricula, or as an Add-on Course.

8. Contact Details
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BEST PRACTICES - 2

1. Title of the Practice: MENTORING SYSTEM

2. Goal: (aim and underlying concept ~ 100 words)

Since Mizoram is lagging behind the rest of the country in S & T, the college has been established by the State Government for teaching UG-level science. Three streams – Science, Home Science and Computer Science are offered. It is the only institution in the State offering Home Science, and the first to open BCA.

Because of these factors, it is our policy to entertain the hopes and aspirations of students from all over the State - irrespective of caste, sex, religion and financial background. Many of our students from rural areas lack proper academic background and financial back-up.

Mentoring of students thus, is an essential feature to render equitable service to all our students having varied background. Student-mentorship has the following aims:

a) To enhance teacher-student contact hours
b) To enhance students' academic performance and attendance
c) To minimise student drop-out rates
d) To identify and understand the status of slow learners and encourage advanced learners
e) To render equitable service to students

3. The Context (features, issues addressed & design ~ 150 words)

Features, issues addressed: The institute has followed the suggestion made by the QAC cum CDO, Higher & Technical Education Dept., (Govt. of Mizoram) to introduce the mentoring system. The importance of integrating the system for enhancing students' performance is a common resolution adopted by a meeting of the teaching faculty. The system was promptly and effectively put into practice after it was first resolved in 2012.

With a wide variation in the student population with regard to educational and economic background, the system promises to provide a better understanding of individual students and bring out their highest potential. It also appears to be the most effective method/weapon for mitigating cases of those students who are vulnerable to drop-out from studies.

4. The Practice (implementation, uniqueness & constraints ~ 400 words)

Design & Implementation: The IQAC had taken the initiative of implementing the Mentoring of students. Students are categorised based on the streams of studies and also according to their core subjects. They are divided into groups of 10-15 depending on the number of students. Each group is assigned a teacher-mentor who would perform mentoring duties. A Mentoring Format with

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Guidelines is prepared by the IQAC to ensure uniformity.

a) Mentors maintain and update the Mentoring Format which contains space for entering particulars and performance of students (class tests, monthly attendance records, etc.)

b) After collecting all necessary information, Mentors are expected to offer guidance and counselling, as and when required.

c) It is the practice of Mentors to meet students individually or in groups.

d) In isolated cases parents are called for counselling/special meetings with the Principal at the suggestion of the Mentor.

e) If a student is identified as having weakness in particular subject, it is the duty of the Mentor to apprise the concerned subject teacher.

Uniqueness: The institutional practice of Mentoring System has been designed and implemented –

a) to be student-centric

b) to render equitable service to students of varied academic & financial backgrounds

Constraints: With the introduction of continuous assessment under the Semester System, time factor could be a constraint for Mentors.

5. Evidence of Success (targets achieved & reviews ~ 200 words)

Though the system has only been implemented in the last few years, significant improvement in the teacher-student relationship can be seen.

The system has been useful in identifying slow learners and advanced learners. Based on the requirement deduced through a careful examination of each Mentor's report, the College has organised several Remedial Classes in the identified topics/subjects for low learners.

Targets achieved: The Remedial Classes have been institutionalised after the implementation of the Mentoring System. NEED-BASED remedial classes have proved to be beneficial to the students in particular and the entire college in general. The institutional practice of Mentoring System has considerably enhanced the campus environment and brought about -

a) Enhanced contact hours between Mentors with their respective students

b) Improvement in students' attendance records

c) Minimised student drop-out rates (apparently due to Mentors' intervention before a student falls short of attendance or has been regularly abstaining from classes)

d) Identification of slow learners for conducting Remedial Classes

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e) Advanced learners identified and encouraged with incentive prizes

6. Problems Encountered and Resources Required (~ 150 words)

a) The division of students into group proves to be a tedious exercise with some students opting for other courses now and then.

b) Due to time constraint Mentors are unable to have sufficient time with the students.

c) Most of our students are reserved and some are too complacent to come out with their problems, thus limiting the Mentors' capacity to render help

Resources Required:

a) Financial: Minimum expenditure incurred to implement the System
b) Manpower: A lot of commitments and right attitude is demanded on the part of Mentors

7. Notes (optional)

The system has been in practice for the past two years. The College is still on the lookout for the best method of implementing this scheme. There is yet some scope for improvement of the System even though some desirable outcomes have already been achieved from it.

8. Contact Details

Name of the Principal: Laltanpuia
Name of the Institution: Govt. Zirtiri Residential Science College
City: Aizawl, Mizoram
Pin Code: 796 007
Accredited Status: Accredited
Work Phone: 0389-2325848   Fax: 0389-2306252
Website: gzrsc.edu.in   Email: tanpuia@rediffmail.com

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3. Evaluative Report of the Departments

The Self-evaluation of every department may be provided separately in about 3-4 pages, avoiding the repetition of data.

STREAM 1: SCIENCE

Reports of the following Departments in this Section

1. Zoology Department
2. Botany Department
3. Biochemistry Department
4. Chemistry Department
5. Physics Department
6. Mathematics Department
7. Electronics Department
8. Geology Department

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DEPARTMENT OF ZOOLOGY

1. Name of the department   :   **ZOOLOGY**

2. Year of Establishment   :   **2000**

3. Name of Programmes/Courses offered   : **UG (B.Sc.)**

4. Names of Interdisciplinary courses and the departments/units involved:

    (a) Environmental Studies: Topics from Zoology included in –
            - Unit 2 (Ecosystem)
            - Unit 3 (Biodiversity & Its Conservation)
            - Unit 4 (Environmental Pollution)
     (b) History of Science: Topics on Zoology included in –
            - Unit 2 & Unit 3
    (c) English

5. Annual/ semester/choice based credit system (programme-wise): **Semester System w.e.f. 2012**

6. Participation of the department in the courses offered by other departments: **Nil**

7. Courses in collaboration with other universities, industries, foreign institutions, etc.
    :   **Nil**

8. Details of courses/programmes discontinued (if any) with reasons: **Nil**

9. Number of Teaching posts

	Sanctioned	Filled
Professors	-	-
Associate Professors	6	6
Asst. Professors	-	-

9. Faculty profile with name, qualification, designation, specialization, (D.Sc./ D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualifi-cation	Designation	Specialisa-tion	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
1.J.H. Zoremthanga (presently Jt. *Director, QAC, H&TE Govt. of Mizoram)*	M.Sc.	Associate Professor	Limnology	26 years	NA

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2. Caroline Zaihmingthangi	M.Sc.	Associate Professor	Cytogene-tics	24 years	NA
3.Lalzahawmi Chenkual	M.Sc *(Ph.D. ongoing)*	Associate Professor	Cytogene-tics	22 years	NA
4. S. Thangrimawii	M.Sc. *(Ph.D. ongoing)*	Associate Professor	Entomology	20 years	NA
5. H. Lalnunsangi	M.Sc.	Associate Professor	Parasito-logy	19 Years	NA
6. Lalrinmawia	M.Sc. *(Ph.D. ongoing)*	Associate Professor	Parasito-logy	17 years	NA

11. List of senior visiting faculty :   **None**

12. Percentage of lectures delivered and practical classes handled (programme-wise) by temporary faculty: **No temporary faculty**

13. Student -Teacher Ratio (programme-wise):   **12:1**

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled: **One Laboratory Attendant**

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG:
       PG: 6 (three Faculty members registered and working for Ph.D.)

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: **Nil**

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: **Nil**

18. Research Centre /facility recognized by the University: **Nil**

19. Publications:
    * **Publication per faculty**

Sl/No	Name of faculty	Publication
1.	Lalzahawmi Chenkual	1 *(in press)*

   Publication of Lalzahawmi Chenkual, Associate Professor
   a) History of Science (A Textbook for B.Sc. Students):
      - Contributed 1 Chapter (Unit 3) *(in press)*

20.   Areas of consultancy and income generated:

   A team of faculty members from this college has rendered consultancy service to Mizoram PWD during 2008-10 for monitoring impacts of road construction on biodiversity. 1 faculty from Zoology Dept. is a member of the team.

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21.   Faculty as members in

   a) National committees   : **Nil**
   b) International Committees   : **Nil**
   c) Editorial Board   : **Nil**

22.   Student projects
   a) Percentage of students who have done in-house projects including inter departmental/programme: **No in-house student projects undertaken**
   b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: **Nil**

23.   Awards / Recognitions received by faculty and students:

   Recognition received by students:
   1) **Lalhriatkimi Sailo got 1st position, Lalrinnunga Ralte got 8th position and Rebecca Lalsangpuii got 9th position in the University Examination 2010.**
   2) **Zothanpuia got 4th position in the University Examination 2011.**
   3) **Lalthakimi Renthlei 6th, Jeremy Malsawmhriatzuala 7th, Sahnei Thlyutha 8th and Linda K. Lalmawizuali 9th position in University Examination 2012.**
   4) **Phoebe Lalremruati got 3rd position in University Examination 2013.**

24.   List of eminent academicians and scientists/visitors to the department: **Nil**

25.   Seminars/ Conferences/Workshops organized & the source of funding

   a) National   :   **Nil**
   b) International   :   **Nil**

26.   Student profile programme/course-wise:

Name of the Course/programme (refer question no. 4)	Applications received 2013-14	Selected 2013-14	Enrolled		Pass percentage
			*M	*F	
First Year B.Sc.	85	61	25	46	90%
Second Year B.Sc.	45	55	29	16	85%
Third Year B.Sc.	18	18	7	11	57%

*M = Male   *F = Female

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27.   Diversity of Students:

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
First Year B.Sc.	**99%**	**01%**	**Nil**
Second Year B.Sc.	**100%**	**Nil**	**Nil**
Third Year B.Sc.	**100%**	**Nil**	**Nil**

28.   How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?: **Not assessed**

29.   Student progression

Student progression	Against % enrolled
UG to PG	**80%**
PG to M.Phil.	**Not assessed**
PG to Ph.D.	**-**
Ph.D. to Post-Doctoral	**-**

Employed
  • Campus selection
  • Other than campus recruitment
	-

Entrepreneurship/Self-employment	20%

30.   Details of Infrastructural facilities

   a) Library:
   There is no separate departmental library. The main college Library is being shared with other departments.
   b) Internet facilities for Staff & Students**:**
   The college campus is Wi-Fi enabled where students and staff have free internet access. Wired internet facilities are made available in the Library for students. Teachers are provided with broadband internet access in the Teachers' Common Room.
   c) Class rooms with ICT facility:
   No separate departmental room provided with ICT facility. There is a shared ICT facility room used by all departments.

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d) Laboratories:

The Department has got one spacious laboratory which can accommodate more than 40 students at a time.

31. Number of students receiving financial assistance from college, university, government or other agencies: **All students belonging to SC/ST/ receive Post-Matric Scholarship from Govt. of Mizoram**

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts: **The department organizes students' seminars regularly as part of enrichment programmes. No special lectures/ workshops organised with external experts**

33. Teaching methods adopted to improve student learning: **Lectures, Group discussions, seminars and Home Assignments**

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

The faculty and students participate in environment conservation related programmes to create awareness for eco-friendly society. They also participated in voluntary blood donation and community tree plantation organized by NSS from time to time.

Students participate in sports activities at College and University level.

35. SWOC analysis of the department and Future plans

STRENGTH: Out of 6 teachers, three of them are engaged in research works for Ph.D. degree. There is a high level of cooperation among the faculty members who are young and energetic. All the teachers are well experienced and dedicated.

WEAKNESS: The laboratory needs to be upgraded and modernized. More Laboratory Staff are needed to run practical classes smoothly.

OPPORTUNITY: The department could be upgraded for higher studies with proper funding. Our students with good results get excellent opportunities for higher studies.

CHALLENGES: Students lack proper exposure. The main challenge is to inspire the students to excel in their studies and to obtain better results which would help them in their future career.

FUTURE PLAN
a) To improve and upgrade the existing laboratories.
b) To undertake some minor/major research projects.
c) To organize more remedial classes for the weaker students.

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DEPARTMENT OF BOTANY

1. Name of the department   :   **BOTANY**

2. Year of Establishment   :   **2000**

3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):   **UG (B.Sc.)**

4. Names of Interdisciplinary courses and the departments/units involved:

    (a) Environmental Studies: Topics from Botany is included in –
            - Unit 2 (Ecosystem)
            - Unit 3 (Biodiversity & Its Conservation)
            - Unit 4 (Environmental Pollution)
     (b) History of Science: Topics on Botany is included in –
            - Unit 2 & Unit 3
    (c) English

5. Annual/ semester/choice based credit system (programme wise): **Semester system**

6. Participation of the department in the courses offered by other departments:

    Three (3) teachers involved in teaching –   (a) History of Science
    (b) Environmental Studies

7. Courses in collaboration with other universities, industries, foreign institutions, etc.
    :   **Nil**

8. Details of courses/programmes discontinued (if any) with reasons: **Nil**

9. Number of Teaching posts

Designation	Sanctioned	Filled
Professors	-	-
Associate Professors	**8**	**8**
Asst. Professors	-	-

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./ D.Litt. /Ph.D. / M. Phil. etc.,)

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Name	Qualifi-cation	Designation	Specializa-tion	No. of Years of Experience	No. of Ph.D. Students guided
1. Dr. R. Lalengmawia	M.Sc. Ph.D.	Associate professor	Forest Ecology	22	NA
2. Dr. P.C. Skariah	M.Sc. Ph.D.	Associate professor	Plant Physiology	22	NA
3. Ms. Zodinpuii	M.Sc.	Associate professor	Plant Physiology	21	NA
4. Ms. Laltlanchhungi	M.Sc.	Associate professor	Forest Ecology	17	NA
5. Ms. Mary Lalthansangi	M.Sc.	Associate professor	Plant Biotech.	16	NA
6. Ms. Lalrintluangi	M.Sc.	Associate professor	Angiosperm Taxonomy	16	NA
7. Ms. Lalremruati Hmar	M.Sc.	Associate professor	Microbial Ecology	16	NA
8. Mr. Lalnunthara	M.Sc.	Associate professor	Microbial Ecology	16	NA

11. List of senior visiting faculty: **Nil**

12. Percentage of lectures delivered and practical classes handled (programme-wise) by temporary faculty: **No temporary faculty**

13. Student -Teacher Ratio (programme wise): **10:1**

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled: **One Laboratory Attendant**

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG:
    PG: 6   Ph.D.: 2

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: **Nil**

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: **Nil**

18. Research Centre /facility recognized by the University: **Nil**

19. Publications: **Nil**

20. Areas of consultancy and income generated:

    A team of faculty members from this college has rendered consultancy service to Mizoram PWD during 2008-10 for monitoring impacts of road construction on

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biodiversity. 1 faculty from Zoology Dept. is a member in this team.

