

DEPARTMENT OF ZOOLOGY

Govt. Zirtiri Residential Science College Aizawl, Mizoram

Report on Virtual Field Trip Visit During 2020-21



1. Name of Department : Zoology

2. Name of Paper : ZL XVI A: Practical Field

3. Place of Visit

Barbados Island, West Indies

CIFA, Bhubaneswar

■ Louyuan Bay, South-Eastern China, Fujian Province.

■ Link: https://youtu.be/UrHl0Ki6z00

4. Date of Visited : 13th October, 2021

5. Students involved : 5th Semester Zoology Students 41 students

6. Guide : 2

7. **Objectives**: Develop "technical competency" by observing, collecting, interpreting, recording and evaluating geographic information and to evaluate or estimate the biotic communities on fish pond through fieldwork.

8. **Outcome**: Expose students to new experiences and can increase interest and engagement in science regardless of prior interest in a topic es specially in fish Biology

Government Zirtiri Residential Science College organised virtual field trip in the selected Barbados Island-West Indies, CIFA-Bhubaneswar, and Louyuan Bay-South-Eastern China, Fujian Province. Due to covid-19, it is not able to go to the selected places, that's why the selected places are visited and seen through google meet.

Number of students = 41 Teacher (Guide) = 1 Total members = 42

IMPORTANT PLACE VISITED:

1. Barbados Island, West Indies:-



Barbados is located in the Caribbean region of the North Atlantic Ocean. As an Island in the Lesser Antilles, Barbados is a country in the West Indies.



Barbados is sometimes called as "The land of the flying fish" because the flying fishes are commonly found in Barbados. The species found in this region are about 25 cm long and shaped like a herring.

The remarkable feature of this fish is its ability to "fly". Actually, the fish don't "fly" they glide through the air up to distances of 30-40 meters. Just before take-off, the fish swims quickly towards the surface, bursting into the air at speeds of 55 kmph.

Once it is airborne, the fish spreads its large pectoral fins and appears to be "flying". This ability helps the fish to escape from predators.

GEOGRAPHICAL MAP OF BARBADOS ISLAND:-



2. CIFA (Central Institute of Freshwater Agriculture), Bhubaneswar:-



CIFA is an Advanced Research Institute for freshwater agriculture established in 1949 at Cuttuck, Orissa (new name – Odisha). Face many challenges in the field of fish culture in ponds, tanks and another small body. The institute was gradually developed and became an independent Institute in 1987 at Bhubaneswar, Orissa under the aegis of the Indian Council for Agriculture Research (ICAR), New Delhi.



CIFA has successfully bred and standardized the successful rearing of 16 indigenous orgamental species from NEH, Eastern and Southern Western Ghat region comprising barbs, danios, rasboras, catfish and chameleon fish.

GEOGRAPHICAL MAP OF CIFA:-



3. Largest Floating Fish Farm in China:-



In Louyuan Bay in South-Eastern China's Fujian Province, many floating farms have been build to cultivate crustaceans such as shrimps, and mollusc such as oysters and fish are raised in artificial enclosures.



These forms are created by floating netted enclosures from a sprawling network of interconnected wooden pathways and platforms. Over these, fishermen have build wooden houses and huts where entire families live.

This specialized branch of aquaculture has become so big that it has even begun to attract many tourists. So large are the farms at Louyuan, in fact, that they almost cover the entire bay.

GEOGRAPHICAL MAP OF LARGEST FLOATING FISH FARM IN CHINA:-



List of Zoology students present for the field Trip

Sl No	Roll No	Name	Attendance	
			P=Present	Remark
1	2007BS004	ANNE LALPEKKIMI	P	
2	2007BS011	BIAKHMINGLIANI	P	
3	2007BS014	C. LALREMRUATI	P	
4	2007BS021	C. VANHMINGLIANI	P	
5	2007BS029	DAVID LALRAMZAUVA	P	
6	2007BS035	EMMANUEL LALHRIATPUIA	P	
7	2007BS036	ESTHER LALCHHANCHHUAHI	P	
8	2007BS037	ESTHER ZORINPUII	P	
9	2007BS039	F. SANGTHANZUALA	P	
10	2007BS044	GRACE VL RUATFELI HNAMTE	P	
11	2007BS046	H. LALNUNFELI	P	
12	2007BS048	H. ZODINPUII	P	
13	2007BS055	HMINGTHANZUALA	P	
14	2007BS065	JOSHUA LALRINHLUA SAILO	P	
15	2007BS067	K BEIHMOSA	P	
16	2007BS068	K. BEIPASASA	P	
17	2007BS072	K. LALRUATFELA	P	
18	2007BS073	K. MALSAWMTLUANGA	P	
19	2007BS074	K. VANLALLAWMAWMI	P	
20	2007BS079	L. LALHMANGAIHZAUVI	P	
21	2007BS082	LALBIAKDIKI	P	
22	2007BS088	LALCHHUANGMAWII	P	
23	2007BS105	LALNUNFELA	P	
24	2007BS107	LALRAMCHHUANA	P	
25	2007BS117	LALREMRUATPUII	P	
26	2007BS120	LALRINAWMI PACHUAU	P	
27	2007BS126	LALRINNUNGI	P	
28	2007BS135	LALTANPUIA	P	
29	2007BS139	LALZARZOVA	P	
30	2007BS145	MALSAWMDAWNGZELA	P	
31	2007BS152	MELODY LALHMANGAIHKIMI	P	
32	2007BS157	MOSES LALTLANSANGA	P	
33	2007BS167	PC VANLALCHHANHIMA	P	
34	2007BS168	PC VANTHANGPUII	P	
35	2007BS169	R. LALHMANGAIHZUALI	P	
36	2007BS180	REBEK V.L. THAPUII	P	
37	2007BS200	T. LALZARZOVI	P	
38	2007BS202	T. ZORINPUIA	P	
39	2007BS205	TH. CHANULEMBI DEVI	P	
40	2007BS223	WILSON BYHNARONA	P	
41	2007BS226	ZONUNSANGI	P	

Department of Botany Government Zirtiri Residential Science College Field Trip Report 2022

1. Department : Botany

2. Paper : BOT/V/CC/16

3. Places of visit : Field trip to different types of world biomes with special

reference to desert and taiga biomes (Virtual Field Trip)

https://youtu.be/ILUQUbbaDSg

4. Date of field trip : 30.5.22

5. Students involved : VI semester Botany core students6. Faculty guides : Dr R. Lalengmawia, Lalnunthara

7. Objective : To provide students a visual opportunity to gather

information

and supplement their theoretical knowledge on world

biomes.

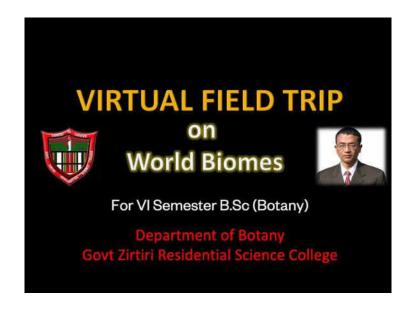
8. Outcome : The students gained a deeper knowledge and an increased

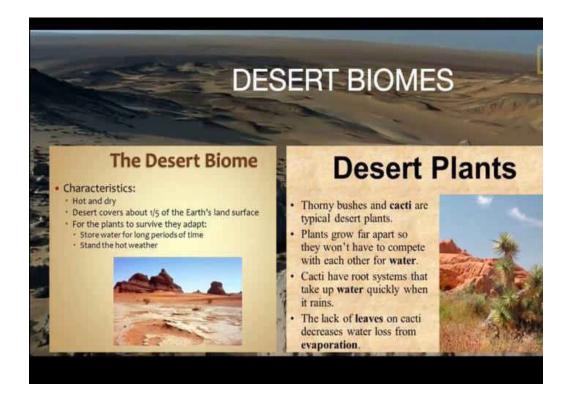
interest and understanding on plant habitat and vegetation

Report on Virtual Field Trip

The Virtual trip was organised by the Department of Botany Govt. Zirtiri Residential Science College, for the VI semester students of Botany on 30th May 2022. Different types of world biomes with special reference to desert biomes such as sub-tropical, semiarid, coastal and polar deserts along with the diversity of taiga biomes were explained with motion pictures showing the richness of vegetation and the adaptation to a specific climate.

This virtual trip was an effective tool for students to gain deeper knowledge through visual aid. Observation and collection of information will assist the student, and give motivation, gaining more knowledge and understanding about the plant habitat and vegetation.







