

<b>CONTENT</b>	<b>PAGE NO</b>
<b>1. ANNUAL DEPARTMENT REPORT 2017-2018</b>	
a) Chemistry Department	3
b) Zoology Department	12
c) Botany Department	21
d) Physics Department	27
e) Mathematics Department	30
f) Home Science Department	35
g) Computer Science Department	40
h) Electronics Department	47
i) Biochemistr y Department	62
j) Geology Department	66
k) English Department	72
<b>2. DEPARTMENTAL REPORT EVEN SEMESTER</b>	74
<b>3. DEPARTMENTAL REPORT ODD SEMESTER</b>	77
<b>4. STUDENTS MENTORING SYSTEM EVEN SEMESTER</b>	82
<b>5. STUDENTS MENTORING SYSTEM ODD SEMESTER</b>	85
<b>6. UNIVERSITIES RANK HOLDER (2017-2018)</b>	89
<b>7. RESEARCH AND PUBLICATION</b>	90
<b>8. ACTIVITIES AND ACHIEVEMENTS OF VARIOUS SUB COMMITTEES</b>	
<b>I. IQAC</b>	101
<b>II. EXAMINATION</b>	102
<b>III. ADMISSION</b>	103
<b>IV. AISHE</b>	104
<b>V. ANTI RAGGING</b>	105
<b>VI. STUDENTS UNION</b>	106
<b>VII. GAMES AND SPORT</b>	107
<b>VIII. COLLEGE MAGAZINE.</b>	108
<b>IX. DEBATING, SOCIO CULTURAL</b>	109

<b>X. SPIRITUAL COUNSELLING</b>	<b>110</b>
<b>XI. REFRESHMENT</b>	<b>111</b>
<b>XII. DECORATION AND HALL ARRANGEMENT</b>	<b>112</b>
<b>XIII. SECURITY</b>	<b>113</b>
<b>XIV. CANTEEN</b>	<b>114</b>
<b>XV. LIBRARY</b>	<b>115</b>
<b>XVI. RECEPTION</b>	<b>116</b>
<b>XVII. CLEANLINESS AND SANITATION</b>	<b>117</b>
<b>XVIII. WEBSITE</b>	<b>118</b>
<b>XIX. ALUMNI</b>	<b>124</b>
<b>XX. RESEARCH AND SEMINAR</b>	<b>125</b>
<b>XXI. DISASTER MANAGEMENT</b>	<b>126</b>
<b>XXII. VILLAGE AND SCHOOL ADOPTION</b>	<b>127</b>
<b>XXIII. WOMEN STUDIES</b>	<b>128</b>
<b>XXIV. INTELLECTUAL PROPERTY RIGHT</b>	<b>129</b>
<b>XXV. STUDENTS SUPPORT</b>	<b>130</b>
<b>XXVI. INNOVATION CLUB</b>	<b>131</b>
<b>XXVII. NSS</b>	<b>132</b>
<b>XXVIII. RED RIBBON</b>	<b>133</b>
<b>XXIX. SPOKEN HINDI</b>	<b>134</b>
<b>XXX. ADVENTURE CLUB</b>	<b>135</b>
<b>9. NEW INFRASTRUCTURE AND FACILITIES ACQUIRED</b>	<b>136</b>
<b>10. YEAR WISE EXPENDITURE UNDER UPGRADATION TO MODEL DEGREE COLLEGE GRANT</b>	<b>161</b>
<b>11. ABSTRACT OF EXPENDITURE OF FUNDS FROM UP- GRADATION/RENOVATION OF EXISTING COLLEGES TO MODEL DEGREE COLLEGES SCHEME</b>	<b>162</b>
<b>12. ANY OTHER RELEVANT INFORMATION</b>	<b>166</b>

## 1. ANNUAL DEPARTMENTAL REPORT (2017-2018)

### (a) ANNUAL DEPARTMENTAL REPORT FOR CHEMISTRY

1. Name of department: CHEMISTRY

2. Year of establishment: 2000

3. a) Name of the Head of Department: Dr. Lalhmingliana Hnamte

b) Phone No (Official): 9774001563

c) Email: [lhnamte7@gzrsc.edu.in](mailto:lhnamte7@gzrsc.edu.in)

4. Brief Introduction of the Department (maximum 200 words): The Department of Chemistry was started in 2000. There are 3 class rooms and 1 laboratory. At present there are 6 faculty in number according to the documents of Higher & Technical Department, Govt. of Mizoram. But in reality, the teacher who engaged in teaching are only 4. Among the faculty, Mr. Laltanpuia is taking Principal charge in our College and Dr. Zirliannngura is on deputation basis in NSS Nodal Officer under other Govt. Department. As Chemistry is the central subject, majority of the students choose Chemistry as one of their elective subject. So, the teacher who can engage in teaching is less according to the number of students, theory and practical classes. Due to less number of faculty engage in teaching, Dr. Lalsaimawia Sailo is employed by the College in an internal arrangement for a temporary basis.

Chemistry Department offers three main branches of Chemistry - Organic, Inorganic and Physical Chemistry. Besides these, other branches like Analytical Chemistry, Industrial Chemistry, Natural Products, Medicinal, Environment, Green Chemistry and Material Chemistry are also included in the syllabus. The teacher are also very hard working for the students, they conduct remedial & special classes for Chemistry repeaters and students time to time. The faculty are regularly involved in setting questions, moderation, and evaluation of the university examination. Most of the students come from remote villages of Mizoram, they are average or below average students in their academic records. But due to the high effort given by teacher and students in studies, we always have university rank holders. Besides class room teaching, students are also guide to visit industry and other important places, guide and help them to participate in Science exhibition which are very related to their syllabus.

### 5. Teaching Faculties in the department:

Sl. No	Name	Designation	Qualification	Subject Specialization	Year of Experience	No. of Ph.D. Students guided
1	Dr. Lalhmmingliana Hnamte	Associate Professor	Ph.D, JRF-NET	Physical Chemistry	22	Nil
2	Dr. KB Singh	Associate Professor	Ph.D	Inorganic Chemistry	28	Nil
3	Zonunthari	Associate Professor	M.Sc, Ph.D(on-going)	Organic Chemistry	20	Nil
4	R. Lalramengzami	Associate Professor	M.Sc	Physical Chemistry	20	Nil
5	Dr. Lalsaimawia Sailo	Asst. Professor	Ph.D, SLET & NET	Analytical Chemistry	4	Nil

**6. Number of Teaching and Non Teaching Staff in the Department:**

Designation	Regular		Contract		Part Time		Total	
	M	F	M	F	M	F	M	F
<b>Professor</b>	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
<b>Associate Professor</b>	2	2	Nil	Nil	Nil	Nil	2	2
<b>Assistant Professor</b>	Nil	Nil	Nil	Nil	1	Nil	1	Nil
<b>Lab Assistant</b>	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
<b>Lab Attendant</b>	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

**7. Details of the Courses conducted by the department:****I- Semester**

CHEM/I/EC/01

*Inorganic Chemistry-I-Theory*

Marks [Scaled]: 100 (Internal: 25 + End Semester Exam: 75)

Credits: 3-1-0

CHEM/I/EC/02

*Inorganic Chemistry-I-Practical*

Marks [Scaled]: 100 (Internal Exam: 25 + End Semester Exam: 75)

Credits: 0-0-2

**II Semester**

CHEM/II/EC/03

*Organic Chemistry-I-Theory*

Marks [Scaled]: 100 (Internal Exam: 25 + End Semester Exam: 75)

Credits: 3-1-0

CHEM/II/EC/04

*Organic Chemistry-I-Practical*

Marks [Scaled]: 100 (Internal Exam: 25 + End Semester Exam: 75)

Credits: 0-0-2

**III- Semester**

CHEM/III/EC/05

*Physical Chemistry-I-Theory*

Marks [Scaled]: 100 (Internal Exam: 25 + End Semester Exam: 75)

Credits: 3-1-0

CHEM/III/EC/06

*Physical Chemistry-I-Practical*

Marks [Scaled]: 100 (Internal Exam: 25 + End Semester Exam: 75)

Credits: 0-0-2

**IV- Semester**

CHEM/IV/EC/07

*Analytical Chemistry-I-Theory*

Marks [Scaled]: 100 (Internal Exam: 25 + End Semester Exam: 75)

Credits: 3-1-0

CHEM/IV/EC/08

*Analytical Chemistry-I-Practical*

Marks [Scaled]: 100 (Internal Exam: 25 + End Semester Exam: 75)

Credits: 0-0-2

**V Semester**

CHEM/V/CC/09

*Inorganic Chemistry-II-Theory*

Marks [Scaled]: 100 (Internal Exam: 25 + End Semester Exam: 75)

Credits: 3-1-0

CHEM/V/CC/10

*Inorganic Chemistry-II-Practical*

Marks [Scaled]: 100 (Internal Exam: 25 + End Semester Exam: 75)

Credits: 0-0-2

CHEM/V/CC/11

*Organic Chemistry-II-Theory*

Marks [Scaled]: 100 (Internal Exam: 25 + End Semester Exam: 75) Credits: 3-1-0  
CHEM/V/CC/12

*Organic Chemistry-II-Practical*

Marks [Scaled]: 100 (Internal Exam: 25 + End Semester Exam: 75) Credits: 0-0-2  
CHEM/V/CC/13

*Physical Chemistry-II-Theory*

Marks [Scaled]: 100 (Internal Exam: 25 + End Semester Exam: 75) Credits: 3-1-0  
CHEM/V/CC/14

*Physical Chemistry-II-Practical*

Marks [Scaled]: 100 (Internal Exam: 25 + End Semester Exam: 75) Credits: 0-0-2  
CHEM/V/CC/15 (A)\*

*Analytical Chemistry (Option A)*

Marks [Scaled]: 100 (Internal Exam: 25 + End Semester Exam: 75) Credits: 4-2-0  
V Semester  
CHEM/V/CC/15 (B)\*

*Industrial Chemistry (Option B)*

Marks [Scaled]: 100 (Internal Exam: 25 + End Semester Exam: 75) Credits: 4-2-0

**VI Semester**

CHEM/VI/CC/16

*Inorganic Chemistry-III-Theory*

Marks [Scaled]: 100 (Internal Exam: 25 + End Semester Exam: 75) Credits: 3-1-0  
CHEM/VI/CC/17

*Inorganic Chemistry-III-Practical*

Marks [Scaled]: 100 (Internal Exam: 25 + End Semester Exam: 75) Credits: 0-0-2  
CHEM/VI/CC/18

*Organic Chemistry-III-Theory*

Marks [Scaled]: 100 (Internal Exam: 25 + End Semester Exam: 75) Credits: 3-1-0  
CHEM/VI/CC/19

*Organic Chemistry-III-Practical*

Marks [Scaled]: 100 (Internal Exam: 25 + End Semester Exam: 75) Credits: 0-0-2  
CHEM/VI/CC/20

*Physical Chemistry-III-Theory*

Marks [Scaled]: 100 (Internal Exam: 25 + End Semester Exam: 75) Credits: 3-1-0  
CHEM/VI/CC/21

*Physical Chemistry-III-Practical*

Marks [Scaled]: 100 (Internal Exam: 25 + End Semester Exam: 75) Credits: 0-0-2  
CHEM/VI/CC/22 (A)\*

*Material Chemistry (Option A)*

Marks [Scaled]: 100 (Internal Exam: 25 + End Semester Exam: 75) Credits: 4-2-0  
CHEM/VI/CC/22 (B)\*

*Natural Products (Option B)*

Marks [Scaled]: 100 (Internal Exam: 25 + End Semester Exam: 75) Credits: 4-2-0

**8. Students Particulars:**

Sl. No	Semester	Applications received 2017-18	Selected 2017-18	Enrolled		Pass percentage
				M	F	
1	I Semester	216	148	84	64	45.27%

2	II Semester	114	114	72	42	61.40%
3	III Semester	95	95	44	51	94.73%
4	IV Semester	92	92	44	48	96.73%
5	V Semester	17	17	7	10	82.35%
6	VI Semester	17	17	7	10	76.47%

**9. Student - Teacher Ratio:**

1<sup>st</sup> Semester, 160 : 2

2<sup>nd</sup> Semester, 120 : 2

3<sup>rd</sup> Semester, 120 : 2

4<sup>th</sup> Semester, 112 : 2

5<sup>th</sup> Semester, 18 : 4

6<sup>th</sup> Semester, 18 : 4

**10. Annual Average Attendance Percentage of the Student:**

I Semester 86.52%

II Semester 84.46%

III Semester 87.14%

IV Semester 86.29%

V Semester 88.67%

VI Semester 89.25%

**11. Study tour conducted under year of report: N/A**

**12. Awards / Recognitions received by faculty and students :** Chemistry Department won the 1<sup>st</sup> Position in Science Exhibition which was organize by Innovation Club, GZRSC on 12<sup>th</sup> October, 2017.

**13. Details of Faculty qualified for the Ph.D degree under year of report: N/A**

**14. Paper presented/chaired sessions/ attended in seminars/ conferences/ workshops/symposium; invited Lectures given/attended by teaching faculty in refresher course/ Orientation course/others:**

Sl. No	Name of Faculty	Course/Title	Organised by	Duration /Date	Funded by	Regional/National /International
1	Dr. Lalhmingliana Hnamte	Children Science Congress (State Level Organising Committee Member).	STAM	18 <sup>th</sup> June, 2018		State

	Schrodinger Workshop, National Workshop on Molecular docking, virtual screening & Computational Biology (as Organising Vice Chairman & Participant)	Schrodinger Inc. & RIPANS	18 <sup>th</sup> – 22 <sup>nd</sup> , 2018	Schrodinger Inc. & RIPANS	National
	Regional Workshop of Basic of Analytical Chemistry (Co-convenor)	Dept. of Chemistry, MZU in collaboration with GZRSC	7-11 <sup>th</sup> August, 2017		Regional
	Regional Level Orientation Workshop for State coordinators, State Academic Coordinator, Resource person/evaluators (as a Resource person)	Assam Science Technology & Environmental Council	9-11 May, 2018	MZU & DBT-Institutional Biotech Hub, GZRSC	Regional
	Board of Studies in Chemistry (Member)	Dept. of Chemistry, MZU	18 <sup>th</sup> October, 2017		State
	School Board of Physical Sciences	Physical Sciences, MZU	26 <sup>th</sup> October, 2017		State
	District Level Children Science Congress (Evaluator)	STAM	26 <sup>th</sup> & 27 <sup>th</sup> September, 2017		District
	Trainer's Training Programme for enhancing equity and inclusion	GZRSC Centre for Social Research,	16 <sup>th</sup> – 22 <sup>nd</sup> , 2017		State
	UG Examination (Chief Examiner, Scrutinizer)	MZU	5 <sup>th</sup> -13 <sup>th</sup> December, 2017		State
	UG Examination (Chief Examiner, Scrutinizer)	MZU	22 <sup>nd</sup> May – 1 <sup>st</sup> June, 2018		State
	Paper Setting	MZU	18 <sup>th</sup> July, 2017		State
	UG Exam duty	MZU	November 2017		State
	UG Exam duty	MZU	May 2018		State

		School Board of Physical Sciences Meeting	MZU	24 <sup>th</sup> April, 2018		State
		One Day Seminar on Environmental Radiation Assessments in Mizoram	Radon Research Group, GZRSC	18 <sup>th</sup> October, 2017		State
		Evaluator	MPSC	9 <sup>th</sup> October, 2017		State
		Paper Re-evaluation	MZU	3 <sup>rd</sup> August, 2017 & 16 <sup>th</sup> February, 2018		State
		Paper setting	MZU	24 <sup>th</sup> January, 2018 & 26 <sup>th</sup> June, 2018		State
		Duties in University Sports	MZU	19 <sup>th</sup> to 23 <sup>rd</sup> March, 2018		State
<b>2.</b>	<b>Dr. K.B Singh</b>	UG Examination (Chief Examiner, Scrutinizer)	MZU	5 <sup>th</sup> -13 <sup>th</sup> December , 2017		State
		UG Examination (Chief Examiner, Scrutinizer)	MZU	22 <sup>nd</sup> May – 1 <sup>st</sup> June, 2018		State
		Trainer's Training Programme for enhancing equity and inclusion	GZRSC Centre for Social Research,	16 <sup>th</sup> – 22 <sup>nd</sup> , 2017		State
		Regional Workshop of Basic of Analytical Chemistry (Organising/Technical Committee)	Dept. of Chemistry, MZU in collaboration with GZRSC	7-11 <sup>th</sup> August, 2017	MZU & DBT- Institutional Biotech Hub, GZRSC	Regional
		Paper setting	MZU	24 <sup>th</sup> January, 2018 & 26 <sup>th</sup> June, 2018		State



		Duties in University Sports	MZU	19 <sup>th</sup> to 23 <sup>rd</sup> March, 2018		State
3.	<b>Zonunthari</b>	Regional Workshop of Basic of Analytical Chemistry (Organising/Technical Committee)	Dept. of Chemistry, MZU in collaboration with GZRSC	7-11 <sup>th</sup> August, 2017	MZU & DBT- Institutional Biotech Hub, GZRSC	Regional
		UG Examination (Examiner)	MZU	5 <sup>th</sup> -13 <sup>th</sup> December, 2017		State
		UG Examination (Examiner)	MZU	22 <sup>nd</sup> May – 1 <sup>st</sup> June, 2018		State
		Trainer's Training Programme for enhancing equity and inclusion	GZRSC Centre for Social Research,	16 <sup>th</sup> – 22 <sup>nd</sup> , 2017		State
		Paper setting	MZU	24 <sup>th</sup> January, 2018 & 26 <sup>th</sup> June, 2018		State
		Moderation Board Meeting	MZU	28 <sup>th</sup> & 29 <sup>th</sup> August, 2017		State
4.	<b>Dr. Lalsaimawia Sailo</b>	Regional Workshop of Basic of Analytical Chemistry (Organising/Technical Committee)	Dept. of Chemistry, MZU in collaboration with GZRSC	7-11 <sup>th</sup> August, 2017	MZU & DBT- Institutional Biotech Hub, GZRSC	
		UG Examination (Examiner)	MZU	5 <sup>th</sup> -13 <sup>th</sup> December, 2017		State
		UG Examination (Examiner)	MZU	22 <sup>nd</sup> May – 1 <sup>st</sup> June, 2018		State
		Trainer's Training Programme for enhancing equity and inclusion	GZRSC Centre for Social Research,	16 <sup>th</sup> – 22 <sup>nd</sup> , 2017		State

		Climate change Adaptation and Disaster risk reduction	Mizo Academy of Sciences in collaboration with EF&CC of MISTIC & Dept. of Disaster Management & Rehabilitation, Govt. of Mizoram	3 <sup>rd</sup> November, 2018		State
		Science and Technology for a Sustainable Future	Mizo Academy of Sciences in collaboration with EF&CC of MISTIC & Pachhunga University College	30 <sup>th</sup> April, 2018		State
		UG Exam duty	MZU	November 2017		State
		UG Exam duty	MZU	May 2018		State
		Duties in University Sports	MZU	19 <sup>th</sup> to 23 <sup>rd</sup> March, 2018		State

**15. Details of conference/Seminar organized by the department:** N/A

**16. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:** N/A

**17. Recognised Research Centre /facility:** N/A

**18. Number of Faculty as members in :**

- a) University : 2
- b) State : 2
- c) Regional : N/A
- d) National committees : N/A
- e) International Committees : N/A
- f) Editorial Board : 1

**19. Details of Publications of Faculty:**

Sl . No	Name of Faculty	Title of the Paper	Date of Publication	Published by	ISSN No
1	Dr. Lalsaimawia Sailo	Degradation of some micro-pollutants from aqueous solutions using ferrate(VI) : Physico-chemical studies	August 2017	Seperation Science and Technology	Doi.org/10.1080/01496395.2017.1374976
2	Dr. Lalsaimawia Sailo	Efficient use of ferrate (VI) in the oxidative removal of potassium hydrogen phthalate from aqueous solutions	October 2017	Environmental Engineering Research	pISSN 1226-1025 eISSN 2005-968X

**20. Participation of the department in the courses offered by other departments: N/A****21. Courses in collaboration with other universities, industries, foreign institutions, etc:**

A one week 'Regional Workshop on Analytical Chemistry' was organized by Department of Chemistry, Mizoram University in collaboration with Department of Chemistry, Zirtiri Residential Science College during August 7-11, 2017 at Department of Chemistry, Mizoram University. The Workshop was funded by Mizoram University and DBT Institutional Biotech Hub, Zirtiri Residential Science College.

**22. Extension activities by the department:**

Remedial Classes were conducted for 3<sup>rd</sup> Semester (1<sup>st</sup> Semester Chemistry repeaters) and 4<sup>th</sup> Semester (2<sup>nd</sup> Semester Chemistry repeaters) during October 31-November 6, 2017 and April 12-24, 2018 with the help of RUSA, GZRSC under Equity Initiatives. The Programme was a very big success and we received many numbers of positive feedback from the students.

**23. Library facilities: (Numbers only)**

- a. Textbooks and Reference Books : 960
- b. Journals : Nil
- c. E-Books and E Journals : 5250
- d. Any other : Nil

**24. Any other relevant information:**

(1) We received a letter No. Ex/UG/1-22/14 Dated 19<sup>th</sup> June, 2018 from Dr. Lalthanchami Sailo, Controller of Examinations, MZU regarding the appreciation of successful completion of the Central Evaluation and Even Semester, 2018.

(2) We have University rank holders in the last University Results 2018. They are :-

- 1<sup>st</sup> position – Tialtinpari
- 3<sup>rd</sup> position – Lalngaihawmi
- 5<sup>th</sup> position – Melody Lalhruaitluangi
- 6<sup>th</sup> position - Lalengmawii

## (b) ANNUAL DEPARTMENTAL REPORT FOR ZOOLOGY

1. Name of department : ZOOLOGY

2. Year of establishment : 2000

3. a) Name of the Head of Department: CAROLINE ZAIHMINGTHANGI

b) Phone No (Official) : 9089932798

c) Email : [rinmawia@gzrsc.edu.in](mailto:rinmawia@gzrsc.edu.in)

### 4. Brief Introduction of the Department (maximum 200 words):

The Department of Zoology has been established in 2000. The present faculty strength comprises of 5 regular Associate Professors and one attached Associate Professor. The subject of zoology deals with right from the microscopic living beings (Viruses, bacteria protozoa) to multicellular organism upto mammals(Dinosaurs and human beings. As the study of Zoology is interesting and breath-taking it attracts the students immensely. As per UGC guidelines syllabus (adopted MZU) introduced recent trends and advanced topic from Bioinformatics, Biotechnology, Molecular Biology, Environment etc. and provides insight into how "life" works, and, consequently, how we work.

### 5. Teaching Faculties in the department:

Sl. No	Name	Designation	Qualification	Subject Specialization	Year of Experience	No. of Ph.D. Students guided
1	Caroline Zaihmingthangi	Associate Professor	M.Sc	Cytogenetics	28	Nil
2	Dr. Lalzahawmi Chenkual	Associate Professor	M.Sc, Ph.D	Cytogenetics	25	
3	S. Thangrimawii	Associate Professor	M.Sc	Entomology	24	
4	H. Lalnunsangi	Associate Professor	M.Sc	Parasitology	23	
5	Lalrinmawia	Associate Professor	M.Sc, DCA	Parasitic Helminthology	21	
6	Sailopuii	Associate Professor	M.Sc	Entomology	20	

### 6. Number of Teaching and Non-Teaching Staff in the Department:

Designation	Regular		Contract		Part Time		Total	
	M	F	M	F	M	F	M	F
Professor							1	5
Associate Professor	1	5						
Assistant Professor								
Lab Assistant								
Lab Attendant		1						1

**7. Details of the Courses conducted by the department:****FIRST SEMESTER**

ZL-1 Biosystematics and Non-chordates Biology

ZL-II Practical

**SECOND SEMESTER**

ZL-III Chordate Biology and Anatomy

ZL-IV Practical

**THIRD SEMESTER**

ZL-V Evolution and Ethology

ZL-VI Practical

**FORTH SEMESTER**

ZL- VII Endocrinology and Reproduction Biology

ZL-VIII Practical

**FIFTH SEMESTER**

ZL-IX Cell Biology

ZL-XI Practical

ZL-XI Physiology

ZL-XIIPractical

ZL-XIII Biochemistry

ZL-XIV Practical

ZL- XV-A Applied Zoology

ZL-XV -A Practical

ZL- XVI-B Entomology

ZL-XI Practical

**FIFTH SEMESTER**

ZL-XVII Molecular Biology and Genetics

ZL-XVIII Practical

ZL-XIX Developmental Biology

ZL-XX Practical

ZL-XXI Parasitology and Immunology

ZL-XXII Practical

ZL-XXIII Biotechnology and Bioinformatics

ZL-XXIV Practical

**8. Students Particulars:**

Sl.No	Semester	Applications received 2017-18	Selected 2017-18	Enrolled		Pass percentage
				M	F	
1	I Semester	160	119	45	74	NA
2	II Semester	106	106	55	51	83.9 %
3	III Semester	106	106	55	51	NA
4	IV Semester	86	86	37	49	100 %
5	V Semester	48	48	21	27	NA
6	VI Semester	31	31	18	13	100%

**9. Student - Teacher Ratio** : 42:1

**10. Annual Average Attendance Percentage of the Student** : > 76 %

**11. Study tour conducted under year of report** : 2

**12. Awards / Recognitions received by faculty and students** :

**13. Details of Faculty qualified for the Ph.D degree under year of report:**

**14. Paper presented/chaired sessions/ attended in seminars/ conferences/ workshops/symposium; invited Lectures given/attended by teaching faculty in refresher course/ Orientation course/others:**

Sl. No	Name of Faculty	Course/Title	Organized by	Duration /Date	Funded by	Whether College/ University/State/ National /International
1	Caroline Zaihmingthangi	<b>Participated in</b> College Level Exhibition organized by innovation Club, GZRSC	State DBT-Biotech Hub, MZU and Institutional Biotech Hub, GZRSC	15-16 Sept, 2018 at Auditorium GZRSC	RUSA, GZRSC	College Level
		<b>Member, Board of Studies</b> (Zoology) MZU	MZU			University Level
		<b>Chief Examiner:</b> in Zoology Central Evaluation, MZU	Controller of Examination , MZU	22 <sup>nd</sup> to 30 <sup>th</sup> , May, 2018	Controller of Examination , MZU	University Level
		<b>Organizing Member</b> Celebration of National Science Day 2018	Innovation Club & Institutional Biotech Hub, GZRSC	28 February, 2018 Auditorium GZRSC	NCSTC, DST, New Delhi	College Level
2	Dr. Lalzahawmi Chenkual	<b>Resource Person:</b> for 3-months Course Environmental Research Techniques	Rastriya Uchchatar Shisha Abhiyan (RUSA), GZRSC	Dec, 2017 to Feb, 2018	RUSA, GZRSC	College Level
		<b>Coordinator:</b> for 3-months Course Environmental Research	Rastriya Uchchatar Shisha Abhiyan	Dec, 2017 to Feb, 2018	RUSA, GZRSC	College Level

		Techniques	(RUSA), GZRSC			
		<b>Organizing Member</b> : Soft Skill and Career readiness Programme	Student Support Committee, GZRSC and Avenues Shillong	17 July, 2018	RUSA-GZRSC	College Level
		<b>Coordinator:</b> Course on Spoken Hindi	Rastriya Uchchatar Shisha Abhiyan (RUSA), GZRSC	19 <sup>th</sup> Sept to 18 <sup>th</sup> October, 2017	Rastriya Uchchatar Shisha Abhiyan, GZRSC	College Level
		<b>Organizing Member</b> : Personality development Programme -2018	Student Support Committee	May ,21 <sup>st</sup> 25 <sup>th</sup> , 2018	Rastriya Uchchatar Shisha Abhiyan, GZRSC	
		<b>Chief Examiner:</b> in Zoology Central Evaluation, MZU	Controller of Examination , MZU	22 <sup>nd</sup> to 30 <sup>th</sup> , May, 2018	Controller of Examination , MZU	University Level
		Evaluated the scientific Project Proposal	DS&T, Govt. of Mizoram	2017-2018	DS&T, Govt. of Mizoram	
		<b>Member:</b> Moderation Board, MZU	MZU	5 <sup>th</sup> & 6 <sup>th</sup> , March, 2018	MZU	University Level
		Incharge (Leader) : University Sports, MZU	MZU	19-23 March , 2018	MZU	University Level
		<b>Resource Person</b> : Hands on Training on Molecular research Technique	State DBT-Biotech Hub, MZU and Institutional Biotech Hub, GZRSC	31 <sup>st</sup> May-6 <sup>th</sup> June, 2018	RUSA, GZRSC	College Level
		<b>Coordinator</b> : Hands on Training on Molecular research Technique	State DBT-Biotech Hub, MZU and Institutional Biotech Hub, GZRSC	31 <sup>st</sup> May-6 <sup>th</sup> June, 2018	RUSA, GZRSC	College Level

		<b>Participant :</b> Climate Change and Adaptation & Disaster Risk Reduction	Mizo Academy of Science	3 <sup>rd</sup> November, 2017, ATI Auditorium, Secretariat Complex	Dept. of environment, forest & climate change Cell of MISTIC & Dept. of Disaster management & rehabilitation	
		<b>Participant :</b> Chinese Checker in XXX Inter departmental Sport-2017	Mizoram Sport & cultural association	12 <sup>th</sup> to 16 September, 2017		District Level
		<b>Participant :</b> State Level workshop on Needs of scientific & Technological Intervention for the development of Mizoram	Directorate of Science & Technology. Govt. of Mizoram & Mizoram Science Society	27 <sup>th</sup> October, 2017	DS&T and Mizoram Science Society	State Level
		<b>Organizing Member</b> Trainers Training programme for enhancing equity and inclusion	Center for Social Research, New Delhi and Website Committee, GZRSC	August 16 <sup>th</sup> -22 <sup>nd</sup> , 2017	Center for Social Research, New Delhi	College Level
3	S. Thangrimawii	<b>Participant :</b> Trainers Training programme for enhancing equity and inclusion	Center for Social Research, New Delhi and Website Committee, GZRSC	August 16 <sup>th</sup> -22 <sup>nd</sup> , 2017	Center for Social Research, New Delhi	College Level
		<b>Participant:</b> Science & Technology for sustainable Future	Innovation Club & Institutional Biotech Hub, GZRSC	28 feb, 2018 Auditorium GZRSC	NCSTC, DST, New Delhi	College Level
		Central Evaluation for UG Exam	MZU	5 <sup>th</sup> to 13 <sup>th</sup> Dec 2017	MZU	University Level



		Central Evaluation for UG Exam	MZU	24 <sup>th</sup> to 31 <sup>ST</sup> May, 2017	MZU	University Level
		<b>Participant:</b> Financial Management and Digital Teaching Methods for College Teachers	Website Committee, GZRSC & RUSA - GZRSC	5 <sup>th</sup> -12 <sup>th</sup> April, 2017	Rastriya Uchchatar Shisha Abhiyan (RUSA), GZRSC	State Level
4	H. Lalnunsangi	<b>Participant :</b> Trainers Training programme for enhancing equity and inclusion	Center for Social Research, New Delhi and Website Committee, GZRSC	August 16 <sup>th</sup> -22 <sup>nd</sup> , 2017	Center for Social Research, New Delhi	College Level
		<b>Participant:</b> Financial Management and Digital Teaching Methods for College Teachers	Website Committee, GZRSC & RUSA - GZRSC	5 <sup>th</sup> -12 <sup>th</sup> April, 2017	Rastriya Uchchatar Shisha Abhiyan (RUSA), GZRSC	State Level
		Central Evaluation for UG Exam	MZU	5 <sup>th</sup> to 13 <sup>th</sup> Dec 2017	MZU	University Level
		<b>Participant:</b> Science & Technology for sustainable Future	Innovation Club & Institutional Biotech Hub, GZRSC	28 feb, 2018 Auditorium GZRSC	NCSTC, DST, New Delhi	College Level
5	Lalrinmawia	<b>Paper Present :</b> National conference on recent trends in Zoological Research in North East India	Zoological Society(Kolkata) and NEHU	April 19 <sup>th</sup> -20 <sup>th</sup> , 2018, Conference Hall, NEHU	DST, Govt. of India	National Level
		<b>Paper Present :</b> National Seminar on Biodiversity, Conservation and Utilization of Natural resources with references to North East India (BCUNRNEI)	Department of Botany, Mizoram University	March 30 <sup>th</sup> -31 <sup>st</sup> , 2017, Conference Hall, MZU	BCUNR NEI, Mizoram University	National Level

		<b>Organizing Member</b> Trainers Training programme for enhancing equity and inclusion	Center for Social Research, New Delhi and Website Committee, GZRSC	August 16 <sup>th</sup> -22 <sup>nd</sup> , 2017, Auditorium GZRSC	Center for Social Research, New Delhi	College Level
		<b>Organizing Member</b> Celebration of National Science Day 2018	Innovation Club & Institutional Biotech Hub, GZRSC	28 Feb, 2018 Auditorium GZRSC	NCSTC, DST, New Delhi	College Level
		<b>Participant</b> : Hands on Training on Molecular Research Technique	State DBT-Biotech Hub, MZU and Institutional Biotech Hub, GZRSC	31 <sup>st</sup> May- 6 <sup>th</sup> June, 2018 Auditorium GZRSC	Rastriya Uchchatar Shisha Abhiyan (RUSA), GZRSC	College Level
		Central Evaluation for UG Exam	MZU	5 <sup>th</sup> to 13 <sup>th</sup> Dec 2017	MZU	University Level
		<b>Resource Person</b> : 3-months Course Environmental Research Techniques	Rastriya Uchchatar Shisha Abhiyan, GZRSC	Dec, 2017 to Feb, 2018 GZRSC	Rastriya Uchchatar Shisha Abhiyan (RUSA), GZRSC	College Level
6	Sailopuii	<b>Organizing Member:</b> Awareness Campiagn on Drugs Abuse, Social Media/Cyber Crime and Human Trafficking	CID Crime Mizoram & Research & Seminar Committee, GZRSC	24 <sup>th</sup> July, 2018 Auditorium GZRSC	Rastriya Uchchatar Shisha Abhiyan (RUSA), GZRSC	College Level
		<b>Participant</b> : Trainers Training programme for enhancing equity and inclusion	Center for Social Research, New Delhi and Website Committee, GZRSC	August 16 <sup>th</sup> -22 <sup>nd</sup> , 2017	Center for Social Research, New Delhi	College Level
		<b>Participant:</b> 3-months Course Environmental Research Techniques	Rastriya Uchchatar Shisha Abhiyan, GZRSC	Dec, 2017 to Feb, 2018 GZRSC	Rastriya Uchchatar Shisha Abhiyan (RUSA), GZRSC	College Level
		<b>Organizing Member</b>	Innovation Club &	28 Feb, 2018	NCSTC, DST,	College Level

		Celebration of National Science Day 2018	Institutional Biotech Hub, GZRSC	Auditorium GZRSC	New Delhi	
--	--	--	----------------------------------	------------------	-----------	--

**15. Details of conference/Seminar organized by the department: NA**

**16. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: NA**

**17. Recognized Research Centre /facility : NA**

**18. Number of Faculty as members in**

- a) University : 3
- b) State : 2
- c) Regional :
- d) National committees :
- e) International Committees :
- f) Editorial Board :

**19. Details of Publications of Faculty :**

Sl. No	Name of Faculty	Title of the Paper	Date of Publication	Published by	ISSN No
2	Lalrinmawia	An Assessment of Insect Pests of Teak ( <i>Tectona grandis</i> Linn.F) with Special Reference to Bioecology of <i>Hyblaea Puera</i> (Cramer) in Aizawl District Mizoram	19 <sup>th</sup> April, 2018		

**20. Participation of the department in the courses offered by other departments: NA**

**21. Courses in collaboration with other universities, industries, foreign institutions, etc: NA**

**22. Extension activities by the department : Students Field Trip**

**23. Library facilities: (Numbers only)**

- a. Textbooks and Reference Books : 625
- b. Journals : 2
- c. E-Books and E Journals :
- d. Any other :

**24. Any other relevant information :**

**A. Future Plan of the Department**

1. Introduce PG course
2. To subscribe E- Journal for National and International
3. Arrangements will be made to provide self employment training to the students of the Department with collaborations of Government Agencies, NGO, companies.
4. Arrangements will be made to start Research Lab in the Department of Zoology.
5. Department will be organizing the National Level Seminar and Conference

### (c) ANNUAL DEPARTMENT REPORT FOR BOTANY

1. Name of the department: Botany

2. Year of establishment: 2000

3. a) Name of the Head of Department: Dr R. Lalengmawia

b) Phone No (Official): 2305848

c) Email: [contact@gzrsc.edu.in](mailto:contact@gzrsc.edu.in)

#### 4. Brief introduction of the Department (maximum 200 words)

The department of Botany was established in the year 2000 at Government Zirtiri Residential Science College. The department with its seven faculty members, strive to promote an intrinsic knowledge and understanding of the subject to students who often lack the basic foundation on the subject. It aims to provide a conducive learning environment for students and to groom them in preparation for achieving their next career level. The department also tries to keep pace with the recent advances and trends in plant sciences by attending workshops, seminars, group discussions and going on field studies.