21. Faculty as members in

    a) National committees   : **Nil**
    b) International Committees   : **Nil**
    c) Editorial Boards….   : **Nil**

22. Student projects

    a) Percentage of students who have done in-house projects including inter departmental/programme: **Nil**
    b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: **Nil**

23. Awards / Recognitions received by faculty and students:

    a) **Grace Lalawmpuii Sailo - NET**
    b) **B. Malsawmtluanga – NET(JRF)**
    c) **Lalhminghlui - NET**

24. List of eminent academicians and scientists / visitors to the department: **Nil**

25. Seminars/ Conferences/Workshops organized & the source of funding

    a) National   :   **Nil**
    b) International :   **Nil**

26. Student profile programme/course wise:

Name of the Course/ programme (refer question no. 4)	Applications received 2013 -14	Selected 2013-14	Enrolled		Pass percentage
			*M	*F	
First Year B.Sc.	123	97	37	60	75%
Second Year B.Sc.	40	40	16	24	69%
Third Year B.Sc.	25	25	9	16	73%

*M = Male   *F = Female

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
First Year B.Sc.	100%	Nil	Nil
Second Year B.Sc.	100%	Nil	Nil

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Third Year B.Sc.	100%	Nil	Nil

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defence services, etc.? : **3 (NET)**

29. Student progression

Student progression	Against % enrolled
UG to PG	70%
PG to M.Phil.	-
PG to Ph.D.	**Not assessed**
Ph.D. to Post-Doctoral	-
Employed • Campus selection • Other than campus recruitment	- -
Entrepreneurship/Self-employment	10%

30. Details of Infrastructural facilities

    a) Library:
       The department does not have separated departmental library but shares the main Library with other departments.
    b) Internet facilities for Staff & Students**:**
       The campus is wi-fi enabled where students and staff have free internet access. Wired internet facilities are made available in the Library for students. Teachers are provided with broadband internet connection in the Teachers' Common Room.
    c) Class rooms with ICT facility:
       There are no ICT classrooms in the department. The common ICT facility (seminar room) is used whenever required.
    d) Laboratories:
       The Department has got one spacious Laboratory which can accommodate more than 40 students at a time.

31. Number of students receiving financial assistance from college, university, government or other agencies:

    All students belonging to SC/ST/ receive scholarships from the Govt.

32. Details on student enrichment programmes (special lectures / workshops /

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seminar) with external experts.

The department organizes Students' Seminars regularly as part of the enrichment programmes.

33.   Teaching methods adopted to improve student learning:
Lectures, Group discussions, seminars and test.

34.   Participation in Institutional Social Responsibility (ISR) and Extension activities:
Department faculty and students participated in environment related programmes to create awareness for eco-friendly society. They also participated in voluntary blood donation and mass tree plantation organized by NSS from time to time.

Students participate in sports activities at college and University level

35.   SWOC analysis of the department and Future plans

STRENGTH: Highly motivated and experienced team of teachers. Out of 8 teachers, two teachers possess Ph.D. degree. The Mentoring system is a formidable instrument in providing support to students.

WEAKNESS: Space constraint (Classrooms and Laboratory), financial constraint, lack of teaching aid, lack of skilled laboratory staff.

OPPORTUNITY: Motivated students, opportunity for entering into different streams at PG Level

CHALLENGE:-Most students nowadays opt for applied/professional courses and there is threat of decline in number of applicants with high calibre.

FUTURE PLAN
a) To improve and upgrade the existing laboratories.
b) To undertake some minor and major research projects.
c) To organize more remedial classes for the weaker students.
d) To motivate students to appear in various competitive exams.

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DEPARTMENT OF BIOCHEMISTRY

1. Name of the department: **BIOCHEMISTRY**

2. Year of Establishment: **2003**

3. Names of Programmes/Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.): **UG (B.Sc.)**

4. Names of Interdisciplinary courses and the Depts./units involved:
   a) History of Science
   b) Environmental Studies
   c) English

5. Annual/ semester/choice based credit system (programme wise): **Annual system till 2012; semester system since 2013**

6. Participation of the department in the courses offered by other departments:
   a) With Zoology Department:
   Faculty members rendered active service for students of Zoology in - (i) Practical classes, (ii) Remedial classes covering chapters on metabolism
   b) With Botany Department:
   Faculty taught topics on Bioinformatics (V Semester), DNA technology (VI Semester); some Practical classes

7. Courses in collaboration with other universities, industries, foreign institutions, etc.:

   Prior to 2012, the Department collaborated with Biotechnology Dept., Mizoram University for Molecular Biology practical classes.

8. Details of courses/programmes discontinued (if any) with reasons: **Nil**

9. Number of Teaching posts

Designation	Sanctioned	Filled
Professors	-	
Associate Professors	1	1
Asst. Professors	3	3

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10. Faculty profile with name, qualification, designation, specialization, (D.Sc./ D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualification	Designation	Specialisa-tion	No. of Years of Experience	No. of Ph.D. students (last 4 years)
Laltanpuia	M.A. (Eng), M.Sc. (Biochem) *with NET-JRF*	Associate Professor *(took over Principal's charge w.e.f. June 2014)*	Protein Chemistry	23 yrs	-
Dr. Fanai Lalsangluaii	M.Sc. (*with NET)*, Ph.D., B.Ed.	Assistant Professor	-	5 yrs	-
Lalrosangpuii	M.Sc. *(with NET)* Ph.D. *(ongoing)*	Assistant Professor	Molecular Biology	2 yrs	-
K.Zosangpuii	M.Sc. M.Phil. *Ph.D. (ongoing)*	Assistant Professor	Enzymo-logy	4 yrs	-
Dr. P.C. Lalrinfela	M.Sc. Ph.D.	Part-time Faculty	Plant Biotech-nology	2 yrs	-

11. List of senior visiting faculty: **Nil**

12. Percentage of lectures delivered and practical classes handled (programme-wise) by temporary faculty: **80%**

13. Student -Teacher Ratio (programme wise): **11:1**

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled: **Nil**

15. Qualifications of teaching faculty with D.Sc./D.Litt./ Ph.D./M.Phil. / P.G.

    **PG (with NET) - 2
    M. Phil - 1
    Ph.D. - 2**

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

    a) Laltanpuia, Assoc. Prof. & Head of Biochemistry Department

    **Title of Project: "Establishment of DBT-Institutional Biotech Hub at Govt. Zirtiri Residential Science College, Aizawl"
    Funding agency: Dept. of Biotechnology, New Delhi
    Duration: 3 years
    Sanctioned Amount: Rs. 27.00 lakhs
    DBT's sanction letter: No.BT22/NE/2011 Dt. 30.11.2011**

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b) Laltanpuia, Assoc. Prof. & Head of Biochemistry Department

> **Minor Project**
> **Title: "Isolation of genomic DNA from fruits and vegetables using commonly available materials"**
> **Funding agency: under State-level Biotech Hub, Dept. of Biotechnology, Mizoram University**
> **Duration: 3 years**
> **Amount: No monetary funding except provision of consumables and use of equipments**
> **Approval letter: No. 2011/02/DBT-STBHubs/BT dated 05 Nov. 2012**

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: **Please see above**

18. Research Centre/facility recognized by the University: **1 (one) Research facility (DBT-Institutional Biotech Hub)**

19. Publications:

∗ a) Publication per faculty:

SI/No	Name of faculty	Publications
1.	Laltanpuia	3
2.	Dr. Fanai Lalsangluaii	6
3.	Dr. P.C. Lalrinfela	6

Publications by Laltanpuia:
a) **Laltanpuia** (2011). "Study of Enzyme Catalysis" Proceedings of Paper presented at the DBT-sponsored 1st Summer School cum Workshop, 23 - 27 May, 2011 pp. 1-3; organised by DBT-IBT Hub, Pharmacy Dept., RIPANS, Aizawl, Mizoram
b) **Laltanpuia** (2012). "Environmental Education for Sustainable Development," Proceedings of paper presented at the CSSIR-UGC Sponsored National Seminar organised by Education Dept., Kamalanagar College, 14-15, February, 2012, pp. 87-90; Chawngte, Mizoram
c) B.Zoliana, P.C.Rohmingliana, R. Lalhmangaihzuala, **Laltanpuia** and B.K.Sahoo (2014). Radon Anomalies and Lung Cancer Incidence in Aizawl District, Mizoram, India. Proceedings of 'International Seminar cum Exhibition on Drug Discovery & Development from Natural Resources', organized by Regional Institute of Paramedical And Nursing Sciences. 5th – 6th February, 2014

Publications by Dr. P.C. Lalrinfela:
1) Robert Thangjam, Lalremsiami Hrahsel and **P.C. Lalrinfela** (2009). Prospects of Biotechnological Intervention for Sustainable Utilization of Banana Genetic

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Resources in Mizoram, India. Newsletter of North East India Research Forum (Ningthoujam D, Nath T, Sharma M, Laishram et al. eds.). N.E. Quest 3 (1): 39 – 44.

2) Thangjam Premabati, **P.C. Lalrinfela** and Robert Thangjam (2011). Randomly amplified Polymorphic DNA (RAPD) analysis among edible non-seeded banana varieties (Musa spp.) of Mizoram, India in Advances in Environmental Chemistry, Tiwary D (ed), Excel India Publ, New Delhi. 218-220 pp.

3) **P.C. Lalrinfela** and Robert Thangjam (2012). Genome characterization of banana genetic resources of Mizoram, India. Science Vision. 12 (1), 32-36

4) Thangjam Premabati, Lalremsiami Hrahsel, **Pachuau Lalrinfela** and Robert Thangjam (2013). Evaluation of genetic diversity among edible banana varieties found in Mizoram, India using Randomly Amplified Polymorphic DNA. Journal of Plant Breeding and Genetics 172, pp1530–1539

5) H. Lallawmawma, **P.C. Lalrinfela**, Lalremsiami Hrahsel, Atom Annupama Devi, Thangjam Premabati and Robert Thangjam (2013). DNA barcoding as a tool for rapid identification of plants: a case study in banana family (Musaceae). In: Bioresources and traditional knowledge of Northeast India (Singh KK, Das KC and Lalruatsanga H eds.). Pp 21-34.

6) **Lalrinfela Pachuau** & Annupama Devi Atom & Robert Thangjam (2014). Genome Classification of Musa cultivars from Northeast India as Revealed by ITS and IRAP Markers. Applied Biochemistry and Biotechnolgy. ISSN: 0273-2289 (print) ISSN: 2131-2388 (online)

Publications by Fanai Lalsangluaii:

1) Shukla, A.C., Chinlampianga, N., **Lalsangluaii, F**., Gupta, R., Verma, A. and Lalramnghinglova, H. (2013). Traditional use of medicinal plants among the tribal communities in Mizoram, Northeast India. Ethnobotany 24: (accepted) ISSN: No. 0971-1252.

2) **Lalsangluaii, F.**, Chinlampianga, M. and Shukla, A.C. (2013). Efficacy and Potency of Paris polyphylla Smith, an Ethno-medicinal Plant of Mizoram. Science and Technology Journal 1(1): (accepted).

3) Kumar, A., Shukla, A.C., Gupta, R., **Lalsangluaii, F.**, Misra,R.K. and Dikshit,A. (2013). Waste Product of Horticultural Crop as a Potential Source for the Management of Water Borne Bacterial Pathogens: A Case Study with Citrus aurantifolia (Christem & Panzer). Horticulture for Economic Prosperity and Nutritional Security in 21st Century (eds) Hazarika, T.K. and Nautiyal, BP; Published by Westville Publishing House, New Delhi. pp- 459-468 [ISBN: 978-81-85873-97-8] .

4) Shukla, A.C., **Lalsangluaii, F.**, Kumar, A. and Dikshit, A. (2013). In vitro antidermatophytic activity of Lantana camara L. against Trichophyton mentagrophytes and T. rubrum. Current Discovery, 2(1): 86-91 [ISSN: 2320-4400].

5) **Lalsangluaii, F.**, Kumar, A., Shukla, A. C. and Dikshit, A. (2013). Tradition to Technology: an Approach for Drug Development against Human Pathogenic Fungi. Sci Vis. 13(2): 49-57 [ISSN (print) 0975-6175; ISSN (online)

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2229-6026].

6) Kumar, A., **Lalsangluaii**, F., Shukla, A.C., Mishra, R.K., Pandey, A. and Dikshit, A. (2011). Mentha piperita L. and their bioefficacy against water borne bacterial pathogens. Proc. International Conference on Advances in Environmental Chemistry, Mizoram University, Aizawl; pp 221-224 [ISBN 978-93-81361-53-5]

∗ Number of papers published in peer reviewed journals (national/ international) by faculty and students: **Please refer to Publications mentioned against individual Faculty Members**

∗ Number of publications listed in International Database (For e.g: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.):

13 numbers of 'NBS-LRR resistance protein gene' in GenBank database;

GenBank Accession number: HQ722029.2 - HQ722041.2

∗ Monographs: **Nil**

∗ Chapter in Books:
Contribution by Laltanpuia:
   a) **Science Textbook for Class 7 (2 chapters), SCERT, Govt. of Mizoram, Aizawl (2010)**
   b) **Science Textboook for Class 5 (2 chapters), SCERT, Govt. of Mizoram, Aizawl (2012)**

Contribution by Dr.P.C. Lalrinfela:
   a) **Plant Bioresources (Chapter 1)**
   H. Lallawmawma, P.C. Lalrinfela, Lalremsiami Hrahsel, Atom Annupama Devi, Thangjam Premabati and Robert Thangjam (2013). DNA barcoding as a tool for rapid identification of plants: a case study in banana family (Musaceae). In: Bioresources and traditional knowledge of Northeast India (Singh KK, Das KC and Lalruatsanga H eds.). pp 21-34: ISBN 987-81--924321-3-7

∗ Books Edited: **Nil**

∗ Books with ISBN/ISSN numbers with details of publishers: **Nil**

∗ Citation Index: **Nil**

∗ SNIP: **Nil**

∗ SJR: **Nil**

∗ Impact factor:

∗ h-index: **Nil**

20.   Areas of consultancy and income generated:

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Consultancy rendered by Laltanpuia, Assoc. Professor:
a) **Consultancy engagement with Mizoram PWD for monitoring effects of highway construction on biodiversity, air and water quality (started 2008, concluded 2010)**

21. Faculty as members in
    (a) National committees   :   *Please see below*
    (b) International Committees: Nil
    (c) Editorial Boards: Nil