List of Botany students who participated in the Virtual Field Trip

Sl. No.	Roll No 1907BS	Name	Attendance
1	002	Angel Lalvohbiki	P
2	009	Benjamin Lalnunpuia	P
3	010	Benjamin Ngurthansanga	P
4	013	C.Lalchhanhimi	P
5	015	C. Lalengzauva	P
6	022	C. Ngongia	P
7	028	Cecilia Chingmuanhawih	P
8	043	H.Lalawmpuia	P
9	045	H. Lalnunhlui	P
10	046	H.Lalruatsanga	P
11	048	Henry L Hmar	P
12	052	Irish Lalenkawli	P
13	054	Isak Malsawmtluanga	P
14	058	Jerome Lalfakhlena	P
15	072	Lalbiakmawii	P
16	073	Lalbiaksiama	P
17	074	Lalchawimawii	P
18	081	Lalfakzuala	P
19	092	Lallawmawmi	P
20	101	Lalnuntluanga	P
21	102	Lalnuntluangi	P
22	104	Lalparvuli	P
23	110	Lalrinchama	P
24	118	Lalrotlinga	P
25	119	LalruatdikaSailo	P
26	130	Laltlanmawii	P
27	131	Laltlansangi Sailo	P
28	134	Lily Chanchinmawii	P
29	136	M. Thuthlungropuii	P
30	137	Madhu Maya	P
31	149	PC. Vanlalhruaia	P
32	153	R. Lalramhnaii	P
33	162	Ruthi F Lalnuntluangi	P
34	163	S. Agape Lalvenhimi	P
35	174	V. Lalrinmawia	P
36	176	Vanlalawmpuii	A
37	178	Vanlalhruaitluangi	P
38	182	VanlalnghakaHnamte	P
39	189	William Ngursangzuala	P

Department of Biochemistry Government Zirtiri Residential Science College

Report on Hands on training for 2nd Semester Students, Department of Biochemistry on the preparation of hand Sanitizer based on WHO Standard Protocol

A hands on training on the preparation of hand sanitizer was organized for second semester students of Biochemistry, Govt. Zirtiri Residential Science College under the supervision of the faculty members of Biochemistry department on 18th March, 2022 at biochemistry laboratory of the college. The WHO standard protocol was used as a reference guide. For this training a total of 27 students attended the course.

The objective of this program was to empower students with the new skill and knowledge on the preparation of alcohol-based hand sanitizer.

The outcome of this training program was that students went home gaining a new skill on the preparation of hand sanitizer which has proved to be an important tool in the fight against COVID19 and other epidemics. Such a skill could be passed on and also be used for community service. A total of 20 litres was prepared by the students on this program. The freshly prepared hand sanitizers were later handed over to the college authority for subsequent use as and when necessary.

List of faculty members as resource persons

- 1. Dr. Fanai Lalsangluaii, Asst. Prof (HOD)
- 2. Lalrosangpuii, Asst. Prof
- 3. K. Zosangpuii, Asst. Prof
- 4. Dr. Rebecca Vanlalsangi, Asst. Prof
- 5. Dr. PC. Lalrinfela, Asst. Prof





List if second semester students participated in hand sanitizer preparation training

S/no Roll No Name 1 2107BS012 B. Lalhriatpuia 2 2107BS022 C. Laldawngmuana 3 2107BS024 C. Lalduhawmi 4 2107BS027 C. Lalremruata 5 2107BS030 C. Nelson Beiraduakhei 6 2107BS038 Christopher Lianzova 7 2107BS051 Esther Lalthakimi 8 2107BS069 H. SingiaAzyu 9 2107BS071 H. Zodintluanga 10 2107BS072 HC. Lalramdinmawii 11 2107BS073 HD. Lalfamkima 12 2107BS073 HD. Lalfamkima 12 2107BS073 K. Sunita Singh 13 2107BS107 LaithangpuiiChenkual 14 2107BS119 Lalfakmawii 15 2107BS156 Lalrempuii Chhakchhuak 16 2107BS192 Lalzarzoi 17 2107BS293 R. Lalhmingthianghlima 20 2107BS238 R. Lalhmingthianghlima 20 2107BS261	training				
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Department of Electronics

Govt. Zirtiri Residential Science College (July 2021 – June 2022)

Project Phase -I: V semester July- Nov 2021

Project Phase -I (July-Nov, 2021) for V Semester Electronics Core students have been carried out successfully under the supervision of Dr. Ricky Lalhmangaihzuala. Different projects were allotted to each student such as Metal Detector, IM 386 Audio Amplifier, Audio Amplifier, GSM Based Water Pump Control System, Automatic Room Light System Using Microcontroller, Smoke Alarm etc. which are detailed in the following table. These projects were mainly aimed to inculcate various modern techniques utilized by industries for their mass productions.

Sl. No.	Roll No.	Name of student	Project work/ field study of students	Year
1	1907BS007	Beihrohrua Zawtha	Metal Detector	
2	1907BS011	C. Hmingchungnunga	IM 386 Audio Amplifier	
3	1907BS016	C. Lalengzuali	Audio Amplifier	
4	1907BS039	Fc. Eliasa	GSM Based Water Pump Control System	
5	1907BS061	John Lalmuanpuia	Automatic Room Light System Using Microcontroller	Project Phase -I
6	1907BS070	K. Thantluanga	Smoke Alarm	_
7	1907BS117	Lalrosiama	Quatcopter/Drone	V semester
8	1907BS122	Lalruatsaka	Water Level Indicator	July- Nov
9	1907BS145	Nelson Lalramchhana	Electronic Thermometer	2021
10	1907BS160	Rinsangpuia	Automatic street light using LDR	
11	1907BS181	Vanlalmuanzuala	Solar power bank	
12	1907BS186	Vanmalsawma	Solar Inverter	

1. Beihrohrua Zawtha

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S Nº 2 CERTIFICATE Q. V. 26666666666666666666666666 This is to certify that Beihrohrua Zawtha of 5th Semester B.Sc Roll No 1907BS007, Regn. No 1902042 has done the project "Metal Detector" and has completed under my supervision. He has shown a satisfactory performance in his work and his conduct and his interest in this project is satisfactory. Date: 26th October, 2021 (Dr. RICKY LALHMANGAIHZUALA) Place: Aizawl Supervisor, Department of Electronics Govt. Zirtiri Res. Sc. College Aizawl Countersigned by, _9 GAIHZUALA) (Dr. RICKY LALHMAN -9 Head of Department -9 Department of Electronics 3 Govt. Zirtiri Res. Sc. College 3 Aizawl 9 Head Dept, of Electronics Govt. Zirdiri Resi, Science College Aizawl: Mize...m

2. C. Hmingchungnunga

CERTIFICATE

This is to certify that <u>C. Hmingchungnunga</u> of 5th Semester B.Sc Roll No 1907BS011, Regn No 1902045 has done the project "IM 386 Audio Amplifier" and has completed under my supervision. He has shown a satisfactory performance in his work and his conduct and his interest in this project is satisfactory.

Date: 26th October, 2021

(Dr. RICKY LALHMANGAIHZUALA)

Place: Aizawl

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Supervisor,
Department of Electronics
Govt. Zirtiri Res. Sc. College
Aizawl

Countersigned by,

(Dr. RICKY LALHMANGAIHZUALA)

Head of Department
Department of Electronics
Govt. Zirtiri Res. Sc. College
Aizawl

Dept, of Electronics Govt. Zintri Resi Science College 3. C. Lalengzuali

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CERTIFICATE

This is to certify that <u>C. Lalengzuali</u> of 5th Semester B.Sc Roll No <u>1907BS016</u>.

Regn No <u>1902050</u> has done the project "Audio Amplifier" and has completed under my supervision. She has shown a satisfactory performance in her work and her conduct and her interest in this project is satisfactory.

Date: 26th October, 2021

(Dr. RICKY LALHMANGAIHZUALA)

Supervisor,

Place: Aizawl

Department of Electronics Govt. Zirtiri Res. Sc. College Aizawl

Countersigned by,

(Dr. RICKY LALHMANGAIHZUALA)

Head of Department
Department of Electronics
Govt. Zirtiri Res. Sc. College
Aizawl

Head Dept, of Electronics Govt. Zirtiri Resi. Science College Aizawl: Mize. am

CERTIFICATE

This is to certify that <u>F.C. Eliasa</u> of 5th Semester B.Sc Roll No <u>1907BS039</u>, Regn No <u>1906374</u> has done the project "GSM Based Water Pump Control System" and has completed under my supervision. He has shown a satisfactory performance in his work and his conduct and his interest in this project is satisfactory.