#### 5. Teaching faculties in the department:

Sl. No	Name	Designation	Qualification	Subject specialization	Years of experience
1.	Dr R. Lalengmawia	Associate Professor	MSc, Ph.D	<i>Ecology and management of forest ecosystems</i> <u>Ph.D Thesis:</u> <i>Survey on orchid of sub Himalayan and sub Tropical pine forests of Mizoram and ecological analysis of important species</i>	26
2.	Ms. Zodinpuui	Associate Professor	MSc	<i>Plant Physiology (plant growth hormone)</i>	25
3.	Ms. Laltlanchhungi	Associate Professor	MSc	<i>Ecology and management of forest ecosystems</i>	21
4.	Ms. Mary Lalthansangi	Associate Professor	MSc	<i>Plant Biotechnology</i>	21
5.	Ms. Lalrintluangi	Associate Professor	MSc	<i>Angiosperm Taxonomy</i>	20
6.	Ms. Lalremruati Hmar	Associate Professor	MSc	<i>Microbial Ecology</i>	20
7.	Mr. Lalnunthara	Associate Professor	MSc	<i>Microbial Ecology</i>	20

#### 6. Number of Teaching and Non Teaching Staff in the Department:

Designation	Regular		Contract		Part Time		Total	
	M	F	M	F	M	F	M	F
Professor	-	-	-	-	-	-	-	-
Associate Professor	2	5	-	-	-	-	2	5
Assistant	-	-	-	-	-	-	-	-

<b>Professor</b>								
<b>Lab Assistant</b>	-	-	-	-	-	-	-	-
<b>Lab Attendant</b>	-	<b>1</b>	-	-	-	-	-	<b>1</b>

**7. Details of the Courses conducted by the Department:**

<b>Semester</b>	<b>Subject code</b>		<b>Subject name</b>	<b>Credit</b>
I	BOT/I/CC/01	Theory	Cryptogams	4
	BOT/I/CC/02	Practical	Cryptogams	2
II	BOT/II/CC/03	Theory	Phanerogams	4
	BOT/II/CC/04	Practical	Phanerogams	2
III	BOT/III/CC/05	Theory	Plant Physiology, Biochemistry, Ecology	4
	BOT/III/CC/06	Practical	Plant Physiology, Biochemistry, Ecology	2
IV	BOT/IV/CC/07	Theory	Microbiology, Cytology, Genetics, evolution	4
	BOT/IV/CC/08	Practical	Microbiology, Cytology, Genetics, evolution	2
V	BOT/V/CC/09	Theory	Fungi, Plant Pathology, Biostatistics	4
	BOT/V/CC/10	Practical	Fungi, Plant Pathology, Biostatistics	2
	BOT/V/CC/11	Theory	Algae, Lichen, Bryophytes	4
	BOT/V/CC/12	Practical	Algae, Lichen, Bryophytes	2
	BOT/V/CC/13	Theory	Cytogenetics, Plant Breeding, Bioinformatics	4
	BOT/V/CC/14	Practical	Cytogenetics, Plant Breeding, Bioinformatics	2
	BOT/V/CC/15	Theory	Environmental Biology, Ethnobotany	4
	BOT/V/CC/16	Practical	Environmental Biology, Ethnobotany	2
VI	BOT/VI/CC/17	Theory	Pteridophytes, Gymnosperms, Palaeobotany	4
	BOT/VI/CC/18	Practical	Pteridophytes, Gymnosperms, Palaeobotany	2
	BOT/VI/CC/19	Theory	Angiosperm taxonomy, Anatomy, Embryology	4
	BOT/VI/CC/20	Practical	Angiosperm taxonomy, Anatomy, Embryology	2
	BOT/VI/CC/21	Theory	Plant Metabolism, Biochemistry, Thermodynamics	4
	BOT/VI/CC/22	Practical	Plant Metabolism, Biochemistry, Thermodynamics	2
	BOT/VI/CC/23	Theory	Plant Biotechnology, Experimental Embryology	4
	BOT/VI/CC/24	Practical	Plant Biotechnology, Experimental Embryology	2

## 8. Students Particulars:

Sl No	Semester	Applications received 2017-2018	Selected 2017-2018	Enrolled		Pass percentage
				M	F	
1	I Semester (2018-2019 batch)	132	92	34	48	74.68
2	II Semester (2017-2018 batch)	86	86	50	36	86.76
3	III Semester(2018-2019 batch)	54	54	22	32	98.00
4	IV Semester(2017-2018 batch)	54	54	22	32	98.03
5	V Semester(2018-2019 batch)	25	25	10	15	96.00
6	VI Semester(2017-2018 batch)	25	25	10	15	100.00

## 9. Students – Teacher Ratio - 24:1

## 10. Annual Average Attendance Percentage of the students

I Semester – 78%

IV Semester – 84%

II Semester – 81%

V Semester – 90%

III Semester – 82%

VI Semester – 94%

## 11. Study tour conducted under the year of report:

An ecological study of Republic Field area at Ramthar Veng was conducted on 6<sup>th</sup> October 2017 for the 3<sup>rd</sup> semester Botany students. The field study was guided by Mrs Laltlanchhungi and Mrs Lalremruati Hmar. The purpose of the visit was to ‘*study the plant community of Republic field area by determining the frequency, density and abundance by quadrat method*’

A study tour to Shillong and Guwahati was conducted for the 6<sup>th</sup> Semester core students from 10<sup>th</sup> April to 13<sup>th</sup> April 2018. Twenty three students were a part of this tour. The tour group was lead by Mr Lalnunthara, Associate Professor, Department of Botany.

## 12. Awards / Recognition received by faculty and students:

*The following faculty members have been recognized by the University for their contribution in the University Exams*

Dr R Lalengmawia – Chief Examiner on 5<sup>th</sup> – 13<sup>th</sup> December 2017 and 22<sup>nd</sup> May- 1<sup>st</sup> June 2018

Mrs Zodinpuui – Chief Examiner on 22<sup>nd</sup> May- 1<sup>st</sup> June 2018

Mrs Laltlanchhungi – Paper examiner on 5<sup>th</sup> – 13<sup>th</sup> December 2017

Mrs Mary Lalthansangi – Paper examiner on 5<sup>th</sup> – 13<sup>th</sup> December 2017 and 22<sup>nd</sup> May- 1<sup>st</sup> June 2018

Mrs Lalrintlaungi - Chief Examiner on 5<sup>th</sup> – 13<sup>th</sup> December 2017

Mr Lalnunthara – 2<sup>nd</sup> position in Men’s doubles in Badminton at the Mizoram Civil services annual Sports Meet held from 12<sup>th</sup> -16<sup>th</sup> September 2017

## 13. Details of Faculty qualified for Ph.D degree under year of report:

**14. Paper presented/ chaired sessions/attended in seminar/ conferences/workshops/ symposiums/invited lectures given/attended by teaching faculty in refresher course/Orientation course/others:**

Sl No	Name of the faculty	Course/Title	Organized by	Duration/ Date	Funded by	Whether college/ University/ state/Regional/National/ International
1.	Dr. R Lalengmawia	Legal Service Camp	Mizoram State Legal Service Authority	21.3.18	Mizoram State Legal Service Authority	State
2.	Zodinpuui	Trainer's training programme for Enhancing Equity and Inclusion	Website committee, GZRSC and Centre for social Research, New Delhi	16.8.17-23.8.17	RUSA, GZRSC	College
		Personality Development Programme 2018	Students support Committee	21.5.18 - 25.5.18	RUSA, GZRSC	College
3.	Laltlanchhungi	Trainer's training programme for Enhancing Equity and Inclusion	Website committee, GZRSC and Centre for social Research, New Delhi	16.8.17-23.8.17	RUSA, GZRSC	College
		Science and Technology for a sustainable future	Innovation Club, GZRSC, Biotech Hub, GZRSC	28.2.18	Mizoram Science, Technology & Innovation Council	College
4.	Mary Lalthansangi	Trainer's training programme for Enhancing Equity and Inclusion	Website committee, GZRSC and Centre for social Research, New Delhi	16.8.17-23.8.17	RUSA, GZRSC	College
		Science and Technology for a sustainable future	Innovation Club, GZRSC, Biotech Hub, GZRSC	28.2.18	Mizoram Science, Technology & Innovation	College



					n Council	
		Hands on training on Molecular Research technique	DBT- Institutional Hub,GZRSC and Research & Seminar Committee,GZ RSC with State DBT-Biotech Hub,MZU	31.5.18 – 6.6.18	RUSA, GZRSC	State
5.	Lalremruati Hmar	Trainer's training programme for Enhancing Equity and Inclusion	Website committee, GZRSC and Centre for social Research, New Delhi	16.8.17- 23.8.17	RUSA, GZRSC	College
		Science and Technology for a sustainable future	Innovation Club, GZRSC, Biotech Hub, GZRSC	28.2.18	Mizoram Science, Technology & Innovation Council	College
6.	Lalnunthara	Trainer's training programme for Enhancing Equity and Inclusion	Website committee, GZRSC and Centre for social Research, New Delhi	16.8.17- 23.8.17	RUSA, GZRSC	College
		Training programme on life skills, Leadership and Personality development	State NSS Cell, Mizoram and Regional Directorate of NSS, Guwahati	11.12.17 - 15.12.17	State NSS Cell, Mizoram and Regional Directorate of NSS, Guwahati	Regional

#### 15. Details of conference/seminar organized by the department:

A students seminar for the 6<sup>th</sup> Semester students was organized by the department on 19<sup>th</sup> April 2018

Sl No	Topic	Funded by	Collaboration
1.	<i>Totipotency</i>	Institution	
2.	<i>Cloning Vectors</i>	Institution	
3.	<i>Production of transgenic Plants</i>	Institution	
4.	<i>Synthetic seeds</i>	Institution	
5.	<i>Cryopreservation</i>	Institution	
6.	<i>Restriction Endonuclease</i>	Institution	
7.	<i>Reporter gene in Plants</i>	Institution	

8.	<i>Nutrient medium</i>	Institution	
9.	<i>Transgenic cotton</i>	Institution	
10.	<i>Polymerase chain reaction</i>	Institution	
11	<i>Golden Rice</i>	Institution	

**16. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR etc and total grants received:**

**17. Recognized Research Centre/facility:**

**18. Number of faculty as members in**

- a) University: 2
- b) State: 2
- c) Regional: Nil
- d) National Committees: Nil
- e) International committees: Nil
- f) Editorial board:

**19. Details of Publication of Faculty:**

**20. Participation of the department in the courses offered by other departments:**

The department has been detailed to take up the following common course/foundation course

*History of Science* in III Semester BSc (Life Science)

*Environmental Science* in IV Semester BSc (Life Science)

**21. Courses in collaboration with other universities, industries, foreign institutions etc:**

**22. Extension activities by the department:**

The 5<sup>th</sup> semester Botany students prepared a Bulletin Board with a botanical theme as a part of The Innovation Club, GZRSC activity on 28<sup>th</sup> August 2017.

The department successfully participated in the College Science exhibition held on 13<sup>th</sup> and 14<sup>th</sup> October 2017. 5<sup>th</sup> semester students participated in the event. Two models and a live specimen was exhibited. The theme of the exhibit was *Unique Mode of Nutrition in the Plant Kingdom*. The exhibits were as follows

- a) *Ophiocordyceps sinensis* (The caterpillar fungus)
- b) *Monotropa* (Indian pipe)
- c) *Nepenthes alata* (Pitcher plant)

**23. Library Facilities: (Numbers only)**

- a) Textbooks and reference books - 666
- b) Journals – 4
- c) E-Books and E-Journals -
- d) Any other-
- e)

**24. Any other relevant Information:**

#### (d) ANNUAL DEPARTMENTAL REPORT FOR PHYSICS

1. Name of department : PHYSICS
2. Year of establishment : 2000
3. a) Name of the Head of Department : M. Ingocha Singh  
b) Phone No (Official) : NIL  
c) Email : [sovasingh.lm@gmail.com](mailto:sovasingh.lm@gmail.com)

#### 4. Brief Introduction of the Department (maximum 200 words):

The Department of Physics, Govt. Zirtiri Res. Sc. College traces back to 1991, when it started its regular activities of teaching and laboratory classes in Govt. Aizawl College with a single faculty member namely Dr. Arup Kumar, who then joined there as a part-time lecturer. Subsequently two regular posts were created and both Dr. Arup Kumar and Mr. M. I. Singh were appointed as regular Lecturers in 1992. Till the year 1995, the teaching activities were confined to Pre-University classes (XI & XII) and in 1996, B.Sc. classes began with the joining of one more faculty member namely Dr. Zaithanzuva Pachuau. Later in the year 1998 one more teacher Mr. Rosangliana joined the department. The dept was running smoothly with all regular activities and on an average 10 students per year used to pass graduation in Physics Honors from the college.

In the year of July 2000, all the science departments including the department of Physics were shifted to Govt. Zirtiri Res. Science College and four more faculty members joined, who were transferred from other colleges in Mizoram. They were Dr. B. Zoliana, Dr. R.C. Tiwari, Mr. Remlalsiama and Mr. Lawrence Zonunmawia. At that time there were total of 7 faculty members in the Physics department of the college.

During 2003, Electronics Dept. were created and Dr. B. Zoliana, Dr. Zaithanzuva Pachuau and Dr. R.C. Tiwari were assigned to this Dept. Since then the Physics Dept. is being run by 5 regular Professors and at present both teaching and research works are part of the regular activities. Out of 5 Professors, 2 are Doctorate and 3 are pursuing their Ph.D. works. On an average 15 students per year pass graduation with Physics Honors, among which many are rank-holders and toppers of Mizoram University.

#### 5. Teaching Faculties in the department:

Sl. No	Name	Designation	Qualification	Subject Specialization	Year of Experience	No. of Ph.D. Students guided
1	M. Ingocha Singh( H.O.D)	Associate Professor	M.Sc	Electronics	26	Nil
2	Dr.Arup Kumar	Associate Professor	M.Sc. PhD	Astrophysics	26	Nil
3	Dr. Rosangliana	Associate Professor	M.Sc. PhD	Nuclear Physics	21	1(one)
4	Lawrence Zonunmawia	Associate Professor	M.Sc	Solid State Physics	19	Nil
5	Remlalsiama	Associate Professor	M.Sc	High Energy Physics	19	Nil

**6. Number of Teaching and Non Teaching Staff in the Department:**

Designation	Regular		Contract		Part Time		Total	
	M	F	M	F	M	F	M	F
Professor	-	-	-	-	-	-	-	-
Associate Professor	5	-	-	-	-	-	5	-
Assistant Professor	-	-	-	-	-	-	-	-
Lab Assistant	-	-	-	-	-	-	-	-
Lab Attendant	-	-	-	-	-	-	-	-

**7. Details of the Courses conducted by the department:**

\* Type semester wise subject code, subject name and credit.

**8. Students Particulars:**

Sl. No	Semester	Applications received 2017-18	Selected 2017-18	Enrolled		Pass percentage
				M	F	
1	I Semester	200	75	65	10	45.76%
2	II Semester					95%
3	III Semester					38%
4	IV Semester					69.23%
5	V Semester					30%
6	VI Semester	17	17	17	nil	76.47%

**9. Student - Teacher Ratio :** 161 : 5

**10. Annual Average Attendance Percentage of the Student :** 85%

**11. Study tour conducted under year of report:** VI-Sem students went for NSS special camping in the month of September (13<sup>th</sup>-19<sup>th</sup> Sept) at Saithah under Mamit District.

**12. Awards / Recognitions received by faculty and students :** Ramtharnglaki, III-Sem Roll No.119 scored 94% in the II-Sem University exam.

**13. Details of Faculty qualified for the Ph.D degree under year of report :**  
NIL

**14. Paper presented/chaired sessions/ attended in seminars/ conferences/ workshops/symposium; invited Lectures given/attended by teaching faculty in refresher course/ Orientation course/others:**

Sl. No	Name of Faculty	Course/Title	Organised by	Duration /Date	Funded by	Whether College/ University/State/ Regional/National /International
1	Dr. Rosangliana	Electromagnetic waves, Environmental treatment and adverse effect in public health	GZRSC, MP CB, State Legal Service Authority, H RDC(MZU)	01.12.2017-16.02.2018	RUSA, GZRSC	State

--	--	--	--	--	--	--

**15. Details of conference/Seminar organized by the department:** NIL

**16. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:** BRNS-DAE Project ( Major) with grants of Rupees 33 lakhs.

**17. Recognized Research Centre /facility:** Radiation Detection laboratory at Physics Dept,GZRSC.

**18. Number of Faculty as members in**

**a) University :**

**1.Dr. Rosangliana:-**

- i) Member – moderation board in Electronics
- ii) C/Member to verify Lab requirements in Physics under CDC, MZU
- iii) Chief examiner in Physics under MZU

**2. M.I. Singh:-**

- i) School Board member, Dept of Physics, MZU

**3. Dr. Arup Kumar:-**

- i) Moderation Board Member, Dept. of Physics, MZU

**b) State : Dr. Rosangliana:-** i) Exe C/Member, Mizo Academy of Science  
ii) Exe C/Member, Zoram Research Foundation

**c) Regional :** Nil

**d) National committees :** Physics Academy of Northeast

**e) International Committees :** Nil

**f) Editorial Board :** Nil

**19. Details of Publications of Faculty :-**

**20. Participation of the department in the courses offered by other departments:**

**21. Courses in collaboration with other universities, industries, foreign institutions, etc:**

**22. Extension activities by the department:**

**23. Library facilities: (Numbers only)**

- a. Textbooks and Reference Books :** 1085
- b. Journals :** 12
- c. E-Books and E Journals :** 2
- d. Any other :** NIL

**24. Any other relevant information:**

(e) ANNUAL DEPARTMENTAL REPORT FOR MATHEMATICS

1. Name of department: MATHEMATICS

2. Year of establishment: 2000

3. a) Name of the Head of Department: LEISHANGTHEM BUDHA SINGH

b) Phone No (Official): 9862373643

c) Email: [lbudhasingh@gmail.com](mailto:lbudhasingh@gmail.com)

4. Brief Introduction of the Department (maximum 200 words):

The Department of Mathematics was established in the year 2000 in GZRSC. Mathematics subject has been offered as a Core subject since its introduction. The number of teachers at the time of establishment was four (4), viz. Dr. P.C. Pandey, Dr. Urmila Pandey, Mr. L.B. Singh and Mrs. Parijat Kumar. Miss R. Lalawmpuii joined as a part-time teacher in 2007 and continued her service till 2012. Mr. Lalhmangaihzuale joined as a part-time teacher in 2012 and then engaged as a contract teacher in 2017. Mrs. R. Lalawmpuii joined as a contract teacher in 2015. Mr. C. Lalngaihawma joined as a contract teacher in 2017. Dr. R. Lalawmpuii was given appointment as regular teacher in 2018.

Some of the recent successes made and the awards received by faculty members and students are

- a) Zathuama got 1<sup>st</sup> position in the University Examination 2013.
- b) V. L. MuankimiHrahsel got 2<sup>nd</sup> position in University Examination 2014.
- c) Rita KumariKatwal got 3<sup>rd</sup> position in the University Examination 2014.
- d) Sudha got 6<sup>th</sup> position in the University Examination 2014.
- e) F. Lalramluahpuia got 8<sup>th</sup> position in the University Examination 2014.
- f) Zothangpuia got 10<sup>th</sup> position in the University Examination 2014.
- g) Dr. R Lalawmpuii, Assistant professor got a Ph. D degree in 2014.
- h) Mohan KumariKatwal got 5<sup>th</sup> position in the University Examination 2015.
- i) T. Zothansanga got 6<sup>th</sup> position in the University Examination 2015.
- j) Dr. Lalhmangaihzuale, Assistant professor got a Ph. D degree in 2015.

5. Teaching Faculties in the department:

Sl. No	Name	Designation	Qualification	Subject Specialization	Year of Experience	No. of Ph.D. Students guided
1	LEISHANGTHEM BUDHA SINGH	Associate Professor	M.Sc.	Magneto Hydro Dynamics & Plasma Physics	21 years	N.A.
2	PARIJAT KUMAR	Associate Professor	M.Sc.	Real Analysis	21 years	N.A.
3	Dr. R. LALAWMPUII	Assistant Professor	Ph.D.	Mathematical Methods	11 years	NIL
4	Dr. LALHMANGAIHZUALA	Assistant Professor (Contract)	Ph.D.	Topological Entropy of Dynamical systems	7 years	NIL
5	C. LALNGAIHAWMA	Assistant	M.Sc.	Pure	2 years	N.A.

		Professor (Contract)		Mathematics		
--	--	-------------------------	--	-------------	--	--

**6. Number of Teaching and Non-Teaching Staff in the Department:**

Designation	Regular		Contract		Part Time		Total	
	M	F	M	F	M	F	M	F
Professor								
Associate Professor	1	1						
Assistant Professor		1	2					
Lab Assistant								
Lab Attendant								

**7. Details of the Courses conducted by the department:**

SEMESTER	COURSE/PAPER No	PAPER NAME	CREDIT
I Semester	MATH/1/CC/111	Calculus	6
II Semester	MATH/2/CC/121	Algebra	6
III Semester	MATH/3/CC/231	Differential Calculus	6
IV Semester	MATH/4/CC/241	Vector Calculus & Solid Geometry	6
V Semester	MATH/5/CC/351	Computer Oriented Numerical Analysis	6
	MATH/5/CC/352	Real Analysis	6
	MATH/5/CC/353	Complex Analysis	6
	MATH/5/CC/ B	Probability Theory	6
VI Semester	MATH/6/CC/361	Modern Algebra	6
	MATH/6/CC/362	Advanced Calculus	6
	MATH/6/CC/363	Mechanics	6
	MATH/6/CC/364 C	Computer Programming in C (Theory)	4
	MATH/6/CC/364 CP	Computer Programming in C (Practical)	2

**8. Students Particulars:**

Sl. No	Semester	Applications received 2017-18	Selected 2017-18	Enrolled		Pass percentage
				M	F	
1	I Semester	N.A.	75	66	9	49.15
2	II Semester	55	55	52	7	74.54
3	III Semester	52	52	43	9	32.60
4	IV Semester	52	52	43	9	84.09
5	V Semester	19	19	15	4	68.42
6	VI Semester	19	19	15	4	73.68

**9. Student - Teacher Ratio: 26 : 1**

**10. Annual Average Attendance Percentage of the Student: 82%**

**11. Study tour conducted under year of report: N.A**

**12. Awards / Recognitions received by faculty and students: NIL**

**13. Details of Faculty qualified for the Ph.D. degree under year of report: NIL**

**14. Paper presented/chaired sessions/ attended in seminars/ conferences/ workshops/symposium; invited Lectures given/attended by teaching faculty in refresher course/ Orientation course/others:**

Sl. No.	Name of Faculty	Course/Title	Organised by	Duration /Date	Funded by	Whether College/ University/State/ Regional /National /International
1.	LEISHANG THEM BUDHA SINGH	1. Member, Board of Studies Meeting	Mizoram University	1 <sup>st</sup> Nov, 2017		University
		2. Member, Moderation Board Meeting	Mizoram University	1 <sup>st</sup> Feb, 2018		University
		3. Celebration of National Science Day	Innovation Club, GZRSC & Institutional Biotech Hub, GZRSC	28 <sup>th</sup> Feb, 2018	National Council for Science and Technology Communication , DST, New Delhi, Govt. of India	College
		4. Member, B.O.S. (Local)	Mizoram University	16 <sup>th</sup> Apr, 2018		University
2.	PARIJAT KUMAR	1. Trainer's Training programme for enhancing equity and inclusion	Website Committee, GZRSC	16 <sup>th</sup> – 22 <sup>nd</sup> , Aug, 2017	RUSA	College
		2. Chief Examiner, Mathematics, Central Evaluation of the I, III & V Semester Under Graduate 2017 Examinations	Mizoram University	5 <sup>th</sup> – 13 <sup>th</sup> Dec, 2017		University
		3. Celebration of National Science Day	Innovation Club, GZRSC & Institutional Biotech Hub, GZRSC	28 <sup>th</sup> Feb, 2018	National Council for Science and Technology Communication , DST, New Delhi, Govt. of India	College
		4. Question setter, I, III & V	Mizoram University	26 <sup>th</sup> June,		University



		Semester Under Graduate 2018 Examinations		2018		
3.	Dr. LALHMAN GAIHZUAL A	1. Trainer's Training programme for enhancing equity and inclusion	Website Committee, GZRSC	16 <sup>th</sup> – 22 <sup>nd</sup> , Aug, 2017	RUSA	College
		2. Paper Examiner, Central Evaluation of the I, III & V Semester Under Graduate 2017 Examinations	Mizoram University	5 <sup>th</sup> – 13 <sup>th</sup> Dec, 2017		University
		3. Celebration of National Science Day	Innovation Club, GZRSC & Institutional Biotech Hub, GZRSC	28 <sup>th</sup> February, 2018	National Council for Science and Technology Communication, DST, New Delhi, Govt. of India	College
		4. Paper Examiner, Central Evaluation of the II, IV & VI Semester Under Graduate 2018 Examinations	Mizoram University	22 <sup>nd</sup> May – 1 <sup>st</sup> June, 2018		University
4.	C. LALNGAIH AWMA	1. Organising member, Celebration of National Science Day	Innovation Club, GZRSC & Institutional Biotech Hub, GZRSC	28 <sup>th</sup> February, 2018	National Council for Science and Technology Communication, DST, New Delhi, Govt. of India	College
		2. Mathematics Summer Day Camp 2018	Mizoram Mathematics Society and Mizoram Science, Technology & Innovation Council (MISTIC) in	19 <sup>th</sup> – 23 <sup>rd</sup> March, 2018.		State

			collaboration with Department of Mathematics, Pachhunga University College			
		3. Seminar on “ <i>Science and Technology for a Sustainable Future</i> ”	Mizo Academy of Sciences, Mizoram Science, Technology & Innovation Council (MISTIC) and Pachhunga University College	30 <sup>th</sup> April, 2018.		State

**15. Details of conference/Seminar organized by the department:** Nil

**16. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:**

**17. Recognised Research Centre /facility:**

**18. Number of Faculty as members in**

a) University

b) State:

c) Regional:

d) National committees:

e) International Committees:

f) Editorial Board:

**19. Details of Publications of Faculty:**

**20. Participation of the department in the courses offered by other departments:**

**21. Courses in collaboration with other universities, industries, foreign institutions, etc:**

**22. Extension activities by the department:**

**23. Library facilities: (Numbers only)**

a. Textbooks and Reference Books: 926

b. Journals:

c. E-Books and E Journals:

d. Any other:

**24. Any other relevant information:**

## (f) ANNUAL DEPARTMENTAL REPORT FOR HOME SCIENCE

- 1. Name of department:** Home Science
- 2. Year of establishment:** 1980
- 3. a) Name of the Head of Department:** Lalsangkimi Hmar  
**b) Phone No (Official):** 9436144478  
**c) Email:** [hmar.sangkimi@gmail.com](mailto:hmar.sangkimi@gmail.com)

### 4. Brief Introduction of the Department:

The initiation of Home Science studies for women was recommended by Mrs Chapman, a pioneer missionary. After her, Mrs Lalziki Sailo had taken up and had been functioning with Arts departments under Zirtiri Women College. After amalgamation, it came under Govt. Zirtiri Residential Science College for which the requirements was inter-science.

BSc Home Science is an under-graduate Home Science professional course. The degree course mainly comprise of the study of major topics of Home Science like Fundamentals of Food & Nutrition, Resource Management, Human Development, Fabrics and Apparel Science. In other words, BSc Home Science is a degree course that includes the study of may disciplines such as Chemistry, Physiology, Biochemistry, Economics, Rural Development, Child Development, Hygiene, Sociology, Family Relations, Community living, Art, Food, Nutrition, Clothing & Textile, Home management etc. The duration of the course is three years and the syllabus for the course is divided into six semesters.

### 5. Teaching Faculties:

Sl. No	Name	Designation	Qualification	Subject Specialization	Year of Experience	No. Ph.D student guided
1	Lalsangliani Khawlhing	Associate Professor	MSc Home Science	Home management	33 years	-
2.	Lalrinngheti Ralte	Associate Professor	M.A Home Science	Extension Education	31 years	-
3.	Lalsangkimi Hmar	Associate Professor	MSc Home Science	Child Development	30 years	-
4.	Lalthanpuui Ralte	Associate Professor	MSc Home Science & LL.B	Child Development	29 years	-
5.	Lalhmingliani Hlondo	Associate Professor	MSc Home Science	Child Development	28 years	-
6.	C. Lalramdina	Associate Professor	MSc (Zoology)	Developmental Biology	25 years	-
7.	C. Zarzokimi	Associate Professor	MSc (Zoology)	Limnology	20 years	-
8.	Vanlallawmi	Associate Professor	MSc Home Science	Family Resource Management	20 years	-
9.	Lalrammawii	Associate Professor	MSc Home Science	Food & Nutrition	20 years	-

10	Maria Lalhmingmawii	Assistant Professor	MSc Home Science	Food & Nutrition	10 years	-
11	Mimi Lalmuanawmi	Assistant Professor	Msc Home Science	Textile & Clothing	7 years	-
12	Rebecca Lalnuntluangi	Assistant Professor(Part time)	MSc Home Science	Textile & Clothing	6 years	-

6. Number of Teaching & Non-Teaching Staff in the Department :

Designation	Regular		Contract		Part -Time		Total	
	M	F	M	F	M	F	M	F
<b>Professor</b>	-	-	-	-	-	-	-	-
<b>Associate Professor</b>	1	8	-	-	-	-	1	8
<b>Assistant Professor</b>	-	2	-	-	-	1	-	3
<b>Lab.Assistant</b>	-	1	-	-	-	-	-	1
<b>Lab. Attendant</b>	1	-	-	-	-	-	1	-

**7. Details of the Courses conducted by the department:**

I Semester

:

**Pre CBCS:**

- 1) English –I
- 2) Introduction to Food & Nutrition – HSC/I/01
- 3) Extension Education – HSC/I/02
- 4) Chemistry – HSC/I/03

**CBCS:**

- 1) English –I
- 2) Introduction to Family Resource Management – HS/I/CC/01
- 3) Chemistry – HS/I/CC/03
- 4) Textiles – HS/I/CC/05

II Semester

:

**Pre-CBCS :**

- 1) English – II
- 2) Textiles & Clothing – HSC/II/04
- 3) Extension Education & Communication – HSC/II/05
- 4) Biochemistry – HSC/II/06

**CBCS :**

- 1) English-II
- 2) Introduction to Nutrition – HS/II/CC/07
- 3) Biochemistry – HS/II/CC/09
- 4) Extension Education – HS/II/CC/11

III Semester	:	<b>Pre-CBCS :</b> <ol style="list-style-type: none"> <li>1) History of Science</li> <li>2) Family Resource Management – HSC/III/07</li> <li>3) Textiles &amp; Design – HSC/III/08</li> <li>4) Physiology – HSC/III/09</li> </ol> <b>CBCS :</b> <ol style="list-style-type: none"> <li>1) History of Science</li> <li>2) Extension Education &amp; Communication – HS/III/CC/13</li> <li>3) Physiology – HS/III/CC/15</li> <li>4) Household Equipments &amp; Consumer Education –</li> </ol>
HS/III/CC/17		
IV Semester	:	<b>Pre-CBCS :</b> <ol style="list-style-type: none"> <li>1) Environmental Studies</li> <li>2) Human Development – Childhood – HSC/IV/10</li> <li>3) Nutrition for the Family – HSC/IV/11</li> <li>4) Household Equipments &amp; Consumer Economics –</li> </ol>
HSC/IV/12		
		<b>CBCS :</b> <ol style="list-style-type: none"> <li>1) Environmental Studies</li> <li>2) Human Development – Childhood – HS/IV/CC/19</li> <li>3) Clothing &amp; Textiles – HS/IV/CC/21</li> <li>4) Nutrition for the Family – HS/IV/CC/23</li> </ol>
V Semester	:	<b>Pre-CBCS :</b> <ol style="list-style-type: none"> <li>1) Family &amp; Child Welfare – HSC/V/13</li> <li>2) Early Childhood Education – HSC/V/14</li> <li>3) Garment Design- HSC/V/15</li> <li>4) Housing &amp; Interior Designing – HSC/V/16</li> </ol>
		<b>CBCS :</b> <ol style="list-style-type: none"> <li>1) Family &amp; Child Welfare – HS/V/CC/25</li> <li>2) Early Childhood Education – HS/V/CC/27</li> <li>3) Garment Design – HS/V/CC/29</li> <li>4) Dietetics – HS/V/CC/31 a</li> <li>5) Food Processing &amp; Preservation Technology –</li> </ol>
HS/V/CC/31 b		
VI Semester	:	<ol style="list-style-type: none"> <li>1) Child Psychology – HSC/VI/17</li> <li>2) Human Development – Adolescent &amp; Adulthood –</li> <li>3) Dietetics – HSC/VI/19</li> <li>4) Community Development – HSC/VI/20</li> </ol>
HSC/VI/18		

**8. Students Particulars:**

Sl No	Semester	Application received	Selected	Enrolled		Pass
				M	F	
		2017 – 2018	2017-2018			percentage
1	I Semester	35	30		28	NA
2	II Semester	15	12		10	90
3	III Semester	10	10		9	NA
4	IV Semester	17	17		17	100
5	V Semester	17	17		17	NA
6	VI Semester	11	11		11	63.64

**9. Student – Teacher Ratio :****10. Annual Average Percentage of the Student:****11. Study tour conducted under year of report:****12. Awards/ Recognitions received by Faculty and Students :****13. Details of Faculty qualified for the Ph.D degree under year of report:****14. Number of paper presented/chaired sessions/ attended in seminars/ conferences/ workshops/symposium; invited Lectures given/attended by teaching faculty in refresher course/ Orientation course/others:****15. Details of conference/Seminar organized by the department:****16. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc and total grant received :****17. Recognised Research Centre/facility :****18. Number of faculty as members in**

- a) University
- b) State
- c) Regional
- d) National committies
- e) International Committies
- f) Editorial Board

**19. Details of Publication of Faculty:****20. Participation of the Department in the courses offered by other departments:****21. Courses in collaboration with other universities, industries, foreign institutions etc.****22. Extension activities by the department:****23. Library facilities: (number only)**

- a) Textbooks and reference books

- b) Journals**
- c) e-books and e-journals**
- d) any other**

**24. Any other relevant information:**

## (g) ANNUAL DEPARTMENTAL REPORT FOR COMPUTER SCIENCE

**1. Name of department:** Computer Science Department

**2. Year of establishment:** 2003

**3. a) Name of the Head of Department:** M.S.Dawngliani

**b) Phone No (Official):** 0389-2306762

**c) Email:** [dawngliani@yahoo.co.in](mailto:dawngliani@yahoo.co.in)

### **4. Brief Introduction of the Department:**

Bachelor of Computer Applications (BCA) is a 3 years under-graduate degree course in the field of Computer. All those candidates who have passed the 10+2 or its equivalent examination in any stream conducted by a recognized Board / University / Council are eligible to take admission in BCA.