Membership of Laltanpuia, Assoc. Professor
a) **Life member, Indian Chemical Society (membership number 6379)**
b) **Member, Board of Undergraduate Studies (Biochemistry, Mizoram Univ.) from 2003 to 2009**
c) **Member for preparing 'Extra-Disciplinary Subject for UG Semester Course in Environmental Studies'; vide No.MZU/Acad-6/5/11/2896, date 31.1.2011, Mizoram University**
d) **Member, Committee for preparing extra-disciplinary subject for UG semester course on 'History of Science' vide Academic Committee AC:17:4(2) date 4.10.2010, Mizoram University**
e) **Member, Board of Studies (Life Sciences, Mizoram University) for a period of three years w.e.f. 22.8.2010; vide No. MZU/Acad-16/10/2759, date 18.11.2010**
f) **Member, Board of Studies (Biotechnology Dept., Mizoram University) for three years-term w.e.f. 30.4.2010; vide No.MZU/Acad-14/18/10/2645, date 13.10.2010.**
g) **External Expert, Internal Quality Assurance Cell (IQAC), Regional Institute of Para-Medical & Nursing Sciences (RIPANS), Aizawl. Vide No.F.13018/1/11-RIPANS7-A, dated 27.5.2011**
h) **Member, SCERT Committee on Preparation of Teacher's Guide Book for Class VII Science subject; vide No.A.33023/7/2009-DTE(SCERT), date 30.9.2010. Govt. of Mizoram.**
i) **Member, Mizoram University Sports Board (w.e.f. 2013 – 2015)**
j) **External Expert (Member of Advisory Committee), DBT's Star College Scheme, Pachhunga University College, Aizawl (w.e.f. 2013 – 2015)**
k) **Member, Textbook Committee for Elementary School Levels (vide No. B.12011/1/2012-EDN (SC), dated 05.10.2012)**

22. Student projects

    (a) Percentage of students who have done in-house projects including inter departmental/programme: **Nil**
    (b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: **Nil**

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23. Awards / Recognitions received by faculty and students:
    a) Laltanpuia, Assoc. Professor
    BHARAT SHIKSHA RATAN AWARD (2012). National award accorded by Global Society for Health and Educational Growth, New Delhi for 'outstanding contribution in education'

24. List of eminent academicians and scientists/ visitors to the dept.: **Nil**

25. Seminars/ Conferences/Workshops organized & the source of funding:
    a) National: **Nil**
    b) International: **Nil**

26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received 2013-14	Selected 2013-14	Enrolled		Pass percentage
			*M	*F	
I Year B.Sc.	62	34	20	14	-
II Year B.Sc.	21	21	9	12	-

*M = Male   *F = Female

27. Diversity of Students

Name of the Course (2014)	% of students from the same State	% of students from other States	% of students from abroad
I Year B.Sc.	100	0	0
II Year B.Sc.	100	0	0

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?**Not assessed**

29. Student progression
    As of now, Biochemistry is an ancillary subject offered upto 2nd Year B.Sc. (i.e. till 4th Semester).

Student progression	Against % enrolled
UG to PG	-
PG to M.Phil.	-
PG to Ph.D.	-
Ph.D. to Post-Doctoral	-

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Employed - Campus selection - Other than campus recruitment	-
Entrepreneurship/Self-employment	-

30. Details of Infrastructural facilities

   a) Library: **No separate departmental library**
   b) Internet facilities for Staff & Students: **Available in the Library for the students; Faculty members have broadband internet access in the Teachers' Common Room. The entire campus is wi-fi enabled.**
   c) Class rooms with ICT facility: **No separate ICT facility in the department. Seminar room is shared by all departments which is provided with ICT facility**.
   d) Laboratories: **One (1) Laboratory with capacity of 15 students.**

31. Number of students receiving financial assistance from college, university, government or other agencies: **All students belonging to SC/ST receive Post-matric Scholarship from the Government.**

32. Details on student enrichment programmes (special lectures/ workshops/ seminar) with external experts: **Nil**

33. Teaching methods adopted to improve student learning: **Lectures, Seminars, Home Assignment, Quiz, Hands-on training, etc. are some of the methods employed. All faculty members are conversant with MS Powerpoint presentation which is judiciously employed in seminars, lectures, and to supplement the lectures with relevant diagrams & animations. The students were also motivated and encouraged to take a challenge in lecture delivery through presentations and group discussions.**

34. Participation in Institutional Social Responsibility (ISR) and Extension activities: **Students and faculty members of the department actively participated in awareness programmes like environment conservation, HIV/AIDS and its related issue, blood donation etc. The department endeavours to make good impact on the implementation of cleanliness in the college as well as in the community.**

35. SWOC analysis of the department and Future plans

STRENGTH: Out of the 5 teachers, 2 have obtained Ph.D. degree while another 2 members are actively pursuing their Ph.D. The department has a young and energetic faculty who are dedicated and brilliant in their respective fields. The DBT-Institutional Biotech Hub, being coordinated by faculty of the Department, is an added strength since the Hub provides sophisticated equipments to facilitate and exposing students and teachers to undertake research projects.

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WEAKNESS: As of today, the department is affiliated provisionally as an ancillary subject. There is no provision yet for students who wish to take up Biochemistry as a core subject. Moreover, the laboratory space is inadequate which limits the number of student intake capacity.

OPPORTUNITY: Since Biochemistry is inter-disciplinary in nature, students have relatively wider options to pursue further studies and employment opportunities. The department is being steadily enriched to provide research-oriented environment.

CHALLENGES: The main challenge is to arouse interests among the students regarding the opportunities and scope of Biochemistry to utilize the knowledge and techniques learned in a wider perspective. Teachers must strive to trigger and instill a higher level of work culture among the students.

FUTURE PLAN
   a)   To start core/honours course in Biochemistry (provided, pre-requisites like teacher requirement, books & equipments, etc. are fulfilled)
   b) To improve and upgrade the existing classrooms & laboratory facilities.
   c)   To undertake in-house student projects by students.
   d) To establish value-added course/ add-on course (Mushroom Cultivation using modern biotechnological techniques; Vermi-composting, etc.)

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DEPARTMENT OF CHEMISTRY

1. Name of the department: **CHEMISTRY**

2. Year of Establishment : **2000**

3. Names of Programmes /Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.): **UG (B.Sc.)**

4. Names of Interdisciplinary courses and the departments/units involved:
    a) History of Science
    b) Environmental Studies
    c) English

5. Annual/ semester/choice based credit system (programme wise): **Semester System**

6. Participation of the department in the courses offered by other departments: **Nil**

7. Courses in collaboration with other universities, industries, foreign institutions, etc.
    : **Nil**

8. Details of courses/programmes discontinued (if any) with reasons: **Nil**

9. Number of teaching posts

Designation	Sanctioned	Filled
Professors	-	-
Associate Professors	**6**	**6**
Asst. Professors	-	-

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./ D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualifi-cation	Designation	Specialisa-tion	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
1.Lalhmingliana Hnamte Hnamte	M.Sc *(ongoing Ph.D.)*	Associate professor	Physical Chemisry	18 years	NA
2. Mainu Gohain	M.Sc	Associate professor	Inorganic Chemistry	26 years	NA
3.Zirlianngura	M.Sc *(ongoing Ph.D.)*	Associate professor	Organic Chemistry	17 years	NA

4. Zonunthari	M.Sc.	Associate professor	Organic Chemistry	16 years	NA
5. R.Lalramengzami	M.Sc.	Associate professor	Physical Chemistry	16 years	NA
6. Dr KB Singh	Ph.D.	Associate professor	Inorganic Chemistry	24 years	NA

11. List of senior visiting faculty: **Nil**

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: **No temporary faculty**

13. Student -Teacher Ratio (programme wise): **12:1**

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled: **One Laboratory attendant**

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG:
    PG: 5
    Ph.D: 1

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: **Nil**

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: **Nil**

18. Research Centre /facility recognized by the University: **The main laboratory is being used by research scholars who are registered under Chemistry Dept. of Mizoram University**

19. Publications:
    * Publication per faculty

Sl/No	Name of faculty	Publications
1.	Dr K.B. Singh	2

   a) **Assessment of Spring Water Quality in Aizawl city, Mizoram (Shiva Kumar, KB Singh and VK Bharati) Journal of Applied Hydrology Vol XXII No. 3 & 4 July to Sept 2009.**
   b) **Physico-chemical and bacteriological investigation of tuikhur water, Saiha Town Mizoram (KB Singh, VK Bharati and Shiv Kumar). Science Vision – II (i), January to March 2011.**

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20. Areas of consultancy and income generated: **Nil**

21. Faculty as members in
    a) National Committees   : **Nil**
    b) International Committees   : **Nil**
     c) Editorial Boards   : **Nil**

22. Student projects

    a) Percentage of students who have done in-house projects including inter departmental/programme: **Nil**
    b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: **Nil**

23.   Awards / Recognitions received by faculty and students:
    a) **Laltemple Mawii Chinzah - 3ʳᵈ Position in the University Examination 2014.**
    b) **Lalhruaizela - 2ᵗʰ Position in the University Examination 2013.**
    c) **Mr Zirlianngura (Associate Professor cum PO, NSS): Indira Gandhi NSS National Award - 2011.**

24.   List of eminent academicians and scientists/visitors to the department: **Nil**

25.   Seminars/ Conferences/Workshops organized & the source of funding

    a) National   :   **Nil**
    b) International :   **Nil**

26.   Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received 2013 -14	Selected 2013-14	Enrolled		Pass percentage
			*M	*F	
First Year B.Sc.	150	120	65	55	88%
Second Year B.Sc.	87	87	45	42	76%
Third Year B.Sc.	18	14	8	6	55%

   *M = Male   *F = Female

27.   Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
First Year B.Sc.	100%	Nil	Nil
Second Year B.Sc.	100%	Nil	Nil
Third Year B.Sc.	100%	Nil	Nil

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28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? : **Not assessed.**

29. Student progression

Student progression	Against % enrolled
UG to PG	70%
PG to M.Phil.	5%
PG to Ph.D.	15%
Ph.D. to Post-Doctoral	
Employed ● Campus selection ● Other than campus recruitment	-
Entrepreneurship/Self-employment	10%

30. Details of Infrastructural facilities

    a) Library:
       The department does not have separated departmental library but shared Central Library with other departments.
    b) Internet facilities for Staff & Students**:**
       Internet facilities are made available in the Library for the students and Teachers' Common Room for the Teachers.
    c) Class rooms with ICT facility:
       The department has got one class room with ICT facility.
    d) Laboratories:
       The Department has got one spacious Laboratory which can accommodate around 40 students at a time.

31. Number of students receiving financial assistance from college, university, government or other agencies: **All students belonging to SC/ST/ receive scholarships from the Govt.**

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts: **The department organizes Students Seminars regularly as part of the enrichment programmes.**

33. Teaching methods adopted to improve student learning: **Group discussions, seminars and test.**

34. Participation in Institutional Social Responsibility (ISR) and Extension activities: **Department faculty and students participated in environment related**

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programmes to create awareness for environment friendly society. They also participated in voluntary blood donation and mass tree plantation organized by NSS from time to time.

Students participate in sports activities at college and University level

35.   SWOC analysis of the department and Future plans

STRENGTH: Out of the 6 regular teachers, one teacher has Ph.D. degree while two more teachers are pursuing Ph.D. All the teachers are well experienced and dedicated.

WEAKNESS: The laboratory of the department needs to be upgraded and modernized for undertaking in-house projects by students and for research works.

OPPORTUNITY: The department could be upgraded for higher studies with proper funding. Chemistry honours students with good results get opportunity for higher studies

CHALLENGES: Our challenge is to work hard with a smiling face for all the students for their bright future. Students lack exposure and as most of them come from poor background. Improvement of work-culture is essential.

FUTURE PLAN
i) To improve and upgrade the existing laboratory.
ii) Faculty to undertake funded-research projects.
iii) To organize more remedial classes for the weaker students.

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DEPARTMENT OF PHYSICS

1. Name of the department   : **PHYSICS**

2. Year of Establishment   : **2000**

3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.): **UG (B.Sc.)**

4. Names of Interdisciplinary courses and the departments/units involved: **HISTORY OF SCIENCE (1 Unit: History of Physics)**

5. Annual/ semester/choice based credit system (programme wise): **Semester system (1 paper each in first 4 semesters, 4 papers each in 5th and 6th semesters)**

6. Participation of the department in the courses offered by other depts.: **Nil**

7. Courses in collaboration with other universities, industries, foreign institutions, etc.**: Nil**

8. Details of courses/programmes discontinued (if any) with reasons**: Nil**

9. Number of Teaching posts

Designation	Sanctioned	Fill
Professors	**Nil**	**Nil**
Associate Professors	**5**	**5**
Asst. Professors	**Nil**	**Nil**

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./ D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualifi-cation	Designation	Specialisa-tion	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
M.I.Singh	M.Sc.	Associate Professor	Nuclear physics	23	Nil
Dr. Arup Kumar	Ph.D.	Associate Professor	Astrophysics	23	Nil
Dr. Rosangliana	Ph.D.	Associate Professor	Nuclear physics	17	Nil

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| Lawrence Zonunmawia | M.Sc. | Associate Professor | Solid state | 16 | Nil |
| Remlalsiama | M.Sc. | Associate Professor | High energy | 16 | Nil |

11. List of senior visiting faculty: **Nil**

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: **No temporary faculty**

13. Student -Teacher Ratio (programme-wise): **3 : 1**

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled: **1 (Laboratory attendant)**

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil /PG.: **As mentioned in table above.**

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received**: Nil**

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received**: Nil**

18. Research Centre /facility recognized by the University**: Nil**

19. Publications:

∗ a) Publication per faculty
∗ Number of papers published in peer reviewed journals (national / international) by faculty and students:

Publications by Dr. Arup Kumar

Sl. No	Title with page no.	Journals	ISSN/ISBN No.	Whether peer reviewed.	No. of co-author	Whether the main author
1.	On Gravitational Instability in dusty magneto-plasma. Pp: 145-154	Indian Journal of Theoretical Physics Vol. 50, No. 2 (2002)	ISSN 0019-5693	Yes	1	Yes
2.	MHD flow of a viscous incompressible fluid near a moving porous flat plate. Pp : 97-108	Indian Journal of Theoretical Physics : Vol. 49, No. 2 (2001)	ISSN 0019-5693	Yes	1	Yes