Date: 26th October, 2021

(Dr. RICKY LALHMANGAIHZUALA)

Place: Aizawl

Supervisor,
Department of Electronics
Govt. Zirtiri Res. Sc. College
Aizawl

Countersigned by,

(Dr. RICKY LACHMANGAIHZUALA)

Head of Department Department of Electronics

Govt. Zirtiri Res. Sc. College

Aizawl

Head Dept, of Electronics Govt, Zirliri Resi, Science College Aizawl : Mize am

d

5. John Lalmuanpuia

CERTIFICATE

This is to certify that <u>John Lalmuanpuia</u> of 5th Semester B.Sc Roll No <u>1907BS061</u>, Regn No <u>1902094</u> has done the project "Automatic Room Light System Using Microcontroller" and has completed under my supervision. He has shown a satisfactory performance in his work and his conduct and his interest in this project is satisfactory.

Date: 26th October, 2021

(Dr. RICKY LALHMANGAIHZUALA)

Place: Aizawl

Supervisor,

Department of Electronics Govt. Zirtiri Res. Sc. College Aizawl

Countersigned by,

(Dr. RICKY LATHMANGAIHZUALA)

Head of Department

Department of Electronics

Govt. Zirtiri Res. Sc. College

Aizawl

Head Dept, of Electronics Govt. Zirliri Resi, Science College Aizawl: Mize-im

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6. K. Thantluanga

CERTIFICATE

This is to certify that <u>K. Thantluanga</u> of 5th Semester B.Sc Roll No <u>1907BS070</u>, Regn No. <u>1902102</u> has done the project "Smoke Alarm" and has completed under my supervision. He has shown a satisfactory performance in his work and his conduct and his interest in this project is satisfactory.

Date: 26th October, 2021

(Dr. RICKY LALHMANGAIHZUALA)

Place: Aizawl

Supervisor,

Department of Electronics

Govt. Zirtiri Res. Sc. College

Aizawl

Countersigned by,

(Dr. RICKY LALHMANGAIHZUALA)

Head of Department
Department of Electronics
Govt. Zirtiri Res. Sc. College

Aizawl

Head Dept, of Electronics Govt. Zirtiri Resi. Science College Aizawl: Miz. ..m

7. Lalrosiama

CERTIFICATE

This is to certify that <u>LaIrosiama</u> of 5th Semester B.Sc Roll No <u>1907BS117</u>, Regn No <u>1902146</u> has done the project "Quatcopter/Drone" and has completed under my supervision. He has shown a satisfactory performance in his work and his conduct and his interest in this project is satisfactory.

Date: 26th October, 2021

(Dr. RICKY LALHMANGAIHZUALA)

Place: Aizawl

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Supervisor,

Department of Electronics

Govt. Zirtiri Res. Sc. College

Aizawl

Countersigned by,

(Dr. RICKY LALHMANGAIHZUALA)

Head of Department
Department of Electronics
Govt. Zirtiri Res. Sc. College

Aizawl

Head Dept, of Electronics Govt. Zirliri Resi, Science College Aizawl: Mize-am

8. Lalruatsaka

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	This is to certify that Lalruatsaka	of 5th Semester B.Sc Roll No 1907BS122, Regn
	No 1902151 has done the project "Water	r Level Indicator" and has completed under my
	supervision. He has shown a satisfactor	y performance in his work and his conduct and
	his interest in this project is satisfactory.	
•		26
8	Date: 26th October, 2021	(Dr. RICKY LALHMANGAIHZUALA)
Ki 		171
16	Place: Aizawl	Supervisor, Department of Electronics
(i)		Govt. Zirtiri Res. Sc. College
8		Aizawl
13) 17		
6	The transportation of the con-	
122	Countersigned by,	
22 E		
	Ruel	
	(Dr. RICKY LALLMANGAIHZUALA)	
	Head of Department Department of Electronics	
	Govt. Zirtiri Res. Sc. College	
•	Aizawl	
	Head Dent, of Electronics	
)	Dept, of Electronics Govi. Zirliri Resi. Science College Alzawl: Mize-am	I .
)		

9. Nelson Lalramchhana

CERTIFICATE

THE CPON.

This is to certify that <u>Nelson Lalramchhana</u> of 5th Semester B.Sc Roll No <u>1907BS145</u>, Regn No <u>1902175</u> has done the project "Electronic Thermometer" and has completed under my supervision. He has shown a satisfactory performance in his work and his conduct and his interest in this project is satisfactory.

Date: 26th October, 2021

(Dr. RICKY LALHMANGAIHZUALA)

Place: Aizawl

Supervisor,

Department of Electronics

Govt. Zirtiri Res. Sc. College

Aizawl

Countersigned by,

(Dr. RICKY LALHMANGAIHZUALA)

Head of Department
Department of Electronics
Govt. Zirtiri Res. Sc. College
Aizawl

Head Dept, of Electronics Govt, Zirliri Resi, Science College Aizawl: Mize-am

10. Rinsangpuia

CERTIFICATE

This is to certify that <u>Rinsangpuia</u> of 5th Semester B.Sc Roll No <u>1907BS160</u>. Regn No <u>1902192</u> has done the project "Automatic street light using LDR" and has completed under my supervision. He has shown a satisfactory performance in his work and his conduct and his interest in this project is satisfactory.

Date: 26th October, 2021

(Dr. RICKY LALMMANGAIHZUALA)

Place: Aizawl

Supervisor,

Department of Electronics Govt. Zirtiri Res. Sc. College

Aizawl

Countersigned by,

(Dr. RICKY LALEMANGAIHZUALA)

Head of Department

Department of Electronics

Govt. Zirtiri Res. Sc. College

Aizawl

Head Dept, of Electronics Govt. Zirliri Resi, Science College Aizawl: Mize-am

11. Vanlalmuanzuala

CERTIFICATE

C

CS

This is to certify that Vanlalmuanzuala of 5th Semester B.Sc Roll No 1907BS181, Regn No 1902214 has done the project "Solar power bank" and has completed under my supervision. He has shown a satisfactory performance in his work and his conduct and his interest in this project is satisfactory.

Date: 26th October, 2021

(Dr. RICKY LALHMANGAIHZUALA)

Place: Aizawl

Supervisor,
Department of Electronics
Govt. Zirtiri Res. Sc. College
Aizawl

Countersigned by,

(Dr. RICKY EACHMANGAIHZUALA)

Head of Department
Department of Electronics
Govt. Zirtiri Res. Sc. College

Aizawl

Head Dept, of Electronics Govt, Zirliri Resi, Science College Aizawl; Mizo am

12. Vanmalsawma

CERTIFICATE This is to certify that <u>Vanmalsawma</u> of 5th Semester B.Sc Roll No <u>1907BS186</u>, Regn. No 1902219 has done the project "Solar Inverter" and has completed under my supervision. He has shown a satisfactory performance in his work and his conduct and his interest in this project is satisfactory. (Dr. RICKY LALHMANGAIHZUALA) Date: 26th October, 2021 Supervisor, Place: Aizawl Department of Electronics Govt. Zirtiri Res. Sc. College Aizawl Countersigned by, (Dr. RICKY LALHMANGAIHZUALA)

Head of Department Department of Electronics Govt. Zirtiri Res. Sc. College

Aizawl

Head Dept, of Electronics Govt. Zirliri Resi, Science College Aizawl: Mize aun

Project Phase -II: VI semester Feb – May, 2022

Project Phase -II (Feb-May, 2022) for VI semester Electronics Core students have been carried out successfully under the supervision of Dr. Lalthanpuii Khiangte. This phase of project aimed in the enhancement of students' simulation skills using state of the art software, bridging the theoretical studies and hardware implementation in the field of electronics. Due to the constraint imposed by limited computer, students were divided in 3 groups and each group were allotted projects as detailed in the following table.

Sl. No.	Roll No.	Name of student	Project work/ field study of students	Year
1	1907BS007	Beihrohrua Zawtha		
2	1907BS117	Lalrosiama	Design and Simulation of	
3	1907BS039	Fc.Eliasa	FinFET using TCAD	
4	1907BS061	John Lalmuanpuia		
5	1907BS011	C.Hmingchungnunga		
6	1907BS016	C.Lalengzuali	Design and Simulation of	Duningt Dhaga, II
7	1907BS181	Vanlalmuanzuala	Nanowire FET using TCAD	Project Phase -II
8	1907BS186	Vanmalsawma		VI semester
9	1907BS070	K. Thantluanga		Feb – May 2022
10	1907BS122	Lalruatsaka	Design and Simulation of	
11	1907BS145	Nelson lalramchhana	Highk MOSFET using TCAD	
12	1907BS160	Rinsangpuia	ICAD	

CERTIFICATE

This is to certify that the project report entitled "Design and Simulation of FinFET using TCAD" submitted by Beihrohrua Zawtha (Roll No-1907BS007) and Lalrosiama (Roll No-1907BS117) to the Govt. Zirtiri Residential Science College is a record of bona fide project work carried under my supervision and is worthy of consideration for the award of the degree of Bachelor of Science (Electronics) of the College.