After completion of the BCA course you can opt for masters or you can even try for job opportunities. This course is mainly to build the career in information technology.

Most of our students who go for higher studies joined MCA (Masters of Computer Application) and MBA(Master of Business Administration). These two streams are designed to meet the growing demand for qualified professionals in the field of Information Technology and business administration.

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.

### **5. Teaching Faculties in the department:**

Sl. No	Name	Designation	Qualification	Subject Specialization	Year of Experience	No. of Ph.D. Students guided
1	M.S.Dawngliani	Assistant Professor	MScCs, Phd (Ongoing)	Computer Science	9	
2	C Lalrinawma	Assistant Professor (Contract)	MCA, Phd (Ongoing)	Computer Science	10	
3	Lalhruaitluanga	Assistant Professor (Contract)	MScIT, Phd (Ongoing)	Computer Science	10	
4	R Lalmawipuii	Assistant Professor (Contract)	MTech(IT)	Computer Science	10	
5	H Thangkhanhau	Assistant Professor Guest Lecturer	MTech	Computer Science	10	
6	Laldingliana Sailo	Assistant Professor Part Time	MCA	Computer Science	8	
7	Vanlallura	Assistant Professor	MCA	Computer Science	8	



		Part Time				
8	Lalremtlunga	Assistant Professor Part Time	MCom	Commerce	8	
9	Lalhmunmawii	Assistant Professor Part Time	MSc(Maths)	Mathematics	4	

**6. Number of Teaching and Non Teaching Staff in the Department:**

Designation	Regular		Contract		Part Time		Total	
	M	F	M	F	M	F	M	F
<b>Professor</b>								
<b>Associate Professor</b>								
<b>Assistant Professor</b>		1	2	1	4	1	6	3
<b>Lab Assistant</b>					1		1	
<b>Lab Attendant</b>						1		1

**7. Details of the Courses conducted by the department:**

Paper Code	Name of Paper	Type
	<b>1<sup>st</sup> Semester</b>	
BCA101	English Language & Communication Skills	Theory
BCA102	Fundamentals of Mathematics	Theory
BCA103	Introduction to Information Technology	Theory
BCA104	Digital Computer Fundamentals	Theory
BCA105	Programming Language through C	Theory
BCA103P	PC Applications and Internet Technology	Practical
BCA105P	Programming in C	Practical
	<b>2<sup>nd</sup> Semester</b>	
BCA201	Personality and Soft Skills Development	Theory
BCA202	Discrete Mathematics	Theory
BCA203	Data Structure using C	Theory
BCA204	System Analysis and Design	Theory
BCA205	Accounting and Financial Management	Theory
BCA203P	Data Structure using C	Practical
BCA205P	Tally ERP 9.0	Practical
	<b>3<sup>rd</sup> Semester</b>	
BCA301	Management Information Systems	Theory
BCA302	Numerical Analysis	Theory
BCA303	Operating Systems	Theory
BCA304	Object Oriented Programming in C++	Theory
BCA305	Computer Organization and Architecture	Theory
BCA303P	Unix and Shell Programming	Practical
BCA304P	C++ Programming	Practical
	<b>4<sup>th</sup> Semester</b>	
BCA401	Environment and Ecology	Theory
BCA402	Database Management Systems	Theory
BCA403	Computer Networking	Theory
BCA404	Software Engineering	Theory

BCA405	GUI Programming	Theory
BCA402P	Oracle Laboratory	Practical
BCA405P	Programming with VB 2010 with <b>Mini Project</b>	Practical
<b>5<sup>th</sup> Semester</b>		
BCA501	Introduction to Java Programming	Theory
BCA502	Computer Graphics and Multimedia	Theory
BCA503	Microprocessors	Theory
BCA504	Software Project Management	Theory
BCA501P	Java Programming	Practical
BCA503P	Assembly Language Programming	Practical
BCA5E1 BCA5E2 BCA5E3	<b>Elective – I (Any one from below)</b> Introduction to e-Governance Computer Network Security Data Mining and Warehousing	Theory
<b>6<sup>th</sup> Semester</b>		
BCA6E1 BCA6E2 BCA6E3 BCA6E4	<b>Elective – II (Any one from below)</b> Operation Research Theory of Computing Fundamentals of TCP/IP IT Acts and Cyber Laws	Theory
BCA6E5 BCA6E6 BCA6E7 BCA6E8	<b>Elective – III (Any one from below)</b> Artificial Intelligence Internet and e-Commerce Simulation and Modeling Analysis and Design of Algorithms	Theory
BCA601P	<b>MAIN PROJECT</b>	Practical

#### 8. Students Particulars:

Sl. No	Semester	Applications received 2017-18	Selected 2017-18	Enrolled		Pass percentage
				M	F	
1	I Semester	45	38	31	7	58.6
2	II Semester	29	29	22	7	40.7
3	III Semester	30	30	23	7	50
4	IV Semester	29	29	22	7	60.8
5	V Semester	28	28	24	4	82.1
6	VI Semester	28	28	24	4	89.2

9. Student - Teacher Ratio: 1:9

10. Annual Average Attendance Percentage of the Student: 80%

11. Study tour conducted under year of report: NIL

12. Awards / Recognitions received by faculty and students :

- ✓ Rank Holders in the university examination
  - Jeremy Lallawmsanga 3<sup>rd</sup> Position
  - Lalhriatpuia 4<sup>th</sup> Position
  - Lalrinfela 5<sup>th</sup> Position

K Lalruatsanga

6<sup>th</sup> Position

- ✓ One student from the final semester BCA namely Lalhriatpuia received 1<sup>st</sup> prize in "Genius Test" which was conducted for all the student of Aizawl from the undergraduate stream of BCA, BCom and BBA which was organized by Zocareer Consultancy on 6<sup>th</sup> April 2018.

**13. Details of Faculty qualified for the Ph.D degree under year of report: NIL**

**14. Paper presented/chaired sessions/ attended in seminars/ conferences/ workshops/symposium; invited Lectures given/attended by teaching faculty in refresher course/ Orientation course/others:**

Sl. No	Name of Faculty	Course/Title	Organised by	Duration /Date	Funded by	Whether College/ University/State / Regional/National /International
1	M.S.Dawngliani	Trainers training programme for enhancing equity and inclusion	Website Committee, GZRSC	16 <sup>th</sup> Aug 2017- 22 <sup>nd</sup> Aug 2017		College
		Seminar on Science and Technology for a sustainable future	Innovation Club, GZRSC and National Council for Science and Technology	28 <sup>th</sup> Feb 2018		College
2	Lalhruaitluanga	One week workshop on entrepreneurship development for educated unemployed women, research scholar and Phd student	UGC Women Study Centre, MZU and Incubation Centre, MZU	7 <sup>th</sup> Feb 2018		National
		Training Program on Life Skills, leadership and personality development for NSS Volunteers	State NSS Cell	12 <sup>th</sup> - 16 <sup>th</sup> Feb 2018		Regional
		Career Counselling for Home Science Students	Home Science Dept,	2 <sup>nd</sup> Feb 2018		College

			GZRSC			
		Seminar on Science and Technology for a sustainable future	Innovation Club, GZRSC and National Council for Science and Technology	28 <sup>th</sup> Feb 2018		College
		Skill Development Programme	IQAC Govt. Hrangbana College	10 <sup>th</sup> - 21 <sup>st</sup> Feb 2018		College
		Workshop to develop career information Booklet	Guidance and Counselling Cell, SCERT	22 <sup>nd</sup> - 29 <sup>th</sup> Jan 2018		State
		Workshop on Entrepreneurship Development	IIM Kolkotta	6 <sup>th</sup> -9 <sup>th</sup> Dec 2017		Regional
		4 days training in guidance and counseling	Educational and Vocational Guidance and Counselling Cell, SCERT	24 <sup>th</sup> -29 <sup>th</sup> Oct 2017		State
		4 days training in guidance and counseling for secondary teacher	Guidance and Counselling Cell, SCERT	26 <sup>th</sup> -29 <sup>th</sup> Sept 2017		State
		Trainers training programme for enhancing equity and inclusion	Website Committee, GZRSC	16 <sup>th</sup> Aug 2017-22 <sup>nd</sup> Aug 2017		College
3	R Lalmawipuii	Consumer Awareness Program	IQAC, GZRSC	22 <sup>nd</sup> Feb 2017		College
		State Level Workshop on Financial Management and Digital Teaching	Website Committee, GZRSC	5 <sup>th</sup> April 2017-12 <sup>th</sup> April		State

		methods		2017		
		Trainers training programme for enhancing equity and inclusion	Website Committee, GZRSC	16 <sup>th</sup> Aug 2017-22 <sup>nd</sup> Aug 2017		College
4	H Thangkhanhau	Trainers training programme for enhancing equity and inclusion	Website Committee, GZRSC	16 <sup>th</sup> Aug 2017-22 <sup>nd</sup> Aug 2017		College
		Seminar on Science and Technology for a sustainable future	Innovation Club, GZRSC and National Council for Science and Technology	28 <sup>th</sup> Feb 2018		College

**15. Details of conference/Seminar organized by the department:**

**16. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: NIL**

**17. Recognized Research Centre /facility : NIL**

**18. Number of Faculty as members in**

**a)University:1**

**b) State:**

**c)Regional:**

**d) National committees:**

**e) International Committees:**

**f) Editorial Board: 1**

**19. Details of Publication of Faculty:**

**20. Participation of the department in the courses offered by other departments: NIL**

**21. Courses in collaboration with other universities, industries, foreign institutions, etc:**

Yes, CCC in collaboration with NIELIT, Aizawl and Online certification Course in collaboration with IIT Mumbai.

**22. Extension activities by the department: NIL**

- 23. Library facilities: (Numbers only)**
- a. Textbooks and Reference Books: 889**
  - b. Journals: NIL**
  - c. E-Books and E Journals: NIL**
  - d. Any other: NIL**
- 24. Any other relevant information:**

#### (h) ANNUAL DEPARTMENTAL REPORT FOR ELECTRONICS

1. Name of Department : ELECTRONICS
2. Year of Establishment : 2003
3. a) Name of the Head of Department : PROF. B. ZOLIANA  
b) Phone No (Official) : 9436140347  
c) Email : [bzoliana@gmail.com](mailto:bzoliana@gmail.com) or [bzoliana@rediffmail.com](mailto:bzoliana@rediffmail.com)

#### 4. Brief Introduction of the Department (maximum 200 words):

The Electronics has been introduced to keep pace with emerging trends in the field of research and development. Conventional subjects in computer era will not be able to provide sufficient information to the fast growing technology. Knowing this basic need, the college also put forward a proposal for establishing Electronics department in 2002 to Government of Mizoram. At the same time, requirements were collected and after receiving a green signal, Electronics Department was established in 2003 starting with first year B.Sc. students. The first batch appeared for exam in 2003 under NEHU.

At first the Department was manned by three permanent teachers. However, two of them left the college and joined the Mizoram University as faculty members and since then the department is looked after by one Permanent teacher with two Guest Lecturers.

*Type of affiliation* : Temporary to MZU. Presently only General papers are allotted to this department.

#### 5. Teaching Faculties in the department:

Sl. No	Name	Designation	Qualification	Subject Specialization	Year of Experience	No. of Ph.D. Students guided
1.	Dr. B. Zoliana	Professor	Ph.D.	Nuclear Physics	25	6
2.	Dr. Ricky Lalmangaihual	Asst. Professor	Ph.D.	Advanced Electronics	10	NIL
3.	Dr. PC. Rohmingliana	Asst. Professor	Ph.D.	Computer Application in Physics	5	NIL
4.	Jonathan Lalrinmawia	Asst. Professor	MSc.	Advanced Electronics	2	NIL

#### 6. Number of Teaching and Non Teaching Staff in the Department:

Designation	Regular		Contract		Part Time		Total	
	M	F	M	F	M	F	M	F
Professor	1	0	0	0	0	0	1	0
Associate Professor	0	0	0	0	0	0	0	0
Assistant Professor	0	0	0	0	3	0	3	0
Lab Assistant	0	1	0	0	0	0	0	1
Lab Attendant	0	0	0	0	0	0	0	0

## 7. Details of the Courses conducted by the department:

\* Type semester wise subject code, subject name and credit.

Semester	Course No.	Name of Paper	Credit
1 <sup>st</sup>	EL/I/EC/01	Electronics Instrument and Circuit Analysis	4
	EL/I/EC/02	Laboratory-I	2
2 <sup>nd</sup>	EL/II/EC/03	Semiconductor Physics	4
	EL/II/EC/04	Laboratory-II	2
3 <sup>rd</sup>	EL/III/EC/05	Electronic Devices and Amplifier	4
	EL/III/EC/06	Laboratory-III	2
4 <sup>th</sup>	EL/IV/EC/07	Pulse Switching Circuits	4
	EL/IV/EC/08	Laboratory-IV	2
5 <sup>th</sup>	EL/V/CC/09	Transmission Line and Radar System	4
	EL/V/CC/10	Analog Circuits and Modulation	4
	EL/V/CC/11	Computer Fundamentals	4
	EL/V/CC/12	Laboratory-V	2
	EL/V/CC/13	Laboratory-VI	2
	EL/V/CC/14	Laboratory-VII	2
	EL/V/CC/15(a) EL/V/CC/15(b)	<b>Optional I (any one)</b> Electronics Instrument Solid State Electronics	4
	EL/V/CC/16	Project – I	2
6 <sup>th</sup>	EL/VI/CC/17	Analog and Digital Electronics	4
	EL/VI/CC/18	Computer Organization and Microprocessor	4
	EL/VI/CC/19	Opto-electronic Devices	4
	EL/VI/CC/20	Laboratory-VIII	2
	EL/VI/CC/21	Laboratory-IX	2
	EL/VI/CC/22	Laboratory-X	2
	EL/VI/CC/23(a) EL/VI/CC/23(b)	Power Electronic Devices Fiber Optics and Electronic Communication	4
	EL/VI/CC/24	Project – II	2
			72

## 8. Students Particulars:

Sl. No	Semester	Applications received 2017-18	Selected 2017-18	Enrolled		Pass percentage
				M	F	
1	I Semester	28	25	24	1	76
2	II Semester	25	23	22	1	73.9
3	III Semester	14	14	12	2	85.7
4	IV Semester	14	13	11	2	92.3
5	V Semester	-	-	-	-	-
6	VI Semester	-	-	-	-	-

9. Student - Teacher Ratio : 12 : 1



**10. Annual Average Attendance Percentage of the Student:** 82.59%

**11. Study tour conducted under year of report:** NIL

**12. Awards / Recognitions received by faculty and students:**

(1) Electronics Department received Best Performing Department Award from the Principal, GZRSC.

(2) The following two students who opted Electronics as one of the Elective subjects received an incentive cash award 2017 of ` 1000/- each. The Award is sanction from Equity Initiative Fund obtained from RUSA.

(i) C. Lalramtharhaki, 1<sup>st</sup> Semester Physical Sciences.

(ii) P. Laldingngheta, 5<sup>th</sup> Semester Physics.

**13. Details of Faculty qualified for the Ph.D degree under year of report:** NIL

**14. Paper presented / chaired sessions / attended in seminars / conferences / workshops / symposium; invited Lectures given / attended by teaching faculty in refresher course / Orientation course / others:**

Sl. No	Name of Faculty	Course/Title	Organised by	Duration /Date	Funded by	Whether College/ University/State/ Regional/National /International
1	Prof. B. Zoliana	Attended at the Technical Progress Discussion Meeting at BARC, Mumbai.	BARC	1 Day 28 <sup>th</sup> July, 2017	DAE, BRNS	National
		Attended at the Trainer's Training Programme for Enhancing Equity and Inclusion @ GZRSC.	Website Committee, GZRSC in collaboration with Centre for Social Research, New Delhi.	7 Days 16 <sup>th</sup> – 22 <sup>nd</sup> Aug. 2017	RUSA	College
		Chairman at Parents-Teachers Meet 2017 @ College Auditorium.	IQAC, GZRSC	1 Day 24 <sup>th</sup> Aug. 2017	College	College
		Attended at the Educational Campaign Programme.	Central YMA & Research and Seminar Committee, GZRSC.	1 Day 28 <sup>th</sup> Aug. 2017	RUSA	College
		Participate and supervised the students on Campus	NSS Unit and Cleanliness Committee	1 Day 28 <sup>th</sup> September	NSS Unit, GZRSC	College

		Cleaning Day.		, 2017.		
		Participated and say a vote of thanks at the Seminar on Environmental Radiation Assessments in Mizoram organized by Radon Research Group, GZRSC at Research Laboratory Room, GZRSC.	Radon Research Group, GZRSC	1 Day 18 <sup>th</sup> October, 2017	Radon Research Group, GZRSC	College
		Acted as the subject expert in the personal interview for recruitment of Academic Officer for Physics Subject under the Mizoram Board of School Education, Chaltlang, Aizawl at the Committee Room, MBSE Office, Chaltlang, Aizawl.	MBSE	1 Day 30 <sup>th</sup> October, 2017		State
		Attended at the 21 <sup>st</sup> Meeting of the School Board of Physical Sciences (local) at Dean's Conference Hall, School of Physical Sciences, MZU.	School of Physical Sciences, MZU.	One Day 7 <sup>th</sup> Nov, 2017.		University
		Resource Person on Environmental Research Techniques with a topic of Radiation – Origin and types of radiations, interaction of radiation with matters and its biological effects. Environmental radiation and their detections.	Research and Seminar Committee, GZRSC	Three Months (Dec 2017 – Feb 2018)	RUSA	College
		Participated at the opening function of Legal Aid Clinic at Govt. Zirtiri Res. Science College.		1 Day 31 <sup>st</sup> Jan, 2018.		State
		Participated as a	Research and	1 Day	RUSA	College

		Resource Person in Seminar on <i>Science and Technology for Sustainable Future</i> held on National Science Day.	Seminar Committee, GZRSC	28 <sup>th</sup> Feb, 2018		
		Organising member in a Three Months course on Environmental Research Techniques held during at Govt. Zirtiri Res. Sc. College, Aizawl.	Research and Seminar Committee, GZRSC	3 Months Dec 2017 – Feb 2018	RUSA	College
		Participated at the seminar on “ <i>Science and Technology for a Sustainable Future</i> ” at the Seminar Hall, PUC, Aizawl, Mizoram.		1 day, 30 <sup>th</sup> April, 2018.		State
		Attended at the 17 <sup>th</sup> Board of Studies in Physics (Local) Meeting at the Seminar Hall, School of Physical Sciences, MZU.	School of Physical Sciences, MZU.	1 day, 11 <sup>th</sup> April, 2018.		University
		Chaired at the programme of <b>Career Guidance</b> for the students of Govt. Zemabawk H/S at Govt. Zemabawk H/S.	Village & School Adoption Committee, GZRSC.	1 Day 19 <sup>th</sup> April, 2018	RUSA	College
		Chaired at the programme on <b>Career Guidance cum Plastic Pollution Awareness</b> for the students of Govt. Republic HSS at GZRSC Auditorium	Village & School Adoption Committee, GZRSC.	1 Day 11 <sup>th</sup> May, 2018	RUSA	College
		Attended at the Farewell Function cum closing day of Personality Development for outgoing students at the College Hall.		1 Day 25 <sup>th</sup> May, 2018		College
		As an organizing member, attended in	DBT-Institutional	7 Days 31 <sup>st</sup> May –	RUSA	College

		‘Hands-on Training on Molecular Research Technique’ at GZRSC.	Biotech Hub, GZRSC, Research & Seminar Committee, GZRSC in collaboration with State DBT Biotech Hub, MZU, funded by RUSA, GZRSC.	6 <sup>th</sup> June, 2018		
		Attended at the DPC/DSC Meeting for engagement Asst. Professor, Department of Electronics in the Office Chamber of Commissioner & Secretary, Higher & Technical Education Department, Secretariat Complex, Khatla.		1 Day 20 <sup>th</sup> June, 2018		State
		Attended at the meeting of all Principals and IQAC Co-Ordinators of Govt. Colleges at New Secretariat Conference Hall, Govt. Complex, Khatla.		1 Day 23 <sup>rd</sup> June, 2018		State
2	Dr. Ricky Lalmangaih zuala	Technical In-charge at Parents-Teachers Meet 2017 @ College Auditorium.	IQAC, GZRSC	1 Day 24 <sup>th</sup> Aug. 2017	College	College
		Banner & Documentation In-charge at the Educational Campaign Programme.	Central YMA & Research and Seminar Committee, GZRSC.	1 Day 28 <sup>th</sup> Aug. 2017	RUSA	College
		Participate and supervised the students on Campus Cleaning Day.	NSS Unit and Cleanliness Committee	1 Day 28 <sup>th</sup> September, 2017.	NSS Unit, GZRSC	College
		Participated at the Seminar on Environmental Radiation	Radon Research Group, GZRSC	1 Day 18 <sup>th</sup> October, 2017	Radon Research Group,	College

	Assessments in Mizoram organized by Radon Research Group, GZRSC at Research Laboratory Room, GZRSC.			GZRSC	
	Participated at the opening function of Legal Aid Clinic at Govt. Zirtiri Res. Science College.		1 Day 31 <sup>st</sup> Jan, 2018.		State
	Participated in Seminar on <i>Science and Technology for Sustainable Future</i> held on National Science Day.	Research and Seminar Committee, GZRSC	1 Day 28 <sup>th</sup> Feb, 2018	RUSA	College
	Organising Secretary in a Three Months course on Environmental Research Techniques held during at Govt. Zirtiri Res. Sc. College, Aizawl.	Research and Seminar Committee, GZRSC	3 Months Dec 2017 – Feb 2018	RUSA	College
	Attended at the programme of <b>Career Guidance</b> for the students of Govt. Zemabawk H/S at Govt. Zemabawk H/S.	Village & School Adoption Committee, GZRSC.	1 Day 19 <sup>th</sup> April, 2018	RUSA	
	Attended at the programme on <b>Career Guidance cum Plastic Pollution Awareness</b> for the students of Govt. Republic HSS at GZRSC Auditorium	Village & School Adoption Committee, GZRSC.	1 Day 11 <sup>th</sup> May, 2018	RUSA	
	Attended at the Farewell Function cum closing day of Personality Development for outgoing students at the College Hall.		1 Day 25 <sup>th</sup> May, 2018		College
	As an organizing Secretary, attended in 'Hands-on Training on Molecular Research	DBT- Institutional Biotech Hub, GZRSC,	7 Days 31 <sup>st</sup> May – 6 <sup>th</sup> June, 2018	RUSA	College

		Technique' at GZRSC.	Research & Seminar Committee, GZRSC in collaboration with State DBT Biotech Hub, MZU, funded by RUSA, GZRSC.			
3	Dr. PC. Rohminglian a	Appointed as Polling Officer in S.U. Election	S.U. Committee	1 Day 26 <sup>th</sup> July, 2017.	-	College
		Attended and presented a technical session at the Orientation Programme for NSS volunteers at GZRSC Auditorium.	NSS Unit, GZRSC	1 Day 27 <sup>th</sup> July, 2017	NSS Unit, GZRSC	College
		Attended at the Alumni Day celebration at the College Auditorium.	Alumni Association	1 Day 1 <sup>st</sup> Aug, 2107		College
		Participated at the NSS special camping at Durtlang.	NSS unit, GZRSC	7 Days 15 <sup>th</sup> – 21 <sup>st</sup> July, 2017	NSS, Regional Centre	College
		Attended at the meeting of NSS Programme Officers (Aizawl city) and Release function of 12 <sup>th</sup> Annual report 2016 – 17 @ Aijal Club (Conference Hall).	State NSS Cell	1 Day 11 <sup>th</sup> Aug. 2017	State NSS Cel	State
		Technical In-charge at the Trainer's Training Programme for Enhancing Equity and Inclusion @ GZRSC.	Website Committee, GZRSC in collaboration with Centre for Social Research, New Delhi.	7 Days 16 <sup>th</sup> – 22 <sup>nd</sup> Aug. 2017	RUSA	College
		Attended at the visit and Evaluation programme of NSS unit, GZRSC by		1 Day 24 <sup>th</sup> Aug. 2017.	NSS Unit, GZRSC	College

		Central Evaluation Team.				
		Technical In-charge at Parents-Teachers Meet 2017 @ College Auditorium.	IQAC, GZRSC	1 Day 24 <sup>th</sup> Aug. 2017	College	College
		Technical In-charge at the Educational Campaign Programme.	Central YMA & Research and Seminar Committee, GZRSC.	1 Day 28 <sup>th</sup> Aug. 2017	RUSA	College
		Participate and supervised the students on Campus Cleaning Day.	NSS Unit and Cleanliness Committee	1 Day 28 <sup>th</sup> September , 2017.	NSS Unit, GZRSC	College
		Participated and supervised the NSS volunteers at the Mass Cleanliness Drive at Chite River on	State NSS Cell and Save Chite River Committee	1 Day 29 <sup>th</sup> September , 2017.	State NSS Cell & Save Chite River Committee	State
		Chaired at the Seminar on Environmental Radiation Assessments in Mizoram organized by Radon Research Group, GZRSC at Research Laboratory Room, GZRSC.	Radon Research Group, GZRSC	1 Day 18 <sup>th</sup> October, 2017	Radon Research Group, GZRSC	College
		Participated at the seminar on <i>Climate Change Adaptation and Disaster Risk Reduction</i> at ATI Auditorium, Secretariat Complex, Aizawl.	Mizo Academy of Sciences in collaboration with The Department of Environment, Forests & Climate Change, Climate Change Cell of MISTIC, and Department of Disaster Management & Rehabilitation,	One Day 3 <sup>rd</sup> Nov, 2017.	MAS, MISTIC	National

			Govt. of Mizoram.			
		Attend at the 1 <sup>st</sup> organizing committee meeting at the Office of State NSS Office, Treasury Square, for Life Skills, Leadership and Personality Development Training, 2017(for Mamit & Champhai Districts) to be held during 11 <sup>th</sup> – 15 <sup>th</sup> Dec, 2017.	State NSS Office	One Day 14 <sup>th</sup> Nov, 2017.	State NSS Office	State
		As a NSS PO, participated in the visiting programme of Plantation site at Hmuifang road.	NSS Unit, GZRSC	1 Day 27 <sup>th</sup> Nov, 2017.	NSS Unit, GZRSC	College
		Organised and participated in 'Training Programme on Life Skills, Leadership and Personality Development' held at GZRSC in collaboration with State NSS Cell, Mizoram.	State NSS Cell, Mizoram.	5 Days 11 <sup>th</sup> – 15 <sup>th</sup> Dec, 2017	Regional Centre, NSS	State
		Resource Person on Environmental Research Techniques with a topic of Environmental Radiation due to Natural Sources and its decay. Radon – Properties and significance. Radon in air and its measurements.	Research and Seminar Committee, GZRSC	Three Months (Dec 2017 – Feb 2018)		College
		Participated at the opening function of Legal Aid Clinic at Govt. Zirtiri Res. Science College.		1 Day 31 <sup>st</sup> Jan, 2018.		State
		Organised and donate blood at the Voluntary	NSS Unit, GZRSC	1 Day 1 <sup>st</sup> Feb,	NSS Unit,	College



		Blood Donation Camp held at the College Campus.		2018	GZRSC	
		Acted as an External Examiner in Science Practical for the HSSLC Examination 2018 at centre No. AZL-008, Govt. Republic Higher Secondary School on	MBSE	2 Days 12 <sup>th</sup> & 13 <sup>th</sup> Feb, 2018.		State
		Participated in Seminar on <i>Science and Technology for Sustainable Future</i> held on National Science Day.	Research and Seminar Committee, GZRSC	1 Day 28 <sup>th</sup> Feb, 2018		College
		Participated at the seminar on “ <i>Science and Technology for a Sustainable Future</i> ” at the Seminar Hall, PUC, Aizawl, Mizoram.		1 day, 30 <sup>th</sup> April, 2018.		State
		Attended at the Farewell Function cum closing day of Personality Development for outgoing students at the College Hall.		1 Day 25 <sup>th</sup> May, 2018		College
		As one of the Programme Officers of NSS Unit, participated at the Observation of Green Mizoram Day 2018 at the Plantation Site, Hmuifang Road.	NSS Unit, GZRSC	1 Day 11 <sup>th</sup> June, 2018	NSS Unit, GZRSC	College
4	Mr. Jonathan Lalrinmawia	Appointed as Polling Officer in S.U. Election	S.U. Committee	1 Day 26 <sup>th</sup> July, 2017.	-	College
		Organised and host at the Trainer’s Training Programme for Enhancing Equity and Inclusion @ GZRSC.	Website Committee, GZRSC in collaboration with Centre for Social Research, New Delhi.	7 Days 16 <sup>th</sup> – 22 <sup>nd</sup> Aug. 2017	RUSA	College

		Technical In-charge at Parents-Teachers Meet 2017 @ College Auditorium.	IQAC, GZRSC	1 Day 24 <sup>th</sup> Aug. 2017	College	College
		Technical In-charge at the Educational Campaign Programme.	Central YMA & Research and Seminar Committee, GZRSC.	1 Day 28 <sup>th</sup> Aug. 2017	RUSA	College
		Participated and presented oral presentation on the topic of 'X-ray attenuation, interaction mechanism of shielding material' in the 4 <sup>th</sup> National Conference of Indian Society of Radiographers and Technologists, held at RIPANS, Aizawl.		3 days. 7 <sup>th</sup> – 9 <sup>th</sup> September , 2017		
		Participate and supervised the students on Campus Cleaning Day.	NSS Unit and Cleanliness Committee	1 Day 28 <sup>th</sup> September , 2017.	NSS Unit, GZRSC	College
		Participated at the Seminar on Environmental Radiation Assessments in Mizoram organized by Radon Research Group, GZRSC at Research Laboratory Room, GZRSC.	Radon Research Group, GZRSC	1 Day 18 <sup>th</sup> October, 2017	Radon Research Group, GZRSC	College
		Participated and presented Poster presentation entitled ' <i>Quality assurance assessment of conventional diagnostic X-ray installations in Mizoram</i> ' on the 17 <sup>th</sup> Asia Oceania Congress of Medical Physics & 38 <sup>th</sup> Annual Conference of Association of	Department of Radiological Physics, SMS Medical College, Jaipur.	Four Days 4 <sup>th</sup> – 7 <sup>th</sup> Nov, 2017.		International

		Medical Physicists of India (AOCMP-AMPICON 2017).				
--	--	---	--	--	--	--

**15. Details of conference/Seminar organized by the department:**

Sl.No	Topic	Funded by	Collaborations
1.	A powerpoint Seminar presentation was successfully organised for the 3 <sup>rd</sup> Semester students for their 3 <sup>rd</sup> Internal Examination at the Electronics Laboratory on 17 <sup>th</sup> October, 2017.		

**16. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received : NIL**

**17. Recognised Research Centre / facility : Environmental Radiation Monitoring Research Laboratory.**

**18. Number of Faculty as members in**

- a) University : 1  
 b) State : 1  
 c) Regional : 1  
 d) National committees : 1  
 e) International Committees : NIL  
 f) Editorial Board : 1

**19. Details of Publications of Faculty :**

Sl. No	Name of Faculty	Title of the Paper	Date of Publication	Published by	ISSN/ISBN No
1.	Prof. B. Zoliana	<i>Measurement of Gamma Radiation Dose and its Correlation with Radon Concentration in Southern Part of Mizoram, India.</i> Proceedings of the Mizoram Science Congress 2016, 295 – 298.	2017	Sunil Sachdev and printed by Ravi Sachdev at Allied Publishers Pvt. Ltd., (Printing Division)	ISBN 978-93-85926-49-5.
		<i>Seasonal Variation of Indoor Radon Concentrations in Dwellings in Eastern Part of Mizoram.</i> Proceedings of the Mizoram Science Congress 2016, 311 – 313.	2017	Sunil Sachdev and printed by Ravi Sachdev at Allied Publishers Pvt. Ltd., (Printing Division)	ISBN 978-93-85926-49-5.
		<i>A Theoretical Formulation of Initial</i>		Eastern	ISBN 978-

		<i>State Wave Functions for Photoemission Calculations. Summary of Doctoral Theses, Eastern Publishers, Vol-2, 165 – 174.</i>		Publishers	93-86302-22-9.
		<i>Comparison of single and double entry twin cup dosimeter in measuring indoor radon and thoron concentration in Mizoram, India.</i>	2018	<i>Sci Vis</i> <b>18 (2)</b> , 58—63.	ISSN (print) 0975-6175 ISSN (online) 2229-6026
2.	Dr. Ricky Lalmangai hzuala	<i>Structural, Electronic and optical properties of Wurtzite and Zinc Blende InN with GGA and mBJ Potential. IJARR, 2(10), 01 – 11.</i>	2017		
		<i>Effects of Spin Orbit interaction on Band Structure in Semiconductor Spintronic Materials. Summary of Doctoral Theses, Eastern Publishers, Vol-2, 153 – 164</i>		Eastern Publishers	ISBN 978-93-86302-22-9.
3.	Dr. PC. Rohmingliana	<i>Measurement of Gamma Radiation Dose and its Correlation with Radon Concentration in Southern Part of Mizoram, India. Proceedings of the Mizoram Science Congress 2016, 295 – 298.</i>	2017	Sunil Sachdev and printed by Ravi Sachdev at Allied Publishers Pvt. Ltd., (Printing Division)	ISBN 978-93-85926-49-5.
		<i>Seasonal Variation of Indoor Radon Concentrations in Dwellings in Eastern Part of Mizoram. Proceedings of the Mizoram Science Congress 2016, 311 – 313.</i>	2017	Sunil Sachdev and printed by Ravi Sachdev at Allied Publishers Pvt. Ltd., (Printing Division)	ISBN 978-93-85926-49-5.
		<i>Indoor and Outdoor Radon and Thoron Monitoring in Mizoram With Special Reference to Lunglei, Serchhip and Mamit Districts. Summary of Doctoral Theses, Eastern Publishers, Vol-2, 175 – 190.</i>		Eastern Publishers	ISBN 978-93-86302-22-9.
		<i>Comparison of single and double entry twin cup dosimeter in measuring indoor radon and thoron concentration in Mizoram, India.</i>	2018	<i>Sci Vis</i> <b>18 (2)</b> , 58—63.	ISSN (print) 0975-6175 ISSN (online) 2229-6026
4.	Jonathan Lalrinmawia	<i>Investigations of Public Dose Due to Stray Radiation in X-Ray Installations in Mizoram. Proceedings of the Mizoram Science Congress 2016, 305–309.</i>	2017	Sunil Sachdev and printed by Ravi Sachdev at Allied Publishers	ISBN 978-93-85926-49-5.