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3.	A Review of viscoelastic fluids : An approach to generalized model. Pp : 687-695	Proc. of Indian National Science Academy (P.I.N.S.A)., Vol. 67(A), No. 6 (2001)	ISSN 0325-6068	Yes	1	Yes
4.	Unsteady MHD flow of a Maxwell fluid near a moving poros flat plate :with a poss. generalization.: Pp 117-124	Journal of Bihar Mathematical Society Vol. 20 (2000)	ISSN 0521-7168	Yes	1	Yes
5.	Grain charging in Dusty Plasmas. Pp: 25-29	Physics Teacher : Jour. of Indian Phys. Socy. Vol. 42, No. 2, (2002)	-	Yes	0	Yes
6.	Atom at 200 : From Dalton till today (*Secured 1st prize in National Essay Comptn.2009). Pp: 100-107	Bulletin of Indian Association of Physics Teachers (IAPT) Vol.1, No.5, May, 2009	ISSN 2277-8950	Yes	0	Yes
7.	Black Holes – The outcome of unhalted gravitational collapse Pp: 225-228	IAPT Bulletin : Vol.1, No.9, Sept. 2009	ISSN 2277-8950	Yes	0	Yes
8.	Do Black Holes radiate and Ultimately evaporate?pp: 258-261	IAPT Bulletin : Vol.1, No.10, Oct. 2009	ISSN 2277-8950	Yes	0	Yes
9.	International Year of Astronomy (IYA-2009) and its Significance. Pp: 107-114	Science Vision, Journal of MIPOGRASS Vol. 9, No. 3 (2009)	ISSN 0975-6175	Yes	0	Yes
10.	The Birth and Death of a Star. Pp: 153-158	Science Vision, Journal of MIPOGRASS Vol.10, No. 4 (2010)	ISSN 0975-6175	Yes	0	Yes
11.	Beginning at the Big Bang. Pp: 284-289	IAPT Bulletin : Vol.3, No.10, Oct. 2009	ISSN 2277-8950	Yes	0	Yes
12.	How the stars and Galaxies are formed? Pp: 310-312	IAPT Bulletin : Vol.3, No.11, Nov. 2009	ISSN 2277-8950	Yes	0	Yes
13.	The ultimate fate of our Universe Pp: 341-345	IAPT Bulletin : Vol.3, No.12, Dec. 2009	ISSN 2277-8950	Yes	0	Yes
14.	Degeneracy Pressure in Compact stars	IAPT Bulletin (Accepted for publicn.)	ISSN 2277-8950	Yes	0	Yes

Publications by Dr Rosangliana, Associate Professor

1. **Rosangliana**, M. P. Ghimire, Lalmuanpuia, Sandeep and R. K. Thapa, *Study of photofield emission in tungsten by using free electron model.* **Indian J.Phys. 84(6), 723-727 (2010)**

2. R. K. Thapa, M. P. Ghimire, **Rosangliana**, Sandeep and Lalmuanpuia. *A model calculation of photofield emission by using a simple vector potential*, **Science Vision 10 (1), 31-34 (January-March, 2010).**

3. R. K. Thapa, M. P. Ghimire, **Rosangliana**, Sandeep and Lalmuanpuia. *DOS and Band*

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structures calculations of transition metals (W and Nb) using FP-LAPW method, **Science Vision 10 (2), 57-61 (April-June, 2010).**

4. Dibya Prakash Rai, Javad Hashemifar, Morteeza Jamal, Lalmuanpuia, M.P. Ghimire, Sandeep, D.T. Khathing, P K Patra, B Indrajit Sharma, **Rosangliana** and R K Thapa, *Study of Co$_2$MnAl Heusler alloy as half metallic ferromagnet,* **Indian J. Phys. 84(6), 717-721 (2010)**

5. **Rosangliana,** Lalmuanpuia, B. Zoliana & R.K. Thapa, *Calculation of Photofield emission current in tungsten by using Transfer Hamiltonian method,* **Science Vision 10 (4), 133-136 (October-December, 2010).**

6. Lalmuanpuia, **Rosangliana** & R.K.Thapa, *Study of electronic and optical properties of lead telluride (PbTe) by using FP-LAPW method.* **Science Vision 10 (4), 143-147 (October-December, 2010).**

7. **Rosangliana**, Lalmuanpuia and R.K.Thapa, *A simple study of surface effect in photoassisted field emission by using the Transfer Hamiltonian scheme: Application to Tungsten*, **Science Vision 11 (2), 96-101 (April-June, 2011).**

8. D. P. Rai, A. Shankar, Sandeep, **Rosangliana** and R. K. Thapa, *Study of the Structural properties of Co$_2$YGe (Y=Sc, Ti, V, Cr, Mn, Fe): GGA method.* **Science Vision 12(2), 74-78 (April-June, 2012).**

9. Lalmuanpuia, M. P. Ghimire, Sandeep, **Rosangliana** and R. K. Thapa. *Study of electronic and optical properties of lead telluride (PbTe) by using FP-LAPW method,* **acb Publication, Kolkata, Research in Physics in North East India: ISBN 81-87500-53-0 (2010).**

10. M. P. Ghimire, Sandeep, Lalmuanpuia, **Rosangliana** and R. K. Thapa. *Electronic and semi-conducting properties of yttrium nitride,* **acb Publication, Kolkata, Research in Physics in North East India: ISBN 81-87500-53-0 (2010).**

11. **Rosangliana,** Ajit Kumar Mohanty and Ram Kumar Thapa, *Study of photofield emission by using Kronig-Penney potential model*, **Journal of Material Science and Engineering B 2 (2) (2012) 203-207.**

12. Lalmuanpuia, **Rosangliana,** Sandeep, A.K.Mohanty and Ram Kumar Thapa, *Study of Electronic and Optical Properties of Lead Chalcogenides (PbX) by using FP-LAPW method.* **Journal of Material Science and Engineering A 2 (1) (2012) 77-81.**

∗ Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)

∗ Monographs   : **Nil**

∗ Chapter in Books   :

By Dr. Arup Kumar

Sl. No.	Title with page No	Books Titlle, editor & publisher	ISSN/ISBN No	Whether peer reviewed.	No. of co-author	Whether you are the main author

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| 1. | Unsteady MHD Couette flow of two immiscible viscoelastic fluids under periodic pressure gradient in generalised model.   Pp : 127-139 | Advances in Mathematical Statistical & Computational Methods in Science & Tech.(2003) Editor :Prof. S. Dey Publisher : Pragati Prakashan | ISBN 81-7556-598-5 | Yes | 1 | Yes |

∗ Books Edited : **Nil**

∗ Books with ISBN/ISSN numbers with details of publishers : **Nil**

∗ Citation Index : **Nil**

∗ SNIP : **Nil**

∗ SJR : **Nil**

∗ Impact factor : **Nil**

∗ h-index : **Nil**

20.   Areas of consultancy and income generated: **Nil**

21.   Faculty as members in
a) National committees b) International Committees c) Editorial Boards: **Nil**

22.   Student projects

   c) Percentage of students who have done in-house projects including inter departmental/programme : **Nil**
   d) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: **Nil**

23   Awards / Recognitions received by faculty and students: **Nil**

24.   List of eminent academicians and scientists/visitors to the dept: **Nil**

25.   Seminars/ Conferences/Workshops organized & the source of funding

   a) National   : **Nil**
   b) International   : **Nil**

26.   Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received 2013-14	Selected 2013-14	Enrolled		Pass %
			*M	*F	
I Year B.Sc.	95	65	35	30	78%

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II Year B.Sc.	44	44	24	20	68%
III Year B.Sc.	14	14	10	4	55%

*M = Male   *F = Female

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
I Year B.Sc.	100%	Nil	Nil
II Year B.Sc.	100%	Nil	Nil
III Year B.Sc.	100%	Nil	Nil

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.: **Not assessed**

29. Student progression

Student progression	Against % enrolled
UG to PG	87%
PG to M.Phil.	-
PG to Ph.D.	-
Ph.D. to Post-Doctoral	-
Employed - Campus selection - Other than campus recruitment	-
Entrepreneurship/Self-employment	13%

30. Details of Infrastructural facilities

   a) Library: **same as other Departments**
   b)   Internet facilities for Staff & Students: **same as other Departments**
   c) Class rooms with ICT facility: **same as other Departments**
   d) Laboratories: **1 laboratory with a capacity of 25 students at a time**

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31. Number of students receiving financial assistance from college, university, government or other agencies: **All SC/ST students receive Post-matric scholarship**

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts: **Nil**

33. Teaching methods adopted to improve student learning: **Lectures, Discussions, Seminars using Powerpoint presentation, Assignments**

34. Participation in Institutional Social Responsibility (ISR) and Extension activities: **same as other students mentioned earlier**

35. SWOT analysis of the department and Future plans

    STRENGTH: Out of the 5 teachers, two teachers have Ph.D. degree while one teacher is actively pursuing Ph.D. All the teachers are well experienced and dedicated.

    WEAKNESS: The laboratory of the department needs to be upgraded and modernized for undertaking in-house projects by students and for research works.

    OPPORTUNITY: The department could be upgraded for higher studies with proper funding.

    CHALLENGES: Our challenge is perform better and attract quality students because the current trend is that prospective students are more and more pursuing professional courses. There is the threat of decline in student population coming for classical subjects like Physics. The syllabus may be updated to accommodate and cover the requirements of these students.

    FUTURE PLAN
    i) To improve and upgrade the existing laboratory.
    ii) Faculty to undertake funded-research projects.
    iii) To organize more remedial classes for the weaker students.

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DEPARTMENT OF MATHEMATICS

1. Name of the department   :   **MATHEMATICS**

2. Year of Establishment   :   **2000**

3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):   **UG (B.Sc.)**

4. Names of Interdisciplinary courses and the depts/.nits involved: **Nil**

5. Annual/semester/choice based credit system (programme wise)**: Semester**

6. Participation of the department in the courses offered by other depts.: **Nil**

7. Courses in collaboration with other universities, industries, foreign institutions, etc.: **Nil**

8. Details of courses/programmes discontinued (if any) with reasons: **Nil**

9. Number of Teaching posts

	Sanctioned	**Filled**
Professors	-	-
Associate Professors	4	4
Asst. Professors (Part-time)	1	1

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./ D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualifica-tion	Designation	Speciali-zation	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Prem Chandra Pandey	M.Sc.	Associate Professor	NIL	31	-
Dr. Urmila Pandey	Ph.D.	Associate Professor	NIL	29	-

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Parijat Kumar	M.Sc.	Associate Professor	NIL	17	-
L. B. Singh	M.Sc. *(ongoing Ph.D.)*	Associate Professor	NIL	17	-
Lalhmangaihzuala	M.Sc. *(ongoing Ph.D.)*	Guest Lecturer	NIL	3	-

11.   List of senior visiting faculty: **NA**

12.   Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: **20%**

13.   Student -Teacher Ratio (programme wis : **12:1**

14.   Number of academic support staff (technical) and administrative staff; sanctioned and filled: **NA**

15.   Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil /PG.:
 PG: 4,   Ph.D.: 1 (2 faculty members are pursuing research for Ph.D. degree)

16.   Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: **Nil**

17.   Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: **Nil**

18.   Research Centre /facility recognized by the University: **Nil**

19.   Publications: **Nil**

∗ a) Publication per faculty

∗ Number of papers published in peer reviewed journals (national / international) by faculty and students **: Nil**
∗ Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)

∗ Monographs **: Nil**

∗ Chapter in Books **: Nil**

∗ Books Edited **: Nil**

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∗ Books with ISBN/ISSN numbers with details of publishers **: Nil**

∗ Citation Index **: Nil**

∗ SNIP **: Nil**

∗ SJR **: Nil**

∗ Impact factor **: Nil**

∗ h-index **: Nil**

20. Areas of consultancy and income generate: **Nil**

21. Faculty as members in

    a) National committees **: Nil**
  b) International Committees **: Nil**
  c) Editorial Boards: **Nil**

22. Student projects
  a) Percentage of students who have done in-house projects including inter departmental/programme : **Nil**
  b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: **Nil**

23. Awards / Recognitions received by faculty and students:
    1) Zathuama - 1st position in the University Examination 2013.
    2) V. L. Muankimi Hrahsel - 2nd positon in University Examination 2014.
    3) Rita Kumari Katwal - 3rd position in the University Examination 2014.
    4) Sudha - 6th position in the University Examination 2014.
    5) F. Lalramluahpuia - 8th position in the University Examination 2014.
    6) Zothangpuia - 10th position in the University Examination 2014.

24. List of eminent academicians and scientists/visitors to the dept.: **NA**

25. Seminars/ Conferences/Workshops organized & the source of funding:
  a) National : **NA**
  b) International : **NA**

26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received 2013-14	Selected 2013-14	Enrolled		Pass percentage
			*M	*F	
I Year B.Sc.	95	65	35	30	74%

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II Year B.Sc.	44	44	24	20	68%
III Year B.Sc.	18	18	9	9	56%

*M = Male   *F = Female

27. Diversity of Students:

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
First Year B.Sc.	100%	Nil	Nil
Second Year B.Sc.	100%	Nil	Nil
Third Year B.Sc.	100%	Nil	Nil

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?: **Not assessed.**

29. Student progression:

Student progression	Against % enrolled
UG to PG	79
PG to M.Phil.	**Not assessed.**
PG to Ph.D.	-
Ph.D. to Post-Doctoral	
Employed - Campus selection - Other than campus recruitment	
Entrepreneurship/Self-employment	21%

30. Details of Infrastructural facilities

a) Library: **The department does not have separated departmental library but shared Central Library with other departments.**
b) Internet facilities for Staff & Students: **Internet facilities are made available in the Library for the students and Teachers' Common Room for the Teachers.**
c) Class rooms with ICT facility: **The department has got one class room with ICT facility.**
d) Laboratories: **The Department has got one Laboratory**

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31. Number of students receiving financial assistance from college, university, government or other agencies: **All the students belonging to SC/ST are receiving SC/ST scholarships from Govt.**

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts: **Nil**

33. Teaching methods adopted to improve student learning: **Apart from giving lectures, the department conducts** Seminars and Tests.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities: **Nil**

35. SWOC analysis of the department and Future plans

   STRENGTH: Out of the 4 regular teachers, and one Guest Faculty, one person has Ph.D. degree and two more teachers are doing Ph.D. The teachers are well experienced and dedicated.

   WEAKNESS: The laboratory of the department is small and need to be upgraded since it does not match with the strength of the student.

   OPPORTUNITY: Since Mathematics is the backbone of science, a student with strong background in mathematics has wide opportunities for higher studies in any field of science.

   CHALLENGES:
   (a) Generally, students find difficulty in grasping the concepts of mathematics. It is a big challenge for us to attract brilliant students to take up the subject in the UG level.
   (b) In each semester, our classroom size is very small in comparison with the number of students. In such classroom atmosphere, it is difficult for the student to pay attention to our lectures.

   FUTURE PLANS OF THE DEPARTMENT
   1) To upgrade and enlarge classroom facilities
   2) To organise seminars & competitions in mathematics for honing skills of students
   3) To take research projects and to upgrade the department for facilitating research works.