To the best of my knowledge, the work contained in this thesis have not been submitted in part or full to elsewhere for any degree or diploma.

Date: 27/04/2022

Dr. Lalthanpuii Khiangte Supervisor Assistant Professor Department of Eelctronics GZRSC, Mizoram

Hend Dept, of Electronics Govt, Zirtiri Resi, Science College Aizawl : Mize-am

(DR- KICKY LATTHMANGAHIZUALA)

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CERTIFICATE

This is to certify that the project report entitled "Design and Simulation of FinFET using TCAD" submitted by John Lalmuanpuia(Roll No-1907BS061) and Fc. Eliasa (Roll No-1907BS039) to the Govt. Zirtiri Residential Science College is a record of bona fide project work carried under my supervision and is worthy of consideration for the award of the degree of Bachelor of Science (Electronics) of the College.

To the best of my knowledge, the work contained in this thesis have not been submitted in part or full to elsewhere for any degree or diploma.

Date: 27/04/2022

Dr. Lalthanpuii Khiangte Supervisor Assistant Professor Department of Eelctronics GZRSC, Mizoram

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(DR. RICKY LOTHMANGAIHZUALA)

Head Dept, of Electronics Govt. Zirtiri Resi, Science College Aizawl: Mizc...im

5. C.Hmingchungnunga & 6. C.Lalengzuali

Head Dept, of Electronics Govt. Zirtiri Resi, Science College Aizawl: Mizc..am

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-CERTIFICATE • 222222222222222222222 This is to certify that the project report entitled "Design and Simulation of Nanowire FET using TCAD" submitted by C.Hmingchungnunga (Enrol. No. 1907BS011) and C.Lalengzuali (Enrol. No. 1907BS016) to the Govt. Zirtiri Residential Science College is a record of bona fide project work carried under my supervision and is worthy of consideration for the award of the degree of Bachelor of Science (Electronics) of the College. To the best of my knowledge, the work contained in this project have not been submitted in part or full to elsewhere for any degree or diploma. Date:27/04/2022 Dr. Lalthanpuii Khiangte Supervisor Assistant Professor Department of Eelctronics GZRSC, Mizoram (DR. RICKY LALHMANGAIHZUALA)

7. Vanlalmuanzuala & 8. Vanmalsawma

CERTIFICATE

This is to certify that the project report entitled "Design and Simulation of FinFET using TCAD" submitted by Vanmalsawma (Enrol. No. 1907BS186) and Vanlalmuanzuala (Enrol. No. 1907BS181) to the Govt. Zirtiri Residential Science College is a record of bona fide project work carried under my supervision and is worthy of consideration for the award of the degree of Bachelor of Science (Electronics) of the College.

To the best of my knowledge, the work contained in this project have not been submitted in part or full to elsewhere for any degree or diploma.

Date:27/04/2022

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Dr. Lalthanpuii Khiangte Supervisor Assistant Professor Department of Eelctronics GZRSC, Mizoram

(DR. RICKY LALMMANGAIHIZUALA)

Head Dept, of Electronics Gow. Zirtiri Resi. Science College Aizawl: Mize am

9. K. Thantluanga & 10. Lalruatsaka

CERTIFICATE

This is to certify that the project entitled "Design and simulation of high-k using TCAD" submitted by K. Thantluanga (Enrol. No. 1907BS070) and Lalruatsaka (Enrol. No. 1907BS122) to Govt. Zirtiri Residential Science College is a record of bonafide project work carried out under my supervision and is worthy of consideration for the award of the degree of Bachelor of Science (Electronics) of the College.

To the best of my knowledge, the work contained in this project report have not been submitted in part or full to elsewhere for any degree of diploma.

Dated: 27/04/2022

(DR. LALTHANPUII KHIANGTE)

Supervisor Assistant Professor Dept. of Electronics GZRSC, Mizoram

(DR. RICKY TALAMANGAIHZUALA)

Head Dept, of Electronics Govt. Zirtiri Resi, Science College Aizawl: Mize...m

11. Nelson lalramchhana & 12. Rinsangpuia

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CERTIFICATE

This is to certify that the project report entitled "Design and Simulation of FHigh-k +using TCAD" submitted by Nelson Lalramchhana (Enrol. No.1907BS145) and Rinsangpula (Enrol. No.1907BS160) to the Govt. Zirtiri Residential Science College is a record of bonafide project work carried under my supervision and is worthy of consideration for theaward of the degree of Bachelor of Science (Electronics) of the College.

To the best of my knowledge, the work contained in this thesis have not been submitted in part or full to elsewhere for any degree or diploma.

Date: 27/04/2022

......

(Dr. LaithanpuiiKhiangte)
Supervisor

Assistant Professor Department of Eelctronics GZRSC, Mizoram

(DA RICKY LATHRIANGAINZUALA)

Out / Head nowice Steps



Project Phase -I: V semester July – Nov, 2022

Project Phase-I (July-Nov, 2022) for Electronics Core students have been carried out successfully under the supervision of Dr. Lalrinmawia Punte. Each student was allotted a project which mainly aimed on learning and improving the design of electronics systems used in the modern computer era. Students enjoyed and keen interest towards their projects was witnessed.

Sl. No.	Roll No.	Name of student	Project work/ field study of students	Year
1	2007BS009	Benjamin Lalchhuanawma	SMPS (220V – 12V)	
2	2007BS102	Lallawmkima	SMPS 220V to 5V 2A DC Converter	
3	1907BS144	Malsawmdawngpuia	SMPS 220V – 12V	Project Phase -
4	2007BS153	Melody Zonuntluangi	Stereo amplifier of 12V using TDA2030	I
5	2007BS 155	Mimi Lalremruatpuii	12V LDR controlled light with auto charger circuit	V semester July – Nov
6	2007BS199	T. Lalrohlupuii	A design of stereo amplifier	2022
7	2007BS218	Vanlalnunpuia Varte	SMPS 220V to 5V 2A DC Converter	

1.Benjamin Lalchhuanawma

CERTIFICATE



This is to certify that the project report entitled, "SMPS(220V-12V)" submitted by Benjamin Lalchhuanawma, R.No.2007BS009 5th Semester, to the Govt. Zirtiri Residential Science College, Aizawl, Mizoram for the partial fulfillment of 5th Semester B.SC. Electronics is an authentic work carried out by him under my supervision and guidance. To the best of my knowledge the matter embodied in the thesis has not been submitted to any other University/Institute for the award of any degree or diploma.

Date: 9th November, 2022

(Dr. LALRINMAWIA PUNTE)

Department of Electronics

Govt. Zirtiri Residential Science College Aizawl-769007, Mizoram.

Declaration of the Candidate

Govt. Zirtiri Residential Science College November, 2022

I, Benjamin Lalchhuanawma, hereby declare that the subject matter of this project work is the record of work done by me, that the contents of this project work did not form bias of the award of any previous degree to me or to do the best of my knowledge to anybody else, and that the thesis has not been submitted by me for any research degree in any other University/Institute.

This is being submitted to the Mizoram University for the degree of Bachelor of Science in Electronics.

(BENJAMIN LALCHHUANAWMA)
Candidate

(Dr. LALRINMAWIA PUNTE)

Supervisor

(Dr. RICKY LALHMANGAIHZUALA)
Head, Department of Electronics
Govt. Zirtiri Residential Science College

Head Dept, of Electronics Govt. Zirtiri Resi, Science College Aizawl: Mize...im

ABSTRACT

This project presents the design and construction of a battery charger. A battery charger is an electrical/electronic device used to put energy into a secondary cell or rechargeable battery by forcing an electric current through it.

The purpose of this project was to design, build and test a 1A smart battery charger that accurately and efficiently charges a 12V battery. The smart battery charging system integrated an AC/DC converter, a transistors switch circuit, and a DC/DC converter to charge the battery. The concepts of experimental design and simulation were observed.

2. Lallawmawma

CERTIFICATE



This is to certify that the project report entitled, SMPS 220V AC TO 5V 2A DC CONVERTER by Lallawmkima , R.No. 2007BS102 5thSemester, Govt. Zirtiri Residential Science College, Aizawl, Mizoram for the fulfillment of 5th Semester Bachelor of Science in Electronics is an authentic work carried out by him under my supervision and guidance. To the best of my knowledge the matter embodied in the thesis has not been submitted to any other University/Institute for the award of any degree or diploma.