				Pvt. Ltd., (Printing Division)	
		<i>Investigations of Workers Dose Due to Stray Radiation in X-Ray Installations in Mizoram.</i> Proceedings of Physics Academy of North-East (PANE) 2016, 258–263.	2017		ISBN 978-93-86256-85-0.

**20. Participation of the department in the courses offered by other departments :**  
NIL

**21. Courses in collaboration with other universities, industries, foreign institutions, etc :** NIL

**22. Extension activities by the department :**

The Department participated and exhibited Electronics model in the Science Exhibition held during 12<sup>th</sup> – 13<sup>th</sup> October, 2017 at the College Auditorium, organised by the Innovation Club, GZRSC.

**23. Library facilities: (Numbers only) :**

(a) Textbooks and Reference Books	:	375
(b) Journals	:	1
(c) E-Books and E Journals	:	NIL
(d) Any other	:	NIL

**24. Any other relevant information :** NIL

## (i) ANNUAL DEPARTMENTAL REPORT FOR BIOCHEMISTRY

**1. Name of department:** BIOCHEMISTRY

**2. Year of establishment:** 2004

**3. a) Name of the Head of Department :** DR. FANAI LALSANGLUAI (i/c)

**b) Phone No (Official):** 9436141913

**c) Email:** fanai.amie@gmail.com

### **4. Brief Introduction of the Department (maximum 200 words):**

The Department of Biochemistry has been established since 2004 in this college to encourage and cater to the growing demands for Applied Science in today's scientific sector, with minimal number of faculty, mostly through internal arrangements. As the department has eventually obtained Provisional Affiliation from Mizoram University in 2005, more batches of student were being enrolled each year and have passed out successfully during the past years. At present, Biochemistry subject is offered as an Elective Subject. In spite of current demands from the students, the department is still unable to offer Core Course in Biochemistry, which hopefully will be made possible in near future for which the department is lacking with the prescribed number of faculty laid down by UGC (a minimum of 5 no. of faculty), and also need to apply for Permanent Affiliation from our University (provisional affiliation at present being extended for the next 3 years on 17<sup>th</sup> Aug 2017). The present faculty strength comprises of 1(one) regular faculty, and 1 (one) recently regularized from contract, 1 contract faculty and 1 part- time. The subject books in the library are 346 books, supplemented by 659 books in Botany and 642 books in Zoology. Recently, added by few more books from 20 different authors. 2 (two) subject specific / allied journals are being subscribed along with 2(two) E-books. Equipments and chemicals available in the department laboratory are just about enough to conduct practical classes. The overall facilities available in the department is at its minimal status, infrastructure, laboratory conditions and equipments, books, etc still need to be upgraded. Once the demand of the University have been met by the College, keeping the future of the students in mind, further steps can be formulated to upgrade the present status to Permanent Affiliation and opening of Core Course in Biochemistry at the earliest.

### **5. Teaching Faculties in the department:**

Sl. No	Name	Designation	Qualification	Subject Specialization	Year of Experience	No. of Ph.D. Students guided
1	Laltanpuia	Associate Prof (promoted to Principal Since Aug 2014 till date)	MSc, NET	Biochemistry	27yrs	-
1	Dr. Fanai Lalsangluai	Asst. Prof	MSc, NET, PhD	Biochemistry	10yrs	-
2	Lalrosangpui	Asst. Prof	MSc, NET	Biochemistry	5yrs	-
3	K. Zosangpui	Asst. Prof	MSc, SET, MPhil	Biochemistry	7yrs	-

**6. Number of Teaching and Non Teaching Staff in the Department:**

Designation	Regular		Contract		Part Time		Total	
	M	F	M	F	M	F	M	F
Professor								
Associate Professor	1							
Assistant Professor		1		1		1		
Lab Assistant								
Lab Attendant								

**7. Details of the Courses conducted by the department:**

\* Type semester wise subject code, subject name and credit.

**8. Students Particulars:**

Sl. No	Semester	Applications received 2017-18	Selected 2017-18	Enrolled		Pass percentage
				M	F	
1	I Semester		27	12	15	59.2%
2	II Semester		23	9	14	73.91%
3	III Semester		26	11	15	66.7%
4	IV Semester		23	10	13	100%
5	V Semester					
6	VI Semester					

**9. Student - Teacher Ratio: 15: 1****10. Annual Average Attendance Percentage of the Student: 90%****11. Study tour conducted under year of report: nil****12. Awards / Recognitions received by faculty and students : nil****13. Details of Faculty qualified for the Ph.D degree under year of report: nil****14. Paper presented/chaired sessions/ attended in seminars/ conferences/ workshops/symposium; invited Lectures given/attended by teaching faculty in refresher course/ Orientation course/others:**

Sl. No	Name of Faculty	Course/Title	Organised by	Duration /Date	Funded by	Whether College/ University/State/ Regional/National /International
1	Dr. Fanai Lalsangluaii	1) Refresher Course on 'Indian Medicinal Plants'	HRDC-MZU	24 <sup>th</sup> Aug - 13 <sup>th</sup> Sept 17	UGC	University
		2) Environmental Research	GZRSC, MPCB, HRDC-MZU	3 months (Dec 2017- Feb 2018)	RUSA, GZRSC	College

		Techniques				
		3) Hands-on Training on Molecular and Research Technique	Biotech- Hub GZRSC, Research and Seminar Comt GZRSC, State DBT- Biotech Hub MZU.	31 <sup>st</sup> May - 6 <sup>th</sup> Jun 18	RUSA, GZRSC	University
2	Lalrosangpu ii	1) Orientation Course	HRDC-MZU	21 <sup>st</sup> Feb- 20 <sup>th</sup> Mar 2018	UGC	University
		2) Seminar on ‘ Science & Technology for a Sustainable Future	MAS, MISTIC, Govt of Mizoram & PUC.	30 <sup>th</sup> Apr 2018	MAS	College
		3) Hands-on Training on Molecular and Research Technique	Biotech- Hub GZRSC, Research and Seminar Comt GZRSC, State DBT- Biotech Hub MZU.	31 <sup>st</sup> May - 6 <sup>th</sup> Jun 18	RUSA, GZRSC	University
		4) National Workshop on ‘ Molecular Docking, Virtual Screening and Computational Biology	Dept of Pharmacy, RIPANS in collaboration with Schrodinger	18 <sup>th</sup> – 22 <sup>nd</sup> Jun 2018	RIPAN S	National
3	K. Zosangpuui	-	-	-	-	-

**15. Details of conference/Seminar organized by the department:**

**16. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:**

**17. Recognised Research Centre /facility:**

**18. Number of Faculty as members in**

**a) University: 3**

**b) State:**

**c) Regional:**



- d) National committees:**
- e) International Committees:**
- f) Editorial Board:**

**19. Details of Publications of Faculty:**

**20. Participation of the department in the courses offered by other departments:**

Participated in College- Level Exhibition organized by Innoviation Club, GZRSC, on 15<sup>th</sup> - 16<sup>th</sup> Sept 2017 at College Auditorium. The department displayed 2 (two) models, viz - Electron Transport Chain of Mitochondria and DNA Profiling.

**21. Courses in collaboration with other universities, industries, foreign institutions, etc:**

**22. Extension activities by the department:**

**23. Library facilities: (Numbers only)**

- a. Textbooks and Reference Books: 346**
- b. Journals: 2**
- c. E-Books and E Journals: 2**
- d. Any other:**

**24. Any other relevant information:**

## (j) ANNUAL DEPARTMENTAL REPORT FOR GEOLOGY

1. Name of department: Geology
2. Year of establishment: 2013
3. a) Name of the Head of Department: C.Zoramthara  
b) Phone No (Official): 9862501735  
c) Email:

4. Brief Introduction of the Department: The Department of Geology was established in 2013 which offers geology in Under Graduate level. The Department offers Geology as Core subject since 2015 academic session. There are four teaching faculty actively engage in teaching, research and Science society.

### 5. Teaching Faculty in the Department:

Sl.No	Name	Designation	Qualification	Subject Specialization
1	C.Zoramthara	Assistant Professor	M.Sc ( JRF+ NET)	Sedimentology
2	Dr.C.Lalmuankimi	Assistant Professor	M.Sc, Ph.D	Micropaleontology and Geochemistry
3	Laltlankima	Assistant Professor	M.Sc ( NET)	GIS and landslide
4	C.Lalremruatfela	Assistant Professor	M.Sc ( NET)	Magnetostratigraphy

### 6. Number Teaching Staff and non-teaching staff in the Department:

Designation	Regular		Contract		Part Time		Total	
	M	F	M	F	M	F	M	F
Professor	-	-						
Associate Professor	-	-						
Assistant Professor	1	-	3	1	-	-	3	1
Lab Assistant								
Lab Attendant								

7. Details of the Courses conducted by the department: Bachelor of Science  
Three years, Geology, full time

#### \* Course structure of all semester

- 1<sup>st</sup> Semester: Core Course: I General structural Geology and Mineralogy – Marks-60: Credits-4  
Core Course: II Practical-General structural Geology and Mineralogy – Marks-60: Credits-2
- II<sup>nd</sup> Semester: Core Course: III Petrology & Geochemistry - Marks-60: Credits-3  
Core Course: IV Practical- Petrology & Geochemistry - Marks-60 Credits-2
- III<sup>rd</sup> Semester: Core Course: V Stratigraphy and Palaeontology - Marks-60: Credits-3  
Core Course: VI Practical- Stratigraphy and Palaeontology - Marks-60 Credits-2
- IV<sup>th</sup> Semester: Core Course: VII Economic and Applied Geology - Marks-60: Credits-4

Core Course: VIII Practical- Economic and Applied Geology – Marks-60:  
Credits-2

V<sup>th</sup> Semester **CORE COURSE**

Core Course: IX – Applied and Engineering Geology-Marks-60: Credits-3

Core Course: X - Practical Applied and Engineering Geology-Marks  
60: Credits-2

Core Course: XI – Sedimentology & Sequence Stratigraphy-Marks  
60:Credits-3

Core Course: XII – Practical - Sedimentology -Marks-60: Credits-2

Core Course: XIII –Igneous and Metamorphic Petrology -Marks-60:  
Credits-3

Core Course: XIV– Practical-Igneous and Metamorphic Petrology  
Marks-60: Credits-2

Core Course: XV– Hydrogeology, Oceanography & Environmental  
Geology- Marks-60: Credits-3

Core Course: XVI- Practical- Hydrogeology, Oceanography &  
Environmental Geology- Marks-60:  
Credits-2

#### 8. Students Particulars:

Sl. No.	Semester	Application received 2017-2018	Selected 2017-2018	Enrolled		Pass Percentage
				M	F	
1.	II	53	20	4	16	75
2.	IV	24	24	21	3	95.8
3.	VI	4	4	4	NIL	100

9. Students – teacher ratio: 12:1

#### 10. Annual Average Attendance Percentage of the Student:

I Semester – 85%  
III Semester – 78.5%  
VI Semester – 92%

11. Study tour conducted under year of report: Two times at Vachengpui and landslide prone areas in and around Aizawl, Mizoram

12. Awards/Recognitions received by faculty and students: N/A

13. Details of faculty qualified for the Ph.D degree under year of report: N/A

**14. Number of paper presented/chaired sessions/ attended in seminars/ conferences/ workshops/symposium; invited Lectures given/attended by teaching faculty in refresher course/ Orientation course/other**

<b>Name</b>	<b>Course/Title</b>	<b>Organized by</b>	<b>Duration/Date</b>	<b>Funded by</b>	<b>Whether College/University/ State Regional/National/ International</b>
1. C. Zoramthara	<p><b>a.</b> General Awareness about HIV</p> <p><b>b.</b> 4<sup>th</sup> Indian Landslide Congress</p> <p><b>c.</b> Environmental Research Techniques</p> <p><b>d.</b> 67<sup>th</sup> Annual Southeastern GSA Section Meeting</p> <p><b>e.</b> Workshop on “Earthquake hazard in Mizoram”</p>	<p>Administrative Training Institute</p> <p>IIT Bombay</p> <p>Government Zirtiri Res.Sc. College, Mizoram Pollution Control Board, Mizoram State Legal Service &amp; HRDC</p> <p>Geological Society of Mizoram, Govt. Zirtiri Residential Science College and Pachhunga University College</p>	<p>3 days i.e. 28<sup>th</sup>-30.11 2017</p> <p>2 days i.e. 8<sup>th</sup> – 9<sup>th</sup> December, 2017</p> <p>3 Months Course i.e. Dec. 2017 – Feb. 2018</p> <p>2018</p> <p>One day – 29<sup>th</sup> June, 2018</p>	<p>RUSA-Govt. Zirtiri Residential Science College and Pachhunga University College</p>	<p>Government of Mizoram- State</p> <p>National</p> <p>College, University &amp; State Government</p> <p>International</p>
Dr. C. Lalmuankimi	<p><b>a.</b> Orientation Course</p> <p><b>b.</b> Seminar "Science and Technology for a Sustainable life</p> <p><b>c.</b> Climate</p>	<p>Jawahar Lal Nehru University</p> <p>Mizoram, Technology &amp; Innovation Council (MISTIC), Pachhunga University College, Mizo Academy of Sciences</p>	<p>26 Days i.e 31.7.2017-25.8.2017</p> <p>One Day i.e. 30<sup>th</sup> April, 2018</p> <p>Mizo Academy of Sciences</p>	<p>University Grants Commission</p> <p>National Council for Science &amp; Technology Communication, Department of Science and Technology,</p>	<p>University</p> <p>State</p> <p>Government of Mizoram (State)</p> <p>International</p>

	Change Adaptation and Disaster Risk Reduction  <b>d.</b> Workshop on “Earthquake hazard in Mizoram”	One day i.e. 3 <sup>rd</sup> November, 2017  Geological Society of Mizoram, Govt. Zirtiri Res. Science College, Pachhunga University College	One day – 29 <sup>th</sup> June, 2018	New Delhi  RUSA-Govt. Zirtiri Residential Science College and Pachhunga University College	
3. Laltlankima	<b>a.</b> International conference on Natural Resource Management for Sustainable development and Rural livelihoods  Workshop on “Earthquake hazard in Mizoram”	Dept of Geography, Mizoram University  GSM, PUC and GZRSC	3 day i.e. 26 <sup>th</sup> October-28 <sup>th</sup> October, 2017  One day – 29 <sup>th</sup> June, 2018	RUSA-Govt. Zirtiri Residential Science College and Pachhunga University College	International  International
4. C. Lalremruatfela	<b>a..</b> Environmental Research Techniques  <b>b.</b> Training Programme on Life Skills, Leadership and Personality Development  <b>b.</b> Workshop on “Earthquake hazard in	Government Zirtiri Res.Sc. College, M PC B, MSLS & HRDC Government Zirtiri Res.Sc. College and State NSS Cell  Geological Society of Mizoram, GZRSC & PUC	5 days i.e. 11 <sup>th</sup> -15 <sup>th</sup> December, 2017  One day – 29 <sup>th</sup> June, 2018	RUSA-GZRSC & PUC	College, University and State Government  College & State Government  International

	Mizoram”				
--	----------	--	--	--	--

**15. No. of conference/Seminar organized by the department:** N/A

**16. Department project funded by DST-FIST; UGC, DBT, ICSSR etc. and Total grants:**

N/A

**17. Recognized Research Centre/facility:**

**18. Number of Faculty as members in**

- a) **University:** Member of Moderation Board in Under Graduate level  
b) **State:** Office Bearer and member in Governing Body of Geological Society of Mizoram  
Member in Governing Body of Mizo Academy of Sciences  
Member in BIOCON  
c) **Regional:** Life Member in Indian Society of Applied Geochemist  
d) **National committees:** N/A  
e) **International committees:** N/A  
f) **Editorial Board:** N/A

**19. Details of Publications of Faculty:**

Sl. No.	Name of Faculty	Title of the Paper	Date of Publication	Published by	ISSN No
1.	Dr. C. Lalmuankimi	Geological study of Muthi limestone in Aizawl District of Mizoram, India	2017	Mizoram Academic Forum in Association with EBH Publishers (India) an imprint of EASTERN BOOK HOUSE	ISBN: 9789386302229

**20. Participation of the department in the courses offered by other departments:** N/A

**21. Courses in collaboration with other universities, industries, foreign institutions etc.:**

**22. Extension activities by the Department:** The department collaborated Geological Society of Mizoram for one day workshop on Earthquake hazard in Mizoram on 29<sup>th</sup> June, 2018. Professor Mrinal kanti Sen Holder of G. Jackson Chair in Applied Seismology and Associate Director, Geological Sciences, University of Texas, visited the Department. Faculty and visitor were carried out Geological field work in and around Aizawl, Mizoram.

**23. Library facilities: (Numbers only):**

- a. **Textbooks and reference Books:** 376  
b. **Journals:** Communicated  
c. **E-Books and E-Journals:** N/A

**d. Any other:**

**24. Any other relevant information:** Dr. C. Lalmuankimi faculty member in the Department is appointed as organizing committee member for 2<sup>nd</sup> Mizoram Science Congress, 2018 by Mizoram, Technology & Innovation Council (MISTIC).

**(k) ANNUAL DEPARTMENTAL REPORT FOR ENGLISH**

1. **Name of Department** : ENGLISH
2. **Year of establishment** : 2000
3. **a) Name of the Head of Department:** LALTLUANGKIMI HNAME  
**b) Phone No (Official)** : 9436361107  
**c) Email** : [hnamtekimi11@gmail.com](mailto:hnamtekimi11@gmail.com)

4. **Brief Introduction of the Department (Maximum 200 words) :**

The Department came into existence when the college was first established as Zirtiri Women's College in the year 1980. When the college was amalgamated with other science departments and came into existence as a purely science college in the year 2000, the department was adopted as one of the departments in the newly created Science College. The department offers General English Courses in all the three streams i.e. Science, Home Science and Computer Science. The Department has always endeared itself towards the development and progress of the college.

5. **Teaching Faculties in the Department:**

Sl. No	Name	Designation	Qualification	Subject Specialization	Year of Experience	No. of Ph.D Students guided
1.	Laltluangkimi Hnamte	Assoc. Prof.	M.A, M.Phil	English Literature	26	
2.	Lalmalsawmi Chhange	Assoc. Prof.	M.A	English Literature	23	
3.	Lalrinsangi Nghinglova	Assoc. Prof.	M.A, P.G.D.T.E	English Literature	20	

6. **Number of teaching and Non-Teaching Staff in the Department:**

Designation	Regular		Contract		Part -Time		Total	
	M	F	M	F	M	F	M	F
Professor								
Associate Professor		3						3
Assistant Professor								
Lab. Assistant								
Lab. Assistant								

7. **Details of the Courses conducted by the department:**

1. **First Semester :**  
Science & Home Science English-I (Course 1-FC) Credit – 5 Code : ENG/1/FC/1  
BCA : English Language and Communication Skills Credit : 3 Code : BCA 101
2. **Second Semester :**  
Science & Home Science : English – II (Course II-FC) Credit : 5 Code : ENG/II/FC/2  
BCA : Personality and soft Skills Development Credit : 3 Code : BCA 201



**8. Students Particulars :**

Sl. No	Semester	Applications received 2017-2018	Selected 2017-2018	Enrolled		Pass Percentage
				M	F	
1	I Semester		221	146	75	100%
2	II Semester		221	146	75	98%
3	III Semester					
4	IV Semester					
5	V Semester					
6	VI Semester					

**9. Student – Teacher Ratio :**

Life Science	=	1:34
Physical Science	=	1:21
Home Science	=	1:4
BCA	=	1:10

- 10. Annual Average Attendance Percentage of the Students :** 75%
- 11. Study tour conducted under year of report :** None
- 12. Awards/Recognitions received by faculty and students :** None
- 13. Details of Faculty qualified for the Ph.D degree under year of report:** None
- 14. Paper presented/chaired sessions/attended in seminars/conferences/workshop/Symposium; invited Lecturers given/attended by teaching faculty in refresher course /Orientation course/others:**

Sl. No	Name of Faculty	Course/ Title	Organized by	Duration/ Date	Funded by	Whether College/ University/ State/Regional /National/ International
1.	Lalrinsangi Nghinglova	Multiple religious identities Indigeneity and religion: The Mizo context	University of Bern, Switzerland	17-21 June 2018	European association for the Study of Religious	International
2.	Lalrinsangi Nghinglova	Communication Skills for Nurses	RIPANS	23-31 July, 2018	RIPANS	College

**15. Details of conference/Seminar organized by the department : none**

**16. Departmental projects funded by DST-FIST; UGC; DBT, ICSSR, etc. and total grants received:**

**17. Recognised Research Centre/Facility :**

**18. Number of Faculty as members in**

- University : 2 Moderation Board Member, 1 BOS Member
- State : 1 member
- Regional :
- National Committees : 1 women's Cell, AIFUCTO
- International Committees:
- Editorial Board : 2

- 19. Details of Publications of Faculty:**
- 20. Participation of the department in the courses offered by other departments:**
- 21. Courses in collaboration with other universities, industries, foreign institutions, etc;**
- 22. Extension activities by the department:**
- 23. Library facilities : (Numbers only)**
- |    |                               |   |     |
|----|-------------------------------|---|-----|
| a) | Textbooks and Reference Books | : | 562 |
| b) | Journals                      | : | 2   |
| c) | E-Books and E Journals        | : |     |
| d) | Any other                     | : |     |
- 24. Any other relevant information :**

## 2. DEPARTMENTAL REPORT EVEN SEMESTER (JAN-JUNE 2017)

Sl. No.	Department	No. of meetings	Resolutions in brief	Classes taken			Departmental activities
				2 sem	4 sem	6sem	
1	CHEMISTRY	2	1. Distribution of Topics 2. Preparation of requirement list 3. Finalization of Topic 4. Distribution for upcoming 1st and 5th Semester	86	99	129	Visited surrounding industries
2	HOME SCIENCE	1	1. Appointment of class teachers 2. Monthly contribution renewed 3. Participation in seminar 4. To Organise exhibition on food adulteration,etc. 5. To meet mentees 6.Re-appointment of teachers in each sem. 7. Submission of department Requirement to RUSA	215	237	233	Exhibiton of food adulteration
3	BIOCHEMISTRY	1	1. Distribution of assignment, Topics 2. Monthly meeting 3. Distribution of topics for 2nd internal.	60	62	NA	Nil
4	MATHEMATICS	2	1. Preparation of routine and work distribution 2. requirement of 1 part time lecturer 3. Distribution of exam duty 4.Recruitmnt of new teacher 5. marks compilation 6. Mentees attendance & marks 7. Distribution of marks 8.exam duty allotment	58	55	84	Nil
5	ELECTRONICS	1	1. Appointment of Departmental Secy. 2. Question setting for internal exams 3. Topic already taught during Jan 4. Syllabus covered already. 5. Pattern of seminar presentation for 4th semester 6. Dept report for Feb 7.receipt of books 8.Review of dept. report of Jan 9. syllabus covered already. 10. Preparation for seminar	64	69	NA	Nil

			11. Dept report for Mar 12. Pract marks distribution 13. Pract exam score sheet 14. Review of Univ exam				
6	BOTANY	2	1. Distribution of Topics 2. Distribution of assignment topics 3. Schedule of Monthly meeting 4. Distribution of Topics 5. Checking & verification of new equipments 6. Teachers-students meet/counselling	79	72	72	Nil
7	ZOOLOGY	1	1. Maintain Register for equipments 2. Rearrange and check new lab equipments 3. Lab & Book requirement for RUSA	84	72	100	Computer Practical on Bio informatics
8	PHYSICS	1	1. Monthly meeting 2. Field trip for VI sem students 3. Disposal of old furnitures 4. Field trip for VI sem students 5. Appointment of works of lab asst. 6. Compilation of marks	59	52	114	Nil
9	ENGLISH	2	1. Distribution of papers & lesson plan. 2. Rearrangement of lesson plan 3. Enquiry for less attendance of students 4. Improvement of students' skill in English 5. More efforts to make interest in English	2 <sup>nd</sup> Semester Only Sc. 78, H.Sc. 53, BCA 34			Nil
10	GEOLOGY	1	1. Routine distribution 2. Departmental requirement for RUSA 3. Departmental fund contribution 4. Preparation of common Practical record book for all classes	80	73	110	Nil
11	COMPUTER SCIENCE	1	1. Subject distribution for even semester 2017. 2. Preparation of requirements for RUSA 3. Final preparation of time table 4. To let know parents students performance in 1st internal exam 5. Conduct one day workshop for final yr students 6. To conduct test or assignments for improvements of students	205	228	124	Mentor-mentees meet



### 3. DEPARTMENTAL REPORT ODD SEMESTER (JULY-DEC 2017)

Sl. No.	Department	No. of meetings	Resolutions of meetings in brief	Classes taken			Departmental activities
				2 sem	4 sem	6sem	
1	CHEMISTRY	6	1.Results analysis of last semester 2. Suggestion of remedial classes 3. lab requirement submission 4. To organize regional workshop in collaboration with MZU Chemistry dept. 5. Review of Regional Workshop at MZU, chemistry dept. 6. Unit distribution for next semester. 7. 2nd Internal Questions 8. Participation in Science exhibition 9.Practical exam routine for 5th sem. 10. Central Evaluation duty 11.Online mark entry to MZU 12. Remedial classes	181	168	389	Students attended Regional workshop Participated in Science exhibition Remedial Classes were organised from 30.10.2017-3.11.2017 for repeaters.
2	HOME SCIENCE	8	1. Adopted Community at Ramthar. 2. Workshop on Mental Health-life skills 3. Visit School 4. Mentor-Mentees distribution 5. Meeting with ex-students 6. Review of Students performance in 1st int. exam 7. Dept. report 8. Lab. Bearer 9. Adopted Village (RUSA) 10. 5th Semester Field Trip 11. Programme with MHIP Ramthar Branch 12. Submission of Dept reports and Mentoring 13. Selection of Eligible students etc. 14. Review of Com Dev programme 15. Submission of Nov Dept report 16. Central	234	256	227	Visited SWD Assignment given to students Exhibition of food adulteration Procurement of work counter for Nutrition Lab Organized community development programme with Ramthar MHIP Invigilation duties for end sem. Placing order for journal of Home Science

			evaluation of MZU exams 17. Distribution of work load, etc				
3	BIOCHEMISTRY	7	1. Maintenance of Students mark profiles 2. Classroom rearrangement for power point presentation 3. Preparation of Proforma 4. Distribution of seminar topics 5. Mentees personal data collection of seminar topics 6. Mentees personal data collection 7. Discussion on Improvement of teaching methods 8. Circulation of study materials 9. Model display for Exhibition org, by Innovation club. 10. Review of Sc. exhibition 11. Final attendance of students 12. Internal marks 13. Conducting Practical exam 14. Online submission of internal marks 15. Submission of books requirements.	81	85	NA	Teachers performed well in end semester UG exams.
4	MATHEMATICS	7	1. Topic distribution 2. Formation of duty chart 3. Formation of excel chart mark compilation 4. Setting Qs for 1st internal 5. Distribution of mentee to mentors 6. Distribution of Invigilation duty internal 7. Model display for Innovation Club Exhibition 8. Compilation of 2nd internal questions 9. Duty list for 2nd int. exam 10. Internal marks compilations 11. Assigning teacher for online marks upload to MZU website 12. Preparation of Departmental report	92	98	303	Preparation for end semester exams and centre evaluation

5	ELECTRONICS	6	<ol style="list-style-type: none"> <li>1. Syllabus covered by each teacher</li> <li>2. Appointment of Deptt Secretary for this semester</li> <li>3. Dept report for Odd semester</li> <li>4. Qs setter, pattern and marks distribution for internal exam</li> <li>5. Method to be followed for 3rd Internal assessment</li> <li>6. Syllabus covered by each teacher.</li> <li>7. Review of 1st Internal exam results</li> <li>8. Seminar topic distribution for 3rd Semester</li> <li>9. Enquire to introduce core subject</li> <li>10. Syllabus covered by each teacher.</li> <li>11. Display in display board</li> <li>12. Site visit of Durtlang Campus</li> <li>13. Practical examination.</li> <li>14. Seminar topics for 3sem</li> <li>15. Departmental display at Exhibition organised by Innovation Club</li> <li>16. Core subject for Electronics</li> <li>17. Conducting Practical exams.</li> <li>18. Final selection of Display in display board</li> <li>19. Introduction of core subject</li> <li>20. Syllabus topic distribution for 2018 even semester</li> <li>21. Reassignment of topics for next semester</li> <li>22. Preparation for Central Evaluation</li> <li>23. Departmental report</li> <li>24. Online portal for internal marks, etc.</li> </ol>	88	94	NA	<p>2nd Internal exam conducted. Practical exams conducted Seminar for 3rd sem students conducted. participated in Science exhibition</p> <p>1 teacher namely Mr Jonathan Lalrinmawia interviewed for the Academic Officer Job under MBSE and was successful.</p>
6	BOTANY	7	<ol style="list-style-type: none"> <li>1. Distribution of Topics</li> <li>2. Arrangement of Class Routine</li> <li>3. Teachers-Students meet of 5th Semester</li> <li>4. Field Trip</li> <li>5. Distribution of Topics and marks for 2nd internal</li> <li>6. Review of Counselling of V Semester students</li> </ol>	83	78	213	<p>All Teachers participated in PT meet</p> <p>Counselling of 5 Semester students for improvement in academic</p> <p>Study trip</p> <p>Participated in Science Exhibition</p> <p>1 teacher attended RUSA</p>



			7. Compilation of internal exam 8. Preparation for Practical exam 9. Science exhibition 10. Field trip 11. Report on Compilation of internal exam 12. Review of Practical exam 13. Distribution of topics for next semester				Regional meeting at New Delhi
7	ZOOLOGY	4	1. Set Up of New Routine 2. Distribution of Topic 3. Distribution of Mentees 4. Division of Setting Qs and paper evaluation 5. Assignment of Invigilation duty for Test 6. To organise Field trip 7. Bulletin Board Model for display 8. Participation in Science exhibition 9. End Semester exam and Centre evaluation	74	96	248	Conducted Virtual Lab for V sem and smart Class by using digital aids Computer Practical on Bioinformatics Project to collect and identify animal species for 1sem Participated in Science exhibition Conducted Practical exams teacher appointed as Winter school coordinator. Training on EAT module attended by a teacher
8	PHYSICS	5	1. Distribution of Topics 2. Routine preparation 3. Review of last University exam 4. Preparation of guidelines for practical marks 5. Assignment of students for exhibition 6. End semester Practical routine preparation 7. Preparation for Exhibition Programme organised by Innovation Club 8. Topic & Routine preparation 9. Online entry of internal marks 10. Duty assignment for teachers 11. Topic distribution for next year	76	75	198	I teacher became a Life member of Nuclear track Society of India Univ. exams conducted as invigilators by teachers
9	ENGLISH	6	1. Improvement of students in English Grammar 2. Arrangement of Classes for teachers on leave 3. Guest teacher about her class 4. Teacher on medical leave 5. Improvement of teaching 6. Re-arrangement of periods 7. Date setting for Oral communication practice	203	NA	NA	Field work near college campus on 12.10.2017

			8. List of Book requirements				
10	GEOLOGY	4	1. Class Test every month at least once in a month 2. Conducting of Seminar every Wednesday for 5th Semester 3. Winter Special coaching class for 5th Semester	87	87	324	Field work around Aizawl on 2.8.17 Field work around Aizawl on 18.9.17 Field work near college campus on 12.10.2017 End semester invigilations Central evaluation for MZU UG exams.
11	COMPUTER SCIENCE	4	1. Subject distribution 2. On Internal exams 3. Mentors & Mentee list 4. Seminar and Computer Clinic by department 5. First Internal Test Review 6. Mentor-Mentees Meeting 7. Plan to organise National/State/College level Seminar 8. Course coverage by teachers 9. Mentor-Mentees Meeting 10. Review of retest 11. Course coverage by teachers 12. Computer lab Requirement 13. Review of Odd sem. 14. Practical exam duty 15. Univ. internal marks, etc. 16. Lab preparation for exams 17. Practical exam duty list 18. Internal marks submission. 19. Books requirements 20. Invigilation duty.	268	273	261	Mentor-mentees meet Dept. participated in Science exhibition Performed invigilation duties

#### 4. STUDENTS MENTORING SYSTEM EVEN SEMESTER

Sl. No	Department	Faculty (Mentor)		No. of Mentees reported as on Jan	own house	rented house	Hostel/ Relative	Any other information
		Sl. No.	Name					
1	HOME SCIENCE	1	LALSANGLIANI KHAWLHRING	5	NIL	2	2	No information on 1 mentee
		2	LALSANGKIMI HMAR	6	NIL	NIL	4	2 mentees left
		3	LALHMINGLIAN I HLONDO	8	6	1	1	
		4	VANLALLAWMI	6	1	3	2	
		5	LALTHANPUII RALTE	6	5	NIL	1	
		6	C. LALRAMDINA	6	3	3	NIL	
		7	MARIA LALHMINGMA WII	6	4	1	1	
		8	LALRAMMAWII	7	?	2	2	No information of 3 mentees residence
		9	LALRINNGHETI RALTE	9	8	1	NIL	
		10	MIMI LALMUANAWMI	7	NIL	4	2	No information on 1 mentee
		11	REBECCA LALNUNTLUANGI	6	5	1	NIL	
		12	ZARZOKIMI	8	1	3	1	No information on 1 mentee
2	PHYSICS	1	DR. ARUP KUMAR	17	6	9	2	
		2	DR. ROSANGLIANA	7	NIL	1	3	3 Mentees left, 1- no information
		3	M.I. SINGH	5	4	1	NIL	
		4	REMLALSIAMA	10	?	?	?	Status of residence not given, 1- drop out
		5	LAWRENCE ZONUNMAWIA	10	NIL	6	NIL	4-MENTEES LEFT ( 2-ENGINEER, 1-NURSING, 1-UNKNOWN)
3	GEOLOGY	1	C. ZORAMTHARA	11	7	4	NIL	
		2	DR. C. LALMUANKIMI	6	1	4	1	
		3	LALTLANKIMA	7	3	3	1	

		4	C. LALREMRUATF ELA	5	1	4	NIL	
4	ENGLISH	1	LALTLUANGKI MI HNAME	16	6	6	2	2 LEFT
		2	LALRINSANGI NGHINGLOVA	16	5	5	1	5 MENTEES LEFT ( 1-NAVY, 2-COLLEGE, 1--DID NOT COME, 1- POOR ATTENDANCE)
		3	LALMALSAWMI	16	7	5	1	3 LEFT ( 1-ENGINEER, 2-DID NOT COME)
5	BOTANY	1	DR. R. LALENGMAWIA	9	4	3	2	
		2	DR SKARIAH P.C.	17	6	10	1	
		3	ZODINPUII	11	3	6	1	I MENTEES INFORMATION NOT OBTAINED
		4	LALTLANCHHU NGI	18	7	8	3	
		5	LALRINTLUANGI	7	4	1	1	1 LEFT ( JOINED ARMY)
		6	MARY LALTHANSANG I	11	5	2	3	1 LEFT ( MARRIED)
		7	LALREMRUATI HMAR	13	3	6	2	2 LEFT
		8	LALNUNTHARA	9	4	2	1	2 MENTEES INFORMATION NOT KNOWN
6	ELECTRONICS	1	PROF. B. ZOLIANA	6	NIL	5	1	
		2	DR. RICKY LALHMANGAIH ZUALA	8	4	2	2	
		3	DR. P.C. ROHMINGLIAN A	7	1	2	4	
		4	JONATHAN LALRINMAWIA	6	4	2	NIL	
7	MATHEMATI	1	L.B. SINGH	5	1	3	1	
		2	PARIJAT KUMAR	21	2	15	3	1 LEFT
		3	DR. LALAWMPUII	6	1	NIL	NIL	5 LEFT (1-MARRIED,4- NOT KNOWN)