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DEPARTMENT OF ELECTRONICS

1. Name of the department   :   **Dept. of Electronics**

2. Year of Establishment   :   **2003**

3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.) :   **UG (B.Sc.)**

4. Names of Interdisciplinary courses and the departments/units involved: **(interdisciplinary courses are same as other departments of the college)**

5. Annual/ semester/choice based credit system (programme wise): **Annual till 2012 and full semester system from 2013**

6. Participation of the department in the courses offered by other departments: **UGC Merge Scheme, GZRSC is offering to students Remedial Courses on their weak subjects on extra classes. The Department is also participating in this course and taught portions which the students find it difficult.**

7. Courses in collaboration with other univ., industries, foreign institutions, etc.: **Nil**

8. Details of courses/programmes discontinued (if any) with reasons: **Nil**

9. Number of Teaching posts

	Sanctioned	**Filled**
Professors		
Associate Professors	**1**	**1**
Asst. Professors	**2**	**2**

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./ D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualifica-tion	Designation	Specializa-tion	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Dr. B.Zoliana	Ph.D.	Associate Professor	Nuclear Physics	21 yrs	3
Ricky Lalhmangaihzuala	M.Sc. (Research Scholar)	Guest lecturer	Advanced Electronics	6 yrs	-

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P.C.Rohmingliana	M.Sc. (Research Scholar)	Guest lecturer	Computer Application in Physics	3 yrs	-

11. List of senior visiting faculty : **Nil**

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: **70%**

13. Student -Teacher Ratio (programme wise): **16:1**

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled: **Nil**

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG:
      PG – 2, Ph.D. – 1

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: **Nil**

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: **Nil**

18. Research Centre /facility recognized by the University: **Radiation Monitoring Centre**

19. Publications:

     ∗ a) Publication per faculty
          Dr. B.Zoliana: 12 publications
          Ricky Lalhmangaihzuala – 6 publications
          P.C. Rohmingliana – 11 publications

Paper Published by Dr B.Zoliana:

1. *Radon and the risk of lung cancer in Aizawl District, Mizoram, India,***B.Zoliana,** Lalmuanpuia Vanchhawng, P.C. Rohmingliana and R.K.Thapa, *Sci. Vis.***10(2),** 66-72(2010).ISSN (print) 0975-6175; ISSN (online) 2229-6026.
2. *Measurement of indoor concentrations of radon and thoron in Mizoram, India,* P.C.Rohmingliana, Lalmuanpuia Vanchhawng, R.K.Thapa, B.K.Sahoo, R.Mishra, **B.Zoliana** and Y.S .Mayya, *Sci. Vis.***10(4),** (2010) . ISSN (print) 0975-6175; ISSN (online) 2229-6026.
3. *Calculation of photofield emission current in tungsten by using transfer Hamiltonian method,* Rosangliana, Lalmuanpuia, **B.Zoliana** and R.K.Thapa, *Sci. Vis.***10(4),** (2010). ISSN (print) 0975-6175; ISSN (online) 2229-6026.
4. *Measurements of Equilibrium factor of radon in Aizawl, Mizoram, India.*Lalmuanpuia Vanchhawng, P.C.Rohmingliana , R.K.Thapa,R.Mishra, **B.K.Sahoo**, B.Zoliana andY.S. Mayya.*Sci. Vis.***11(2),** (2011). ISSN (print) 0975-6175; ISSN (online) 2229-6026.
5. *Measurements of Equilibrium factor of radon in Aizawl, Mizoram, India.*Lalmuanpuia

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Vanchhawng, P.C.Rohmingliana , R.K.Thapa,R.Mishra, **B.K.Sahoo,** B.Zoliana andY.S. Mayya.*Sci. Vis.***11(2),** (2011).ISSN (print) 0975-6175, ISSN (online) 2229-6026

6. *Study of radon concentrations in relation with the radioactivity content of building materials in Aizawl district, Mizoram, India.* Lalmuanpuia Vanchhawng, P.C.Rohmingliana, R.K.Thapa, B.K.Sahoo, R.Mishra, **B.Zoliana,** YS.Mayya, Proceeding of SSNTD-17, M.S.University of Baroda, Gujarat,17-19 Oct. 2011. Published by Narosa Publisher, Delhi.ISBN 978-81-8487-259-0

7. *Study of radon flux from soil surface in middle part of Mizoram, India.*P.C.Rohmingliana,Lalmuanpuia Vanchhawng, R.K.Thapa, B.K.Sahoo, R.Mishra, **B.Zoliana,** YS.Mayya,Proceeding of SSNTD-17, M.S.University of Baroda, Gujarat,17-19 Oct. 2011. Published by Narosa Publisher.Delhi. ISBN 978-81-8487-259-0.

8. *Seasonal Variation of Radon/Thoron and their progeny concentration in Saiha District, Mizoram, India.*P.C. Rohmingliana, Lalmuanpuia Vanchhawng, R.K.Thapa, **B.Zoliana,** B.K.Sahoo, R. Mishra, Y.S. Mayya.Proceedings of International conference of Advances in Environmental Chemistry, Mizoram University, 16-18, Nov.2011.Published by Exel India Publisher, New Delhi.ISSN No.978-93-81361-53-5

9. *Study of Population Dosimetry in Middle Part of Mizoram,India.*Lalmuanpuia Vanchhawng, P. C. Rohmingliana, R. K. Thapa, B. K. Sahoo, Rosaline Mishra, **B. Zoliana**, Y. S. Mayya.Proceedings of International conference of Advances in Environmental Chemistry, Mizoram University, 16-18, Nov.2011. Published by Exel India Publisher, New Delhi. ISSN No.978-93-81361-53-5

10. *Measurement of radon concentration inside and around dwellings in fault regions of Aizawl city, Mizoram, India.***B.Zoliana**, P.C. Rohmingliana, Lalmuanpuia Vanchhawng, R.K.Thapa, R.Mishra, B.K.Sahoo, Y.S.Mayya.Proceedings of International conference of Advances in Environmental Chemistry, Mizoram University, 16-19, Nov.2011. Published by Exel India Publisher, New Delhi. ISSN No.978-93-81361-53-5

11. *Measurement of radon concentration in dwellings from the affected landslide area of Mamit town, Mizoram, India* P.C. Rohmingliana, L. Vanchhawng, R. K. Thapa, M. Lalthansangi, Lalrintluangi, Laltlanchhungi, Lalremruati Hmar, Lalnunthara, B. K. Sahoo, Y. S. Mayya and **B. Zoliana.** *Sci. Vis.***12(3),** (2012).ISSN (print) 0975-6175, ISSN (online) 2229-6026, p 92-96.

12. Radon Anomalies and Lung Cancer Incidence in Aizawl District, Mizoram, India. **B.Zoliana**, P.C.Rohmingliana, R. Lalhmangaihzuala, Laltanpuia and B.K.Sahoo. Proceedings of 'International Seminar cum Exhibition on Drug Discovery & Development from Natural Resources', organized by Regional Institute of Paramedical And Nursing Sciences. 5th – 6th February, 2014.

Paper Published by Ricky Lalhmangaihzuala:

1. **Ricky L. Ralte**, Lalrintluanga Sailo, L. Zonunmawia Chhangte and Z.Pachuau,Study of the Effect of Spin Orbit Interaction on Band Structures in III-V Semiconductor Compound,2014 Sci Vis 14 89-93

2. Aldrin Malsawmtluanga, Lalnunpuia, Lawrence Z. Chhangte, **Ricky L.Ralte**, and Z.Pachuau. Application of FP-LAPW Method to Study Electronic and Optical Properties of Beryllium Chalcogenides BeX (X= S,Se, Te) 2014 IJPAP 10 37-42

3. Aldrin Malsawmtluanga, Lalnunpuia, Lawrence Z. Chhangte, **Ricky L.Ralte**, and Z.Pachuau. Theoretical investigation of electronic and optical properties of zinc blende structure of beryllium sulphide, BeS 2014 Sci Vis 14 89-93

4. B.Zoliana, P.C.Rohmingliana, **R. Lalhmangaihzuala**, Laltanpuia and B.K.Sahoo, Radon Anomalies and Lung Cancer Incidence in Aizawl District, Mizoram, India. Proceedings of 'International Seminar cum Exhibition on Drug Discovery & Development from Natural Resources', organized by Regional Institute of Paramedical And Nursing Sciences. 5th – 6th February, 2014.

5. Lalrinthara Pachuau, Lalrintluanga Sailo, **R. Lalhmangaihzuala** and Z. Pachuau,Measurement of RF peak power density and human exposure from mobile base stations in the eastern part of Aizawl. December, 2013PANE

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6. **Ricky L. Ralte**, Lalrintluanga Sailo, L. Zonunmawia Chhangte and Z. Pachuau, Calculation of Spin Splitting Energy on Band Structures in III-V Semiconductor Compounds.December, 2013PANE

Paper Published by PC Rohmingliana:

1. P.C.Rohmingliana, Lalmuanpuia Vanchhawng, R.K.Thapa, B.K.Sahoo, R.Mishra,B.Zoliana and Y.S.Maya, (2010), Measurement of indoor concentrations of radon and thoron in Mizoram, India, Sci. Vis. 10 (4) 148-152 .
2. Radon and the risk of lung cancer in Aizawl district, Mizoram, India, B.Zoliana, Lalmuanpuia Vanchhawng, P.C.Rohmingliana and R.K.Thapa, Sci. Vis. 10 (2)66 - 72 (2010).
3. Measurements of the equilibrium factor of radon in Aizawl, Mizoram, India Lalmuanpuia Vanchhawng, P.C.Rohmingliana, R.K.Thapa, R.Mishra, B.K.Sahoo, B.Zoliana and Y.S.Mayya, Sci. Vis. 11 (2)102-105 (2011).
4. Measurement and analysis of Natural Background Radiation level in Mizoram, India, Lalmuanpuia Vanchhawng, P.C.Rohmingliana, R.K.Thapa, B.K.Sahoo, R.Mishra, B.Zoliana and Y.S.Maya, Indian Jour. Phys. 2011. (Submitted).
5. Study of radon flux from soil surface in middle part of Mizoram, India, P.C.Rohmingliana, Lalmuanpuia Vanchhawng, R.K.Thapa, B.Zoliana, B.K.Sahoo, R.Mishra, and Y.S.Mayya, Solid State Nuclear Track Detectors and Their Applications, Narosa Publishing House Pvt. Ltd., 31-36 (2011).
6. Study of radon concentrations in relation with radioactivity content of building materials in Aizawl District, Mizoram, India, Lalmuanpuia Vanchhawng, P.C.Rohmingliana, R.K.Thapa, B.K.Sahoo, Rosaline Mishra, B.Zoliana and Y.S.Mayya, Solid State Nuclear Track Detectors and Their Applications, Narosa Publishing House Pvt. Ltd., 26-30 (2011).
7. Seasonal Variations of Radon/Thoron and Their Progeny Concentrations in Saiha District, Mizoram, India, P.C.Rohmingliana, Lalmuanpuia Vanchhawng, R.K.Thapa, B.K.Sahoo, R. Mishra, Y.S.Mayya and B.Zoliana, Proceedings of International Conference of Advances in Environmental Chemistry, Excel India Publisher,193-195 (2011).
8. Study of Population Dosimetry in Middle Part of Mizoram, India, Lalmuanpuia Vanchhawng, P.C.Rohmingliana, R.K.Thapa, B.K.Sahoo, Rosaline Mishra, B.Zoliana and Y.S.Mayya, Proceedings of International Conference ofAdvances in Environmental Chemistry, Excel India Publisher, 97-100(2011).
9. Measurement of Radon Concentration Inside and Around Dwellings in Fault Regions of Aizawl city, Mizoram, India, B.Zoliana, P.C.Rohmingliana, Lalmuanpuia Vanchhawng, R.K.Thapa, R.Mishra, B.K.Sahoo and Y.S.Mayya, Proceedings of International Conference ofAdvances in Environmental Chemistry, Excel India Publisher,166-169 (2011).
10. Measurement of radon concentration in dwellings from the affected landslide area of Mamit town, Mizoram, India, P.C. Rohmingliana, L. Vanchhawng, R. K. Thapa, M. Lalthansangi, Lalrintluangi, Laltlanchhungi, Lalremruati Hmar, Lalnunthara, B. K. Sahoo, Y. S. Mayya and B. Zoliana. Sci. Vis. 12(3), (2012) p-92-96.
11. Radon Anomalies and Lung Cancer Incidence in Aizawl District, Mizoram, India.B.Zoliana, P.C.Rohmingliana, R. Lalhmangaihzuala, Laltanpuia and B.K.Sahoo. Proceedings of'International Seminar cum Exhibition on Drug Discovery &Development from Natural Resources', organized by Regional Institute of Paramedical And Nursing Sciences. 5th – 6th February, 2014.

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∗ Number of papers published in peer reviewed journals (national/ international) by faculty and students: **29 Publications**

∗ Number of publications listed in International Database (For e.g: Web of Science Scopus, Humanities International Complete, Dare Database-International Social Sciences Directory, EBSCO host, etc.): **Nil**

∗ Monographs: **Nil**

∗ Chapter in Books:

History of Science (an elective course offered by MZU): Chapter 1 & 5 *(in press)*

∗ Books Edited : **Nil**

∗ Books with ISBN/ISSN numbers with details of publishers

∗ Citation Index : **Nil**

∗ SNIP : **Nil**

∗ SJR : **Nil**

∗ Impact factor : **Nil**

∗ h-index : **Nil**

20. Areas of consultancy and income generated: **Medical Radiation Safety (with Dept. of Health & Family Welfare, Govt. of Mizoram). No income has been generated**

21. Faculty as members in

a) National committees: **Executive Member, Nuclear Tract Society of India. BARC, Mumbai**

b) International Committees: **Nil**

c) Editorial Boards: **Editor, Science Vision (a scientific journal published by Mizoram Academy of Science)**

22. Student projects

e) Percentage of students who have done in-house projects including inter departmental/programme: **Nil**

f) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: **Nil**

23. Awards / Recognitions received by faculty and students: **Nil**

24. List of eminent academicians and scientists / visitors to the department:
(a) Dr. YS Mayya, Head, Radiological Physics and Advisory Division, BARC, Mumbai
(b) Dr. K.P. Yappen, Senior Scientist, Radiological Physics and Advisory Division, BARC, Mumbai

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(c) Dr. Anil Kumar, Scientist, Radiation Safety System Division, BARC, Mumbai.