Date: 7th November, 2022

(Dr. LALRINMAWIA PUNTE)
Department of Electronics
Govt. Zirtiri Residential Science College
Aizawl-769008, Mizoram.

Declaration of the Candidate

Govt. Zirtiri Residential Science College November, 2022

I, Lallawmkima, hereby declare that the subject matter of this project work is the record of work done by me, that the contents of this project work did not form bias of the award of any previous degree to me or to do the best of my knowledge to anybody else, and that the thesis has not been submitted by me for any research degree in any other University/Institute.

This is being submitted to the Mizoram University for the fulfilment of 5th semester, Bachelor of Science in Electronics.

(LAWMKIMA) Candidate

(Dr. RICKY LALHMANGAIHZUALA)

Head

Department of Electronics Govt. Zirtiri Residential Science College

> Head Dept, of Electronics Govt. Zirliri Resi. Science College Aizawl: Mize-am

(Dr. LALRINMAWIA PUNTE)

Supervisor

ABSTRACT

This project presents the design and construction of a SMPS 220V AC to 5V 2A DC. A Switched-Mode Power Supply (SMPS) is an electronic circuit that converts power using switching devices that are turned on and off at high frequencies, and storage components such as inductors or capacitors to supply power when the switching device is in its non-conduction state.

Switching power supplies have high efficiency and are widely used in a variety of electronic equipment, including computers and other sensitive equipment requiring stable and efficient power supply.



This is to certify that the project report entitled, "SMPS(220V-12V)" submitted by Malsawmdawngpuia, R.No.2007BS144 5th Semester, to the Govt. Zirtiri Residential Science College, Aizawl, Mizoram for the partial fulfillment of 5th Semester B.SC. Electronics is an authentic work carried out by him under my supervision and guidance. To the best of my knowledge the matter embodied in the thesis has not been submitted to any other University/Institute for the award of any degree or diploma.

Date: 9th November, 2022

(Dr. LALRINMAWIA PUNTE)
Department of Electronics
Govt. Zirtiri Residential Science College
Aizawl-769007, Mizoram.

Declaration of the Candidate

Govt. Zirtiri Residential Science College November, 2022

I, Malsawmdawngpuia, hereby declare that the subject matter of this project work is the record of work done by me, that the contents of this project work did not form bias of the award of any previous degree to me or to do the best of my knowledge to anybody else, and that the thesis has not been submitted by me for any research degree in any other University/Institute.

This is being submitted to the Mizoram University for the degree of Bachelor of Science in Electronics.

(MALSAWMDAWNGPUIA) Candidate

(Dr. RICKY LALHMANGAIHZUALA)
Head, Department of Electronics
Govt. Zirtiri Residential Science College

Head
Dept, of Electronics
Govt. Zirtiri Resi, Science College
Aizawl; Mize, am

(Dr. LALRINMAWIA PUNTE) Supervisor

ABSTRACT

This project presents the design and construction of a battery charger. A battery charger is an electrical/electronic device used to put energy into a secondary cell or rechargeable battery by forcing an electric current through it.

The purpose of this project was to design, build and test a 1A smart battery charger that accurately and efficiently charges a 12V battery. The smart battery charging system integrated an AC/DC converter, a transistors switch circuit, and a DC/DC converter to charge the battery. The concepts of experimental design and simulation were observed.

4. Melody Zonuntluangi

CERTIFICATE



This is to certify that the project report entitled, "Stereo Amplifier" submitted by Melody Zonuntluangi, R.No2007BS153 5th Semester, to the Govt. Zirtiri Residential Science College, Aizawl, Mizoram for the partial fulfillment of the requirements for the award of the degree of Bachelor of Science in Electronics is an authentic work carried out by him under my supervision and guidance. To the best of my knowledge the matter embodied in the thesis has not been submitted to any other University/Institute for the award of any degree or diploma.

Date: 7th November, 2022

(Dr. LALRINMAWIA PUNTE)

Department of Electronics

Govt. Zirtiri Residential Science College

Declaration of the Candidate

Govt. Zirtiri Residential Science College November, 2022

I, Melody Zonuntluangi, hereby declare that the subject matter of this project work is the record of work done by me, that the contents of this project work did not form bias of the award of any previous degree to me or to do the best of my knowledge to anybody else, and that the thesis has not been submitted by me for any research degree in any other University/Institute.

This is being submitted to the Mizoram University for the degree of Bachelor of Science in Electronics.

(MELODY ZONUNTLUANGI)
Candidate

Dr. RICKY LAKHMANGAIHZUALA)
Head
Department of Electronics

Govt. Zirtiri Residential Science College

Head Dept, of Electronics Govt. Zirtiri Resi, Science College Aizawl: Mize...im (Dr. LALRINMAWIA PUNTE)

Supervisor

ABSTRACT

This project presents the design and construction of a stereo amplifier. A Stereo amplifiers are one of the most popular ways of improving the sound quality in different situations and conditions. They can be used at home or office and they can amplify the signal coming from CD and DVD players, TVs, etc.

The purpose of this project was to design ,build and test a 12V Stereo Amplifier usin

5. Mimi Lalremruatpuii

CERTIFICATE



This is to certify that the project report entitled, "12V LDR CONTROLLED LIGHT WITJ AUTO CHARGER" submitted by Mimi lalremruatpuii R.No.2007BS155 5th Semester, to the Govt. Zirtiri Residential Science College, Aizawl, Mizoram for the partial fulfillment of therequirements for the award of the degree of Bachelor of Science in Electronics is an authentic work carried out by him under my supervision and guidance. To the best of my knowledge the matter embodied in the thesis has not been submitted to any other University/Institute for the award of any degree or diploma.

Date: 7th November, 2022

(Dr. LALRINMAWIA PUNTE)

Department of Electronics Govt.Zirtir Residential Science College Aizawl-769007, Mizoram

Declaration of the Candidate

Govt. Zirtiri Residential Science College November, 2022

I ,Mimi lalremruatpuiihereby declare that the subject matter of this project work is the record of work done by me, that the contents of this project work did not form bias of the award of any previous degree to me or to do the best of my knowledge to anybody else, and that the thesis has not been submitted by me for any research degree in any other University/Institute.

This is being submitted to the Mizoram University for the degree of Bachelor of Science in Electronics.

(MIMI LALREMRUATPUII) Candidate

(Dr.RICKY LALHMANGAIHZUALA)

Head Department of Electronics Govt. Zirtiri Residential Science College

> Head Dept. of Electronics Govt. Zirtiri Resi, Science College Aizawl: Mize...am

(Dr.LALRINMAWIA PUNTE)

Supervisor

ABSTRACT

This project presents the design and construction of automatic day night on of garden street porch light. Usingldr sensing,.

The purpose of this project was to design ,build and test a 12v ldr controlled light . This simple board for use as dusk to dawn lught or emergency light 12v operation can be used with solar panels. Sensitivity of the ldr can ve adjusted via preset . Ultra compact PCB size just 9cmx4cm . Battery support -12volts . Transformer required -0-15vac 12Amps solar panel -12volts 5-20watts Standard components.



This is to certify that the project report entitled, "STEREO AMPLIFIER" submitted by T.Lalrohlupuii, R.No.2007BS1995th Semester, to the Govt. Zirtiri Residential Science College, Aizawl, Mizoram for the partial fulfillment of 5th Semester B.Sc Electronics is an authentic work carried out by him under my supervision and guidance. To the best of my knowledge the matter embodied in the thesis has not been submitted to any other University / Institute.

Date: 14th November, 2022

(Dr. LALRINMAWIA PUNTE)
Department of Electronics
Govt. Zirtiri Residential Science College
Aizawl-769007, Mizoram.

Declaration of the Candidate

Govt. Zirtiri Residential Science College November, 2022

I,T. Lalrohlupuii, hereby declare that the subject matter of this project work is the record of work done by me, that the contents of this project work did not form bias of the award of any previous degree to me or to do the best of my knowledge to anybody else, and that the thesis has not been submitted by me for any research degree in any other University/Institute.

This is being submitted to the Mizoram University for the degree of Bachelor of Science in Electronics.

Lalachlupuii (T. LALROHLUPUII) Candidate

(Dr. RICKY LALHMANGAIHZUALA)
Head

Department of Electronics Govt. Zirtiri Residential Science College

> Head Dept, of Electronics Govt. Zirliri Resi, Science College Aizawl: Mize...im

(Dr. LALRINMAWIA PUNTE) Supervisor

ABSTRACT

This project presents the design and construction of a stereo amplifier. A stereo amplifier is an electronic amplifier that amplifies low-power electronic audio signals, to a level that is high enough for driving loudspeakers or headphones.