		4	DR. LALHMANGAIH ZUALA	8	3	4	1	
8	CHEMISTRY	1	LALHMINGLIAN A HNAME	9	2	4	1	2 LEFT
		2	ZONUNTHARI	20	3	14	3	
		3	DR. K.B. SINGH	10	4	5	NIL	1 MENTEE INFORMATION NOT OBTAINED
		4	DR. LALSAIMAWIA SAILO	11	4	6	1	
		5	ROHLUPUII	10	4	5	1	
9	COMPUTER SCIENCE	1	LALHRUAITLU ANG	6	2	4	NIL	NIL
		2	C. LALRINAWMA	7	4	3	NIL	NIL
		3	LALDINGLIANA SAILO	10	3	7	NIL	NIL
		4	R.LALMAWIPUII	9	2	4	3	NIL
		5	LALHMUNMAW II	10	2	8	NIL	NIL
		6	H.THANGKHAN HAU	9	4	4	1	NIL
		7	VANLALLURA	8	5	3	NIL	NIL
10	ZOOLOGY	1	CAROLINE ZAIHMINHTA NGI	8	4	2	2	NIL
		2	DR. LALZAHAWMI CHENKUAL	14	6	8	NIL	NIL
		3	H.LALNUNSAN GI	14	7	4	3	NIL
		4	S. THANGRIMAWII	11	7	2	2	NIL
		5	SAILOPUII	11	5	5	1	NIL
		6	LALRINMAWIA	14	4	6	4	NIL
11	BIOCHEMIST	1	K.ZOSANGPUII	12	4	6	1	NIL
		2	LALAWMPUII	13	2	7	3	NIL

### 5. STUDENTS MENTORING SYSTEM ODD SEMESTER

Sl. No.	Department	Faculty (Mentor)		No. of Mentees reported as on JULY 2017	Students less of 75% attendance upto 2nd internal	Why is deficient in attendance?	Performance in the last test, passed or failed?	Follow up of Mentor
		Sl. No.	Name					
1	2	3	4	5	6	7	8	10
1	HOME SCIENCE	1	LALSANGLI ANI KHAWLHRING	5	1	Negligence	at least appear once	Follow up given
		2	LALSANGKI MI HMAR	2	Nil		at least appear once	Follow up not given
		3	LALHMINGLIANI HLONDO	2	Nil		Appeared all	Follow up given
		4	VANLALLA WMI	6	Nil		Appeared all	Follow up not given
		5	LALTHANPU II RALTE	2	1	Family problem	at least appear once	Follow up not given
		6	C. LALRAMDINA	6	2	1 left	at least appear once	Follow up not given
		7	MARIA LALHMINGMAWII	4	Nil		Appeared all	Follow up not given
		8	LALRAMMA WII	3	Nil		at least appear once	Follow up not given
		9	LALRINNGH ETI RALTE	4	1	student not cooperating	at least appear once	Follow up given
		10	MIMI LALMUANA WMI	4	Nil		at least appear once	Performance OK
		11	REBECCA LALNUNTLU ANGI	3	1	1 left	at least appear once	Follow up not given
		12	ZARZOKIMI	5	2 left		at least appear once	Follow up mentioned

2	PHYSICS	1	DR. ARUP KUMAR	11	4	not mention ed	Appeared all	Follow up mentioned
		2	DR. ROSANGLIA NA	7	3	3 left	3 left, 2 did not appear in all	No follow up mentioned
		3	M.I. SINGH	7	1		1	Follow Up not given
		4	REMLALSIA MA	12	3	2 left	good attendance	Follow up given
		5	LAWRENCE ZONUNMAW IA	12	2	not mention ed	at least appear once	Follow up given
3	GEOLOGY	1	C. ZORAMTHA RA	7	1		at least appear once	Faced probs in maths
		2	DR. C. LALMUANKI MI	4	1	Illness	at least appear once	No follow up mentioned
		3	LALTLANKI MA	7	Nil		at least appear once	Follow up given
		4	C. LALREMRUA T FELA	12	Nil		at least appear once	Students face probs in maths
4	ENGLISH	1	LALTLUANG KIMI HNAMTE	5	1	Medical	at least appear once	Follow up given
		2	LALRINSAN GI NGHINGLOV A	4	1	Neglige nce	2 did not appear	Follow up given
		3	LALMALSA WMI	5	Nil		1 did not appear	Follow up given
5	BOTANY	1	DR. R. LALENGMA WIA	11	2	Illness	at least appear once	Follow up given
		2	DR SKARIAH P.C.	9	Nil		at least appear once	Follow up given
		3	ZODINPUII	14	2	1 Left	at least appear once	Follow up given
		4	LALTLANCH HUNGI	8	Nil		at least appear once	Follow up given
		5	LALRINTLU ANGI	14	Nil		at least appear once	Follow up given

		6	MARY LALTHANSANGI	14	3	1 illness	at least appear once	Improved in attendance, follow up
		7	LALREMRUATI HMAR	8	2	Negligence	2 students absent in all	Follow up given
		8	LALNUNTHARA	8	Nil		At least appear once	Follow up given
6	CHEMISTRY	1	DR. LALHMINGLIANA HNAME	17	1	Expelled	at least appear once	Follow up not given
		2	ZONUNTHARI	10	1	Negligence	at least appear once	Follow up Ok
		3	DR. K.B. SINGH	14	3		Poor marks in internals	Follow up mentioned
		4	DR. LALSAIMAWIA SAIO	10	2	no mention	at least appear once	follow up given
		5	R. LALRAMENG ZAMI	7	1		1 student absent in all	No follow up mentioned
7	ELECTRONICS	1	PROF. B. ZOLIANA	7	1	Negligence	1 student absent in all	Follow up mentioned
		2	DR. RICKY LALHMANG AIHZUALA	11	3	Negligence	at least appear once	Follow up given
		3	DR. P.C. ROHMINGLIANA	10	2	1 left	1 student absent in all	Follow up given
		4	JONATHAN LALRINMAWIA	7	Nil		at least appear once	Follow up given
8	MATHEMATICS	1	L.B. SINGH	10	Nil		at least appear once	Follow up given
		2	PARIJAT KUMAR	9	2	Both Illness	at least appear once	Follow up given
		3	DR. LALAWMPUII	9	1	No interest	marks poor in internal	Follow up given
		4	DR. LALHMANG AIHZUALA	10	Nil		All students appear in both	Follow up given
		5	C. LALNGAIHAWMA	7	Nil		at least appear once	Follow up not given
9	TEACHER	1	M.S.DAWNG LIANI	10	Nil		2 did not appear in all	Follow up given



		2	LALHRUAIT LUANGA	10	Nil		at least appear once	Follow up given
		3	C. LALRINAWMA	11	1	Negligence	1 did not appear in 2 internals	Follow up given
		4	LALDINGLIA NA SAILO	11	3	1 left	3 did not appear in all	Follow up given
		5	R.LALMAWI PUII	10	2	negligence	1 did not appear in all	Follow up given
		6	LALHMUNMAWII	9	3	not mentioned	at least appear once	Follow up given
		7	H.THANGKHANHAU	9	2	1 Left	1 absent in 2 internals	Follow up given
		8	VANLALLURA	10	3	Negligence	1 absent in 2 internals	Follow up given
10	ZOOLOGY	1	CAROLINE ZAI HMINGTHANGI	10	1	health problem	at least appear once	Follow up given
		2	DR. LALZAHAWMI CHENKUAL	17	1	Illness	1 student absent in both	Follow up given
		3	H.LALNUNSANGLI	16	Nil		at least appear once	Follow up given
		4	S. THANGRIMAWII	9	Nil		at least appear once	No follow up given
		5	SAILOPUII	14	2	1 left	at least appear once	Follow up given
		6	LALRINMAWIA	14	3	1 health problem	at least appear once	Follow up given
11	BIOCHEMISTRY	1	DR. LALSANGLU AII FANAI	12	3	3 left	at least appear once	Follow up given
		2	LALROSANG PUII	14	3	4 left	at least appear once	Follow up given
		3	K.ZOSANGPUII	13	2	5 left	at least appear once	Follow up given

## 6. UNIVERSITIES RANK HOLDER FOR THE CURRENT YEAR 2017

Sl. No	Roll No	Names	Department	Class	Position
1.	1407BS147	Samuel Lalchhanhima	Physics	1 <sup>st</sup>	1
2.	1407BS106	Eliazer F. Lalfakmawia	Physics	1 <sup>st</sup>	8
3.	1407BS105	Zoremsiami	Physics	1 <sup>st</sup>	8
4.	1407BS099	Wycliff Lalchhandama	Physics	1 <sup>st</sup>	10
5.	1407BS091	K. Lalruatmawii	Chemistry	1 <sup>st</sup>	6
6.	1407BS130	C. Zorammawia	Mathematics	1 <sup>st</sup>	2
7.	1407BS132	Lallungkhama	Mathematics	1 <sup>st</sup>	4
8.	1407BS138	Lallianmawii	Mathematics	1 <sup>st</sup>	7
9.	1407BS003	H. Lalchhuanawma	Zoology	1 <sup>st</sup>	9
10.	1407BS061	Lucy Lalmuanpuii	Zoology	1 <sup>st</sup>	10
11.	1407BS008	Lalhlimpuii	Botany	1 <sup>st</sup>	6
12.	1407BS014	Lalsiamchhungi	Botany	1 <sup>st</sup>	7
13.	1407BS062	PC Vanlalhraaii	Botany	1 <sup>st</sup>	8
14.	1407BS112	J. Lalramnghahmawii Chhange	Geology	1 <sup>st</sup>	10
15.	1407BH020	Zothanpuii Pautu	Home Sc.	1 <sup>st</sup>	1
16.	1407BH001	Vanlalzawni	Home Sc.	1 <sup>st</sup>	2
17.	1407BH030	K. Lalbiakzuali	Home Sc.	1 <sup>st</sup>	3
18.	1407BH028	Lalremruati Sailo	Home Sc.	1 <sup>st</sup>	4
19.	1407BCA144	Lalremtluang Pautu	Comp. Sc.	Dist.	2
20.	1407BCA156	Robert Lalthianghlina	Comp. Sc.	1 <sup>st</sup>	4
21.	1407BCA148	Mukesh Kumar Ram	Comp. Sc.	1 <sup>st</sup>	6
22.	1407BCA155	Malsawmzuala	Comp. Sc.	1 <sup>st</sup>	7
23.	1407BCA157	Lalhriatpuia	Comp. Sc.	1 <sup>st</sup>	8

## ABSTRACT OF THE FINAL YEAR B.Sc, B.Sc (HOME SCIENCE), BCA 2017

Sl. No	Class	Hons	Appeared		TT	Distinction		1 <sup>st</sup> Class		2 <sup>nd</sup> Class		Total Pass	Pass %
			M	F		M	F	M	F	M	F		
1.	VI SEM. B.Sc	Bot.	16	19	<b>35</b>	7	12	-	-	-	-	19	54.28
		Zoo.	7	16	<b>23</b>	3	9	-	-	-	-	12	52.17
		Chem.	10	9	<b>19</b>		1	-	1	-	-	2	10.52
		Phy.	12	5	<b>17</b>	4	1	1	1	-	-	7	41.17
2.	VI SEM. B.Sc (HOME SCIENCE)	Maths	13	6	<b>19</b>	3	1	4	3	-	-	11	59.89
		Geo.	8	3	<b>11</b>	1	3	-	-		-	4	36.36
			-	24	<b>24</b>	-	7	-	1	-	-	8	33.33
3.	VI SEM. BCA		18	1	<b>19</b>	8		3	1	-	-	12	63.16
	<b>TOTAL</b>		<b>84</b>	<b>83</b>	<b>167</b>	<b>26</b>	<b>34</b>	<b>8</b>	<b>7</b>			<b>75</b>	

## 7. RESEARCH AND PUBLICATION DURING 2017

### I. INTERNATIONAL JOURNAL

Sl. No.	Name of Author	Title of Publication	Journals
1.	Dr. Ricky Lalhmangaihzualla	<i>Structural, Electronic and optical properties of Wurtzite and Zinc Blende InN with GGA and mBJ Potential</i>	International Journal of Advanced Research and Review (IJARR), 2(10), 01 – 11.
2.	C. Zoramthara	<i>Remarkable preservation of terpenoids and record of volatile signaling in plant-animal interactions from Miocene amber</i>	Scientific Reports, 7:10940, 1 – 6.
		<i>Efficient oxidative removal of 4-tert-octylphenol and 17<math>\alpha</math>-ethynylestradiol from aqueous solutions using ferrate(VI)</i>	Korean J. Chem. Eng., 34(3), 734-740. <b>pISSN: 0256-1115</b>
3.	Dr. Lalsaimawia Sailo	<i>Degradation of some micro-pollutants from aqueous solutions using ferrate (VI): Physico-chemical studies</i>	Separation Science And Technology, <b>ISSN: 0149-6395 (Print)</b>

## II. NATIONAL JOURNAL

Sl. No.	Name of Author	Title of Publication	Journals
		<i>Measurement of Gamma Radiation Dose and its Correlation with Radon Concentration in Southern Part of Mizoram, India.</i>	Science & Technology for shaping the future of Mizoram, 295 – 298. <b>ISBN 978-93-85926-49-5.</b>
1.	Prof. B. Zoliana	<i>Seasonal Variation of Indoor Radon Concentrations in Dwellings in Eastern Part of Mizoram.</i>	Science & Technology for shaping the future of Mizoram, 311 – 313. <b>ISBN 978-93-85926-49-5.</b>
		<i>A Theoretical Formulation of Initial State Wave Functions for Photoemission Calculations</i>	Summary of Doctoral Theses, Eastern Publishers, Vol-2, 165 – 174. <b>ISBN 978-93-86302-22-9.</b>
2.	Dr. Arup Kumar	<i>Probing Deeper into X-Ray Bursting Neutron Stars from Its Surface Emission with Data from ASTROSAT</i>	Science & Technology for shaping the future of Mizoram, 299 – 304. <b>ISBN 978-93-85926-49-5.</b>
3.	Dr. Lalzahawmi Chenkual	<i>Seasonal Variation in Water Quality Attributes of Tamdil, Mizoram India.</i>	Science & Technology for shaping the future of Mizoram, 169 – 174. <b>ISBN 978-93-85926-49-5.</b>
4.	Dr. Lalhmingliana Hnamte	<i>Computational Study of Greener Pathway for the Synthesis of 2-Ethylaniline and 4-Ethylaniline from N-Ethylaniline in the Presence of HCl under Gas Phase.</i>	Science & Technology for shaping the future of Mizoram, 127 – 142. <b>ISBN 978-93-85926-49-5.</b>
5.	Lawrence Zonunmawia Chhangte	<i>Measurement of Gamma Radiation Dose and its Correlation with Radon Concentration in Southern Part of Mizoram, India.</i>	Science & Technology for shaping the future of Mizoram, 295 – 298. <b>ISBN 978-93-85926-49-5.</b>
6.	Dr. Ricky Lalmangaihzualla	<i>Structural, Electronic and optical properties of Wurtzite and Zinc Blende InN with GGA and mBJ Potential Effects of Spin Orbit interaction on Band Structure in Semiconductor Spintronic Materials.</i>	International Journal of Advanced Research and Review (IJARR), 2(10), 01 – 11. Summary of Doctoral Theses, Eastern Publishers, Vol-2, 153 – 164. <b>ISBN 978-93-86302-22-9.</b>
7.	Dr. PC. Rohmingliana	<i>Measurement of Gamma Radiation Dose and its Correlation with Radon Concentration in Southern Part of Mizoram, India.</i>	Science & Technology for shaping the future of Mizoram, 295 – 298. <b>ISBN 978-93-85926-49-5.</b>
		<i>Seasonal Variation of Indoor</i>	Science & Technology for

- |                         |   |  |
|-------------------------|---|--|
|                         | <i>Radon Concentrations in Dwellings in Eastern Part of Mizoram.</i>  | shaping the future of Mizoram, 311 – 313. <b>ISBN 978-93-85926-49-5.</b>   |
|                         | <i>Indoor and Outdoor Radon and Thoron Monitoring in Mizoram With Special Reference to Lunglei, Serchhip and Mamit Districts.</i> | Summary of Doctoral Theses, Eastern Publishers, Vol-2, 175 – 190. <b>ISBN 978-93-86302-22-9.</b>   |
|                         | <i>Investigations of Public Dose Due to Stray Radiation in X-Ray Installations in Mizoram.</i>                                    | Science & Technology for shaping the future of Mizoram, 305 – 309. <b>ISBN 978-93-85926-49-5.</b>  |
| 8. Jonathan Lalrinmawia | <i>Investigations of Workers Dose Due to Stray Radiation in X-Ray Installations in Mizoram.</i>                                   | Recent Advances in Physics Research and its relevance, Excel India Publishers, New Delhi, 258–263. <b>ISBN 978-93-86256-85-0.</b>        |
|                         | <i>Physico-chemical characterization of potable water in Aizawl.</i>  | Solid Waste Management and Safe Drinking Water in Context of Mizoram and other States in India, 33 – 37. <b>ISBN : 978-1-61813-473-8</b> |
| 9. Laltlankima          | <i>Assemic contamination in potable water of Chawngte, Lawngtlai District.</i>  | Solid Waste Management and Safe Drinking Water in Context of Mizoram and other States in India, 38 – 45. <b>ISBN : 978-1-61813-473-8</b> |

## **ABSTRACT OF RESEARCH PAPERS PUBLISHED DURING 2017**

### **I. INTERNATIONAL JOURNAL**

IJARR, 2(10), 2017; 01-11



International Journal of Advanced Research and Review

[www.ijarr.in](http://www.ijarr.in)

#### **STRUCTURAL, ELECTRONIC AND OPTICAL PROPERTIES OF WURTZITE AND ZINC BLENDE InN WITH GGA AND mBJ POTENTIAL**

**Lalrintluanga Sailo<sup>1\*</sup>, Ricky L. Ralte<sup>2</sup>, Z. Pachuau<sup>3</sup>, C. Lalramliana<sup>4</sup>**

<sup>1</sup>Research Scholar, Department of Physics, Mizoram University, Aizawl, India

<sup>2</sup>Assistant Professor, Department of Electronics, Govt. Zirtiri Residential Science College, Aizawl, India

<sup>3</sup>Professor, Department of Physics, Mizoram University, Aizawl, India

<sup>4</sup>Assistant Professor, Department of Mathematics, Govt. Serchhip College, Serchhip, India

**\*Corresponding Author:** Department of Physics, Mizoram University, Aizawl, India. Pin: 796004.  
Email: [lalrinasailo@gmail.com](mailto:lalrinasailo@gmail.com)

#### **ABSTRACT**

To obtain the parameters of InN semiconductor compound in wurtzite (WZ) and zincblende (ZB) structures, we have carried out a first-principle total-energy calculation of the structural, electronic and optical properties for WZ and ZB InN semiconductor with density functional theory with Generalized Gradient Approximations (GGA) and modified Becke–Johnson (mBJ) potential. To find the best parameters for each structure, we have optimized the total energy as a function of the unit cell volume and the  $c/a$  ratio for the wurtzite structure and for zincblende structure, the total energy as a function of the unit cell volume and the lattice parameter. Our calculations have shown agreement with the other theoretical and experimental results. The electronic band structures were calculated from the optimized lattice parameter with GGA and mBJ potential using Full Potential Linearized Augmented Plane Wave (FP-LAPW) method. The optical properties, including the real and imaginary part of dielectric function, reflectivity, refractive index, absorption coefficient, electron energy loss function and optical conductivity of WZ and ZB InN semiconductor under ambient conditions are discussed.

**Keywords:** DFT; FP-LAPW; structure optimization; optical properties; mBJ-GGA.

OPEN

## Remarkable preservation of terpenoids and record of volatile signalling in plant-animal interactions from Miocene amber

Received: 13 March 2017

Accepted: 26 July 2017

Published online: 08 September 2017

Suryendu Dutta<sup>1</sup>, Rakesh C. Mehrotra<sup>2</sup>, Swagata Paul<sup>1</sup>, R. P. Tiwari<sup>3,4</sup>, Sharmila Bhattacharya<sup>1</sup>, Gaurav Srivastava<sup>2</sup>, V. Z. Ralte<sup>3</sup> & C. Zoramthara<sup>3</sup>

Plants produce and release a large array of volatile organic compounds that play many ecological functions. These volatile plant metabolites serve as pollinator attractants, herbivore and pathogen repellents and protect plants from abiotic stresses. To date, the geological evolution of these organic compounds remains unknown. The preservation potential of these metabolites in the fossil record is very poor due to their low boiling points. Here we report a series of volatile sesquiterpenoids, including  $\delta$ -elemene,  $\alpha$ -copaene,  $\beta$ -elemene,  $\beta$ -caryophyllene,  $\alpha$ -humulene, germacrene D,  $\delta$ -cadiene and spathulenol, from early Miocene (~17 million year) amber from eastern India. The survival of these unaltered bioterpenoids can be attributed to the existence of extraordinary taphonomic conditions conducive to the preservation of volatile biomolecules through deep time. Furthermore, the occurrence of these volatiles in the early Miocene amber suggests that the plants from this period had evolved metabolic pathways to synthesize these organic molecules to play an active role in forest ecology, especially in plant-animal interactions.

*Korean J. Chem. Eng.*, 34(3), 734-740 (2017)

DOI: 10.1007/s11814-016-0324-y

pISSN: 0256-1115

eISSN: 1975-7220

### Efficient oxidative removal of 4-tert-octylphenol and 17 $\alpha$ -ethynylestradiol from aqueous solutions using ferrate(VI)

Diwakar Tiwari\*, Lalsaimawia Sailo\*, Sang-Il Choi\*\*, Yi-Yong Yoon\*\*\*, and Seung-Mok Lee\*\*\*,†

\*Department of Chemistry, School of Physical Sciences, Mizoram University, Aizawl-796004, India

\*\*Department of Environmental Engineering, Kwangwoon University, Seoul 01897, Korea

\*\*\*Department of Health and the Environment, Catholic Kwandong University, 522 Naegok-dong, Gangneung, Gangwondo 25601, Korea

**Abstract** : Ferrate(VI) was utilized to treat micro-pollutants--4-tert-octylphenol (TOP) and 17 $\alpha$ -ethynylestradiol (EE2)--from aqueous solutions. Batch studies were conducted at various pHs (7.0 to 12.0) and concentrations of TOP/or EE2 (0.03 to 0.3mmol/L) using 0.1mmol/L ferrate(VI). Time-dependent degradation of TOP and EE2 was assessed as a function of pH and micro-pollutant concentrations and we found that significant mineralization of micro-pollutants was achieved by ferrate(VI) treatment. Second-order kinetics showed 1 : 1 stoichiometry was obtained between the ferrate(VI) and TOP/or EE2. Further, the effect of several background electrolytes on degradation of TOP and EE2 by ferrate(VI) was evaluated, showing insignificant effect of degradation.

SEPARATION SCIENCE AND TECHNOLOGY

<https://doi.org/10.1080/01496395.2017.1374976>

ISSN: 0149-6395 (Print) 1520-5754 (Online) Journal homepage:

<http://www.tandfonline.com/loi/lst20>

## Degradation of some micro-pollutants from aqueous solutions using ferrate (VI): Physico-chemical studies

Lalsaimawia Sailoa, Diwakar Tiwaria, and Seung-Mok Leeb

aDepartment of Chemistry, School of Physical Sciences, Mizoram University, Aizawl, India;

bDepartment of Health and Environment, Catholic Kwandong University, Gangneung, Korea

**Abstract :** The aim of this communication is to investigate various physico-chemical parametric studies in the oxidative degradation of bisphenol A (BPA) and diclofenac (DCF) in aqueous solutions using the ferrate (VI). A wide range of pH (7.0–12.0) and concentrations of BPA/or DCF (0.03–0.5 mmol/L) is studied at a constant concentration of ferrate (VI) 0.1 mmol/L. Apparent rate constant was found to be  $8.35 \times 10^2$  and  $7.62 \times 10^2$  L/mol/min, respectively, for BPA and DCF degradation by the ferrate (VI). Further, decreasing the pH from 12.0 to 7.0, the corresponding increase in percentage degradation of BPA and DCF is found to be from 23 to 87% for BPA and from 14 to 41% for DCF, respectively, at the ferrate (VI) to micro-pollutant molar ratio 1:1. Total organic carbon data showed that partial mineralization of BPA/or DCF is achieved at a single operation of ferrate (VI) treatment. Moreover, decreasing the micro-pollutant concentration from 0.5 to 0.03 mmol/L has caused to increase the percentage TOC removal from 15 to 45% (for BPA) and from 10 to 38% (for DCF), respectively, at pH 7.0. The presence of NaCl, NaNO<sub>3</sub>, and Na<sub>2</sub>HPO<sub>4</sub> electrolytes could not affect significantly the oxidation of BPA and DCF by ferrate (VI). However, the presence of NaNO<sub>2</sub> and Na<sub>2</sub>SO<sub>3</sub> co-existing ions hampered significantly the degradation of BPA and DCF using ferrate (VI).

## II. NATIONAL JOURNAL

*Science and Technology for Shaping the Future of Mizoram*

Chapter 24

Allied Publishers  
New Delhi  
2017

ISBN 978-93-85926-49-5



## Computational Study of Greener Pathway for the Synthesis of 2-Ethylaniline and 4-Ethylaniline from N-Ethylaniline in the Presence of HCl under Gas Phase

Lalhmingliana Hnamte<sup>1,2\*</sup> and Zodinpuia Pachuau<sup>2</sup>

<sup>1</sup>Department of Chemistry, Government Zirtiri Residential Science College, Aizawl-796007, India

<sup>2</sup>Department of Chemistry, Mizoram University, Aizawl-796004, India

\*E-mail: lhnamate7@gmail.com

**ABSTRACT:** The objective of the computational calculation is to find greener pathway and to investigate for the synthesis of 2-ethylaniline and 4-ethylaniline from N-ethylaniline in the presence of HCl under gas phase. Mechanistic pathways are proposed for the synthesis to investigate the most suitable synthesis pathway. Which are investigated computationally using Gaussian software which search for the feasibility of the proposed mechanistic pathways from which the best method for the synthesis is selected. It also probe in to the usage of the by-products for the synthesis to eliminate the wastage. Computational calculation is done using Density Functional Method with B3LYP unrestricted 6-311++G (d, p) basis set. Computationally it is proved that the initial stage of the reaction is most feasible as proposed in the literature and that the second stage of the reaction proceeds best when aniline reacts with ethene, which the experimentalists' ignore, than with chloroethane by the electrophilic substitution reaction.

**Keywords:** Gaussian, Density Functional Theory, Intrinsic Reaction Coordinate (IRC), Computational and Synthesis.



## Chapter 29

# Seasonal Variation in Water Quality Attributes of Tamdil, Mizoram, India

Lalzahawmi Chenkual and B.P. Mishra

Department of Environmental Science, Mizoram University, Aizawl-796 014, India

\*E-mail: chenkualawmi@gmail.com

**ABSTRACT:** This paper is intended to be a study concerning the water quality attributes of Tamdil, Mizoram, India, at monthly intervals for a period of two years, i.e. March, 2014 to February, 2016. The results are computed on seasonal basis i.e. pre-monsoon, monsoon, post-monsoon and winter seasons. It was found that temperature ranged from 12°–29°C; turbidity from 5.6–24.3 NTU; total alkalinity ranged from 26 to 76 mgL<sup>-1</sup> CaCO<sub>3</sub>, total hardness ranged from 24 to 70 mgL<sup>-1</sup> CaCO<sub>3</sub>; dissolved oxygen ranged from 3.99 to 7.9 mgL<sup>-1</sup> and biological oxygen demand value ranged from 0.06 to 1.85 mgL<sup>-1</sup>. The results reveal that there is a significant seasonal variation in all the parameters and all the parameters are within the prescribed limits of water quality laid down by various scientific agencies, except turbidity. The data were subjected to correlation coefficient among different variables using two tailed test at 5% level of significance using SPSS version 16.0.

**Keywords:** Water Quality Attributes, Turbidity, Total Alkalinity, Total Hardness, Dissolved Oxygen, Biological Oxygen Demand, and Water Quality Standards.

## Chapter 50

# Measurement of Gamma Radiation Dose and its Correlation with Radon Concentration in Southern Part of Mizoram, India

L.Z. Chhangte<sup>1</sup>, Z. Pachuau<sup>1</sup>, P.C. Rohmingliana<sup>2</sup>, B. Zoliana<sup>2\*</sup>, B.K. Sahoo<sup>3</sup> and B.K. Sapra<sup>3</sup>

<sup>1</sup> Department of Physics, Mizoram University, Aizawl, India

<sup>2</sup> Department of Electronics, Zirtiri Residential Science College, Aizawl, Mizoram, India

<sup>3</sup> Radiological Physics and Advisory Division, Bhabha Atomic Research Centre, Mumbai, India

\*E-mail: bzoliana@gmail.com

**ABSTRACT:** This study presents the results of indoor and outdoor ambient gamma dose rates in and around dwellings in Lawngtlai, Saiha and apart of Lunglei districts in southern Mizoram, and these measurements were carried out by using Micro-R Survey Meter, which is a portable detector having a gate time of 8 seconds. The background gamma radiation measurements were carried out on the ground and at one meter above the ground in order to determine the source of radiation, whether it is terrestrial or of cosmic origin. Seasonal measurements for rainy, winter and summer seasons were also performed in order to determine the effects of meteorological factors. The measured gamma radiation dose ranges from 4–13 µR/h while the nationwide gamma survey result is 10.05 µR/h. The indoor and outdoor gamma readings had no significant difference but in each case measurement on the ground has a slightly higher value than that of measurement at 1m above the ground. This shows that the background gamma radiation is mainly of the terrestrial origin. It has also been found that there is a slight seasonal variation in gamma readings to indicate the influence of meteorological parameters as expected. Moreover, there has been a good correlations observed between gamma value and radon concentration measured inside the dwellings.

**Keywords:** Survey Meter, Cosmic and Terrestrial Gamma Radiation, Radon Concentration, Correlation, Meteorological Parameters.



## Chapter 51

## Probing Deeper into X-Ray Bursting Neutron Stars from Its Surface Emission with Data from ASTROSAT

Arup Kumar

Department of Physics, Government Zirtiri Residential Science College, Aizawl, Mizoram, India

\*E-mail: arupk08@gmail.com

**ABSTRACT:** Neutron Stars (NS) are the densest astrophysical objects with a physical boundary. These objects are born when a massive star undergoes a core collapse supernova explosion. The fundamental properties of any Neutron star is based on a close study of the emission spectrum emerging from their photospheres. Neutron stars in low-mass X-ray binaries show a plethora of spectral and timing properties, such as thermonuclear bursts, burst oscillations, KHz Quasi-periodic Oscillations (QPO) etc. which can be used to study fundamental problems, such as probing the strong gravity and dense core matter and understanding the accretion-ejection mechanisms. The most prominent candidates for such measurements are (thermonuclear) bursting neutron stars (X-ray Bursters or XRB) in low mass X-ray binary systems (LMXB) that present Photospheric Radius Expansion (PRE). We propose to observe the Neutron star 4U 1702-429 in LMXB to study a number of such properties. The observation is during its emission from the surface while it cools after thermonuclear bursts and it relies on the broadband X-ray spectral and fast timing capabilities of X-ray detectors SXT & LAXPC on board ASTROSAT, which is recently launched from India. We also present the prospect of measuring mass and radius of Neutron stars from the data obtained from ASTROSAT and their implications to constrain the equation of state of the cold dense matter in the core of Neutron stars. The core matter is accurately described by one-parameter equation of state that governs the dense matter above nuclear density. The Tolman-Oppenheimer-Volkov (TOV) relativistic stellar structure equation describes the extremely dense cold matter in their cores by relating pressure and energy density. There is a unique map between the microscopic pressure-density ( $P \sim \rho$ ) relation and the macroscopic mass-radius ( $M \sim R$ ) relation and the equations of states (EoS) are constrained if the neutron stars masses and radii are determined by astrophysical observational methods.

**Keywords:** Neutron Stars, LMXB, X-ray bursts, Equation of State, ASTROSAT.



## Chapter 52

## Investigations of Public Dose Due to Stray Radiation in X-Ray Installations in Mizoram

Jonathan Lalrinmawia<sup>1</sup>, Kham Suan Pau<sup>1,2</sup> and Ramesh Chandra Tiwari<sup>\*1</sup><sup>1</sup>Department of Physics, Mizoram University, Aizawl-796 004, Mizoram, India<sup>2</sup>Mizoram State Cancer Institute, Zernabaw, Aizawl-796 017, Mizoram, India

\*E-mail: ramesh\_mzu@rediffmail.com

**ABSTRACT:** X-rays are not only magnificent and useful in medicine, but dangerous too. In the present study, 67 diagnostic X-ray facilities installed in 48 institutions from 8 districts in Mizoram, have been considered. A water phantom is used as a source of scattered; field sizes are adjusted to maximum; exposure rates outside Patient Entrance Door (PED) were measured by setting maximum accelerating potential and minimum current with fixed time. The radiations scattered from the phantom, walls, floor and the ceiling as well as leakage radiation have been measured. Workload is calculated for each installation in mA min/week; public dose is calculated in mR/week from workload and stray radiation rates. Exposure rates outside PED in chest mission ranges from 0.001 to 200 mR/h and 0.02 to 185 mR/h in couch mission. Even though fixed X-ray units are able to be used at higher tube loadings than mobile X-ray units, it is found that the required radiation shielding has no essential difference. High exposure rates at public place can be significantly reduced by employing lead lined door and proper shielding as per safety regulation.

**Keywords:** Diagnostic X-ray, Scattered Radiation, Leakage Radiation, Patient Entrance Door.



## Chapter 53

# Seasonal Variation of Indoor Radon Concentrations in Dwellings in Eastern Part of Mizoram

Lalmuanpuia Vanchhawng<sup>1</sup>, P.C. Rohmingliana<sup>2</sup>, B. Zoliana<sup>2</sup>, R. Mishra<sup>3</sup> and B.K. Sahoo<sup>3</sup>

<sup>1</sup>Department of Physics, Pachhunga University College, Aizawl, Mizoram, India

<sup>2</sup>Department of Electronics, Govt. Zirtiri Residential Science College, Aizawl, Mizoram-796 001, India

<sup>3</sup>Radiological Physics and Advisory Division, Bhabha Atomic Research Centre, Mumbai-400 094, India

\*E-mail: bzoliana@rediffmail.com

**ABSTRACT:** Radon and its progeny concentrations contribute most of the natural radiation dose to general populations. This fact draws a considerable attention and hence, large scale and long-term measurement of radon concentrations has been going on. Radon present in indoor as well as outdoor air as they had been exhaled from soil and building materials. Radon levels in the indoor have been realized as a concern of public health in many countries and even in India. Consequently, studies related to monitoring of radon and the inhalation dose to the public living in that environment has been a keen interest. Measurement of radon concentrations was done over the past 50 years in many countries, but with the improvement of experimental apparatus and technical formulation, the same is going on till today. Subsequent decay products are formed in the air. It is well-known that in radon problem, the progeny species and not the radon are primarily responsible for lung doses. Among the progenies, short lived nuclei viz.  $^{214}\text{Po}$  is focused due to its high contribution in deposition and emission of alpha particles inside the lung. Measurement of indoor Radon concentrations have been carried out in Eastern part of Mizoram covering Champhai District for a complete one year in 40 dwellings, which were specifically selected according to the site location of the dwellings. Seasonal variations of indoor radon concentrations were monitored for three seasons, viz., rainy, winter and summer seasons. Solid-State Nuclear Track Detectors (SSNTD) have been used to obtain the time integrated concentration levels of indoor radon. It has been found that the annual indoor concentrations of the radon in the study area is  $50.6 \text{ Bq/m}^3$ . Indoor radon concentration reach its maximum during winter and the minimum concentration was found during summer season.