(d) Shri B.K.Sahoo, Scientist E, Radiological Physics and Advisory Division, BARC, Mumbai

25.   Seminars/ Conferences/Workshops organized & the source of funding

    a) National   :   **Nil**
    b) International :   **Nil**

26.   Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received 2013-14	Selected 2013-14	Enrolled		Pass percentage
			*M	*F	
First Year B.Sc.	44	32	18	14	-
Second Year B.Sc.	23	23	12	11	-

*M = Male   *F = Female

27.   Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
First Year B.Sc.	100	0	0
Second Year B.Sc.	100	0	0

28.   How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? : **Nil**

29.   Student progression

Student progression	Against % enrolled
UG to PG	-
PG to M.Phil.	-
PG to Ph.D.	-
Ph.D. to Post-Doctoral	-
Employed • Campus selection • Other than campus recruitment	-

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Entrepreneurship/Self-employment	-

30. Details of Infrastructural facilities

a) Library: **The department does not have separate departmental library but share Central Library with other departments.**
b) Internet facilities for Staff & Students**: Internet facilities are made available in the Library for the students and Teachers' Common Room for the Teachers.**
c) Class rooms with ICT facility: **The department has got one class room with ICT facility.**
d) Laboratories: **The Department has got one spacious Laboratory which can accommodate around 40 students at a time.**

31. Number of students receiving financial assistance from college, university, government or other agencies: **Most of the tribal students whose parents have low income are receiving tribal Scholarship from the Govt. of Mizoram as permissible by the rule.**

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts: **Nil**

33. Teaching methods adopted to improve student learning: **Organising seminars among students by presentation using MS Powerpoint from the selected topics. Practical projects are given to 2nd year students (Annual system) with a mandatory oral presentation of the Projects.**

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:
The institution plan and organise its extension and outreach programmes depending upon the needs of local people and also on the awareness programmes initiated by the government. As such, the major extension and outreach programmes are mostly community oriented- construction of public urinals, waiting sheds, water reservoirs, cleaning of markets and streets, adoption of certain villages for its development, AIDS/HIV/Malaria awareness campaigns, standard living campaigns like nutritional quality, food adulterations, hygiene, etc campaigns and blood donations. It also organised several environmental awareness- plantation of trees, observation of Green Mizoram and World environment Day and observation of Cleanliness Week as per the programme set by the government.

Students from Electronics Department participated actively in all the extension activities organized by the institution

35. SWOC analysis of the department and Future plans
Strength:
 (1). This college is the only science college under Mizoram State Government offering

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Electronics subject to the student for undergraduate studies.

(2). The department follows a number of healthy practices. Attendance Card has been introduced in order to provide quality education which can come through regular attendances of class lectures.

(3) Teacher Evaluation by the students has been a common practice since the last three years.

(4) The department is instrumental in producing rank holders in the university examinations every year. Even though, the department does not have major-subject students, those who took Electronics subject utilize it for producing high marks. Below is a table of the performance of students in electronics at University examinations:

The Department is allocated with only General papers and major subject is not affiliated to it. As a result University rank holder cannot be produced by this department. It may be mentioned that this Department is the only Electronics department established under Mizoram University.

Weaknesses:
(1) The annual intake cannot be large due to inadequate classroom size and laboratories.
(2) Lack of modern classroom facilities
(3) Shortage of teaching and non-teaching staff.
(4) No separate departmental room for teaching.
(5) No separate library for the subject.

Opportunities:
(1). The institution is in the urban area and capital of the state.
2. The only science college in the state and the institution is equipped with highly qualified and experienced teachers who are committed to their jobs and the development of the college.
3. The only Electronics department established under Mizoram University for undergraduate study.
4. Strategic priorities and initiatives to enhance faculty excellence.
5. To create a model institution catering quality education to the students in the state.

Challenges:
The department is managed with minimal funding from the state government. There is no separate funding as from other department of the college. This may lead to various threats and challenges as given below:
1. If the department does not get proper infrastructure, good students can move to the neighbouring institutions.
2. Competitive ability may decline if students do not get proper facilities
3. It may leads to declination of employability of graduates
4. Fall in learning outcome of the students.

FUTURE PLAN OF THE DEPARTMENT
1. To start Electronics as a core/ honours subject (subject to availability of fund and appointment of regular teachers by the State Govt.)
2. To obtain permanent affiliation from the University
3. To enhance the facilities of existing research laboratory

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DEPARTMENT OF GEOLOGY

1. Name of the department: **GEOLOGY**

2. Year of Establishment: **2011**

3. Names of   Programmes /Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.): **UG (B.Sc.)**

4. Names of Interdisciplinary courses and the departments/units involved: **3 courses (same as other departments of the college)**

5. Annual/ semester/choice based credit system (programme wise): **Semester**

6. Participation of the department in the courses offered by other departments: **Till 2013, the faculty of the Department were actively engaged in teaching 'Environmental Studies'**

7. Courses in collaboration with other universities, industries, foreign institutions, etc.: **Nil**

8. Details of courses/programmes discontinued (if any) with reasons: **Nil**

9. Number of Teaching posts

Post	Sanctioned	Filled
Professors	-	-
Associate Professors	-	-
Asst. Professors	**4**	**4**

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./ D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualif-cation	Designation	Specialization	No. of Years of Experie-nce	No. of Ph.D. Students guided for the last 4 years
C.Zoramthara	M.Sc.	Asst. Professor (Contract)	Sedimentology	2	NA
Dr. C.Lalmuankimi	M.Sc. Ph.D.	Asst. Professor (Contract)	Geochemistry & Micropaleontology	1	NA
C.Lalremruatfela	M.Sc.	Asst Professor (Contract)	Magnetostratigra-phy	1	NA

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| Laltlankima | M.Sc. | Asst Professor (Contract) | Landslide | 1 | NA |

11. List of senior visiting faculty: **Nil**

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: **Nil**

13. Student -Teacher Ratio (programme wise): **12:1**

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled: **Nil**

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.
    Ph.D-1
    PG- 3

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: **Nil**

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: **Nil**

18. Research Centre /facility recognized by the University: **Nil**

19. Publications:

    ∗ a) Publication per faculty

Sl/No	Name of faculty	Publications
1.	**Dr C.Lalmuankimi**	**4**
2.	**C.Lalremruatfela**	**1**
3.	**Laltlankima**	**1**

∗ Number of papers published in peer reviewed journals (national / international) by faculty and students:

List of Publication by Dr. C.Lalmuankimi Asst. Professor
(1) Foraminifera from the Bhuban Formation of Mizoram, **C. Lalmuankimi**, R.P. Tiwari, A.K. Jauhri and Victor Z. Ralte, 2010 in Journal of Paleontological Society of India, Lucknow.
(2) Geochemical study of upper Bhuban sandstone in Muthi, Mizoram, India, **C. Lalmuankimi**, Shiva Kumar and R.P. Tiwari, 2011 in Science vision, Aizawl.
(3) Conservation of Reiek Tlang: a brief assessment of the adverse effect of vehicles and a plea for its cessation, Andrew Saizama Sailo and **C. Lalmuankimi**, 2012 in Science vision, Aizawl.
(4) Geochemical study on upper Bhuban shale in Aizawl district of Mizoram,

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India: an implication of chemical weathering, geochemical classification, tectonic setting and provenance, **C. Lalmuankimi**, 2014 in Science vision, Aizawl.

List of Publication by C.Lalremruatfela Asst. Professor

(1) Paul Ialnuntluanga, J. Malsawma, **C. Lalremruatfela**, R.P.Tiwari and S.J. Sangode. Correlation of four magnetostratigraphically constrained isolated sections of Miocene Bhuban formation of Surma Basin in Mizoram, India.

List of Publication Laltlankima. Asst. Professor

(1) Shiva Kumar, **Laltlankima**, K.B. Singh, Vinod Bharati and D. Chandra Sekkharam., 2014. Qualitative status of tuikhur and hand pump water in the eastern flank of Aizawl city. in Environmental, Biodiversity and Traditional System.

∗ Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.): **Nil**

∗ Monographs : **Nil**

∗ Chapter in Books : **Nil**

∗ Books Edited : **Nil**

∗ Books with ISBN/ISSN numbers with details of publishers : **Nil**

∗ Citation Index : **Nil**

∗ SNIP : **Nil**

∗ SJR : **Nil**

∗ Impact factor : **Nil**

∗ h-index: **Nil**

20.   Areas of consultancy and income generated: **Nil**

21.   Faculty as members in

    a) National committees b) International Committees c) Editorial Boards: **Nil**

22.   Student projects

    a) Percentage of students who have done in-house projects including inter departmental/programme: **Nil**

    b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: **Nil**

23   Awards / Recognitions received by faculty and students: **Nil**

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24.   List of eminent academicians and scientists/ visitors to the dept.: **Nil**

25.   Seminars/ Conferences/Workshops organized & the source of funding

    a) National: Nil
    b) International: Nil

26.   Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received 2013-14	Selected 2013-14	Enrolled		Pass percentage
			*M	*F	
I Year B.Sc.	67	31	20	11	-
II Year B.Sc.	17	17	10	7	-

 *M = Male   *F = Female

27.   Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
I Year B.Sc.	100	0	0
II Year B.Sc.	100	0	0

28.   How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?: **Nil**

29.   Student progression

Student progression	Against % enrolled
UG to PG	NA
PG to M.Phil.	NA
PG to Ph.D.	NA
Ph.D. to Post-Doctoral	NA
Employed - Campus selection - Other than campus recruitment	NA
Entrepreneurship/Self-employment	NA

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30. Details of Infrastructural facilities

   a) Library: No separate departmental library
   b) Internet facilities for Staff & Students: Internet facilities are made available in the Library for the students and Teachers' Common Room for the Teachers. Campus is Wifi enabled
   c) Class rooms with ICT facility: Nil
   d) Laboratories: One laboratory which can accommodate around 15 students at a time.

31. Number of students receiving financial assistance from college, university, government or other agencies: All the students belonging to SC/ST receive scholarships from Govt. of Mizoram

32. Details on student enrichment programmes (special lectures/ workshops/ seminar) with external experts

33. Teaching methods adopted to improve student learning: Class test, seminar and project.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities: (same as the rest of the students mentioned earlier for other Departments)

35. SWOC analysis of the department and Future plans

   STRENGTH:
   1) Unity among the faculty is the main strength of the Department.
   2) Faculty members are young and dynamic and are physically fit and active in taking class. Teacher-student interactions are good.
   3) Out of four teachers, one teacher possesses Ph.D. degree and the other three are pursuing Ph.D. programme at Mizoram University.
   4) Teachers with different specialization on the concerned subject.

   WEAKNESS:
   1) Insufficient number and space for classroom and laboratory.
   2) Lack of sample and equipment for practical class.
   3) Classroom need to be equipped with projector.
   4) Shortage of non-teaching staff.
   5) Inadequate number of books in the Library.

   OPPORTUNITY:
   1) The institution is the only pure Science College of the state and is located at the capital of the state.
   2) Recent exploration and tapping of oil and natural gas of the state by private company, construction of dams and reservoir, bridge etc. because of modernization and development on the State requires good geologists. As

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the course is concerned with the above mentioned, the department has the ability to produce the required manpower.

3) Nowadays, job opportunity for students of geology is becoming more and more promising both at private sector and public sector.

CHALLENGES:

1) The Department is allocated with only General papers and core/major subject is not affiliated to it. As a result the department cannot produce B.Sc. Geologist.

2) There are insufficient regular teachers. Till date, no permanent teacher is sanctioned by the Government and four contract teachers are allocated. If the contract teachers get regularized, the department will function more efficiently.

FUTURE PLAN OF THE DEPARTMENT

1. To start Geology core/honours subject (subject to allocation of funds and appointment of regular teachers by the state Government)
2. To enhance the laboratory facilities for undertaking research projects
3. To provide technical assistance, whenever required, to the Govt. in geological explorations which is in the initial stage

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STREAM 2: COMPUTER SCIENCE

DEPARTMENT OF COMPUTER SCIENCE

1. Name of the department: **Department of Computer Science**

2. Year of Establishment: **2003**

3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.): **UG (BCA)**

4. Names of Interdisciplinary courses and the departments/units involved: **Nil**

5. Annual/ semester/choice based credit system (programme wise): Semester System: **Semester System**

6. Participation of the department in the courses offered by other depts.: **Nil**

7. Courses in collaboration with other universities, industries, foreign institutions, etc.: **Nil**

8. Details of courses/programmes discontinued (if any) with reasons: **Nil**

9. Number of Teaching posts

Name of Post	Sanctioned	Filled
Professors	-	-
Associate Professors	-	-
Asst. Professors	6	6

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./ D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
1. MS Dawngliani	BE	Asst. Professor		5	-
2. C.Lalrinawma	MCA, M.Phil	Asst. Professor		6	-
3. Lalhruaitluanga	MSc (IT),	Asst. Professor		6	-
4. Lalmawipuii	BE	Asst. Professor		5	-

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5. H.Thangkhanhau	MCA	Part-Time Teacher		3	-
6. Laldingliana Sailo	MCA	Part-Time Teacher		3	-
7. Malsawma Haunhnar	BE	Part-Time Teacher		4	-
8. Vanlallura	MCA	Part-Time Teacher		3	-
9. C.Lalngaihawma	M.Sc	Part-Time Teacher		2	-

11. List of senior visiting faculty: **3 - Miss Laltluangkimi Hnamte, Miss Lalmalsawmi, Miss Lalrinsangi Nghinglova from English Department**

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: **35 - 40%**

13. Student -Teacher Ratio (programme wise): **1:14**

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled: **No regular staff (currently 1 technical support staff and 1 lab bearer on contract basis)**

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.
    M. Phil. - 1
    PG - 8

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: **Nil**

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: **Nil**

18. Research Centre /facility recognized by the University: **Nil**

19. Publications:
    Publication by C.Lalrinawma, Assistant Professor:
    1. **Lalrinawma, C.** and Saikia, M. (2012). Secure hash Based distributed framework for UTPC Based Cloud authorization, *International Journal of Computer Engineering & Technology*, Vol. 3, Issue 3, October-December (2012), ISSN 0976-6367(Print) ISSN 0976-6375.
    2. **Lalrinawma, C.** and Saikia, M. (2012). Secure Modeling Schema of distributed information access management in cloud environment, *International Journal of Advanced research in Engineering and Technology*,Vol.3, Issue 2, July-December 2012, ISSN 0976-6480(Print) ISSN 0976-6499

20. Areas of consultancy and income generated: **Nil**

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21. Faculty as members in

a) National committees b) International Committees c) Editorial Boards: **Nil**

22. Student projects
    g) Percentage of students who have done in-house projects including inter departmental/programme: ???
    h) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: **Nil**

23 Awards/ Recognitions received by faculty and students: ???

24. List of eminent academicians and scientists/ visitors to the department: **Nil**

25. Seminars/Conferences/Workshops organized & the source of funding: **Nil**

    a) National
    b) International

26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received 2013-14	Selected 2013-14	Enrolled		Pass percentage
			*M	*F	
I Year BCA	72	52	32	20	74%
II Year BCA	47	47	30	17	71%
III Year BCA	38	41	20	18	65%

*M = Male   *F = Female

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
I Year BCA	100%	-	-
II Year BCA	100%	-	-
III Year BCA	100%	-	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?: **Not assessed**

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29. Student progression

Student progression	Against % enrolled
UG to PG	80%
PG to M.Phil.	1%
PG to Ph.D.	
Ph.D. to Post-Doctoral	
Employed - Campus selection - Other than campus recruitment	
Entrepreneurship/Self-employment	

30. Details of Infrastructural facilities

a) Library

b) Internet facilities for Staff & Students: **Available in the teachers' room and department laboratory.**

c) Class rooms with ICT facility: **1 no. (computer projector with networked computers in the main laboratory)**

d) Laboratories: **Laboratory is equipped with 40 computer sets**

31. Number of students receiving financial assistance from college, university, government or other agencies: **Mizoram Scholarship board-100%, UGC merged scheme- 3-5 %**

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts:

The students attended several Seminars and workshops which was organized by the college and several other institutions.