The purpose of this project was to design, build and test a 12V audio amplifier using TDA 2030.

7. Vanlalnunpuia Varte

CERTIFICATE



This is to certify that the project report entitled, <u>SMPS 220V AC TO 5V 2A DC CONVERTER</u> by <u>Vanlalnunpuia Varte</u>, <u>R.No. 2007BS218</u> 5thSemester, Govt. Zirtiri Residential Science College, Aizawl, Mizoram for the fulfillment of 5th Semester Bachelor of Science in Electronics is an authentic work carried out by him under my supervision and guidance. To the best of my knowledge the matter embodied in the thesis has not been submitted to any other University/Institute for the award of any degree or diploma.

Date: 7th November, 2022

(Dr. LALRINMAWIA PUNTE)
Department of Electronics
Govt. Zirtiri Residential Science College

Declaration of the Candidate

Govt. Zirtiri Residential Science College November, 2022

I, Vanlalnunpuia varte, hereby declare that the subject matter of this project work is the record of work done by me, that the contents of this project work did not form bias of the award of any previous degree to me or to do the best of my knowledge to anybody else, and that the thesis has not been submitted by me for any research degree in any other University/Institute.

This is being submitted to the Mizoram University for the fulfillment of 5th semester, Bachelor of Science in Electronics.

(VANLALNUNPUIA VARTE)

Volue.

Candidate

(Dr. RICKY LAEHMANGAIHZUALA)

Head

Department of Electronics Govt. Zirtiri Residential Science College

> Head Dept, of Electronics Govt. Zirliri Resi. Science College Aizawl: Mizo...m

(Dr. LALRINMAWIA PUNTE)

Supervisor

ABSTRACT

This project presents the design and construction of a SMPS 220V AC to 5V 2A DC. A Switched-Mode Power Supply (SMPS) is an electronic circuit that converts power using switching devices that are turned on and off at high frequencies, and storage components such as inductors or capacitors to supply power when the switching device is in its non-conduction state.

Switching power supplies have high efficiency and are widely used in a variety of electronic equipment, including computers and other sensitive equipment requiring stable and efficient power supply.











Department of Geology

VIRTUAL GEOLOGICAL FIELDWORK FOR THE STUDENTS (CORE) OF GEOLOGY JULY 2021 TO JUNE 2022

Th Department of Geology t has always shown exemplary activities and during the reporting period, despite the Covid-19 pandemic situation prevailing across the country and the state, fieldwork activities are being carried out on through virtual mode. https://youtu.be/jCg0sE20ho



Roll No.	Name of Student
1907BS003	B. Lallianmawia
1907BS018 1907BS027	C.Lalneihtluanga Calvin Ramneihmuana
1907BS035	Dominic Lallawmawma
1907BS085 1907BS098	Lalhmunsanga Lalmuanzela
1907BS123	Lalruatsangi

Department of Computer Sciences Govt. Zirtiri Residential Science College

Final Semester Major Project

Batch 2019-2022

Univ. Roll No	Name of Student	Title of Project	Methodology
1907BCA001	ADONI WANII ALLIANIA	TRANSPORT	HTML,CSS,MYSQL
	ARON VANLALLIANA	RESERVATION	
1907BCA003		COURIER	Android Studio
	JOHAN LALREMRUATA	MANAGEMENT	Google Firebase
			Java
1907BCA004	LALDINSANGA	ZORAM TRANSPORT	Javascrpit, PHP, html and
	LALDINSANGA	RESERVATION	XAMPP
1907BCA005	LALNUNMAWIA FANAI	Online Hotel Booking	PHP,Java,MySQL,HTML
	JAREP		
1907BCA007	LALRAWNGBAWLA	ZORAM TRANSPORT	Javascrpit, PHP, html and
	ZADENG	RESERVATION	XAMPP
1907BCA008	LALREMRUATI	MICROSERVICES	Node Js with VScode
1907BCA009	LALRINPUIA	E-Commerce Website	HTML,CSS,JAVA
1907BCA010	LALRINTLUANGA	E-Commerce Website	HTML,CSS,JAVA
1907BCA011	R. LALRINDIKA	E-Commerce Website	wordpress
1907BCA012	SAMUEL LALRAMDINTLUANGA	COURIER	Android Studio
		MANAGEMENT	Google Firebase
			Java
1907BCA013		Khatam Mc 2	HTML,CSS,JAVA,PHP,MYSQL
	V. LALPEKHLUA	Wheeler Parts &	
		Accessories	
1907BCA014		Khatam Mc 2	HTML,CSS,JAVA,PHP,MYSQL
	VL. THANPUIA	Wheeler Parts &	
		Accessories	
1907BCA015	VANLALCHHANHIMA	E-Commerce Website	wordpress
1907BCA016		WORKSHOP	VB.net & Access
	VANLALNUNMAWIA	MANAGEMENT	
		SOFTWARE	
1907BCA017		COURIER	Android Studio
	K. LALMUANSANGA	MANAGEMENT	Google Firebase
			Java
1907BCA018	ONE GOD	TRANSPORT	HTML,CSS,MYSQL
	LALREMRUATA	RESERVATION	
1907BCA019		WORKSHOP	VB.net & Access
	R. LALNUNTHARA	MANAGEMENT	
		SOFTWARE	
1907BCA020	SHIRA LALTANPUII	MICROSERVICES	Node Js with VScode

(C.LALRINAWMA)

Head

Department of Computer Science Govt. Zirtiri Residential Science College





This is to certify that these practical records of the course "Major **Project**" with course code BCA/6/cc/33 submitted for the partial fulfillment of the requirement BCA _VI_ Semester Examination is an authentic and original work carried out under my supervision. Detail of student is given below:

University RollNo. <u>1907BCA001</u>

Project title: TRANSPORT RESERVATION

ARON VANLALLIANA (NAME OF STUDENT)

Date : ___29.4.2022_

Laldingliana Sailo

(Name of Teacher)

Faculty-in-charge





This is to certify that these practical records of the course "Major **Project**" with course code BCA/6/cc/33 submitted for the partial fulfillment of the requirement BCA VI Semester Examination is an authentic and original work carried out under my supervision. Detail of student is given below:

University RollNo. <u>1907BCA003</u>

Project title: COURIER MANAGEMENT

JOHAN LALREMRUATA (NAME OF STUDENT)

Date : ___29.4.2022_

Laldingliana Sailo

(Name of Teacher)

Faculty-in-charge



This is to certify that these practical records of the course "Major **Project**" with course code BCA/6/cc/33 submitted for the partial fulfillment of the requirement BCA VI Semester Examination is an authentic and original work carried out under my supervision. Detail of student is given below:

University RollNo. 1907BCA004

Project title: ZORAM TRANSPORT RESERVATION

LALDINSANGA (NAME OF STUDENT)

Date: 29.4.2022

Laldingliana Sailo

(Name of Teacher)

Faculty-in-charge

A. TIRTIRI RESIDENTIAL SCIENCE COLLEGE

CERTIFICATE

This is to certify that these practical records of the course "Major **Project**" with course code BCA/6/cc/33 submitted for the partial fulfillment of the requirement BCA VI Semester Examination is an authentic and original work carried out under my supervision. Detail of student is given below:

University RollNo. 1907BCA005

Project title: Online Hotel Booking

LALNUNMAWIA FANAI JAREP (NAME OF STUDENT)

Date: 29.4.2022

Laldingliana Sailo

(Name of Teacher)

Faculty-in-charge



This is to certify that these practical records of the course "Major **Project**" with course code BCA/6/cc/33 submitted for the partial fulfillment of the requirement BCA VI Semester Examination is an authentic and original work carried out under my supervision. Detail of student is given below:

University RollNo. 1907BCA007

Project title: ZORAM TRANSPORT RESERVATION

LALRAWNGBAWLA ZADENG (NAME OF STUDENT)

Date: 29.4.2022

Laldingliana Sailo

(Name of Teacher)

Faculty-in-charge

A. LIRTIRI RESIDENTIAL SCIENCE COLLEGE



CERTIFICATE

This is to certify that these practical records of the course "Major **Project**" with course code BCA/6/cc/33 submitted for the partial fulfillment of the requirement BCA VI Semester Examination is an authentic and original work carried out under my supervision. Detail of student is given below:

University RollNo. 1907BCA009

Project title: E-Commerce Website

LALRINPUIA (NAME OF STUDENT)

Date: 29.4.2022

Laldingliana Sailo

(Name of Teacher)