**Keywords:** Radon, SSNTD, Ventilation Rate.

# Investigations of Workers Dose Due to Stray Radiation in X-ray Installations in Mizoram

Jonathan Lalrinmawia<sup>1</sup>, Kham Suan Pau<sup>2</sup> and Ramesh Chandra Tiwari<sup>3</sup>

<sup>1,3</sup>Department of Physics, Mizoram University, Aizawl-796004, Mizoram, India

<sup>2</sup>Mizoram State Cancer Institute, Zemabawk, Aizawl-796017, Mizoram, India

E-mail: <sup>3</sup>ramesh\_mzu@rediffmail.com

---

**Abstract**—Stray radiation is the sum of all scattered radiation and leakage radiation. 85 diagnostic X-ray facilities installed in 48 institutions from 8 districts have been considered. Each installation is classified into barrier covering Control Panel (CP) properly, not covering CP properly and barrier not available. No worker used Personal Monitoring Device (PMD) for safety and that is why we follow the present method. Using water phantom as scatterer, exposure rates at CP are measured by setting maximum potential (kV) and minimum current (mA) with fixed time (s). Workload is calculated for each installation in mA.min/week; public dose is calculated in mR/week. Installations without barrier but showing low exposure rates are having kV reproducibility problem and the main reason for low workers dose is low workload in different installations. The highest worker dose is 18.9mR/week as compared to AERB Safety Code which is 40mR/week all installations are within safety limit.

**Keywords:** Diagnostic X-ray, Scattered Radiation, Leakage Radiation, Control Panel

---

## INTRODUCTION

In November 1895 W.C. Roentgen discovered x rays. Within a few weeks, articles describing effects of these strange rays on radiation workers began to appear in journals. There were many reports on somatic radiation effects in radiological technologists and radiologists in the early days of X-rays (Archer, 1995). X-ray late effects were also established in the study of mortality among British radiologists due to cancer and other causes (Smith and Doll, 1981). Until the 1950's there was no scientific report that include the late radiation effects and these late effects on patients and workers lead to radiation-protection regulation of today (Bushong, 1991). The main objective of radiation protection is to ensure that the radiation doses to which the radiation workers are exposed to are kept below permissible level (Binks, 1955). We have International Commission for Radiation Protection (ICRP) as the international regulatory body and in India we have AERB to counterpart ICRP (Grover *et al.*, 2002). These bodies recommend norms for permissible doses limits for the general public and radiation workers (Grover *et al.*, 2002).

In the study of occupational exposure in Brazil, diagnostic X-ray is the main source of exposure for workers in the medical field (Cunha *et al.*, 1992). Radiation workers are exposed to radiation mainly from primary and scattered radiation. However diagnostic workers received very small amount of radiation due to primary and most of the doses is due to scattered radiation (Osborn, 1955). When a photon interacts with matter, it is either absorbed or it experiences a change in its energy or direction of motion. These photon are called scattered photons (Carlsson and Carlsson, 1996). X-rays photons interaction involved three important mechanisms: photoelectric, coherent-incoherent scattering and pair production (Johns and Cunningham, 1983). In diagnostic radiology only photoelectric effect and coherent-incoherent scattering is important as energy ranges up to 150 kV is employed (IAEA, 2014). In photoelectric interaction, most of the photon energy is converted into Kinetic Energy (KE) and only some energy appeared as scattered radiation. However, in coherent scattering all energy is scattered; no energy is converted into KE and in incoherent scattering, some energy is transferred to KE and some are scattered (Johns and Cunningham, 1983).

From the study of occupational exposure in X-ray diagnosis in Brazil by Cunha *et al.* in 1992 and national survey of occupational exposure among diagnostic technologists in South Korea by Lee *et al.* in 2014; we see that radiation workers are monitored. But, in the present study none of the workers have been monitored by PMD that is why we follow the present method. By using ionization chamber, we measured stray radiation from X-ray tube as leakage radiation and scattered from cylindrical phantom, ceiling, wall etc. at CP. By using workload (mAmin/week) and radiation rates we calculated dose in mR/week and compare to safety standard.

## 6

### *Physico-Chemical Characterization of Potable Water In Western Aizawl*

Laltlankima<sup>1</sup>, Shiva Kumar<sup>1</sup>, John Blick<sup>1</sup>,  
Lalawmpuii<sup>1</sup> & K. B. Singh<sup>2</sup>

<sup>1</sup>Department of Geology, Mizoram University, Aizawl

<sup>2</sup>Department of Chemistry, Govt. Zirtiri Residential Science College, Aizawl

---

#### **Abstract**

Aizawl city water supply is provided by PHED, Govt. of Mizoram through water pipe connections. The people of Aizawl also depend on tuikhur and hand pumps for the alternate source of potable water for their domestic purposes. The water samples were collected from different selected sites of Aizawl for their physico-chemical analyses such as pH, electrical conductivity (EC), total dissolved solids (TDS), turbidity, total chloride, total hardness, iron and fluoride. Total coliform (MPN) and faecal coliform (MPN) were also determined for bacteriological characteristics in order to obtain the current status of potable water quality in the study area. Heavy minerals analyses were also done with MP-AES. The results show that the water quality of tuikhur and hand pumps which are used for domestic purposes are by and large within the acceptable limits.

**Key word:** MP-AES, bacteriological test

## 7

### *Arsenic Contamination in Potable Water of Chawngte, Lawngtlai District, Mizoram*

John Blick<sup>1\*</sup>, Laltlankima<sup>1</sup>, Shiva Kumar<sup>1</sup> & K. B. Singh<sup>2</sup>

<sup>1</sup> Department of Geology, Mizoram University, Aizawl, Mizoram

<sup>2</sup>Department of Chemistry, GZRSC, Aizawl, Mizoram

---

#### **Abstract**

Arsenic contamination in potable water is a common feature in neighboring border of Mizoram. They include Bangladesh, Tripura, Assam and Manipur. The contamination of groundwater by arsenic in Chawngte is likely to be happened due to its sharing of a common land border with Bangladesh. The main sources of water in the area are surface water, ground water and rain water of which the latter two sources generally meet the most important supplementary sources of drinking water in their natural condition for the locality. The area is dominated by mainly three types of tribes broadly in cluster manner. They are Mizo, Lai and Chakma, while Chakmas are closest to the Bangladesh border. People of Chakma are forced to fetch water for their daily needs from tuikhurs (spring) or other sources. These waters are usually consumed directly without having proper treatment because of the shortage of the supply water by PHED. At this moment the contamination of the underground water has become a great challenge for providing safe drinking water to the majority of the population. It has been observed that several number of tube wells, tuikhurs and hand pumps, exist in any cluster or community. Generally, not all tube wells and hand pumps in an area are affected by arsenic. Therefore, the immediate challenge is to find out the unaffected ones in the affected areas and commence routine monitoring in order to stop using the currently affected tube wells as soon as arsenic is detected.

**Keywords:** Chawngte; arsenic; potable water (physico-chemical parameters).

## **8. ACTIVITIES AND ACHIEVEMENTS OF VARIOUS SUB COMMITTEES**

### **LIQAC :**

#### **Members:**

Coordinator: Prof B Zoliana  
Lalrinsangi Nghinglova  
Lalsangkimi Hmar  
Dr R Lalengmawia  
M.S.Dawngliani

#### **Objectives:**

- i. To work towards realising the goals of quality enhancement.
- ii. To develop a system for conscious and consistent improvement in the performance of the college by

Activities during the reporting period:

- Preparing Academic Calendar for the odd semester 2017 and even semester 2018.
- Preparation of College Year Book 2018.
- Assigning mentees to mentor, compilation and review of mentoring report.
- Compilation of Monthly Department Report and review.
- Collection of Annual Departmental Report this year to prepare College Year book.
- Appointment of Faculty members to prepare Master Routine for BCA, BSc and BHSc classes.
- Proposal of subject in Lieu of History of Science for Home Science to the concerned authority in MZU.
- Assigning authority for the improvement of Teachers' Quality, work ethic and quality.
- Awarding of best Department i.e. Electronics department in 2018.
- Cooperate with all the Departments/Sub-Committee/Cells in various Activities undertaken by them.
- Organizing Parent-Teacher Meet on 24<sup>th</sup> August 2017.
- Preparation of Term of Reference for Committees/Cells.

## **II.EXAMINATION :**

### **Members:**

Chair : Principal  
Secretary : Dr Rosangliana  
Dr. R.Lalengmawia  
H.Lalnunsangi  
Lalrammawii  
M.S.Dawngliani

### **Objectives:**

- i.To supervise, ensure smooth and secure conduct of internal and university Examinations .
- ii.To Implement rules of examinations strictly, in accordance with the university and college rules and take actions against defaulters.
- iii.To collect and maintain internal marks of students from concerned department and send them to the University as and when required.
- iv. To conduct briefings on examination rules, etc. to students as well as faculty members before University examinations.
- v. To coordinate with the examination department of Mizoram University in all matters relating to examinations and make notifications to students whenever necessary.

### **Activities:**

- i. Two Internal test examinations are conducted by preparing examination time table for each department. Copies of internal marks of all departments is recorded.
- ii. Took responsible for two End Semester exams commencing from 10<sup>th</sup> November to 8<sup>th</sup> December 2017 and 1<sup>st</sup> May 2018 to 20<sup>th</sup> May 2018. Question papers received from University are arranged and checked well in advance, exam duty invigilation for teachers and office staff are also prepared in advance in order to conduct smooth exams.
- iii. Conduct internal practical examination and also end semester practical exams.
- iv. All the compile/final internal marks are uploaded to MZU through online in the portal provided by MZU.
- v. communicate several times ti the university exam officials regarding exams matters.

### **III. ADMISSION:**

#### **Members:**

Chair : Principal  
Secretary : Laltluangkimi Hnamte  
All HODs

#### **Objectives:**

- i. To implement the already existing rules contained in the prospectus and set new criteria and rules for admission into the college if and when necessary.
- ii. Setting of time frame for admission procedure.
- iii. Performing the needful during the time of admission such as appointing members for help desks and interview of students seeking admission.

#### **Activities:**

1. Made a resolution for cut-off mark for admission to I semester BSc, BHsc and BCA on the meeting on 07.05.2018.
2. Appointment of screening committee members from the application received.
3. Online admission format was reviewed, scrutinized and adjustment was made.
4. Publication of admission notice on local tv channels and newspaper.
5. Duration of entertaining admission form was fixed.
6. Create Sport quota for the talented applicants.
7. Organised help desk, and appoint help desk incharge-principal and Dr. R Lalrengmawia.



#### **IV.AISHE :**

**Member:**

Lawrence Zonunmawia Chhangte

**Objective:**

- i. To perform documentation work as proposed by concerned authority.

**Activities:**

- i. Collect Institution statistics and upload to aishe web site (<http://aishe.gov.in>)

## **V.ANTI-RAGGING &GRIEVANCE:**

### **Members:**

Chairman	:Remlalsiama
Secretary	:S.Thangrimawii
	Lawrence Zonunmawia
	L.B.Singh
	Lalsangkimi Hmar
	Sailopuii

### **Objectives:**

- i.To ensure that there is no ragging in any form among our students within and outside our college campus
- ii.To ensure that no student is a victim of harassment, exploitation and discrimination on any ground,.
- iii.To look into the grievances of students and take necessary action for redressal.

### **Activities:**

- i) Grievance and Ragging Complaint/Report Box is placed at the main corridor of the college.
- ii) This complaint box is monitored every working days throughout the session. Not a single complaint was received.
- iii) Committee Members are advised to sense any kind of ragging apart from Grievance box.
- iv) Prohibition of Ragging in and outside the college campus. Notice is placed in all notice board of the campus twice throughout the year.
- v) Announcement regarding prohibition of any kind of ragging is made in each and every classrooms.
- vi) Grievance cell complaint box is renovated and repainted once throughout the session.

## **VI.STUDENT'S UNION:**

### **Members:**

Chairman : Lalnunthara  
Secretary : Dr. Lalzahawmi Chenkual  
Lalhmingliana  
C.Lalramdina  
S.Thangrimawii  
Lalremruati

### **Objectives:**

- i.To organise Annual Student's Union Election.
- ii.To render overall supervision of all activities of the student's union.
- iii. To help promote general welfare of the students.
- iv.To provide necessary advice and assistance to the student body.

### **Activities:**

- i. Conduct Fresher Social on 14/07/2017.
- ii. Conduct election of Classes Representatives from all classes for 2017-2018 on 10/07/2017.
- iii. Conduct election of Student's Union for 2017-2018 session on 26/07/2017. Appointment of Returning Officer and Polling Officers and assignment of faculties for counting of votes.
- iv. To help and guide newly elected SU leaders during college week and to see the smooth functioning of various activities during college week by maintaining strict discipline throughout the week.
- v. Compel the students to wear College T-shirt every Tuesday and Thursday.
- vi. Take necessary action to students who were found drunk in the college campus.
- vii. Request RUSA GZRSC to purchase sport materials that are needed for university sport.
- viii. Took responsible for university sport on 19<sup>th</sup> -23<sup>rd</sup> March and maintain a strict discipline to the students so that no mischievous behavior was found and good attendance as well.
- ix. SU incharge committee was entrusted to take up award distribution programme for the session 2017-2018 by RUSA, GZRSC. The following awards were distributed:
  - a. Cash award for top scorer in all streams @Rs 1000/- for 15 students.
  - b. Special award for 100% attendance @ Rs 500/- for 9 students.
  - c. Best Performance award for college parking duty @Rs 500/- for 1 student.

## **VII.GAMES AND SPORTS:**

### **Members:**

Chairman : C.Zoramthara  
Secretary : Dr. Lalhmangaihzualla  
Dr KB Singh

M.I. Singh  
Lalzahawmi Chenkual  
Zarzokimi  
Vanlallura  
Laldingliana Sailo  
LB Singh  
Dr PC Rohmingliana  
Lalrosangpuui  
C Lalrinawma  
Lalremtluanga

Laltlankimi

### **Objectives:**

- i.To supervise all activities relating to games and sports of the student body.
- ii.To appoint teachers on duty during college and university sports.
- iii.To monitor purchase of sport goods and ensure the management of sports venues.

### **Activities:**

- i. All the sport equipment were kept in a room opposite to Maths Laboratory.
- ii. Duty List for college week was prepared.
- iii. College week was held from 4<sup>th</sup> Sept – 9<sup>th</sup> Sept 2017.
- iv. Bought sport equipment for different discipline.
- v. Participation in MZU sports held on 20<sup>th</sup>-24<sup>th</sup> March 2017. Duty List of teaching faculties for MZU sport was prepared.

## **VIII.COLLEGE MAGAZINE:**

### **Members:**

Chairman : Laltluangkimi Hnamte  
Secretary : Lalmalsawmi  
Lalthanpuii Ralte  
H Thangkhanhau  
Lalhmingliana Hnamte  
Dr R Lalawmpuii

### **Objectives:**

- i.To ensure publication and proper distribution of the Annual College magazine.
- ii.To render advice to magazine editors as and when necessary.
- iii.To empower magazine editors in collection and selection of articles for magazine.
- iv .To help in editing of college magazine.

### **Activities:**

- i. Sought and collected articles, poems, messages for the college magazine.
- ii. Photographs for the college magazine were taken on 13.03.2018, 11.04.2018 and 17.04.2018.
- iii. Resolved to release magazine at he freshersnsocial.
- iv. Proofreading of articles/poems/reports were done by the members of the editorial Board in the college.

## **IX.DEBATING ,SOCIO-CULTURAL**

### **Members:**

Chair : Lalthanpuui Ralte  
Secretary : R.Lalengzami  
Dr Arup Kumar  
Dr PC Skariah  
Laltluangkimi Hnamte  
Lalrinsangi Nghinglova  
Lalmalsawmi  
Mary Lalthansangi  
Lalrinngheti Ralte  
Dr R Lalawmpuii  
Dr C Lalmuankimi

### **Objectives:**

- i.To ensure smooth functioning of SENHRI, our college cultural club.
- ii.To assist in selection of student representatives /participants in intercollege debates,quiz ,cultural functions etc
- iii.To help promote the art of Public speaking among students.
- iv.To help students in organizing competitions under the debating department during college week .

### **Activities:**

- i. The committee helped the SU incharge to organize and judge the indoor activities and cultural programme held during college week (6<sup>th</sup> and 7<sup>th</sup> sept 2017)
- ii. Senhri cultural club performed special items during Freshers Social (19<sup>th</sup> July 2017) and college week closing function(15<sup>th</sup> Sept 2017).
- iii. After the 1st internal exam in odd semester, members of senhri cultural club practiced regularly at the college Auditorium in preparation for the college Week Closing Function.
- iv. The committee helped to select contestants for the miss/mister contest and the committee members- Laltluangkimi Hnamte, Lalmalsawmi and Lalrinsangi Nghinglova were judges for this contest.
- v. The committee selected two students to participate in the Inter College Debate competition held at Ignite Studio from 16<sup>th</sup> March 2018.
- vi. The committee also selected 2 students to participate in the Inter College Quiz Competition on 27<sup>th</sup> March 2018. Both the debating team and the Quiz team were briefed and guided by the committee. Dr. Lalmuankimi, committee member escorted the debating team to ignite studio. The committee requested 8 professors including 3 committee members to be present at Mrs. Lalmalsawmi's house on the night of the quiz competition for the live audience round.

## **X. SPIRITUAL COUNSELLING**

### **Members:**

Chair : Lalhmingliani Hlawndo  
Secretary : Lalhruaitluanga  
Lalrinngheti Ralte  
Dr P.C.Skariah  
Laltlanchhungi  
Lalrintluangi  
Dr Lalmangaihzuala

### **Objectives:**

- i.To assist the activities of the Evangelical Union.
- ii.To provide spiritual counselling to those in need .
- iii.To promote and ensure mental and spiritual health of students.

### **Activities:**

- i. Meeting for E.U Rising Day was conducted. Activities for fund rising, programmes and different sub committee were formed.
- ii. Fund Rising were done by selling smoked porked, distributing enveloped for donation among adviser/ teachers and students.
- iii. Project meeting for equipping E.U Office were done by fund rising and purchasing of mic stand, filter, fan and mirror.
- iv. We have fellowship three times a week during lunch break.
- v. Members of the committee are given a chance for short sermon.
- vi. Release of Evangelical Union T shirt.
- vii. Hollow Guitar and Plastic chairs were donated by RUSA.
- viii. Media Zonet covers Evangelical Union fellowship and interview committee members and student.
- ix. Visit of other unit Hrangbana College on 19<sup>th</sup> Jan 2018.
- x. Purchasing of office needs Brooms and Mopping on 14<sup>th</sup> February 2018.
- xi. Fund rising by selling of pickle on 9<sup>th</sup> april 2018.
- xii. Appoint new office bearer for 2018-2019 session.
- xiii. on of the adviser, Dr Skariah had to leave the sub committee due to superannuation. Citation frame and Mizo traditional bag were presented to him.

## **XI. REFRESHMENT**

### **Members:**

Chair : Mary Lalthansangi  
Secretary : Maria Lalhmingmawii  
Lalrintluangi  
R Lalmawipuii  
Dr Lalmuankimi  
Dr Lalmangaihzuala  
Dr. Ricky Lalmangaihzuala  
Dr P.C. Rohmingliana  
Dr Lalsaimawia Sailo

### **Objectives:**

- i. To take charge of selecting and ordering food items to be distributed in college functions.
- ii. To take charge of distributing the selected food items during the functions.

### **Activities:**

- i. Refreshment was prepared for 200 people on GZRSC Alumni Day organized by Alumni Committee and sponsored by RUSA held on 1<sup>st</sup> Aug 2017.
- ii. Refreshment was prepared for 60 people for 5 days on Trainer's Training Programme for Enhancing Equity and Inclusion by Website committee, GZRSC and centre for Social Research, New Delhi, sponsored by RUSA held from 16<sup>th</sup>-22<sup>nd</sup> August 2017.
- iii. Refreshment was prepared for 350 people on Parents- Teacher meet organized by IQAC, GZRSC sponsored by RUSA on 24<sup>th</sup> August 2017.
- iv. Refreshment was prepared for 300 people on Career Advancement Campaign organized by Research and Seminar Committee, GZRSC in collaboration with Central YMA, sponsored by RUSA held on 28<sup>th</sup> August 2017.
- v. Refreshment was prepared for 100 people on Legal Aid Clinic organized by State Legal Services Authority in collaboration with Student Support Committee held on 31<sup>st</sup> January 2018.



## **XII.DECORATION & HALL ARRANGEMENT**

### **Members:**

Chair : Lalsangliani Khawlhling  
Secretary : Rebecca Lalnuntluangi  
Lalsangliana Khawlhling  
Lalrinngheti Ralte  
Lalhmingliani Hlondo  
Vanlallawmi  
Parijat Kumar  
Mimi Lalmuanawmi  
K Zosangpuii  
Rebecca Lalnuntluangi

### **Objectives:**

- i.To take charge of decoration & hall arrangement for college functions.
- ii.To look after the beautification of the college in general.

### **Activities:**

- i. Flowers and banner are put up before every functions. The room where function will take place will be decorated with flowers and so on. Banner if needed were also arranged.
- ii. No steps is taken regarding the requirements submitted.
- iii. As the principal suggested, beautification of college campus and purchase of more artificial flowers and plants will also be done after the submission of admission fees.
- iv. Time table of each members is kept by the chairman so that decoration of the particular function is taken care by the chairman. Information is given through whatsapp and every member of the committee are requested to be alerted.
- v. Responsibility for decorating the Hall prior the occasion is done by four committee members appointed by the chairman.
- vi. Picture of the founder and the principals to be mounted on the wall of the main building has been working in progress.
- vii. Dt 14<sup>th</sup> Sept 2017, purchase of artificial flowers was taken by 2 members of the decoration committee i.e Ms Lalsangliani Khawlhling and Ms Vanlallawmi financed by the coordinator IQAC.
- viii. The committee members of the decoration committee set up tables and arranged flowers on the programmes organized by the college and other sub committees as follows:
  - a. Programme for opening of Legal aid clinic on 31<sup>st</sup> January 2018.
  - b. Celebration of National Science day on 28<sup>th</sup> February 2018.
  - c. Career guidance cum plastic pollution awareness organized by Village & School Adoption Committee, GZRSC on 11<sup>th</sup> May 2018.

### **XIII.SECURITY**

#### **Members:**

Chair : C.Lalramdina  
Secretary : Sailopuii  
Lalhruaitluanga

Zodinpuii  
C Lalrinawma  
L B Singh  
Dr Ricky Lalhmangaihzualla  
Remlalsiama  
Lalnunthara  
R Lalengzami

#### **Objectives:**

- i. To monitor disciplinary climate prevailing in the student community.
- ii.To provide security and maintain discipline among students during college functions.
- iii.To issue rules relating to disciplinary proceedings as and when necessary and to strictly implement already existing rules pertaining to discipline of students in consultation with the Principal.

#### **Activities:**

- i. Maintained discipline among the students as far as possible inside the college Campus trying to prevent a false play by the students during the reporting period.
- ii. With the verbal request received from the principal, we have conducted security duty on 25.05 2018 (Graduation day) organized in our college auditorium.
- iii. Overall Security of the college campus is looked after for the whole semester. No unfruitful happening occurs during the reporting period.

#### **XIV.CANTEEN**

##### **Members:**

Chair : Vanlallawmi  
Secretary : Zonunthari  
Caroline Zaihmingthangi  
Lalthanpuui Ralte  
Parijat Kumar  
K Zosangpuui  
C Lalremruatfela  
Dr Fanai Lalsangluaii

##### **Objectives:**

- i. Authorized to select the canteen proprietor.
- ii. To monitor the working of the college canteen and give necessary advice to them.
- iii. To supervise and ensure efficient management of canteen towards providing hygienic, healthy and tasteful food items.

##### **Activities:**

- i. Tender was called and six candidates appeared. Pi Lalbiaknungi was appointed to run the canteen.
- ii. Renovation of canteen was done.
- iii. Instruction on cleanliness and guidelines was given to the canteen runner.
- iv. The committee inspect the canteen at regular intervals.
- v. Charcoal burner was newly constructed at the corner of the canteen.

## **XV. LIBRARY**

### **Members:**

### **Objectives:**

- i.To guide the librarian in formulating general library policies and regulations
- ii.To work towards modernization and improvement of the library
- iii.To adopt measures to enhance and promote reading culture among students.
- iv. To organise orientation programmes on library use.

### **Activities:**

## **XVI.RECEPTION**

### **Members:**

Chair : Zodinpuui  
Secretary : Remlalsiama  
Laltlanchhungi  
H Lalnunsangi  
Caroline Zaihmingthangi  
Dr K B Singh

### **Objectives:**

- i.To look into matters pertaining to reception of invited guest,dignitaries ,resource persons etc to college functions and programmes
- ii.To cordially receive officials during college functions, inspections etc. and provide gifts and flowers if necessary. To make arrangement for transportation and accomodation of guests when required.
- iii.To maintain the *visitor's book* and ensure that all visitors give their feedback of their visit in the book.

### **Activities:**

- i. Duties assigned to the committee are well performed as a team. Visitors book is kept on which signature of our guest are taken including our very own minister R Romawia (honorable minister of Higher and Technical Education etc)
- ii. Conducted Reception duty on 31.01.2018 at the programme for opening of Legal Aid Clinic of our college. The programme was organized by AZJNEJK project and ministry of Law and Justice and Mizoram State Legal Sevice Authority.

## **XVII.CLEANLINESS & SANITATION**

### **Members:**

Chair : Lalrammawii  
Secretary : C.Zoramthara  
S Thangrimawii  
Mary Lalthansangi  
Zonunthari  
Lalremruati Hmar  
C Lalremruatfela

### **Objectives:**

- i.To Ensure that cleanliness is maintained in classrooms and college campus.
- ii.To organise regular cleanliness drive jointly with the NSS.
- iii.To take all necessary steps to ensure cleanliness (e.g selection of cleanest classrooms etc)
- iv.To inculcate the importance of cleanliness and promote clean & hygienic living.

### **Activities:**

- i. Launching of Cleanliness Week on 28<sup>th</sup> September 2017 at College Auditorium in collaboration with NSS Unit, GZRSC. The Programme was organized successfully in the presence of our respected principal with all professors and students.
- ii. Observance of Cleanliness Week (2<sup>nd</sup> to 6<sup>th</sup> October 2017). Cleanliness week was observed throughout the week even by cleaning the college building and campus.
- iii. Students were reminded to maintain their respective rooms clean.
- iv. Took up responsibilities of cleaning up the place after hosting seminar on Legal awareness on 31<sup>st</sup> January 2018.
- v. Cleaning of college campus, bathrooms and hall ways on 14<sup>th</sup> April 2018. Member of the cleanliness committee and workers financed by the college authority took part.
- vi. Class room inspection was done on 12<sup>th</sup> April 2018. Members of the cleanliness committee inspected class rooms and pointing out suggestions for necessary cleaning and cleaning equipment.

## **XVIII.WEBSITE**

### **Members:**

Chair : H.Thangkhanhau  
Secretary : Laldinglana Sailo  
Lalrinmawia  
Lawrence Zonunmawia  
R Lalmawipuii  
Jonathan Lalrinawma  
Lalhmunmawii

### **Objectives:**

- i.To monitor the college website and keep it updated with relevant informations including the syllabus, etc.
- ii.To generate easy access of informations and study materials to benefit students as well as the faculty.
- iii.Establish policy concerning the operation of the website.

### **Activities:**

#### **i. Updating website**

Website committee update college website whenever required. All the items or notifications or news received from Principal Office to be upload into website without fail. Not only that, any news items or information received from Faculties, Staffs, etc. are uploaded into college website. Photos of our College New Buildings constructed under RUSA Funding. Different equipment purchased under RUSA are also updated into College website as a photographic evidence.

#### **ii. Looking after inflibnet digital library**

INFLIBNET is a UGC-Infonet Digital Library Consortium which was formally launched in December 2003 by Honourable President of India Dr. APJ Abdul Kalam. In this digital library, there are currently more than 6,000+ e-journals and 31,35,000 e-books. Website committee play major role since this program was joint by our college Library. Username and passwords for all the faculties whether regular or not is created by Website Committee. *Recently, username and password for newly joint faculties are created.*

#### **iii. Joining IITs Program (NPTEL)**

##### **NATIONAL PROGRAMME FOR TECHNOLOGICAL ENHANCED LEARNING**

NPTEL is an acronym for National Programme on Technology Enhanced Learning which is an initiative by seven Indian Institutes of Technology (IIT Bombay, Delhi, Guwahati, Kanpur, Kharagpur, Madras and Roorkee) and Indian Institute of Science (IISc) for creating course contents in engineering and science. There are many courses appropriate for students of Computer Science, Home Science, Geology and BSc in different subjects. Different online courses were conducted through this NPTEL program and certificate from IITs were given to successful students who passed the exam.

Website Committee under the Guidance of our respected Principal takes initiative to join this program i.e. to open Local Chapter of NPTEL program is our college so that students can learn whatever courses appropriate from them. We also apply to become the first Exam Centre for NPTEL program. If all our initiative steps of application for opening NPTEL local

chapter and Exam Centre were successful, many students will benefit from this program and they will get certificate from IITs which will boost their career while applying for jobs.

#### **iv. Website domain renewal**

Our college website domain i.e. [www.gzrsc.edu.in](http://www.gzrsc.edu.in) which was purchased from Education and Research Network (ERNET) as per directive from Ministry of Communications and Information Technology (Govt. of India). This domain is about to expire on July, 2018. Website Committee as agreed to take initiative to renew our college domain before the expiry date. Application for approval to sanction money for domain renewal had been submitted to our Principal and the same has been approved. *Therefore, our domain will be renewed for another 9 years.*

#### **v. Upgradation of website framework**

Currently, our college website was created using free open source software. Even though website committee tried our best to develop and create a very beautiful website, there are some limitations using this free website framework software. There are many limitations in terms of display, adaptations, capabilities of our college website using free framework software. Mobile phones and different smaller screens were not supported in the current website.

Therefore, Website Committee decided to purchase paid version of Website Framework Software to make our college website more beautiful, more capable and more adapt to different devices for accessing the website including mobile phones and handheld devices. *Request or application for purchasing website software framework has been submitted to our Principal. We are happy to learn that our application has been approved by our Principal and our website will be upgraded using RUSA Fund.*

#### **vi. Joining microsoft imagine program**

Microsoft Imagine, formerly known as DreamSpark, is a Microsoft program to provide students with software design and development tools at no charge. The program was available for more than 80 countries. It is estimated that up to 35 million students will be able to access these software titles free of charge through this program.

But in order to provide free software to students, institution have to join the program where there is a subscription fee. If our college subscribe to this program as a premium subscriber, we will be able to use most of Microsoft software including **Microsoft Windows** for free by our college as well as by the students. This will greatly reduce our licensing fee for software and we will be *free from Software Piracy*.

Considering the benefit of this programme, Website Committee take all the necessary steps so that our college can benefits from this program. Request to take necessary actions to join this program has been submitted to our Principal stating the different subscription fee and renewal fee. We are happy to learn that Principal approved our application for subscription of 3 years and renewal of 3 years i.e. 6 years under RUSA Funding.

Website Committee hope that by using this program, we will be free from Software Piracy and avoid hard questions from UGC NAAC Inspection Team. We also hope that this program will give us some points in positive ways in the next NAAC Accreditation.

#### **vii. Looking after college official email**



Website Committee in collaboration with Google Inc. offer official email for our college i.e. [\\_\\_\\_\\_\\_@gzrsc.edu.in](mailto:_____@gzrsc.edu.in) which has the same features as Gmail. It means it is as good as Gmail. There are many situations where public emails are not accepted and only official email are accepted. Official email is also one of the first proof that employees are working in that organization or institute especially in the field of Research and Development.

*Website committee look after this official email and created email IDs for all faculties. Recently, official email IDs were allocated to new faculties.*

**viii. Other Activities:**

- 1) Backup copy of the current website frontend was created and downloaded on 31<sup>st</sup> April 2018.
- 2) Backup copy of the current website backend database was created and downloaded on 31<sup>st</sup> April 2018.
- 3) A purchase request was sent to [www.joomlashine.com](http://www.joomlashine.com) to purchase the package called “**All in one – Life Time**” and purchased was made on 5<sup>th</sup> May 2018.
- 4) All the software packages files (465 files and 102 folders) that we purchased were downloaded from the website. It is **13.2GB** and took two days to complete.
- 5) The current website software (Modules and Templates) which was **demo** version only was attempted to upgrade to **professional** version but the attempts were failed because the website **Content Management Systems (CMS) – Joomla** was too old to support the professional modules and themes.
- 6) The CMS of our website was tried several times to upgrade to the latest version of Joomla from [www.joomla.org](http://www.joomla.org) using several direct online, offline, and ftp methods, but all attempts failed due to **Security Restrictions** from our web hosting provider i.e. ICT Department, Govt. of Mizoram.
- 7) Offline and local version of the website was setup using the latest local webserver and configured the database properly.
- 8) The offline version of the website Joomla was successfully updated to the latest version i.e. Joomla 3.8.7
- 9) The website software JSN EasySlider demo version used by the current website was upgraded to Pro version. This EasySlider is used for sliding the different images of website front page.
- 10) The website software JSN ImageShow demo version was also upgraded to the Pro version offline. This JSN ImageShow is used for creating Image Gallery with different photographic effects.
- 11) Another website software called JSN Mobilize demo version used by our website was upgraded to Pro version. This is important to make our website mobile friendly which means it will adapt correctly to all screen sizes no matter small or large.
- 12) The demo version of JSN PowerBuilder which is currently used for building the different pages in our website was upgraded to the Pro edition.
- 13) The JSN PowerAdmin demo version which was currently used to manage the back-end administration of the website was tried to upgrade to the Pro edition. But failed to upgrade and was informed to the website provider. It was learned that they are currently working on PowerAdmin Pro edition from the email reply.
- 14) The demo version of JSN UniForm web software which currently supports only 3 forms – one used for Contact Us, one for Alumni Registration and another for Students’ Grievance submission form was updated to the latest Pro edition. But unfortunately, all the forms which were created using the Demo version were destroyed by the Pro Edition.
- 15) The discussion forum software Kunena was updated to the latest version Kunena 5.0.14. This Kunena forum is one the best discussion forum software available in the world but we are not utilizing it to know its advantages.