Dates	Programme	Organised by
11th -12th Oct 2013	One day workshop on Information Security Education Awareness	DOEACC
3th -4th Oct, 2012	HAC-O-MANIA workshop	i3 indya Technology
28th Feb 2014	Panel discussion on Fostering Scientific Temper	IQAC, GZRSC
2nd -8th Sept 2014	Workshop on advance trends in computer science and its applications	MZU

33. Teaching methods adopted to improve student learning: **Student Projects, Lectures and Discussion, Presentation, and Practical classes**

34. Participation in Institutional Social Responsibility (ISR) and Extension

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activities: **(same as mentioned for other students of the institute)**

35. SWOC analysis of the department and Future plans

STRENGTH
The faculty members are young and dynamic with innovative mind. Several task assigned to each department is carried out fast and effectively. There is a good interaction among the students and the faculty.

WEAKNESS
Infrastructure needs to be upgraded and there is insufficient space for classroom and laboratory. Each of the classrooms may be equipped with projector and interactive projector screen to utilize modern technology effectively. The computer Laboratory needs to be extended so that each semester will have a separate Laboratory to perform their practical works.

OPPORTUNITY
The basic objective of BCA Course is to provide young men and women with the required knowledge and necessary skills to get rewarding careers into the changing world of Information technology. The graduates could begin their career as Junior Programmer and then mature into Sr. Programmer, System Analysts, etc. They may seek entrepreneurial roles in the computer world as independent business owners, software authors, consultants, or suppliers of systems and equipments. Career opportunities exist in such areas as management, software and hardware Industries, technical writing, IT Training Institutes, Software consultancy & Technical Support.

CHALLENGES
There is insufficient number of regular teachers. Till date, only 1 permanent teacher is sanctioned by the government, if minimum 4 more post are sanctioned, the department will function more efficiently.

FUTURE PLAN
1. To enhance classroom facilities and laboratory equipments
2. More efforts to be given towards placement opportunities for students

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<div align="center">

STREAM 3: HOME SCIENCE

DEPARTMENT OF HOME SIENCE

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1. Name of the department: **Home Science**

2. Year of Establishment: **1980**

3. Name of Programmes/Courses offered: **B. Sc. (Home Science)**

4. Names of Interdisciplinary courses and the departments/units involved:

    a) English
    b) History of Science
    c) Environmental Studies

    Departmental units involved: Nil

5. Annual/ semester/ choice based credit system: **Semester System (w.e.f. 2011)**

6. Participation of the department in the courses offered by other departments: **Nil**

7. Courses in collaboration with other universities, industries, foreign institutions: **Nil**

8. Details of courses/ programmes discontinued: **Nil**

9. Number of Teaching posts:

Designation	Sanctioned	Filled
Professors	-	-
Associate Professors	9	9
Asst. Professors	3	3

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./ D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualification	Specialisation	No. of yrs of experience	Designation
Lalsangliani Khawlhring	M.Sc. (H.Sc.)	Home Management		Associate Professor &HOD
Lalrinngheti Ralte	M.A. (H.Sc.)	Extension Education	27yrs	Associate Professor
Lalsangkimi Hmar	M.Sc. (H.Sc.)	Child Development	26 yrs	Associate Professor

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Lalthanpuii Ralte	M.Sc. (H.Sc.)	Extension Education	24 yrs	Associate Professor
Lalhmingliani Hlondo	M.Sc.(H.Sc.)	Child Development	24yrs	Associate Professor
C.Lalramdina	M.Sc.	Developmental Biology	21 yrs	Associate Professor
Lalrammawii	M.Sc. (H.Sc.)	Foods and Nutrition	16 yrs	Associate Professor
Vanlallawmi	M.Sc. (H.Sc.)	Home Management	16yrs	Associate Professor
Zarzokimi	M.Sc.	Zoology	16 Yrs	Associate Professor
Maria Lalhmingmawii	M.Sc.(H.Sc.)	Foods & Nutrition	12 yrs	Contract Lecturer
Mimi Lalmuanawmi	M.Sc. (H.Sc.)	Textiles & Clothing	4yrs	Contract Lecturer
Rebecca Lalnuntluangi	M.Sc. (H.Sc.)	Textiles & Clothing	3 yrs	Part Time Lecturer

11. List of senior faculty visiting faculty: **Nil**

12. Percentage of lectures delivered and practical classes handled by temporary faculty

   lectures: Theory Classes - **20% (approx.)**   Practicals: **25%**

13. Student – Teacher ratio: **9:1**

14. Number of academic support staff: **Sanctioned - 2, Filled - 2**

15. Qualifications of teaching faculty with DSc /D.Litt/ Ph.D/MPhil/PG: **Please see Sl. No. 10 above**

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: **Nil**

17. Departmental projects funded by DDT- FIST; UGC, ICSSR, etc. and total grants received: **Nil**

18. Research Centre / facility recognized by the University: **Nil**

19. Publications: **Nil**

20. Areas of consultancy: **Nil**

21. Faculty as members in a) National committees b) International Committees c) Editorial Boards : **Nil**

22. Students projects

   a) Percentage of students who have done in-house projects including inter departmental/ programme: ??

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  b) Percentage of students placed for projects in organizations outside the institution ie i Research laboratories/Industry/other agencies: **Nil**

23. Awards/ Recognitions received by faculty and students:

24. List of Eminent academicians and scientists/ visitors to the department: **Nil**

25. Seminars / Conferences / Workshops organized & the source of funding
   a) National : **Nil**
   b) International: **Nil**

26. Student profile programme? Course wise:

Name of the Course/programme (refer question no. 4)	Applications received 2013-14	Selected 2013-14	Enrolled		Pass percentage
			*M	*F	
I Year B.Sc. (H.Sc.)	55	50	47	3	91%
II Year B.Sc. (H.Sc.)	34	34	32	2	87%
III Year B.Sc. (H.Sc.)	21	21	19	1	74%

*M = Male   *F = Female

27. Diversity of students

Name of the course	% of students from the state	% of students from other states	% of students from abroad
I B.Sc (H.Sc.)	100%	0%	0%
II B.Sc (H.Sc.)	100%	0%	0%
III B.Sc (H.Sc.)	100%	0%	0%

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, etc.?

   a) State competitive examination (Mizoram Civil Service): **3 Students**
   b) NET Examination: **4 students**

29. Students progression:

Student progression	Against % enrolled
UG to PG	-
PG to M.Phil.	-
PG to Ph.D.	-
Ph.D. to Post-Doctoral	-

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Employed - Campus selection - Other than campus recruitment	-
Entrepreneurship/Self-employment	-

30. Details of Infrastructural facilities

    a) Library: **No separate departmental library**
    b) Internet facilities for Staff & Students: **Available in the Library for the students; Faculty members have broadband internet access in the Teachers' Common Room. The entire campus is wi-fi enabled.**
    c) Class rooms with ICT facility: **No separate ICT facility in the department. Seminar room is shared by all departments which is provided with ICT facility**.
    d) Laboratories: Two (2) Laboratories with capacity of 30 students each.

31. Number of students receiving financial assistance from college, university, government or other agencies: **Nil**

32. Details on student enrichment programmes (special lectures/ workshops/ seminars) with external experts:

    1) Campaign on Money Transaction with External expert from Mizoram Rural bank, Khatla Branch (Aizawl).

    2) Seminar on Food Adulteration with expert help from Legal Metrology Department, Govt. of Mizoram

34. Participation in Institutional Social Responsibility (ISR) and Extension activities: **(same extent of participation as mentioned by other streams)**

35. SWOT analysis of the department and future plans:

    Strength:
    No other college in the University is offering Home Science. This has turned out to be our strength (as well as a weakness in some aspects). Unity of the faculty members is one of our strength. The common features that we have are that we are from the same age group, same family background, similar family size in terms of number of children, which produces a common interest in each of us, which makes us united. The faculty members also come from diverse backgrounds in terms of our education. We obtained our education from diverse backgrounds - Baroda, Delhi, Bangalore, Shillong, Kolkata, Chennai, and Bhubaneshwar. These differences in experiences and backgrounds have converged to meet one objective.

    Weakness:
    There is no opportunity for further studies in Home Science subject in the State for the students as well as the teaching faculty. Home Science course has not been introduced in the post graduate level for the students in the university. There are no proper awareness of the importance of Home Science by the Government and elsewhere in spite of the efforts we made to create awareness.

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Opportunities:

There are self employment opportunities in H.Sc. subject, such as opening of Pre-schools, preparing and selling Pickles and Squashes etc, opening of cooking classes, starting a catering business, Baking cakes and biscuits and selling, preparing clothes for different age groups, decorating and designing garments, bed covers, table covers etc.

Challenges:

Since we are the only college offering the course, there is threat of decline in student intake. There are no opportunities for further studies in the state for the students and as a consequence, some students opt for other subjects to continue their studies in the higher level.

FUTURE PLANS:

1. To expand and improve on the present facilities e.g. having separate laboratories for every subject of Home Science;
2. To open a preschool in the college campus;
3. To have a residential home, where the faculty and students can camp for a week, where they study diet planning, manage the house budgeting, and to basically put to practice what they have learnt in theory.

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INTERDISCIPLINARY COURSE

DEPARTMENT OF ENGLISH

1. Name of the department: **English**

2. Year of Establishment: **1983**

3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.) NA

4. Names of Interdisciplinary courses and the departments/units involved: **English is itself an interdisciplinary course of study for all streams in the college**

5. Annual/ semester/choice based credit system (programme wise): **Semester system**

6. Participation of the department in the courses offered by other depts.: **NA**

7. Courses in collaboration with other universities, industries, foreign institutions, etc.: **Nil**

8. Details of courses/programmes discontinued (if any) with reasons: **'English Honours' – Discontinued as the college was amalgamated into a science college which offers only General English**

9. Number of Teaching posts

	Sanctioned	Filled
Professors	-	-
Associate Professors	3	3
Asst. Professors	-	-

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./ D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualifica--tion	Designa-tion	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
1. Laltluangkimi Hnamte Hnamte	M.A.,M.Phil.	Associate Professor	American Literature	23 years	NA

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2. Lalmalsawmi Chhangte	M.A.	Associate Professor		19 years	NA
3. Lalrinsangi Nghinglova	M.A., PGDTE	Associate Professor	ELT	16 years	NA

11. List of senior visiting faculty: **Nil**

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: **No temporary faculty**

13. Student -Teacher Ratio (programme wise) : **NA**

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled: **NA**

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.
       M.Phil. - 1
       P.G.D.T.E - 1
       P.G. - 1

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: **Nil**

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: **NA**

18. Research Centre /facility recognized by the University: **NA**

19. Publications: **Nil**

∗ a) Publication per faculty

∗ Number of papers published in peer reviewed journals (national / international) by faculty and students
∗ Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)

∗ Monographs : **Nil**

∗ Chapter in Books : **Nil**

∗ Books Edited : **Nil**

∗ Books with ISBN/ISSN numbers with details of publishers : **Nil**

∗ Citation Index : **Nil**

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∗ SNIP : **Nil**

∗ SJR : **Nil**

∗ Impact factor : **Nil**

∗ h-index : **Nil**

20.   Areas of consultancy and income generated

21.   Faculty as members in
       a) National committees b) International Committees c) Editorial Boards: : **Nil**

22.   Student projects

       a) Percentage of students who have done in-house projects including inter departmental/programme: **NA**
       b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: **NA**

23   Awards / Recognitions received by faculty and students: **Nil**

24.   List of eminent academicians and scientists/ visitors to the depart.: **Nil**

25.   Seminars/ Conferences/Workshops organized & the source of funding

       a) National: Nil
       b) International: Nil

26.   Student profile programme/course wise: **NA**

Name of the Course/programme (refer question no. 4)	Applications received 2013-14	Selected 2013-14	Enrolled		Pass percentage
			*M	*F	

*M = Male   *F = Female

27.   Diversity of Students

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Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
I B.Sc.	100	-	-
I B.Sc. (Home Sc.)	100	-	-
I BCA	100	-	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?: **NA**

29. Student progression: **NA**

Student progression	Against % enrolled
UG to PG	-
PG to M.Phil.	-
PG to Ph.D.	-
Ph.D. to Post-Doctoral	-
Employed ▪ Campus selection ▪ Other than campus recruitment	-
Entrepreneurship/Self-employment	-

30. Details of Infrastructural facilities
    a) Library: **Same as given for all streams (shared main Library)**
    b) Internet facilities for Staff & Students: **Campus is wifi enabled. Free access for students and all faculty members**
    c) Class rooms with ICT facility: **same as mentioned for other departments**
    d) Laboratories: **1 (one) Language Lab equipped with licensed Sanako Software (for 15 +1 users at a time)**

31. Number of students receiving financial assistance from college, university, government or other agencies: **All SC/ST students receive Post-matric scholarship from the Government as per eligibility conditions.**

32. Details on student enrichment programmes (special lectures/ workshops/ seminar) with external experts: **Conducted Workshop on oral communication**

33. Teaching methods adopted to improve student learning: **Group discussions,**

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seminars, mock-interviews, activity based lectures, combined lectures.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities: **None**

35. SWOT analysis of the department and Future plans

Strength:
1) Small department that works in unity
2) English is a compulsory subject for all students of all streams in the college.
3) Hence, the department deals with the entire student population which goes a long way in strengthening teacher-student relations.
4) The department encourages the use of English by providing financial sponsorship of essays, quiz, elocutions, Poetry writing competitions.
5) Regularly gives lectures on Common errors in English.

Weakness
1) General English, being a compulsory subject for all students, results in teachers having to resort to lecture methods most of the time. Interactive classes cannot be conducted as often as the teachers would like to.
2) Many of our students come from rural areas and are not very competent in the use of English. Further, English is taught only for two semesters, hence the teachers find it difficult to fully impart necessary knowledge and skills in English usage.

Opportunities
English language continues to serve as an important link language both nationally and internationally. It serves as a medium of instruction in all institutes of higher learning. It has remained the official language and thus forms a necessary component in the job markets. Hence, teaching-learning of English language will always provide opportunities to our students.

Challenges
Since English is a compulsory subject recognized and given due importance by the education policy of every government, the department at present does not face any imminent threat. The challenge is enhance the competence of learners who do not have strong background within a short period of time.

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Annexure

Post-accreditation Initiatives

If the college has already undergone the accreditation process by NAAC, please highlight the significant quality sustenance and enhancement measures undertaken during the last four years. The narrative may not exceed five pages.