Faculty-in-charge

RESIDENTIAL SCIENCE COLLEGE



CERTIFICATE

This is to certify that these practical records of the course "Major **Project**" with course code BCA/6/cc/33 submitted for the partial fulfillment of the requirement BCA VI Semester Examination is an authentic and original work carried out under my supervision. Detail of student is given below:

University RollNo. 1907BCA010

Project title: E-Commerce Website

LALRINTLUANGA (NAME OF STUDENT)

Date: 29.4.2022

Laldingliana Sailo

(Name of Teacher)

Faculty-in-charge



This is to certify that these practical records of the course "Major **Project**" with course code BCA/6/cc/33 submitted for the partial fulfillment of the requirement BCA VI Semester Examination is an authentic and original work carried out under my supervision. Detail of student is given below:

University RollNo. <u>1907BCA011</u>

Project title: <u>E-Commerce Website</u>

R. LALRINDIKA (NAME OF STUDENT)

Date: 29.4.2022

Laldingliana Sailo

(Name of Teacher)

Faculty-in-charge



This is to certify that these practical records of the course "Major **Project**" with course code BCA/6/cc/33 submitted for the partial fulfillment of the requirement BCA _VI_ Semester Examination is an authentic and original work carried out under my supervision. Detail of student is given below:

University RollNo. <u>1907BCA012</u>

Project title: COURIER MANAGEMENT

SAMUEL LALRAMDINTLUANGA (NAME OF STUDENT)

Date : ___29.4.2022_

Laldingliana Sailo

(Name of Teacher)

Faculty-in-charge



A. TIRTIRI RESIDENTIAL SCIENCE COLLEGE

CERTIFICATE

This is to certify that these practical records of the course "Major **Project**" with course code BCA/6/cc/33 submitted for the partial fulfillment of the requirement BCA VI Semester Examination is an authentic and original work carried out under my supervision. Detail of student is given below:

University RollNo. 1907BCA013

Project title: 2 Wheeler Parts & Accessories

V. LALPEKHLUA (NAME OF STUDENT)

Date: 29.4.2022

Laldingliana Sailo

(Name of Teacher)

Faculty-in-charge



A. LIRTIRI RESIDENTIAL SCIENCE COLLEGE

CERTIFICATE

This is to certify that these practical records of the course "Major **Project**" with course code BCA/6/cc/33 submitted for the partial fulfillment of the requirement BCA VI Semester Examination is an authentic and original work carried out under my supervision. Detail of student is given below:

University RollNo. 1907BCA014

Project title: 2 Wheeler Parts & Accessories

VL. THANPUIA (NAME OF STUDENT)

Date: 29.4.2022

Laldingliana Sailo

(Name of Teacher)

Faculty-in-charge



This is to certify that these practical records of the course "Major **Project**" with course code BCA/6/cc/33 submitted for the partial fulfillment of the requirement BCA VI Semester Examination is an authentic and original work carried out under my supervision. Detail of student is given below:

University RollNo. <u>1907BCA015</u>

Project title: <u>E-Commerce Website</u>

VANLALCHHANHIMA (NAME OF STUDENT)

Date: 29.4.2022

Laldingliana Sailo

(Name of Teacher)

Faculty-in-charge



This is to certify that these practical records of the course "Major **Project**" with course code BCA/6/cc/33 submitted for the partial fulfillment of the requirement BCA_VI__ Semester Examination is an authentic and original work carried out under my supervision. Detail of student is given below:

University RollNo. 1907BCA016

Project title: WORKSHOP MANAGEMENT SOFTWARE

VANLALNUNMAWIA (NAME OF STUDENT)

Date : <u>29.4.2022</u>

Laldingliana Sailo

(Name of Teacher)

Faculty-in-charge



This is to certify that these practical records of the course "Major **Project**" with course code BCA/6/cc/33 submitted for the partial fulfillment of the requirement BCA VI Semester Examination is an authentic and original work carried out under my supervision. Detail of student is given below:

University RollNo. <u>1907BCA017</u>

Project title: **COURIER MANAGEMENT**

K. LALMUANSANGA (NAME OF STUDENT)

Date: 29.4.2022

Laldingliana Sailo

(Name of Teacher)

Faculty-in-charge



This is to certify that these practical records of the course "Major **Project**" with course code BCA/6/cc/33 submitted for the partial fulfillment of the requirement BCA VI Semester Examination is an authentic and original work carried out under my supervision. Detail of student is given below:

University RollNo. 1907BCA018

Project title: TRANSPORT RESERVATION

ONE GOD LALREMRUATA (NAME OF STUDENT)

Date: <u>29.4.2022</u>

Laldingliana Sailo

(Name of Teacher)

Faculty-in-charge



This is to certify that these practical records of the course "Major **Project**" with course code BCA/6/cc/33 submitted for the partial fulfillment of the requirement BCA VI Semester Examination is an authentic and original work carried out under my supervision. Detail of student is given below:

University RollNo. <u>1907BCA019</u>

Project title: WORKSHOP MANAGEMENT SOFTWARE

R. LALNUNTHARA (NAME OF STUDENT)

Date : ___29.4.2022_

Laldingliana Sailo

(Name of Teacher)

Faculty-in-charge





This is to certify that these practical records of the course "Major **Project**" with course code BCA/6/cc/33 submitted for the partial fulfillment of the requirement BCA_VI__ Semester Examination is an authentic and original work carried out under my supervision. Detail of student is given below:

University RollNo. 1907BCA020

Project title: MICROSERVICES

SHIRA LALTANPUII (NAME OF STUDENT)

Date : <u>29.4.2022</u>

Laldingliana Sailo

(Name of Teacher)

Faculty-in-charge



This is to certify that these practical records of the course "Major **Project**" with course code BCA/6/cc/33 submitted for the partial fulfillment of the requirement BCA_VI__ Semester Examination is an authentic and original work carried out under my supervision. Detail of student is given below:

University RollNo. 1907BCA001

Project title: ZORAM TRANSPORT RESERVATION

ARON VANLALLIANA (NAME OF STUDENT)

Date : <u>29.4.2022</u>

Laldingliana Sailo

(Name of Teacher)

Faculty-in-charge

1.3.3 Number of students undertaking project work/field work/ internships

		List of students undertaking project	
Drogramma nama	Drogram Codo	work/field work/internship	Link to the relevant document
Programme name Bachelor of Science	Program Code B.Sc (Zoology)	Anne Lalpekkimi	https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology)	Biakhmingliani	https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology)	C. Lalremruati	https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology)	C. Vanhmingliani	https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology)	David Lalramzauva	https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology)	Emmanuel Lalhriatpuia	https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology)	Esther Lalchhanchhuahi	https://youtu.be/UrHl0Ki6z00
Bachelor of Science		Esther Zorinpuii	https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology) B.Sc (Zoology)	F. Sangthanzuala	https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology)	Grace VI Ruatfeli Hnamte	https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology)	H. Lalnunfeli	https://youtu.be/UrHl0Ki6z00
Bachelor of Science		H. Zodinpuii	https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology) B.Sc (Zoology)		https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology)	Hmingthanzuala Joshua Lalrinhlua Sailo	https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology)	K Beihmosa	https://youtu.be/UrHl0Ki6z00
Bachelor of Science			https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology)	K. Beipasasa K. Lalruatfela	https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology)	K. Malsawmtluanga	https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology) B.Sc (Zoology)	K. Vanlallawmawmi	https://youtu.be/UrHl0Ki6z00
Bachelor of Science		L. Lalhmangaihzauvi	https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology) B.Sc (Zoology)	Lalbiakdiki	https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology)	Lalchhuangmawii	https://youtu.be/UrHl0Ki6z00
Bachelor of Science		Lainunfela	https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology)	Lalramchhuana	https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology) B.Sc (Zoology)		https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology)	Lalremruatpuii Lalrinawmi Pachuau	https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology)		https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology)	Lalrinnungi Laltanpuia	https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology)	Lalzarzova	https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology)		https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology)	Malsawmdawngzela	https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology)	Melody Lalhmangaihkimi Moses Laltlansanga	https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology)	Pc Vanlalchhanhima	https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology)	Pc Vanthangpuii	https://youtu.be/UrHl0Ki6z00
Bachelor of Science			https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology) B.Sc (Zoology)	R. Lalhmangaihzuali Rebek V.L. Thapuii	
Bachelor of Science		T. Lalzarzovi	https://youtu.be/UrHl0Ki6z00 https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology) B.Sc (Zoology)		https://youtu.be/UrHl0Ki6z00
Bachelor of Science		T. Zorinpuia	https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology)	Th. Chanulembi Devi Wilson Byhnarona	https://youtu.be/UrHl0Ki6z00
Bachelor of Science	B.Sc (Zoology) B.Sc (Zoology)	<u>'</u>	https://youtu.be/UrHl0Ki6z00
		Zonunsangi	
Bachelor of Science	B.Sc (Botany)	Angel Lalvohbiki	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	Benjamin Lalnunpuia	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	Benjamin Ngurthansanga	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	C.Lalchhanhimi	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	C. Lalengzauva	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	C. Ngongia	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	Cecilia Chingmuanhawih	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	H.Lalawmpuia	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	H. Lalnunhlui	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	H.Lalruatsanga	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	Henry L Hmar	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	Irish Lalenkawli	https://youtu.be/ILUQUbbaDSg