- 16) The website software Phocadownloads which is currently used for uploading different files such as Previous Question Papers was updated to the latest version.
- 17) The free template currently used by our website was upgraded to the Pro template which modify different images, settings, and files. The free template was deleted and the Pro template was adjusted to suite our website requirements. Many things were changed including website icons, favicons, logo, slogans, colour schemes, styles, fonts, etc. It took a couple of days to complete this job.
- 18) Re-organization of our website front page was perform and all the menu available on the right side were shifted to the left side of the page. A larger display area for the front page was created.
- 19) Optimization of website was carried out by removing some of the non-relevant contents. Many articles or news items which were not relevant were deleted.
- 20) The **Contact Us Form** was created using the Pro edition of the website software and was linked back to the original menu called "**Contact Us**" clickable from the top right order of the website. This form can be used by anyone who want to give any contact or feedback to our college.
- 21) New **Alumni Registration Form** was created using the Pro edition of the software and was linked back to the menu **Student -> Alumni -> Alumni Registration Form**. This form can be used by already passed out student to join GZRSC Alumni.
- 22) New form **Online Student Grievance Redressal Form** was created using the Pro edition of JSN UniForm and was linked back to the original place "**Students' Grievance Cell**" link from Student Support Services menu from the left size of the home page. This is done as per UGC Requirement and good option for student to want to submit their Grievance anonymously.
- 23) List of non-teaching staff was updated by removing Pi Lalchhingpuii from Administration menu.
- 24) Name of Pi Lalchhingpuii was also deleted from the page Library Rules.
- 25) In Biochemistry Faculties profile, Dr. Fanai Lalsangluaii profile was updated and she was shifted to regular or permanent faculty list.
- 26) Previous year questions of Biochemistry subject were prepared for upload by watermarking [www.gzrsc.edu.in](http://www.gzrsc.edu.in) in every page and also by separating in paper wise. Then they were uploaded into download section. The questions banks page was updated to link the download section for Biochemistry subject.
- 27) In Botany department page, Dr Skariah was removed. Previous year questions were prepared and uploaded to download section and were linked with the Question Banks page for Botany.
- 28) In Chemistry department, Dr title was added to Zirlianngura and he details were added as State Nodal Officer, NSS, Mizoram. Previous questions upto 2017 was prepared and uploaded into download section for chemistry. The same is reflected in Chemistry Question Banks page.
- 29) Course on Computer Concepts (CCC) page was updated and yearly data including pass percentage were also updated accordingly till 2018.
- 30) Under Computer Science department, previous questions papers were prepared in the same way as Biochemistry by adding watermarking to every page. Then they were uploaded into the download section created for BCA. The same was updated in Question Bank page for BCA.
- 31) Updated the copyright year from 2016 to 2018 in all the footer of every site so that visitors may know its updated.
- 32) Previous Questions of electronics was prepared and uploaded to the download section for electronics and then were linked to Questions bank for electronics subjects.

- 33) Questions bank of Geology was updated by uploading previous year questions to download section and the links were updated accordingly.
- 34) Mimi Lalmuanawmi was shifted to Regular from Contract list. Several previous year home science questions were prepared and uploaded to download section. Then all links were updated accordingly to Question Bank section of home science department.
- 35) Dr Urmila Pandey was removed from the faculty list and head of department was changed. Dr. Lalhmangaihuala and Lalngaihawma were shifted to Contract teachers from Part-Time teachers.
- 36) Lalngaihawma profile was newly added including his detail particulars especially seminar, conference, workshops attended.
- 37) Questions banks of Mathematics were prepared in paper wise and uploaded to download section of Mathematics. All links were updated accordingly in Mathematics Questions bank.
- 38) Pu Remlalsiama and Sir M.I. Singh from Physics department page were shifted up from the lower side of the page.
- 39) Previous questions of physics were prepared and uploaded to download section of physics and then all links were updated in Physics Questions bank page.
- 40) Miss Lalzahawmi Chenkual new title Dr. was prefix into her name in Zoology Faculties page.
- 41) Previous questions papers of Zoology were prepared and uploaded into the download section of Zoology. Then all the links were updated in Zoology Questions bank page.
- 42) New Application Form for Admission was prepared and shared with Principal and other teachers for suggestions. After more than 10 major changes, the final version 7 was printed at RUSA Colour Printer. Colour printing was very slow that it took two whole days to print 300 copies of the application.
- 43) Online Admission form was prepared using JSN UniForm Pro edition locally and tested several times in local server. Few errors in local server were fixed and was considered good to use in online version.
- 44) Backup copy of the offline version of our website was created several times and the back-end SQL was prepared for uploading in the real server. Then, the front-end files were again prepared to upload in the online server.
- 45) The back-end database file was easily uploaded into website but unfortunately, the front-end website software which were around 362MB in zip form could not be uploaded due to frequent disconnection of Web Admin broadband connection.
- 46) Several attempts to upload the website were made and sometimes, the upload fails at 92%. Website upload attempts took nearly two days without any success.
- 47) Then, the website was successfully uploaded using office broadband on HSSLC Result announcement day at around 2:15pm and our updated new website was live since then.
- 48) After our website was published online, several tests were carried out to check for errors. All the forms which were working correctly using local server were again tested in remote server.
- 49) Most of the new features were working as expected except the most important form i.e. Online Application Form for Admission was not working correctly.
- 50) Several attempts were made to find the error or bug till late night on that day and email was also sent to the website software developer i.e. Joomlashine. But luckily, it was found out that the error was due to Permissions issue from our website hosting provider, i.e. Information & Communication Technology Department, Govt. of Mizoram. It appears that our web hosting provider security setting was too high that no one was allowed to upload a file in their server. The issue to inform to Website Administrator, ICT Dept. Govt. of Mizoram.
- 51) Then, all file upload fields were removed temporarily from Online Admission Form, then all other fields seem working fine. At the time of writing this report, 8 applications were received using Online form.

- 52) Admission Helpline chat box was installed on 18<sup>th</sup> May, 2018 and within 5 minutes after the installation, first visitor who try to submit the form having problem in Captcha was helped.
- 53) Online Admission was closed on 23<sup>rd</sup> May 2018 as per instruction received from the Principal.
- 54) Online Admission Helpline was also closed on the same day i.e. 23<sup>rd</sup> May 2018 since Online Admission was closed.
- 55) The followings were details of Online Applications:
  - a) Total Online Applications : 137
  - b) Admitted : 34
  - c) Call for direct admission : 41
  - d) SMS for direct admission : 72
  - e) SMS to wait for selection : 22
- 56) SMS were sent to new online applicants regarding direct admission and receipts of online applications.
- 57) Request to update photo and contact number for Mr. Lalngaihawma, Asst. Professor (Contract), Department of Mathematics was received on 6<sup>th</sup> June 2018. Update was done on 7<sup>th</sup> June 2018.
- 58) Notification for Admission 2018 was removed from the home page and Principal Message was moved to the main page.
- 59) Last Update time and date was changed accordingly to 7<sup>th</sup> June 2018.

## **XIX.ALUMNI**

### **Members:**

Chair : Lalrinsangi Nghinglova  
Secretary : Dr.P.C.Rohminglana  
Lalrammawii  
M.S.Dawngliani  
Lalremruati Hmar  
Maria Lalhmingmawii

### **Objectives:**

- i.To maintain close ties with our ex-students and take note of their placements.
- ii.To organise Alumni day
- iii.To assist the student alumni committee

### **Activities:**

- i. Celebration of Alumni Day on 1<sup>st</sup> August 2017.
- ii. Organised election of office bearers and newly elected office bearers are given charge and names published on newspaper.
- iii. Felicitation of successful Alumni Members.
- iv. Organised Research Motivation Seminar.
- v. Release of Alumni Constitution.
- vi. The Alumni Committee members were participated in the personality development programme which was held on 22<sup>nd</sup>-25<sup>th</sup> May 2018 at the college Auditorium. Mr. Lalruatsanga Pachuau, Vice President, Alumni Association, gave a membership drive campaign speech at the closing programme.

## **XX. RESEARCH & SEMINAR**

### **Members:**

Chair : Dr Lalzahawmi Chenkual  
Secretary : Dr. Ricky Lalhmangaihzualla  
Prof B Zoliana  
Dr Rosangliana  
Lalrinsangi Nghinglova  
Sailopuii  
Dr Fanai Lalsangluaii

### **Objectives:**

- i. To Facilitate research culture among students and the faculty.
- ii. To initiate, facilitate, integrate, recommend and support research projects conducted by faculty members and students
- iii. To organise Seminars, lectures on selected topics at regular intervals.

### **Activities:**

- i. Organised a seminar on “Career Advancement Programme” on 28<sup>th</sup> August 2017 at College Auditorium, GZRSC in collaboration with Central YMA, Mizoram.
- ii. Organised winter class on Environmental Research technique for 3 months course started on 1<sup>st</sup> December 2017 till 16<sup>th</sup> February 2018. This programme is sponsored by RUSA, GZRSC in collaboration with State Legal Services Authority HRDC, MZU and Pollution Control Board. 30 students attend the course.
- iii. Organized hands-on Training on molecular Research Technique from 31<sup>st</sup> May 2018 to 6<sup>th</sup> June 2018 for faculty and 6<sup>th</sup> Semester students in collaboration with State DBT- Biotech Hub, MZU. This sponsored by RUSA, GZRSC.

## **XXI.DISASTER MANAGEMENT**

### **Members:**

Chair : Lalnunthara  
Secretary : C.Lalremruatfela  
Lalsangliani Khawlhling  
Dr. Lalzahawmi Chenkual  
C. Zoramthara  
Laltlankima  
Dr. C Lalmuankimi

### **Objectives:**

- i.To react to any kind of disaster,natural or man-made that involves the college.
- ii.To spread awareness on mitigation of any kind of disaster
- iii. To work in close proximity with the Disaster management Department, Govt. of Mizoram.

### **Activities:**

There is no activity during the reporting period due to the unavailability of suitable dates.

## **XXII.VILLAGE & SCHOOL ADOPTION**

### **Members:**

Chair : Prof. B.Zoliana  
Secretary : Dr.Ricky Lalhmangaihzualla  
Dr R Lalengmawia  
Lalthanpuui  
Laltluangkimi Ralte  
Lalrinngheti Ralte  
Vanlallawmi  
Lalhruaitluanga

### **Objectives:**

- i.To encourage extension programmes for greater social good.
- ii.To work towards upliftment of adopted villages & schools.
- iii. To arrange invited lectures in collaborations with the school authority.

### **Activities:**

- i. The meeting resolved to meet the authority of the adopted School i.e Rosebud School, Ramhlun Venglai. Three members from the committee visited Principal and Staff of Rosebud School. It was discussed about our collaboration for promoting Science Education which can be rendered to them. The technical that can be rendered are listed as undet-
  - a. Observation and study of functioning of lower classes.
  - b. Popular lecture.
  - c. Career Guidance.
  - d. Invited lectures on selected topics.
  - e. Laboratory demonstration and support.
  - f. Guidance on science activities (Science Congress, Science Seminar, Science Exhibition etc)
- ii. The two schools Govt. Zemabawk High School and Govt. Republic High School were also visited in pursuance of the Director School Education request. Two School also communicated on promotion of Science Education and Services we can rendered.
- iii. We also included the adoption of Govt. Venglai Middle School in addition to the existing adopted school. We already visited the Principal and staff of this school and discussed our action plan for our collaboration and promotion of Science Education.
- iv. Career Guidance Programme was conducted at Govt. Zemabawk High School on 19<sup>th</sup> April 2018.
- v. Career Guidance cum Plastic Pollution Awareness Programme was jointly conducted with Eco Club, GZRSC at College Auditorium, GZRSC for Govt. Republic High School on 11<sup>th</sup> May 2018.



## **XXIII.WOMEN STUDIES**

### **Members:**

Chair :Lalsangkimi Hmar  
Secretary :Lalrinsangi Nghinglova  
Lalthanpuii Ralte  
Lalhmingliani Hlondo

### **Objectives:**

- i. To work towards promotion of gender equity.
- ii.To uplift the girl student and provide special provisions wherever possible.
- iii. To coordinate with the Women Study Centre, Mizoram University in organising seminars, etc.

### **Activities:**

- i. Visit to the women centre MZU.
- ii. Supported Home Science Department in extension programme to the local women in the college vicinity. Provide awareness on child's rights, budgeting etc and organized cooking class.
- iii. Organised awareness on women rights in collaboration with Home Science department on 2<sup>nd</sup> February 2018.
- iv. Collaborated with Home science Department on a visit to special school on 13<sup>th</sup> April 2018 and distributed pens and notepads.

## **XXIV.INTELLECTUAL PROPERTY RIGHT**

### **Members:**

Chair :Dr. Lalhmingliana Hnamte  
Secretary :C.Zoramthara  
Dr Arup Kumar  
Prof B Zoliana  
Lalhmingliani Hlondo

### **Objectives:**

- i.To disseminate awareness on patent rights and educate members on issues relating to intellectual property
- ii.To study and monitor intellectual property and copyright issues.
- iii. To coordinate with the IPR Cell, Department of Science & Technology, Govt. of Mizoram.

### **Activities:**

- i. Organised one day state level workshop on Intellectual Property Right and Grass Root Innovation jointly with Patent Information Centre, MISTIC, Govt of Mizoram on 24<sup>th</sup> March 2017 at Professor's Common Room.

## **XXV.STUDENT'S SUPPORT**

### **Members:**

Chair : Zodinpuui  
Secretary : Lalrinsangi Nghinglova  
Dr. Lalzahawmi Chenkual  
Lalsangkimi Hmar  
Caroline Zaihmingthangi  
Lalthanpuui Ralte  
M.S.Dawngliani  
H Thangkhanhau  
Lalhruaitluanga

### **Objectives:**

- i.To provide assistance to students who are economically deprived.
- ii.To organise add on courses such as CCC and other such courses.
- iii.To organise Personality Development course for final year students and equip them with life skills.
- iv.To provide career counselling to students and look out for placement of students.

### **Activities:**

- i. CCC classes conducted from August 2017.
- ii. Career counseling class organized for all students on three occasions i.e 25<sup>th</sup> and 26<sup>th</sup> July 2017 and 1<sup>st</sup> August 2017.
- iii. Register maintained to help students to “Earn while they learn”.
- iv. Students Representatives name Sylvia Lallawmkimi and Nick Lalrinmawia were sent to attend a three days programme on Mizoram Sustainable Development foundation during the month of August.
- v. Student Representative namely Lunngaihliani and Lalduhawma BCA sent to attend the Entrepreneur Awareness Camp.
- vi. Financial assistance given to 3 students from the Poor Fund collected by the faculty of the college.
- vii. Organised the opening ceremony of legal clinic in collaboration with Mizoram State Legal Services Authority.
- viii. Organised short term course on Personality Development for outgoing students of all streams.
- ix. Incentive awards for meritorious students were awarded to the top scorer of each subjects.

## **XXVI.INNOVATION CLUB**

### **Members:**

Chair :Lalhruaitluanga  
Secretary :Lalmalsawmi  
Lalrinmawia  
Mary Lalthansangi  
C Lalngaihawma

### **Objectives:**

- i.Explore innovative ideas in local groups
- ii. Organise seminars, conferences, workshops, exhibitions relating to innovations
- iii. Develop innovative mindset and train for entrepreneurship
- iv. provide opportunities and platforms for students, teachers and other members of the society
- v. Support and facilitate grass root innovations.
- vi. Document innovations for different walks of life
- vii. Collaborate with micro, small and medium enterprises.
- viii.To promote innovation,creativity and engagement in science.
- ix.To cultivate in students the ability to think “out of the box”

### **Activities:**

- i. Bulletin board furnished by different departments as follows: Botany (5<sup>th</sup> sem), Home Science(5<sup>th</sup> sem), Zoology (5<sup>th</sup> sem) and BCA(5<sup>th</sup> sem). The bulletin board near Professor’s common Room was manned and furnished with creative ideas by the said departments starting from 28<sup>th</sup> Aug till date.
- ii. Science exhibition 2017 was organized on 12<sup>th</sup> and 13<sup>th</sup> October 2017 at the college Auditorium. In this exhibition 10 departments of GZRSC displayed about 45 models altogether. Chemistry department was awarded the most innovative department with the model “Indigenous Incineration”. More than 420 students from 9 different institutions attended this exhibition.
- iii. Observed National Science Day on 28<sup>th</sup> February 2018 at the college auditorium.
- iv. Bought a new bulletin board and replace the old one which was hung near the entrance of the Professor Common Room.

## **XXVII.NSS**

### **Members:**

Chair : Lalnunthara  
Secretary : Dr. P.C.Rohmingliana  
Lalnunthara  
C Zoramthara  
Mimi Lalmuanawmi  
Rebecca Lalnuntluangi  
Dr P.C Rohmingthanga  
C. Lalremruatfela

### **Objectives:**

- i.To fulfill the aims and objectives of the NSS
- ii.To serve the society without bias.

### **Activities:**

- i. Special Camping was organized at Durtlang on 15<sup>th</sup> to 21<sup>st</sup> July 2017.
- ii. Orientation programme for first semester students was organized on 27<sup>th</sup> July 2017.
- iii. Three Programme officers attended P.O meeting at Aijal Club on 11<sup>th</sup> August 2017.
- iv. Hosted visit programme of Central Evaluation Team on 24<sup>th</sup> August 2017.
- v. Attended “Clean Aizawl City” programme/Observance of 49<sup>th</sup> NSS day held on 22<sup>nd</sup> September at A.R. Ground.
- vi. One Programme Officer attended P.O meeting at SNO office on 22<sup>nd</sup> September 2017.
- vii. Launching of cleanliness week and observation of cleanliness week on 28<sup>th</sup> September at college campus.
- viii. Mass Cleanliness Drive at Chite River on 29<sup>th</sup> September 2017.
- ix. Special Camping was organized at Sairang Dinthar Veng during 23<sup>rd</sup> to 29<sup>th</sup> September 2017.
- x. Attended P.O meeting for training on Life skills, leadership and personality development for Mamit and Champhai District at SNO Office Chamber.
- xi. Plantation site visit/cleaning was conducted on 27<sup>th</sup> November 2017.
- xii. Attended training on PFMS and EAT at State NSS Office on 15<sup>th</sup> January 2018.
- xiii. Organised voluntary blood donation at college campus on 1<sup>st</sup> February 2018. 75 units was donated(Male- 67, Female- 8).
- xiv. Attended training on PFMS and EAT at State NSS Office on 2<sup>nd</sup> April 2018.
- xv. Constructed sound control room for new sound system at college auditorium.

## **XXVIII.RED RIBBON**

### **Members:**

### **Objectives:**

- i.To work towards fulfillment of the ideals of MSACS
- ii.To work in co-ordination with NSS

### **Activities:**

- i. Organised voluntary blood donation in collaboration with NSS, GZRSC at college campus on 1<sup>st</sup> February 2018. 75 units was donated. (Male- 67, Female- 8).

## **XXIX. SPOKEN HINDI**

### **Members:**

Chair : Dr. Rosangliana  
Secretary : Dr. Lalzahawmi Chenkual  
Members : RUSA Nodal Officers and Principal

### **Objectives:**

- i. To promote Hindi Language to the faculties and the students

### **Activities:**

- i. RUSA Nodal Officers Meeting on 08/09/2017 resolved to conduct Spoken Hindi Course. Officers In Charges were appointed.
- ii. Advertisement for the course was made. Application form was given out. Around 200 students applied for the course. Final Selection of the student was done on 13/09/2017. 50 final year students were selected to attend the course.
- iii. Opening function of RUSA sponsored Hindi Course was held at college auditorium at 2:30 pm.
- iv. Classes were taken regularly on every Thursday and Friday. Either the secretary or chairman was always present in all the classes.

### **XXX. ADVENTURE CLUB**

#### **Members:**

Chair : Lalnunthara  
Secretary : C. Lalremruatfela  
Members : Lawrence Zonunmawia  
Dr. P.C.Rohmingliana  
C Zoramthara  
Dr. Lalmangaihzualla

#### **Objectives:**

- i. To train the students to work as a team.
- ii. To enjoy the spirit of adventure.
- iii. to extract the hidden qualities of the students.
- iv. To induce in student the sense of love, sacrifice and service to the entire creation.
- v. To prepare the student for future challenges in the global context.

#### **Activities:**

- i. Participated in Basic Adventure Camp, organized by Govt. of Mizoram, Directorate of Sport and Youth Services at Vaipuanpho Camp from 20<sup>th</sup> to 23<sup>rd</sup> March 2018. 10 students from 4<sup>th</sup> semester were selected.



## 9. NEW INFRASTRUCTURE AND FACILITIES ACQUIRED

### A. Constructions

Sl. No.	Name of facilities	Amount	Utilised	Balance	Present Position	Remark
1	Construction of Laboratory Building	14000000.00 (allocated)	13055043.00	944957.00	Construction completed	Balance shown is for 5% security deposit

### B. Up gradation and renovation of existing facilities

Sl. No.	Particulars of Up gradation/Renovation	Amount	Utilised	Balance	Present Position	Remark
1	Construction of Boys Hostel and Girls Hostel, construction of approach road to hostels, construction of Environmental Laboratory etc.	14000000.00 (allocated)	4,094,325.00	9,905,675.00	Initial stage of construction	Amounts shown here is as per allocation in the DPR

### C. Equipment :

#### CHEMICALS

Sl. No.	Particulars of new equipment Purchase	Amount	Utilised	Balance	Page no. of Asset Register	Remark
1	Acetic Acid – 1 bott	16-25440	440	Nil	2	Entered in Botany Dept. stock register
2	Acetic Acid 500ml LR BIOSOL – 4 bott	1220	1220	Nil		
3	Acetone – 5 bott	1875	1875	Nil		
4	Acid Proof Hand Gloves 14” OPG - 10pair	2550	2550	Nil		
5	Ammonia Solution 500ml LR SQ - 2bott	400	400	Nil		
6	Ammonium Buffer Solution 500ml LR SQ - 2bott	460	460	Nil		
7	Ammonium Ferrous Sulphate 500gm LR RB – 4pkt	1176	1176	Nil		
8	Anthrone 25gm ER SQ – 4pkt	3230	3230	Nil	2	Entered in Zoology

9	Barfoed's Reagent 500ml - 1bott	385	385	Nil		Dept. stock register
10	Barium Chloride 500gm – 2pkt	737	737	Nil		
11	Barium Sulphate 500gm LR SQ - 1bott	280	280	Nil		
12	Benzene 500ml – 5bott	1750	1750	Nil	2	Entered in Chemistry Dept. stock register
13	Biurate Reagent 100ml LR ETPL - 1bott	110	110	Nil		
14	Borax Carmine Stain. 100mlLR NB – 4pkt	1800	1800	Nil		
15	Bouin's Fluid 100ml LR ETPL -2bott	600	600	Nil		
16	Buffer Tablets Ph 4.0 20tab LR SQ - 1pcs	403	403	Nil		
17	Buffer Tablets Ph.7.0 20tab LR SQ – 1box	403	403	Nil		
18	Carbontetrachloride 500ml – 5bott	10600	10600	Nil		
19	Carmine 5GM RB - 1bott	714	714	Nil		
20	Chloroform 500 LR SQ – 9bott	3380	3380	Nil		
21	D.P.X. Mountant 250ml LR SQ - 2bott	978	978	Nil	3	Entered in Botany Dept. stock register
22	Deionised Water - 4	920	920	Nil		
23	Dextrose Anhydrous 500gm LR RB - 2bott	790	790	Nil		
24	D-FRUCTOSE 500gm RB - 2bott	1700	1700	Nil		
25	Diphenylamine - 1bott	925	925	Nil		
26	Diphenylamine 100gm ER SQ - 1nos	470	470	Nil		
27	Distilled Water – 1case	230	230	Nil		
28	Distilled water 5ltr (carton of 4jar) LR RB - 1carton	1408	1408	Nil		
29	EDTA Acid 100gm LR RB - 2bott	594	594	Nil		
30	EDTA disodium salt GRM 1370-1kg - 1nos	2373	2373	Nil		
31	Eosin Stain Solution (aqueous) 100ml LR STB - 2bott	400	400	Nil		
32	Formaldehyde 500ml LR SQ - 10bott	2600	2600	Nil		
33	Glycerol 500ml LR BIOSOL - 4bott	1680	1680	Nil	3	Entered in Chemistry

34	Haematoxylin Powder 5GM LR RB - 2nos.	5940	5940	Nil		Dept. stock register
35	Hydrochloric Acid – 7bott	1890	1890	Nil		
36	Hydrochloric ACID 500ml LR RB - 5bott	1350	1350	Nil		
37	Hydrochloroc acid 205 ltr LR SQ - 1bott	675	675	Nil		
38	Hydroxyylammonium Chloride 100gm LR SQ - 2bott	900	900	Nil		
39	Iodine 100g – 2pkt	5560	5560	Nil		
40	Lab Testing Soln. 450ml HLX – 17bott	4760	4760	Nil		
41	Lactophenol Mounting 100ml LR NB - 2bott	340	340	Nil		
42	ManganousSulphate LR 500ggm SQ - 2nos	978	978	Nil		
43	Methyl Alcohol 500ml SQ - 2bott	520	520	Nil		
44	Methylene Blue – 2bott	840	840	Nil	4	Entered in Zoology Dept. stock register
45	N-Butyl Alchohol 500 ml LR RB – 5bott	1922	1922	Nil		
46	Ninhydrin 10gm AR RB - 3bott	2607	2607	Nil		
47	Nitric Acid 500ml LR RB - 4bott	1600	1600	Nil		
48	Oxalic Acid - 2bott	820	820	Nil		
49	Orthophosphoric acid 500ml – 5bott	890	890	Nil		
50	Paraffin wax 60-62°C 500 gm LR SQ - 1nos	750	750	Nil	4	Entered in Biochemistry Dept. stock register
51	Phenolphthalein Indicator Soln. 100ml LR ETPL - 5bott	700	700	Nil		
52	Potassium Dichromate 500gm LR SQ - 1nos	1075	1075	Nil		
53	Potassium ferricyanide LR 500gm SQ - 1nos	1869	1869	Nil		
54	Potassium Iodide 500g – 1pkt	5375	5375	Nil		
55	Potassium Nitrate 500g – 2pkt	900	900	Nil		
56	Rectified Spirit – 3bott	450	450	Nil		
57	Schiffs Reagent 500ml – 2bltt	1208	1208	Nil		

58	Sodium Azide 100gm LR SQ - 1nos	550	550	Nil	4	Entered in Home Science Dept. stock register
59	Sodium Carbonate 500gm LR EM - 2bott	700	700	Nil		
60	Sodium chloride 500gm LR BIOSOL - 2bott	380	380	Nil		
61	Sodium Flouride 500gm LR SD'S - 2nos	1376	1376	Nil		
62	Sodium Hrdroxide flakes 500gm LR SQ - 1nos	164	164	Nil		
63	Sodium Hydrogen Carbonate 1KH LR SQ - 1nos	373	373	Nil		
64	Sodium Hydroxide Pellets 500gm AR RB – 11pkt	4100	4100	Nil		
65	Sodium Sylphate 500mg LR SQ - 2nos	460	460	Nil		
66	Sodium thioxalphate 500g – 2pkt	438	438	Nil		
67	Solochrome Black T 25gm-SQ - 1nos	457	457	Nil		
68	Special Solvent 99.90% 500ml – 15bott	6750	6750	Nil	5	Entered in Chemistry Dept. stock register
69	Starch Soluble 500gm LR SQ – 4pkt	5384	5384	Nil		
70	Sulfuric Acid 2.5 ltr LR SQ - 1bott	1089	1089	Nil		
71	Sulfuric Acid 500ml – 17bott	5690	5690	Nil		
72	Sulphuric Acid – 3bott	1490	1490	Nil		
73	TOULENE Rectified 500ml LE SQ - 1bott	420	420	Nil		
74	Xylene Rectified 500ml LR RB - 2bott	780	780	Nil		
	<b>TOTAL</b>	<b>122101</b>	<b>122101</b>	<b>Nil</b>		

## 2. LAB. EQUIPMENTS

Sl. No.	Particulars of new equipment Purchase	Amount	Utilised	Balance	Page no. of Asset Register	Remark
1	1.5 copper wire, 4 coils	8320	8320	Nil	11	Entered in Physics Dept. stock register

2	101 PH Meter E1 – 5nos.	74590	74590	Nil	11	Entered in Botany, Zoology, Biochemistry Dept. stock register
3	111 PH Meter E1 - 3pcs	32400	32400	Nil		
4	112 Digital PH Meter ESICO - 3pcs	29100	29100	Nil		
5	2.5 copper wire - 1coil	3320	3320	Nil	11	Entered in Physics Dept. stock register
6	2m plate & box - 10set	1430	1430	Nil		
7	312 BO Digital Photo Colorimeter 8F E1 - 2pcs	25960	25960	Nil		
8	1 no. each of 3D model of internal structure of the Earth i) Internal Structure of the Earth ii) Plate Tectonics iii) Geological Time Scale	7950	7950	Nil	11	Entered in Geology Dept. stock register
9	3m plate & box - 10set	1830	1830	Nil		
10	5 in 1 comb. With box - 1set	192	192	Nil		
11	5m plate & box complete set - 8set	4904	4904	Nil		
12	601 Digital Conductivity Meter E1 – 2nos.	28160	28160	Nil	12	Entered in Physics Dept. stock register
13	611 Digital Conductivity Meter E1 – 4nos.	43200	43200	Nil		
14	9 Volt Battery – 2nos.	550	550	Nil		
15	AAA Battery - 1strip	130	130	Nil		
16	Adaptor – 2nos.	2960	2960	Nil	12	Entered in Geology Dept. stock register
17	Aerial Photograph/steropair (Black & White) 25x25 - 5nos	3750	3750	Nil		
18	Aerial Photograph/steropair (Colour) 25x25 - 10nos	8500	8500	Nil		
19	Aluminum wire for earthing - 3coil	270	270	Nil	12	Entered in Electronics

20	Analog Multimeter - 1nos	700	700	Nil		Dept. stock register
21	Analytical Digital Balance 200mg/.001mg SPT-200 PRIME - 1pcs	41694	41694	Nil	12	Entered in Chemistry Dept. stock register
22	Audio Frequency Generator 20 Hz to 200 KHz O/P 0-20V RMS – 2nos.	15000	15000	Nil	12	Entered in Physics Dept. stock register
23	Auto digital TDS meter – 1nos.	6600	6600	Nil		
24	Bacteriological incubator 12X12X12 DIAGNOS - 1pcs	7560	7560	Nil		
25	Bar Magnet 3” Alnico (5pcs) LAFCO - 2set	2300	2300	Nil		
26	Bar Pendulum Set 4 Kowa - 2pcs	2900	2900	Nil		
27	Battery Eliminator (S.S) (0-5 volt, 3Amp) – 2nos.	7400	7400	Nil		
28	Battery Eliminator (S.S) (0-5 volt, 500mA) – 2nos.	4400	4400	Nil		
29	Binocular Microscope B1-220AC Motic – 5nos.	230650	230650	Nil	13	Entered in Geology Dept. stock register
30	Binocular Microscope RED 200 MOTIC – 4nos.	197140	197140	Nil		
31	Binocular Polarising (Petrological) Microscope - 4nos	177800	177800	Nil		
32	Bottle Brush (set of 12pcs) TST - 1set	275	275	Nil		
33	Brunton Compass : Metal body in a case (Foreign make) - 6nos	25200	25200	Nil		
34	Bunsen Burner W/out Stopclock (set of 2) TST - 5set	2725	2725	Nil	13	Entered in Chemistry Dept. stock register
35	Bunsen Burner with Stop Clock BRIJ - 1pcs	440	440	Nil		
36	Burette Stand 8x5x24 MICO (Set of 2) – 6set	3936	3936	Nil		
37	Chisel set (3 in a set) 16x150mm - 5nos	3250	3250	Nil	13	Entered in Geology

						Dept. stock register
38	Chromatography Paper 46x67 (Set of 10) LABSMAN NTC - 1set	880	880	Nil	13	Entered in Botany Dept. stock register
39	Collpitt Oscillator Trainer Kit – Model # Me 662 - 1nos	2241	2241	Nil	13	Entered in Electronics Dept. stock register
40	Contact Goniometer (Steel make) - 4nos	1040	1040	Nil	13	Entered in Physics Dept. stock register
41	De- Sauty Bridge – 2nos.	12200	12200	Nil		
42	Decade Resistance Box (EIGHT DIALS) 1 ohm to 100 M ohms – 2nos	7800	7800	Nil		
43	Different Ore Minerals - 17nos	3150	3150	Nil	13	Entered in Geology Dept. stock register
44	Different Rock hand specimens - 17nos	5525	5525	Nil		
45	Digital Balance (Electronics) 0.001gm-200gm Bandhan - 1pcs	42780	42780	Nil	13	Entered in Zoology Dept. stock register
46	Digital Colorimeter 8F 312 E1 – 8nos.	86360	86360	Nil		
47	Digital Conductivity Meter Alpha 06 E1 - 2pcs	19600	19600	Nil	13	Entered in Electronics Dept. stock register
48	Digital Microscope - 1pcs	4600	4600	Nil	13	Entered in Botany Dept. stock register
49	Digital Multimeter – 2nos.	2400	2400	Nil	14	Entered in Physics Dept. stock register
50	Digital PH Meter Alpha-01 E1 - 2pcs	19600	19600	Nil	14	Entered in Zoology Dept. stock register
51	Dip Circle - 1pcs	3960	3960	Nil	14	Entered in Electronics Dept. stock register
52	Dissecting Microscope-Almicro -	4340	4340	Nil	14	Entered in Botany Dept. stock register
53	Eco Tester Ph2 Pen Type EutechVidhi - 1pcs	10955	10955	Nil		

54	Eryscreen - 1kit	900	900	Nil	14	Entered in Geology Dept. stock register
55	Eye piece pointer – 3nos.	900	900	Nil	14	Entered in Botany Dept. stock register
56	Face Mask – 5nos.	25	25	Nil	14	Entered in Geology Dept. stock register
57	Fet Voltmeter Trainer – Me 535 - 1nos	3150	3150	Nil	14	Entered in Electronics Dept. stock register
58	Filter paper 11cm (set of 10 PKT) INDICA - 1set	750	750	Nil	14	Entered in Chemistry Dept. stock register
59	Fossil Plants – 1no.	500	500	Nil	14	Entered in Geology Dept. stock register
60	Fossils specimens - 1set	10650	10650	Nil		
61	Fuse te 5amp - 1box	400	400	Nil	14	Entered in Physics Dept. stock register
62	Garmin GPS Etrex 30 - 1pcs	22000	22000	Nil	14	Entered in Geology Dept. stock register
63	Garmin GPS Oregon 650 - 1pcs	38990	38990	Nil		
64	Gas part – 1no.	250	250	Nil	14	Entered in Chemistry Dept. stock register
65	Geological Instruments & Equipments - 1no.	30420	30420	Nil	15	Entered in Geology Dept. stock register
66	Geologist Hammer - 5nos	6500	6500	Nil		
67	GL-0011 - 1no	35320	35320	Nil		
68	GL-0012 - 1no	143196	143196	Nil		
69	GL-0013 - 1no	98947	98947	Nil		
70	GL-0014 - 1no	3401	3401	Nil		
71	GL-0015 - 1no	177670	177670	Nil		
72	GL-0016 - 1no	205952	205952	Nil		



73	H Parameter of PNP Transistor in Common Emitter Mode. Me 532D - 1nos	4410	4410	Nil	15	Entered in Physics Dept. stock register
74	Haemocytometer - 12nos	26400	26400	Nil	15	Entered in Zoology Dept. stock register
75	Haemocytometer Marienfeld (O) - 3sets	7350	7350	Nil		
76	Hair Dryer - 4nos	2000	2000	Nil	15	Entered in Zoology Dept. stock register
77	Hand pump - 1no	550	550	Nil	15	Entered in Chemistry Dept. stock register
78	Hartley Oscillator Trainer Kit # Me 661 - 1no	2241	2241	Nil	15	Entered in Physics Dept. stock register
79	Haversack adjacent felt with pocket good quality - 5nos	1750	1750	Nil		
80	Hot Air Over 12x12x12 DIAGNOS - 1pcs	7628	7628	Nil	15	Entered in Botany Dept. stock register
81	Hot Plate 16"X10" (AM-129) ALMICRO - 1pcs	4235	4235	Nil		
82	Igneous & Metamorphic Petrology - 3nos	1485	1485	Nil	15	Entered in Geology Dept. stock register
83	Inclined Monocular Microscope 6MO ALMICRO - 3pcs	29976	29976	Nil	15	Entered in Biochemistry Dept. stock register
84	Industrial Helmet - 20pcs	3540	3540	Nil	16	Entered in Geology Dept. stock register
85	Junction Diode Rectifier & Filter Characteristics with Power Supply - 2no	16600	16600	Nil	16	Entered in Physics Dept. stock register
86	Lab. Balance 200mg/0.001mg SPT 200 - 1pcs	41694	41694	Nil	16	Entered in Botany and Zoology Dept. stock register
87	Lab. Balance 500gm/0.01gm - 2pcs	5940	5940	Nil		
88	Lab. Thermometer - 5pcs	450	450	Nil		