POST-ACCREDITATION MEASURES DURING THE LAST 4 YEARS

Prior to accreditation by NAAC, quality initiatives of the college were managed by a Coordination Committee under the chairmanship of the Principal. The Committee had a Coordinator, Assistant Coordinators and 4 faculty members. The College was accredited with CGPA of 2.22 (B Grade) by NAAC in January 2009. Consequently, the Internal Quality Assurance Cell was constituted. Currently, the IQAC members are:

Chairman: Laltanpuia, Principal
Coordinator: Lalrinsangi Nghinglova (English Dept.)
Members
1. Dr.B.Zoliana (Electronics Dept.)   2. Dr R Lalengmawia (Botany)
3. PC Pandey (Maths)   4. Zirlianngura (Chemistry Dept.)
5. Lalsangkimi Hmar (H.Science   6. M.S. Dawngliani (Comp. Sc.)
External Experts:
1. Dr Varparhi (former Principal of this college) 2. Prof. Lalnundanga, MZU

The IQAC has suggested a number of initiatives which have been institutionalised.
1) **Students' Feedback**: The IQAC prepares a proforma with a general guideline for executing and analysing the feedbacks
2) **Mentoring System**: IQAC prepares guidelines for effectively and uniformly carrying out the Practice. It also monitors how the system is brought into effect.
3) **Academic Calendar**: The IQAC prepares a draft calendar for each semester which is endorsed by General Body of teaching faculty
4) **Attendance of Students**: The University has mandated that 75% attendance be tendered by students as an eligibility criterion for appearing in Final Semester exams. The IQAC has prepared a format for the purpose of monitoring and accounting students' attendance
5) **Personality Development Programme**: This is a student-centric initiative designed by the IQAC as a 'finishing school' programme. Details are mentioned under Best Practice-1

Other activities of the IQAC are:
1) Preparation of AQAR
2) Organises Seminars
3) Preparation of college Rules & Regulations
4) Review Meetings to monitor performance of various Committees/Cells
5) Documentation of annual performance of Teaching Faculty i.e. PBAS (UGC's mandate for responsibility of all IQACs in Colleges & Universities)
6) Any other relevant quality enhancing initiative
7) As an important post-accreditation exercise, the IQAC has suggested formation of various Committees and Cells to ensure sustenance and enhancement of quality aspects.

On Matters Concerning Peer Team Recommendations
In the first accreditation cycle, the Peer Team had laid down certain recommendations for

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quality enhancement. The following are the recommendations and how the college has been taking measures to accomplish the objectives:

1) **More tutorial/remedial classes for mentoring slow learners:**
   - Remedial classes are actively executed by Remedial Coaching Committee (under UGC Merged Scheme). The Committee chalks out the routines after carefully scrutinising the results to gauge performance of students in exams & tests.
   - The IQAC prepared guidelines and monitors the Mentoring System which has been institutionalised to support slow learners.

2) **Enhancing ICT in teaching and learning process:**
   As a capacity building measure, teachers are provided with laptops to promote use of ICT in teaching & learning process.
   - Special hands-on trainings are conducted for first-time users and beginners by IQAC.
   - A separate room equipped with computer projector has been dedicated as a common facility.
   - The campus is wifi enabled. Students and teachers have free internet access. The college website is utilised for discussions, downloads and other online activities.

3) **Introduction of Innovative & Professional Courses:**
   It may be noted that the institution would need financial concurrence from the State Govt. to introduce new courses.
   - The college has introduced CCC course in collaboration with NIELIT, Aizawl for outgoing students.
   - In the meantime, an agreement is also under process with ICFAI University, Aizawl to introduce their Spoken English programme as an add-on course.
   - Other value-added courses like mushroom cultivation using modern biotechnology and PGDCA are being planned to be introduced. B.Voc. is another promising course that may be introduced which is subjected to approval of the Government.

4) **All out Efforts for Construction of College in the New Campus:**
   Teachers' Association, Students' Union and other stakeholders met with government officials, Ministers, etc. to plea for allocation of fund needed for construction.
   - The State Government has now allocated huge sums of money for developing the new campus at Durtlang.
   - Construction works of some segments have commenced.

5) **Promotion of Students' Efficiency in English:**
   - The college has an established Language Laboratory for enhancing language competency of students in English. The Lab is equipped with world renowned language software developed by Sanako and competent hardware.
   - A crash course on spoken English and spoken Hindi is incorporated in the Personality Development Programme.
   - A certificate course in Spoken English under ICFAI University will be introduced very soon.

6) **Efforts to Motivate Teachers & Promotion of Research Cultures:**
   - Symposia & seminars are organised by Research Committee to motivate teachers.
   - DBT-Biotech Hub, Radiation Monitoring lab, and Chemistry lab are being upgraded a and utilised by faculty/research scholars to carry out research works.
   - 18 teachers are actively pursuing research for their PhD degree.
   - Teachers have applied for funded projects and are awaiting approval.

7) **Computerisation of Library and Office:**
   - The Library has been computerised in 2012 using SOUL 2 software developed by

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INFLIBNET. All transactions are carried out using digital barcode scanners.

- Four stand-alone computers are provided for use in the Office. New users are given all necessary assistance.
- Library and Office staff are provided with both wired and wireless internet access.

8) Ten Years Perspective Plan of the College (Academic and Infrastructural Development):

- To start new programme(s), including add-on or value added course
- Completion of permanent campus to be fully residential
- Adequate Solar Power back-up to be installed

9) Steps to strengthen Hostel facilities:

- Construction of both Girls and Boys Hostel buildings has been completed and will be commissioned very soon.
- Since the capacity is inadequate to meet the demands, additional construction or extension of the newly constructed buildings will be actively pursued.

10) Creation of *corpus fund* & Endowment Scholarships:

The college, being a government institution has no scope or provision to create sizeable amount of funds. Funds are allocated as per provision of the government's budget. However, faculty members contribute requisite amount of money in case of contingency to support financially disadvantaged students, as the case arises.

ACTION TAKEN REPORTS BY VARIOUS COMMITTEES & CELLS TO ENSURE QUALITY INITIATIVES:

Key Committees of the college are the General Body, Heads of Department Meeting (which shoulders multiple roles of making major policies, student intake & admission, purchases, monitoring activities of other sub-committees), Planning Committee, SU in-charge Committee, and Staff Welfare Committee. In addition, several Committees & Cells have been established for better administration and for cultivating a spirit of cooperation. The reports of various Committees and Cells are summarised below:

1. Library Committee

The Committee makes plans for improvement of the Library. Requirements are routed to the Purchase Committee and Building Committee as and when funds are available. Recommended books & journals are received from departments and individual teachers scrutinised by the Committee for final approval before placing orders.

- Rules of the Library have been laid down
- Computerisation of the facility has been accomplished.
- New volumes have been added with book shelves
- The main Library has been shifted to provide bigger space

2. Committees for administering funds from UGC-merged Scheme

Committees/cells have been established for administering funds received under UGC-merged schemes.

- The Cells have actively pursued and implementation schemes like Coaching for entry in Services, Remedial Coaching, Career Counseling and Placement, Colleges with relatively Higher Proportion of SC/ST/OBC, and the UGC Network Resource Centre cell.
- The respective Coordinators have judiciously utilised the funds and submitted UC's regularly.
- Books and equipments have been purchased with the funds, wherever applicable

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3. Exam Committee

The Committee is responsible for conducting University Exams, Internal exams (Continuous Assessment) and Practical exams.

- A separate room has been provided with clerical staff to keep records of marks and to maintain secrecy of matters related to examinations.

- The best possible way of how to conduct continuous assessment is being experimented with after the recent switch over to semester system.

4. Building Committee

The Committee has executed the following works:
a) Repair and maintenance of classroom & laboratory infrastructure
b) Construction of DT Biotech Hub, Multipurpose Auditorium and Extension of main building including college Canteen
c) Preparation & submission of proposal for sports infrastructure to UGC-Nero
d) Pursuing the Master plan of the College prepared by Architect Wing, Mizoram PWD

5. Research Committee

a) The Committee encourages the faculty to take up research activities by organising symposium in which those engaged in such works are given the opportunities to present their works and results. The manuscript is being published in the form of proceedings and bears an ISBN number.
b) Notice Board is maintained for availability or Seminar, research grants, etc.
c) Scrutinises application of Research Project proposals for recommendation / modification the need arise.
d) Collection/ documentation and publication of research works or ongoing works in a book form. The application for ISBN number is under process.

6. Magazine Committee

The committee supervises the works of the Magazine editors while publishing College Annual Magazine through editing, proof-reading and collecting materials for the magazine. The main objectives accomplished so far are - publication of Annual Magazine which is informative and interesting and to provide enjoyable reading, providing a platform for students to showcase their talents and skills, encourage students to hone their writing skills through the magazine.

7. Decoration Committee

The Committee came into being in 2010 when different Committees for the welfare of the College was formed. Since inception, the Committee has been functioning satisfactorily and in cooperation with one another, by attending to the needs of the College regarding – renovation, beautification of the campus, including maintenance of cleanliness.

The activities of the Committee are called for during important meetings to design and

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prepare banners, flower arrangement, decoration of Halls & rooms as well as preparing bouquets to be presented to special guests.

8. Cleanliness Committee

The cleanliness committee was formed on the 23rd October 2009 as advised by the Principal to ensure clean and hygienic atmosphere in the campus and to effectively involve the students and staff in maintaining the cleanliness in the college premises. The main activities during the last 4 years are:

- All-out cleanliness drives at the beginning of every semester with campus 'Cleaning Day' involving students and staff is always organised. The committee performed on-the spot visit of classrooms to encourage and brief students regarding dos and don'ts for maintenance of cleanliness.
- Occasional inspections of availability of cleaning equipments like broom, dustbin, dust pan etc. in classrooms; unavailable equipments were immediately provided.
- The committee also inspects the water-coolers and toilets to ensure proper water supply, flush, and drains and anything that needs to be repaired.
- Observation of Cleanliness Week on the first week of October every year.
- Specification and distribution of cleaning duties in each floor of the college building.

9. Canteen Committee:

The Committee is formed for the smooth functioning of the Canteen and to ensure neatness and that good quality food is served at affordable prices. The Committee is responsible for floating tenders from time to time and to select reliable caterer. Records of utensils bought by the college for use in the Canteen are kept. Main activities during the past 4 years are:

- Purchase of tea cups & plates with chairs &tables.
- Regular inspection of the Canteen.
- Suggestions on improvement of menu and pricing.
- Inauguration of the new Canteen.

10. Reception Committee:

The committee has been established to ensure that important functions are smoothly organized and to extend hospitality towards resource persons, guests and visitors. Seating arrangement of Halls, appointment of ushers, greeting and registering participants, guests & invitees, etc. are the main responsibilities. The committee receives excellent backup from the Students' Union leaders. It has effectively imparted social skills and educated students in manners and etiquettes. Some of the hospitality service it has rendered are listed below:

1) Panel Discussion on "Issues Relating to Women" & "Career option for students"
2) Seminar on Faculty Enrichment on Service Matters etc. 19th November 2011.
3) Entry into Banking Services. 23rd August 2011
4) Entry into Mining services 12th April 2012

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5) Entry into Indian Army 23rd November 2012
6) Training programme on "Effective Teaching Strategy" 23rd November 2013
7) Celebration of National Science Day 28th February 2013
8) Parent-Teacher Meet 6th May 2013
9) Seminar on "House Planning and Design" 18th July 2013
10) One day training on Cyber and Cyber Security 11th September 2013
11) Awareness on Domestic Violence and Right of Women 11th September 2013.
12) One day seminar on "Genetically Modified Crops" 28th Feb 2014
13) Parent-Teacher Meet 25th July 2014
14) Fresher's Social 2014
15) Training on Public Speech, Debate and Extempore for students 12th September 2014.

11.   Refreshment Committee:

The refreshment committee has been formed to cater to the refreshment needs during formal functions organized by the college. The main objectives are to:

- Plan in advance before a function.

- Maintain strict control of the budget.

- Make purchase/orders of necessary items.

- Cater to the gathering with the help of students.

- Clean up after the event in coordination with the Cleanliness Committee.

Events in which service were rendered during the last 4 years - **same as sl. no. 11 above**

12. Mental Health & Evangelical Committee:

The main function of the Committee is to guide the student members of the Evangelical Union (EU) of the college (as Advisors). The EU is a students' Christian movement. It is affiliated to the Aizawl Inter-collegiate Evangelical Union, which in turn is affiliated to the Evangelical Students of India.

The objective of the Committee is to guide students in the right perspective, to fellowship with one another and to inculcate a culture of mutual help with mental growth to mould students into valuable assets of the society. Some of the activities of the EU are:

- Preparation of college calendar in 2009 and publication of college directories.
- Visit to Children's Homes (orphanages) on the 15th Oct 2009 with gifts (candies, money & clothing collected for the purpose)
- Condolence functions on the event of death of parent among student members.
- Organises weekly meetings & annual get-togethers with speeches, singing and

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exchange of gifts.

- The EU Choir performs in almost every college function.

13. Games & Sports Committee

Games & Sports Committee was formed to promote and improve the infrastructure in Sports, and to promote the talents of students. The Committee collaborates well with other committees for the all-round upliftment of the quality of students. The objectives are - to inculcate sportsmanship and to ensure participation of students in various sports competitions. Main activities have been:

- Guiding the SU in conducting annually a weeklong 'College Week' programmes.

- Ensure participation of students in major state-level & university level competitions.

- Several prizes and recognitions have been received.

14. Security Committee

The Committee is established to ensure the overall security of the college. The objectives are to - implement the college rules and regulations, and ensure to smooth conduct of programmes. Main activities are:

- It has provided security services in all college functions such as Inter-college Sports, College Week, Fresher's Day, Graduation Day, and other official functions.

- Monitoring to ensure that security is maintained for staff & students, college infrastructure & equipments.

- CCTV has been installed at the Library. Suggestions have been made to install more CCTV in other locations around the campus.

15. Website Management Committee

The Committee shoulders the responsibility of updating contents of the website. It monitors and scrutinises grievances, if any, posted in the space allotted for the purpose. Administrative rights are given to key members of the Committee. Main activities are:

a) Major facelift to render the website more attractive and user-friendly.

b) Uploading and publishing of information, news & events as they occur.

c) Posting of notice for students and faculty members.

d) Training programme for the faculty on how to utilise website as a tool for teaching.

e) Training for students on how to use the website is being planned.

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Declaration by the Head of the Institution

I certify that that the data included in this Self-Study Report (SSR) are true to the best of my knowledge.

This SSR is prepared by the institution after internal discussions, and no part thereof has been outsourced.

I am aware that the Peer team will validate the information provided in this SSR during the peer team visit.

Signature of the Head of the institution

with seal:

Place: Aizawl

Date: 25.10.2015

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