Dark dan ef Calana	D.C. (Datasa)	T1- M-1	haran // and a har/little library
Bachelor of Science	B.Sc (Botany)	Isak Malsawmtluanga	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	Jerome Lalfakhlena Lalbiakmawii	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	1	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	Lalbiaksiama	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	Lalchawimawii	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	Lalfakzuala	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	Lallawmawmi	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	Lalnuntluanga	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	Lalnuntluangi	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	Lalparvuli	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	Lalrinchama	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	Lalrotlinga	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	LalruatdikaSailo	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	Laltlanmawii	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	Laltlansangi Sailo	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	Lily Chanchinmawii	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	M. Thuthlungropuii	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	Madhu Maya	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	PC. Vanlalhruaia	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	R. Lalramhnaii	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	Ruthi F Lalnuntluangi	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	S. Agape Lalvenhimi	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	V. Lalrinmawia	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	Vanlalawmpuii	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	Vanlalhruaitluangi	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	VanlalnghakaHnamte	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Botany)	William Ngursangzuala	https://youtu.be/ILUQUbbaDSg
Bachelor of Science	B.Sc (Biochemistry)	B. Lalhriatpuia	Hands on training
Bachelor of Science	B.Sc (Biochemistry)	C. Laldawngmuana	Hands on training
Bachelor of Science	B.Sc (Biochemistry)	C. Lalduhawmi	Hands on training
Bachelor of Science	B.Sc (Biochemistry)	C. Lalremruata	Hands on training
Bachelor of Science	B.Sc (Biochemistry)	C. Nelson Beiraduakhei	Hands on training
Bachelor of Science	B.Sc (Biochemistry)	Christopher Lianzova	Hands on training
Bachelor of Science	B.Sc (Biochemistry)	Esther Lalthakimi	Hands on training
Bachelor of Science	B.Sc (Biochemistry)	H. SingiaAzyu	Hands on training
Bachelor of Science	B.Sc (Biochemistry)	H. Zodintluanga	Hands on training
Bachelor of Science	B.Sc (Biochemistry)	HC. Lalramdinmawii	Hands on training
Bachelor of Science	B.Sc (Biochemistry)	HD. Lalfamkima	Hands on training
Bachelor of Science	B.Sc (Biochemistry)	K. Sunita Singh	Hands on training
Bachelor of Science	B.Sc (Biochemistry)	LaithangpuiiChenkual	Hands on training
Bachelor of Science	B.Sc (Biochemistry)	Lalfakmawii	Hands on training
Bachelor of Science	B.Sc (Biochemistry)	Lalrempuii Chhakchhuak	Hands on training
Bachelor of Science	B.Sc (Biochemistry)	Lalzarzoi	Hands on training
Bachelor of Science	B.Sc (Biochemistry)	Lucy Lallawmawmi	Hands on training
Bachelor of Science	B.Sc (Biochemistry)	Ng JoynethMarapawti	Hands on training
	† · · · · · · · · · · · · · · · · · · ·	R. Lalhmingthianghlima	
Bachelor of Science Bachelor of Science	B.Sc (Biochemistry)	Romalsawma	Hands on training
Bachelor of Science	B.Sc (Biochemistry)	S.JulieLalruathlupuii	Hands on training
	B.Sc (Biochemistry)	•	Hands on training
Bachelor of Science	B.Sc (Biochemistry)	T. Lalawmpuii	Hands on training
Bachelor of Science	B.Sc (Biochemistry)	V. Lalchansanga	Hands on training
Bachelor of Science	B.Sc (Biochemistry)	Vanlalawmpuia	Hands on training
Bachelor of Science	B.Sc (Biochemistry)	Vanlalmawii	Hands on training
Bachelor of Science	B.Sc (Biochemistry)	Vanlalpeka	Hands on training
Bachelor of Science	B.Sc (Biochemistry)	Zothanmawia	Hands on training

Darkalan af Cairna	D.C. (Electronica)	Daile and have Zavotha	Duration to consider
Bachelor of Science	B.Sc (Electronics)	Beihrohrua Zawtha	Project work
Bachelor of Science	B.Sc (Electronics)	C. Hmingchungnunga	Project work
Bachelor of Science	B.Sc (Electronics)	C. Lalengzuali	Project work
Bachelor of Science	B.Sc (Electronics)	Fc. Eliasa	Project work
Bachelor of Science	B.Sc (Electronics)	John Lalmuanpuia	Project work
Bachelor of Science	B.Sc (Electronics)	K. Thantluanga	Project work
Bachelor of Science	B.Sc (Electronics)	Lalrosiama	Project work
Bachelor of Science	B.Sc (Electronics)	Lalruatsaka	Project work
Bachelor of Science	B.Sc (Electronics)	Nelson Lalramchhana	Project work
Bachelor of Science	B.Sc (Electronics)	Rinsangpuia	Project work
Bachelor of Science	B.Sc (Electronics)	Vanlalmuanzuala	Project work
Bachelor of Science	B.Sc (Electronics)	Vanmalsawma	Project work
Bachelor of Science	B.Sc (Electronics)	Benjamin	Project work
Bachelor of Science	B.Sc (Electronics)	Lalchhuanawma	Project work
Bachelor of Science	B.Sc (Electronics)	Lallawmkima	Project work
Bachelor of Science	B.Sc (Electronics)	Malsawmdawngpuia	Project work
Bachelor of Science	B.Sc (Electronics)	Melody Zonuntluangi	Project work
Bachelor of Science	B.Sc (Electronics)	Mimi Lalremruatpuii	Project work
Bachelor of Science	B.Sc (Electronics)	T. Lalrohlupuii	Project work
Bachelor of Science	B.Sc (Electronics)	Vanlalnunpuia Varte	Project work
Bachelor of Science	B.Sc (Geology)	B. Lallianmawia	https://youtu.be/_jCg0sE20ho
Bachelor of Science	B.Sc (Geology)	C.Lalneihtluanga	https://youtu.be/ jCg0sE20ho
Bachelor of Science	B.Sc (Geology)	Calvin Ramneihmuana	https://youtu.be/_jCg0sE20ho
Bachelor of Science	B.Sc (Geology)	Dominic Lallawmawma	https://youtu.be/ jCg0sE20ho
Bachelor of Science	B.Sc (Geology)	Lalhmunsanga	https://youtu.be/ jCg0sE20ho
Bachelor of Science	B.Sc (Geology)	Lalmuanzela	https://youtu.be/_jCg0sE20ho
Bachelor of Science	B.Sc (Geology)	Lalruatsangi	https://youtu.be/_jCg0sE20ho
Bachelor of Computer Science	BCA	Aron Vanlalliana	Project work
Bachelor of Computer Science	BCA	Johan Lalremruata	Project work
Bachelor of Computer Science	BCA	Laldinsanga	Project work
Bachelor of Computer Science	BCA	Lalnunmawia Fanai Jarep	Project work
Bachelor of Computer Science	BCA	Lalrawngbawla Zadeng	Project work
Bachelor of Computer Science	BCA	Lalremruati	Project work
Bachelor of Computer Science	ВСА	Lalrinpuia	Project work
Bachelor of Computer Science	BCA	Lalrintluanga	Project work
Bachelor of Computer Science	BCA	R. Lalrindika	Project work
Bachelor of Computer Science	BCA	Samuel Lalramdintluanga	Project work
Bachelor of Computer Science	BCA	V. Lalpekhlua	Project work
Bachelor of Computer Science	BCA	V.L Thanpuia	Project work
Bachelor of Computer Science	BCA	Vanlalchhanhima	Project work
Bachelor of Computer Science	BCA	Vanlalnunmawia	Project work
Bachelor of Computer Science	BCA	K. Lalmuansanga	Project work
Bachelor of Computer Science	BCA	One God Lalremruata	Project work
Bachelor of Computer Science	BCA	R. Lalnunthara	Project work
Bachelor of Computer Science	BCA	Shira Lalthanpuii	Project work