89	Laboratory Balance BW-320 300gm/0.01 - 1pcs	14500	14500	Nil		
90	Lancets 200cs - 2pkt	540	540	Nil	16	Entered in Physics Dept. stock register
91	Leucoband (1meter) – 3nos	600	600	Nil		
92	Me 611 Transistor Amplifier Circuit (CB, CE & CC Modes) - 1no	4275	4275	Nil	16	Entered in Electronics Dept. stock register
93	Me 619 Two Stage RC Couped Amplifier - 1no	2583	2583	Nil		
94	Microscope Labovision - 10nos	72000	72000	Nil	16	Entered in Zoology Dept. stock register
95	Mirror Stereoscope binocular - 2nos	328000	328000	Nil	16	Entered in Physics Dept. stock register
96	Moh's Scale of Hardness box - 10nos	5800	5800	Nil	16	Entered in Geology Dept. stock register
97	Moh's Scale of Hardness set - 2nos	1050	1050	Nil		
98	Multimeter - 2pcs	9000	9000	Nil	16	Entered in Physics Dept. stock register
99	Multimeter Normal - 1pc	799	799	Nil		
100	Mx Sold. Pump - 1no	250	250	Nil		
101	OP-AMP Characteristics - 2nos	14000	14000	Nil		
102	Phase Shift Oscillator Trainer Kit # Me 664 - 1no	2241	2241	Nil		
103	Plain Table with accessories & Stand 60x75cm Eastman - 2pcs	5280	5280	Nil		
104	Plier - 1no	200	200	Nil	17	Entered in Geology Dept. stock register.
105	Pocket Stereoscope - 6nos	4605	4605	Nil	17	Entered in Electronics Dept. stock register
106	Rebound hammer, Labtest make - 1no	12500	12500	Nil	17	Entered in Geology

107	Sold. Icad - 1no	100	100	Nil		Dept. stock register
108	Sold. Paste - 1no	20	20	Nil		
109	Soldron 25w Ori - 1no	350	350	Nil		
110	Student Microscope KB5 with LED LAFCO - 2pcs	12400	12400	Nil	17	Entered in Biochemistry Dept. stock register
111	Surface Tension Capillary Tube Appt. SYMAX - 2set	5000	5000	Nil	17	Entered in Physics Dept. stock register
112	Tangent Galvanometer Brass MKOW - 2pcs	3780	3780	Nil		
113	TapariaScrwedriver Sets - 9sets	1980	1980	Nil		
114	Test Tube Stand Poly 6 Holes (12pcs) TST - 1pkt	380	380	Nil	17	Entered in Botany and Biochemistry Dept. stock register
115	Tester Set - 1no	240	240	Nil		
116	THERMOHYGROMETER with CLOCK HTC-1 RAVI - 4pcs	5332	5332	Nil		
117	Thermometer – 20nos.	3900	3900	Nil		
118	Thermometer 250'c (10pcs) LAFCO - 3nos	6296	6296	Nil		
119	Transistor Characteristics Apparatus BRIJ - 1pc	5500	5500	Nil	17	Entered in Physics Dept. stock register
120	Trinocular Petrological Polarizing Microscope with Photographic attachment (with installation charge) – 1no	241520	241520	Nil	17	Entered in Geology Dept. stock register
121	TrinocularPetrological Polarizing Microscope with Photographic attachment - 1no	185000	185000	Nil		
122	Twin core wire - 35mt	1060	1060	Nil	17	Entered in Electronics Dept. stock register
123	Two Stage R-C Coupled Transistor Amplifier with Power Supply -	7200	7200	Nil		

	2nos					
124	Voltage Stabilizer Char. Of Zener Diode with 4 meter – Model # Me 542 - 2nos	4680	4680	Nil		
125	Water Bath Thermostat S/S PTP - 1pc	8500	8500	Nil		
126	Wire Gauge with Frame TST - 9doz	2565	2565	Nil		
127	Wire stripper - nos	1185	1185	Nil		
128	Young Modulus APPT. SYMAX - 2pcs	3200	3200	Nil		
	<b>TOTAL</b>	<b>3149498</b>	<b>3149498</b>	<b>Nil</b>		

**COMPUTER & PERIPHERALS, PROJECTOR ETC.**

Sl. No .	Particulars of new equipment Purchase	Amount	Utilised	Balance	Page no. of Asset Register	Remark
1	24 ports switch - 1no	3850	3850	Nil	30	Installed in different rooms
2	4 ports Hub - 1no	615	615	Nil		
3	All in ine PC - 1no	38900	38900	Nil		
4	Assembly Computer Set Core i3 4th Gen HA-H81M-S1 - 3sets	81000	81000	Nil		
5	Cabinet - 10nos	24500	24500	Nil		
6	Canon digital camera SLR EOS 750D (18-55) lens+8GB card+Bag - 1no	53000	53000	Nil		
7	Canon Printer - 1no	13300	13300	Nil		
8	Ceiling Mount - 1no	2500	2500	Nil		
9	Computer set - 10sets	336000	336000	Nil		
10	CPU - 1no	22650	22650	Nil		

11	Dongle - 3nos	15807	15807	Nil		
12	HDMI Cable - 9nos	7191	7191	Nil		
13	Keyboard Mouse - 8nos	6100	6100	Nil		
14	Labtap - 3nos	59400	59400	Nil	30	For English Dept.
15	Lan Cable (Cat 6) - 1no	0	0	Nil	30	Installed in different rooms
16	Laptop - 1no	75000	75000	Nil		
17	Laser Printer - 1no	8945	8945	Nil	31	Installed in different rooms
18	RAM - 10nos	26500	26500	Nil		
19	Mira cast - 4nos	9200	9200	Nil		
20	Monitor - 1no	12500	12500	Nil		
21	Motherboard - 10nos	44500	44500	Nil		
22	Mouse & Keyboard - 11nos	14498	14498	Nil		
23	MS Office - 1no	7600	7600	Nil		
24	Optical Drive - 10nos	11500	11500	Nil		
25	PC CORE i3 4th Gen GA-H81M-S - 3nos	83970	83970	Nil		
26	Presenter - 2nos	9590	9590	Nil		
27	Printer - 1no	18000	18000	Nil		
28	Processor - 10nos	85750	85750	Nil		
29	Projector Wiring & Installation	5800	5800	Nil		
30	Projector - 15nos	644170	644170	Nil		
31	Projector stand - 3nos	7482	7482	Nil		

32	Samsung Toner - 1no	200	200	Nil		
33	SMPS - 2nos	1300	1300	Nil		
34	Spike Booster - 11nos	5000	5000	Nil		
35	SSD - 10nos	38850	38850	Nil		
36	UPS - 16nos	32248	32248	Nil		
37	Wall Mount Kit - 3nos	12000	12000	Nil		
	<b>TOTAL</b>	<b>1819416</b>	<b>1819416</b>	<b>Nil</b>		

### OFFICE & CLASSROOM FURNITURES

Sl. No .	Particulars of new equipment Purchase	Amount	Utilised	Balance	Page no. of Asset Register	Remark
1	Almirah small KD - 4nos	50292	50292	Nil	50	Fitted in different rooms
2	Almirah small Storwel minor plain - 1no	16462	16462	Nil		
3	AlmirahStorwel Big Plain + 1 Shelf - 1no	21666	21666	Nil		
4	AquaguardReviva - 1no	14000	14000	Nil		
5	Barcode scanner - 1no	3250	3250	Nil		
6	Book case 4 Door - 2nos	53658	53658	Nil		
7	Carpet - 1roll	10000	10000	Nil		
8	Class A, B, AB & Push Pull Amplifier – Model # Me 622 - 1no	4275	4275	Nil		
9	Computer Table - 6nos	39116	39116	Nil		
10	Double sided steel Bookrack maindoor - 1no	25082	25082	Nil		
11	Plastic Chair - 12nos	5700	5700	Nil		

12	Revolving Chair 5DOZ - 12nos	66285	66285	Nil		
13	Almirah (sliding door) - 8nos	206632	206632	Nil		
14	Study Table - 1no	5600	5600	Nil		
15	Table - 2nos	15500	15500	Nil	51	Fitted in different rooms
16	Table 2'x6' h-30" - 10nos	150000	150000	Nil		
17	Table T-32 - 1no	11190	11190	Nil		
18	White Board - 6nos	33000	33000	Nil		
	<b>TOTAL</b>	<b>731708</b>	<b>731708</b>	<b>Nil</b>		

#### 5. STATIONARIES

Sl. No.	Particulars of new equipment Purchase	Amount	Utilised	Balance	Page no. of Asset Register	Remark
1	Arch file - 4nos	800	800	Nil	60	For RUSA Office
2	Cash book - 5pcs	270	270	Nil		
3	Double clip file - 2pcs	200	200	Nil		
4	Ring file - 10nos	1000	1000	Nil		
5	Ring file (A4 size) - 2pcs	200	200	Nil		
	<b>TOTAL</b>	<b>2470</b>	<b>2470</b>	<b>Nil</b>		

#### 6. SPORTS GOODS

Sl. No.	Particulars of new equipment Purchase	Amount	Utilised	Balance	Page no. of Asset Register	Remark
1	Badminton jersey – 4pcs	1200	1200	Nil	66	Entered in Student Union stock register
2	Bag - 1no	500	500	Nil		

3	Basketball (indoor) - 2nos	2400	2400	Nil		
4	Basketball (outdoor) - 2nos	1400	1400	Nil		
5	Basketball jersey - 1set	13500	13500	Nil		
6	Check clock - 2nos	300	300	Nil		
7	Chess clock - 1no	2000	2000	Nil		
8	Chess jersey - 5pcs	1500	1500	Nil		
9	Chess mat - 1no	300	300	Nil		
10	Chess men - 2nos	350	350	Nil		
11	Cock - 4cartoons	7550	7550	Nil		
12	Discuss (girls) - 1no	2200	2200	Nil		
13	Discuss (men) - 2nos	2400	2400	Nil		
14	Football - 4nos	5800	5800	Nil		
15	Football jersey - 1set	18000	18000	Nil		
16	Guitar stand - 1no	1350	1350	Nil		
17	Hertz Acoustic Guitar HW4142 - 1no	11000	11000	Nil	67	Entered in Student Union stock register
18	Hertz cable 10m - 1no	1890	1890	Nil		
19	Javelin (girls) - 2nos	2200	2200	Nil		
20	Javelin (men) - 2nos	2400	2400	Nil		
21	Running jersey - 8pcs	2400	2400	Nil		
22	Shot put (girls) - 1no	1100	1100	Nil		
23	Shot put (men) - 1no	1200	1200	Nil		



24	TT jersey - 4pcs	1200	1200	Nil		
25	Tug of war jersey - 9nos	2700	2700	Nil		
26	Volleyball - 4nos	4900	4900	Nil		
27	Volleyball jersey - 1set	14100	14100	Nil		
28	Volleyball net - 1no	2999	2999	Nil		
	<b>TOTAL</b>	<b>108839</b>	<b>108839</b>	<b>Nil</b>		

### 7. GLASSWARES

Sl. No.	Particulars of new equipment Purchase	Amount	Utilised	Balance	Page no. of Asset Register	Remark
1	Beaker 1000ml – 5nos	5244	5244	Nil	72	Entered in Botany, Biochemistry, Zoology and Chemistry Depts. stock registers
2	Beaker 100ml Borosilicate Kaybee (Pkt of 10pcs) AMBAY – 11nos	7823	7823	Nil		
3	Beaker 2000ml – 7nos	3400	3400	Nil		
4	Beaker 250ml – 6nos	1171	1171	Nil		
5	Beaker 500ml B/S Kaybee (set Of 6) AMBAY – 11nos	8630	8630	Nil		
6	Beaker 50ml Borosilicate Kaybee (Pkt of 10pcs) AMBAY - 1pkt	715	715	Nil		
7	Conical Flask 250ml B/S Kaybee (10pcs) AMBAY - 2pkt	2640	2640	Nil		
8	Conical Flask 50ml Borosilicate Kaybee AMB (10pcs) -	3070	3070	Nil		
9	Cover Slip 18mm - 3box	288	288	Nil	72	Entered in Botany and Zoology Depts. stock registers
10	Cover Slip 18x18 10gm Upen - 2pkt	160	160	Nil		

11	Cover slip 22x22 10gm (set of 10) Upen - 2box	1760	1760	Nil		
12	Dropper Glass 6" (12pcs) TST - 4set	720	720	Nil		
13	Funnel 3" (10pkt) Borosilicate - 1pkt	1181	1181	Nil		
14	Glass Rod 1 meter 5mm - 10pcs	220	220	Nil	72	Entered in Chemistry and Biochemistry Depts. stock registers
15	Glass Slide (Pkt of 50 Pcs) Upen - 2pkt	160	160	Nil		
16	Measuring Cylinder 100ml (2PCS) - 2nos	1137	1137	Nil	73	Entered in Botany, Biochemistry, Zoology and Chemistry Depts. stock registers
17	Measuring Cylinder 10ml (2pcs) - 8nos	4173	4173	Nil		
18	Measuring Cylinder 250ml (set Of 5) - 2pkt	3950	3950	Nil		
19	Measuring Cylinder 25ml (2SET)	1194	1194	Nil		
20	Measuring Cylinder 500ml (5pcs) - 1set	6540	6540	Nil		
21	Measuring Cylinder 50ml (2SET) - 8nos	5349	5349	Nil		
22	Measuring Cylinder 50ml - 1no	323	323	Nil		
23	Micropipette 10 – 100 uL - 7nos	25020	25020	Nil	73	Entered in Zoology and Biochemistry Depts. stock registers
24	Micropipette 100 – 1000 uL - 2pcs	7240	7240	Nil		
25	Micropipette 20 – 200 uL - 6nos	21652	21652	Nil		
26	Micropipette 5-50ul Microlit - 1pc	3360	3360	Nil		
27	Pipette 10ml Borosilicate (10pcs) - 4nos	3279	3279	Nil		
28	Pipette 20ml - 3nos	1750	1750	Nil		
29	Pipette 25ml Borosilicate (10pcs) - 3nos	2900	2900	Nil		
30	Pipette 5ml Borosilicate (10pcs) - 4nos	3089	3089	Nil		

31	Pipette pump 25ml (Set of 10) - 2set	10560	10560	Nil		
32	Pippette pump 10ml(pkt of 6pcs) - 1pkt	3168	3168	Nil		
33	Test tube 15ml - 1box	1200	1200	Nil	73	Entered in Chemistry and Biochemistry Depts. stock registers
34	Test tube 18x150 - 4set	64	64	Nil		
35	Test Tube 5" (15x125) (100pcs) - 4set	4400	4400	Nil		
36	Volumetric Pipette 25ml - 1set	2300	2300	Nil	74	Entered in Zoology and Botany Depts. stock registers
37	Volumetric pipette pump 2ml (10pcs) - 1set	1630	1630	Nil		
38	Volumetric pipette pump 5ml (10pcs) - 1set	1510	1510	Nil		
	<b>TOTAL</b>	<b>153860</b>	<b>153860</b>	<b>Nil</b>		

## 8. BOOKS

Sl. No.	Particulars of new equipment Purchase	Amount	Utilised	Balance	Page no. of Asset Register	Remark
1	<i>Advanced Microprocessor and Peripherals</i> , - 5nos	2650	2650	Nil	86	Entered in College Library stock register
2	<i>Animal Physiology</i> - 2 nos	560	560	Nil		
3	<i>Animal Physiology &amp; Biochemistry</i> - 10 nos	14750	14750	Nil		
4	<i>Applied Hydrogeology</i> - 2 nos	990	990	Nil		
5	<i>Applied Zoology</i> - 2 nos	400	400	Nil		
6	<i>Artificial Intelligence</i> - 14 nos	8710	8710	Nil		
7	<i>Basic Electronic Solid State</i> - 30 nos	19500	19500	Nil		
8	<i>Basic Electronics</i> - 30 nos	19500	19500	Nil		
9	<i>Beginning Visual Basic</i> - 4 nos	8022.7	8022.7	Nil		
10	<i>Biochemistry</i> - 2 nos	500	500	Nil		

11	<i>Calculus &amp; Analytic Geometry - 10 nos</i>	5950	5950	Nil		
12	<i>Chordate Zoology - 4 nos</i>	2300	2300	Nil		
13	<i>Climatology - 10 nos</i>	3500	3500	Nil		
14	<i>Computer Graphics - 1 nos</i>	456	456	Nil		
15	<i>Current Handbook Of UGC Guidelines - 1 nos</i>	2250	2250	Nil		
16	<i>Data Communication and Networking (SIE), - 2 nos</i>	1350	1350	Nil		
17	<i>Data Mining : Concept and Techniques - 2 nos</i>	2127.52	2127.52	Nil		
18	<i>Data Mining Techniques - 1 nos</i>	656	656	Nil		
19	<i>Data Mining - 1 nos</i>	650	650	Nil		
20	<i>Data Mining: Principles and Applications - 1 nos</i>	615	615	Nil		
21	<i>Data Structure Through C - 2 nos</i>	496	496	Nil	87	Entered in College Library stock register
22	<i>Data Structure Through C Language - 10 nos</i>	3300	3300	Nil		
23	<i>Data Warehousing Fundamentals: - 5 nos</i>	2395	2395	Nil		
24	<i>Data Warehousing in the Real World - 5 nos</i>	865	865	Nil		
25	<i>Design &amp; Analysis of Computer Algorithms - 4 nos</i>	2796	2796	Nil		
26	<i>Dewey Decimal Classification - 1 nos</i>	32757	32757	Nil		
27	<i>E-Commerce : Strategy, Technologies &amp; Application - 2 nos</i>	1250	1250	Nil		
28	<i>Economic Geology - 5 nos</i>	1125	1125	Nil		
29	<i>E-Governance: Concepts and Case Studies - 5 nos</i>	1500	1500	Nil		
30	<i>Elements of Complex Analysis - 10 nos</i>	1850	1850	Nil		
31	<i>Encyclopedia of UGC Twelfth Plan - 1 nos</i>	6750	6750	Nil		
32	<i>Endocrinology &amp; Reproductive Biology - 5 nos</i>	1125	1125	Nil		

33	<i>Engineering Mathematics (Vol-I) - 10 nos</i>	4090	4090	Nil		
34	<i>Engineering Mathematics (Vol-II) - 10 nos</i>	5290	5290	Nil		
35	<i>Environmental Biology - 10 nos</i>	1750	1750	Nil		
36	<i>Fish &amp; Fisheries - 2 nos</i>	950	950	Nil		
37	<i>Fishes of Assam - 10 nos</i>	6950	6950	Nil		
38	<i>Fundamentals of Remote Sensing - 2 nos</i>	990	990	Nil		
39	<i>Groundwater Hydrology - 8 nos</i>	9560	9560	Nil		
40	<i>Intro. To Automata Theory, Language &amp; Computation - 4 nos</i>	2796	2796	Nil		
41	<i>Intro. To Biostatistics - 10 nos</i>	2950	2950	Nil		
42	<i>Intro. To Geochemistry - 2 nos</i>	2190	2190	Nil		
43	<i>Intro. To Operation Research - 4 nos</i>	2796	2796	Nil		
44	<i>Intro. to Probability (Vol-I) 2 nos -</i>	1338	1338	Nil		
45	<i>Intro. to Probability (Vol-II) - 3 nos</i>	2037	2037	Nil		
46	<i>Intro. To Real Analysis - 5 nos</i>	2595	2595	Nil	88	Entered in College Library stock register
47	<i>Introduction to Data Mining with Case Studies - 1 nos</i>	495	495	Nil		
48	<i>Invertebrate Paleontology &amp; Evolution - 2 nos</i>	1990	1990	Nil		
49	<i>Manual of Practical Zoology : Chordates - 4 nos</i>	1400	1400	Nil		
50	<i>Manual of Practical Zoology : Invertebrates - 10 nos</i>	3500	3500	Nil		
51	<i>Mapping and Compilation Methods and Techniques - 2 nos</i>	700	700	Nil		
52	<i>Mastering Microsoft Visual Basic - 4 nos</i>	12159.84	12159.84	Nil		

53	<i>Microprocessor 8085 : Architecture, Programming and Interfacing - 4 nos</i>	512	512	Nil		
54	<i>Microprocessor Architecture, Programming and Applications with the 8085 6/e - 1 nos</i>	296	296	Nil		
55	<i>Mineral Processing - 3 nos</i>	1350	1350	Nil		
56	<i>Modern Algebra - 10 nos</i>	2950	2950	Nil		
57	<i>Modern T.B. of Zoology : Invertebrates - 10 nos</i>	6550	6550	Nil		
58	<i>Multimedia, making it work - 2 nos</i>	758	758	Nil		
59	<i>Narendra Modi : A Rebel or Revolutionary - 1 nos</i>	1350	1350	Nil		
60	<i>Network Security Essentials : Applications and Standards - 2 nos</i>	559	559	Nil		
61	<i>Numerical Methods : Problems &amp; Solution - 20 nos</i>	5500	5500	Nil		
62	<i>Oceanography - 10 nos</i>	2500	2500	Nil		
63	<i>Open GL Proramming Guide: The Official Guide to Learning Open GL, Version- 1 nos</i>	1437.9	1437.9	Nil		
64	<i>Operational Amplifier as Differential Amplifier – 2 nos</i>	5382	5382	Nil		
65	<i>Operational Amplifier as Inverting, Non Inverting, Summing &amp; Difference Amplifier - 2 nos</i>	6840	6840	Nil		
66	<i>Petrology of the Igneous Rocks - 4 nos</i>	1400	1400	Nil		
67	<i>Petrology of the Igneous Rocks - 4 nos</i>	1000	1000	Nil	89	Entered in College Library stock register
68	<i>Practical Zoology Volume 2 - 2 nos</i>	300	300	Nil		
69	<i>Principles of Electronics - 30 nos</i>	17850	17850	Nil		
70	<i>Principles of Engineering Geology &amp; Geotechnics</i>	4125	4125	Nil		

	- 8 nos			
71	<i>Principles of Information Security - 4 nos</i>	1412	1412	Nil
72	<i>Principles of Paleontology - 5 nos</i>	1375	1375	Nil
73	<i>Probability &amp; Statistics - 10 nos</i>	3250	3250	Nil
74	<i>Remote Sensing &amp; GIS - 3 nos</i>	2097	2097	Nil
75	<i>Remote Sensing &amp; Image Interpretation - 2 nos</i>	1898	1898	Nil
76	<i>Research Design: Qualitative, Quantitative and Mixed Methods Approaches - 1 nos</i>	450	450	Nil
77	<i>Sedimentology &amp; Stratigraphy with CD ROM - 5 nos</i>	5475	5475	Nil
78	<i>Series &amp; Parallel Resonance - 2 nos</i>	7200	7200	Nil
79	<i>Software Project Management - 2 nos</i>	1220	1220	Nil
80	<i>Software Project Management : Concise Study - 3 nos</i>	738	738	Nil
81	<i>Software Project Management: A Unified Framework - 5 nos</i>	1970	1970	Nil
82	<i>Stefans Law of Radiation by using an In-candascient Lamp with Power - 2 nos</i>	14400	14400	Nil
83	<i>Study of BistableMultivibrator using Transistors – 1 nos</i>	2538	2538	Nil
84	<i>Study of Forbidden Energy Gap with P/S and 1 Digital Meter - 2 nos</i>	11200	11200	Nil
85	<i>Study of OP-AMP Mathematical Operations with Power Supply - 2 nos</i>	10600	10600	Nil
86	<i>Study of SCR Characteristics Apparatus – 1 nos</i>	3150	3150	Nil

87	<i>Study of Wein Bridge Oscillator using Transistor</i> - 1 nos	2241	2241	Nil		
88	<i>Surveying (Vol-I)</i> - 4 nos	1980	1980	Nil	90	Entered in College Library stock register
89	<i>Surveying (Vol-II)</i> - 4 nos	1980	1980	Nil		
90	<i>System Simulation</i> - 4 nos	900	900	Nil		
91	<i>Text Book of Biotechnology</i> - 5 nos	2500	2500	Nil		
92	<i>Text Book of Immunology &amp; Immunotechnology</i> - 10 nos	3250	3250	Nil		
93	<i>Text Book of Pathology</i> - 2 nos	3700	3700	Nil		
94	<i>Text Book of Biotechnology</i> - 5 nos	2500	2500	Nil		
95	<i>Tally ERP 9 in Simple steps</i> - 10 nos	2990	2990	Nil		
96	<i>Theory of Computer Science</i> - 10 nos	2750	2750	Nil		
97	<i>Theory of Functions of a Complex Variable</i> - 10 nos	3950	3950	Nil		
98	<i>Trainer for Oscillators Circuit</i> 1 nos	5850	5850	Nil		
99	<i>Trainer for Transistors Multivibrator (Monostable)</i> – 1 nos	2583	2583	Nil		
100	<i>Trainer on Differentiator &amp; Integrator</i> – 2 nos	5076	5076	Nil		
101	<i>Tuned Collector Oscillator</i> – 1 nos	3420	3420	Nil		
102	<i>Zoology for Degree Students</i> - 10 nos	7250	7250	Nil		
103	<i>Zooplankton</i> - 10 nos	18000	18000	Nil		
	<b>TOTAL</b>	<b>418725.96</b>	<b>418726</b>	<b>Nil</b>		



**9. OTHER EQUIPMENT**

<b>Sl. No .</b>	<b>Particulars of new equipment Purchase</b>	<b>Amount</b>	<b>Utilised</b>	<b>Balance</b>	<b>Page no. of Asset Register</b>	<b>Remark</b>
1	SPV Power Plant	188000	188000	Nil	110	Installed in the main Building

**10. YEAR WISE EXPENDITURE UNDER UPGRADATION TO MODEL DEGREE COLLEGE GRANT**

**1. YEAR WISE EXPENDITURE UNDER UPGRADATION TO MODEL DEGREE COLLEGE GRANT**  
*(Total Receipt – 1<sup>st</sup> & 2<sup>nd</sup> installment = Rs. 3,00,00,000.00)*

Head	2015-2016 (Rs.)	2016-2017 (Rs.)	2017-2018 (Rs.)	Total (Rs.)
Purchase	-	1,03,03,800	17,79,337	1,20,83,137
New Construction	25,00,000	44,55,167	2,51,243	72,06,410
Renovation	-	2,20,575	82,09,619	84,30,194
<b>Total</b>	<b>25,00,000.00</b>	<b>1,49,79,542.00</b>	<b>102,40,199.00</b>	<b>2,77,19,741.00</b>

**2. Academic Building Block I, Durtlang Campus**

- a) Source of funding : SPA (Special Plan Assistant) Mizoram PWD
- Vide Letter no. :
- b) Amount sanctioned : 7.5 crore
- c) Design & Drawn : Architech Branch, Mizoram PWD
- d) Area : 2560 sq.m
- e) No. of Floor : 4 (Basement, Ground, First & Second Floor)
- f) Status : Ongoing

**11. ABSTRACT OF EXPENDITURE OF FUNDS FROM UP-GRADATION/RENOVATION OF EXISTING COLLEGES TO MODEL DEGREE COLLEGES SCHEME**

**INCOME:**

<b>Sl. No.</b>	<b>Amount</b>	<b>Remarks</b>
		Vide SPD(RUSA) Letter No. G.21017/1/2015-SPD(RUSA); Dated Aizawl the 6 <sup>th</sup> January, 2016 - Cheque No. 069488 of 06, 01, 2016
1	Rs. 50,00,000.00	Fund to be utilized as – Const. of Lab. building – Rs. 40,00,000.00 Purchase of immediate needs – Rs. 10,00,000.00
		Vide SPD(RUSA) Letter No. G.20015/1/2015-SPD(RUSA); Dated Aizawl the 9 <sup>th</sup> November, 2016
		2 <sup>nd</sup> Installment of Upgradation ... to Model Degree Colleges
2	Rs. 2,25,00,000.00	Fund to be utilized as – 35% for new construction 35% for Upgradation/Renovation of existing college 30% for purchase of equipments
		Vide SPD(RUSA) Letter No. G.21015/1/2016-SPD(RUSA)
3	Rs. 25,00,000.00	–Pt 1; Dated Aizawl the 3 <sup>rd</sup> February, 2017
<b>TOTAL</b>	<b>Rs. 3,00,00,000.00</b>	

**EXPENDITURE****HEAD OF ACCOUNT :PURCHASE**

<b>Sl. No</b>	<b>Sanction No.&amp; Date B.13011/4/16- GZRSC(RUSA)</b>	<b>Amount</b>	<b>Expenditure Head</b>
1	443-444 of dt. 19.4.2016	105703	Books for Computer Science Department
2	445-446 of dt. 20.4.2016	56346	Almirah, Table, R. Chair, White Board etc.
3	447-448 of dt. 25.4.2016	44341	Chemicals, Lab. Equipments, White Board etc.
4	455-456 of dt.13.5.2016	3955	Banner, Stamps, Cash Book, Sticker etc.
5	451-452 of dt. 25.4.2016	3845	Lab. Equipments
6	599-601 of dt. 10.6.2016	827891	Lab. Equipments and Chemicals
7	648-650 of dt. 31.1.2017	135000	Microscope for Geology dept. (NARSHI Technologies)
8	687-689 of dt. 15.2.2017	664486	Lab. Equipments and Chemicals for various Departments. (Green Labs.)
9	701-704 of dt. 7.2. 2017	2470	Stationeries (D. Buanga & Sons)
10	709-712 of dt. 20.2.2017	400273	Office furniture (SD Enterprise)
11	713-716 of dt. 24.2.2017	53000	Canon Camera (Photo House, Aizawl)
12	739-741 of dt. 6.3.2017	14000	Aquaguard (Blue Star, BEE ZET Ice Cream Industries, Aizawl)
13	642-644 of dt. 31.1.2017	75000	Laptop and Peripherals (Datamation Services, Guwahati)
14	705-708 of dt. 15.2.2017	2434	Chemicals (Genesis Enterprise, Aizawl)
15	814-816 of dt. 23.3.2017	19220	White Boards and Marker (D. Buanga & Sons, Aizawl)
16	817-819 of dt. 23.3.2017	374000	Computers and Projector (Sunflower Electronics, Aizawl)
17	785-787 of dt. 21.3.2017	94349	Sport Goods (Tabitha Store, Aizawl)
18	782-784 of dt. 21.3.2017	14240	Guitar (JIT Management, Aizawl)
19	773-775 of dt. 21.3.2017	92581	Library Books (Eastern Book House, Guwahati)
20	540-543 of dt. 15.2.2016	88031	Library Books (Eastern Book House, Guwahati)
21	645-647 of dt. 31.1.2017	186690	Microscope for Geology Department (Central Scientific Instrument Corporation, Agra)
22	544-546 of dt. 15.12.2016	100000	Computer and Peripherals (RM Infotech, Aizawl)

23	820-823 of dt. 24.3.2017	21630	Carpet & Curtain (MD &D Enterprises, Aizawl)
24	776-778 of dt. 21.3.2017	5600	Office Table (The Norwood Builders, Aizawl)
25	779-781 of dt. 21.3.2017	5700	Plastic Chairs (Bonton, Aizawl)
26	547-549 of dt. 15.12.2016	200000	Lab. Equipments (Green Labs.)
27	651-653 of dt. 31.1.2017	441000	Projector etc. (RM Infotech, Aizawl)
28	830-832 of dt. 24.3.2017	40902	Electrical goods and Installation (Fancy Electronics, Aizawl)
29	835-837 of dt. 28.3.2017	177680	Lab. Equipments (Omega Electronics, Jaipur)
30	609-611 of dt. 21.1.2017	188000	SPV Power Plant (ZEDA, Aizawl)
31	847-851 of dt. 29.3.2017	16800	Computer Tables (The Norwood Builders, Aizawl)
32	39-42 of dt. 24.4.2017	321643	10 nos. of Computers and Printer (RM Infotech, Aizawl)
33	43-46 of dt. 24.4.2017	145098	Lab. Equipments for Geology Department (Hindusthan Minerals and Natural History Specimens Supply Co., Kolkatta)
34	216-218/17 of dt. 25.5.2017	12000	Home Sc. Lab. Table (Joseph furnitures, Aizawl)
35	219-221/7 of dt. 25.5.2017	493389	Lab. Equipments (Green labs., Aizawl)
36	222 -224/17 of dt. 25.5.2017	26100	Books for Library (Eastern Book House, Guwahati)
37	225-229/17 of dt. 25.5.2017	30420	Geological Instruments and Equipments (Hindusthan Minerals and Natural History Specimens Supply Co., Kolkatta)
38	228-230/17 of 5.6.2017	65305	Laptap, Laser Printer etc. (RM Infotech, Aizawl)
39	250-253/17 of dt. 5.6.2017	28682	Steel Book Rack and Computer Table (SD Enterprise, Aizawl)
40	264-267/17 of 7.6.2017	150000	Home Sc. Lab Tables 10 nos. (Norwood builders, Aizawl)
41	47-50 of 24.4.2017	22850	Rebound Hammer & Digital TDS Meter (Zeal International N. Delhi)
42	278-281/17 of 16.6.2017	106520	Trinocular Petrological Polarising Microscope (Narshi Technologies, Kolkatta)
	<b>TOTAL</b>	<b>58,57,174</b>	

#### HEAD : NEW CONSTRUCTION

Sl. No	SANCTION NO.	AMOUNT	EXPENDITURE HEAD
1	427 of dt.9.2.2016	2500000	To C. Lalsiama, Chairman, Mizoram Technocrats Ltd. For construction of Laboratory Building at Durtlang
2	113 of dt.25.5.2016	1500000	

3	501-503 of dt.28.11.2016	4324000	
4	731-733 of dt.1.3.2017	4479800	
5	231-233/17 of 14.6.2017	251243	
	<b>TOTAL</b>	<b>130,55,043</b>	

**HEAD : RENOVATION/UPGRADATION**

Sl. No	SANCTION NO.	AMOUNT	EXPENDITURE HEAD
1	690-693 of dt.15.2.2017	10870	Balu, Cement etc. (T. Dela)
2	788-791 of dt.21.3.2017	11050	Plywood (Bee-Ess)
3	792-794 of dt.21.3.2017	5600	Cement, Balu (TluangTluangEnterptise)
4	795-797 of dt.21.3.2017	50695	Hardware (Sunrise Home Appliances)
5	798-800 of dt.21.3.2017	78145	Hardware (Orion)
6	838-842 of dt.29.3.2017	8205	Hardware (Orion)
7	801-803 of dt.21.3.2017	54130	Sawn Timber (CH.M Furniture works)
8	827-829 of dt.24.3.2017	1880	Building Material (Orion)
9	65-68 of dt.27.4.2017	300000	Pu C. Lalrinmawia (approach road)
10	62-64 of dt.27.4.2017	16019	Building repair
11	209-211/7 of dt.15.2.2017	3500000	To Mizoram Technocrats for vertical extension of Girls Hostel
	<b>TOTAL</b>	<b>40,36,594</b>	

**GRAND TOTAL : Rs. 229,48,811.00**

**BALANCE : Rs. 70,51,189.00 (Rs. 300,00,000 – Rs. 229,48,811)**

## **12. ANY OTHER RELEVANT INFORMATION.**