

SCHOOL OF ENGINEERING & TECHNOLOGY

CRITERIA 1

SUBCRITERIA 1.3.3

Percentage of students undertaking field projects/research projects/internships

Academic Year 2020-2021


Dr. Omveer Singh
REGISTRAR
ITM University
Gwalior (M.P.)

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
 ENGINEERING (ECE), SCHOOL OF ENGINEERING AND
 TECHNOLOGY**

Total Number of Research Projects in UG and PG

Research Projects	Program	Total Number of students Involved in research projects
	B.TECH(ECE)	06

The students undertake major projects for increasing their practical knowledge and experience. Students are encouraged to do their research in the university and community to encourage the research insight in them

Total Number of Internships in UG

Internships	Program	Total Number of students Involved in internship
	B.TECH(ECE)	22

In the Electronics & Communication Engineering disciplines, there is mandatory Internship. In the curriculum design it has been incorporated into the program and completes it as a mandatory part of final year training.

Total Number of Field Project/Industry visits in UG and PG

Field Project/Industry visits	Program	Total Number of students Involved in industrial visit
	B.TECH(ECE)	nil

Field visits / Industry Visits Field/ Industrial visits during the course of any program gives students an insight on the internal working environment of the company. Electronics & Communication engineering, students undertake field visits to industry to enhance knowledge and enrich skills.


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S.No	Component	Link
1.	Scheme with highlighted Major Project/Industrial training with syllabus	View
2.	Research Projects of UG	View
3.	Internships in UG	View


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STUDY AND EVALUATION SCHEME (2020-2021)

SUBJECT-WISE DISTRIBUTION OF MARKS AND CORRESPONDING CREDITS

Program:BTech(Electronics_and_Communication)

Semester:1st

S.No.	Course Code	Course Name	Maximum Marks Allotted							Credits Allotted			Total Credits
			Theory			Practical			Total Marks	L	T	P	
			End Sem. Exam	Mid Sem. Exam	Class Participation	End Sem. Exam	Prograssive Evaluation	Internal Viva					
1	ECL0101[T]	Basic Electronics	40	30	30	0	0	0	100	2	1	0	3
2	ECL0102[T]	Principles of Sensors & IoT	40	30	30	0	0	0	100	2	1	0	3
3	HUL0101[T]	Communication Skills & Colloquim	40	30	30	0	0	0	100	3	0	0	3
4	MAL0101[T]	Calculus For Engineers	40	30	30	0	0	0	100	2	1	0	3
5	MEL0101[T]	Engineering Mechanics	40	30	30	0	0	0	100	2	1	0	3
6	ECL0101[P]	Basic Electronics	0	0	0	40	30	30	100	0	0	1	1
7	ECL0102[P]	Principles of Sensors & IoT	0	0	0	40	30	30	100	0	0	1	1
8	ECP0101[P]	Electronics Workshop Practice	0	0	0	40	30	30	100	0	0	2	2
9	HUL0101[P]	Communication Skills & Colloquim	0	0	0	40	30	30	100	0	0	1	1
10	MAL0101[P]	Calculus For Engineers	0	0	0	40	30	30	100	0	0	1	1
11	MEL0101[P]	Engineering Mechanics	0	0	0	40	30	30	100	0	0	1	1
Total Credits												22	

*Newly Added Courses

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Programme:BTech(Electronics_and_Communication)

Semester:2nd

S.No.	Course Code	Course Name	Maximum Marks Allotted							Credits Allotted			Total Credits
			Theory			Practical			Total Marks	L	T	P	
			End Sem. Exam	Mid Sem. Exam	Class Participation	End Sem. Exam	Prograssive Evaluation	Internal Viva					
1	CSL0201[T]	Essentials of Information Technology	40	30	30	0	0	0	100	2	0	0	2
2	ECL0261[T]	Fundamentals of Arduino Programming	40	30	30	0	0	0	100	2	1	0	3
3	EEL0201[T]	Principles of Electrical Engineering	40	30	30	0	0	0	100	2	1	0	3
4	MAL0203[T]	Statistics for Engineers	40	30	30	0	0	0	100	2	1	0	3
5	MCL0201[T]	Environmental Pollution & Global Issues	40	30	30	0	0	0	100	3	1	0	4
6	MEL0202[T]	Engineering Graphics	40	30	30	0	0	0	100	2	1	0	3
7	CSL0201[P]	Essentials of Information Technology	0	0	0	40	30	30	100	0	0	1	1
8	CSP0201[P]	Programming Logics	0	0	0	40	30	30	100	0	0	2	2
9	ECL0261[P]	Fundamentals of Arduino Programming	0	0	0	40	30	30	100	0	0	1	1
10	EEL0201[P]	Principles of Electrical Engineering	0	0	0	40	30	30	100	0	0	1	1
11	MAL0203[P]	Statistics for Engineers	0	0	0	40	30	30	100	0	0	1	1
12	MEL0202[P]	Engineering Graphics	0	0	0	40	30	30	100	0	0	1	1
Total Credits												25	

*Newly Added Courses

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Programme:BTech(Electronics_and_Communication)

Semester:3rd

S.No.	Course Code	Course Name	Maximum Marks Allotted							Credits Allotted			Total Credits
			Theory			Practical			Total Marks	L	T	P	
			End Sem. Exam	Mid Sem. Exam	Class Participation	End Sem. Exam	Prograssive Evaluation	Internal Viva					
1	ECL0303[T]	Semiconductor Devices	40	30	30	0	0	0	100	3	1	0	4
2	ECL0304[T]	Architecturing of Smart IoT Devices	40	30	30	0	0	0	100	3	0	0	3
3	ECL0306[T]	Digital Electronics	40	30	30	0	0	0	100	2	1	0	3
4	ECL0307[T]	Network Analysis & Synthesis	40	30	30	0	0	0	100	3	1	0	4
5	MAL0306[T]	Engineering Mathematics	40	30	30	0	0	0	100	3	1	0	4
6	CSP0303[P]	Object Oriented Programming with Java	0	0	0	40	30	30	100	0	0	2	2
7	ECD0301[P]	Evaluation of Industrial Training-I	0	0	0	40	30	30	100	0	0	2	2
8	ECL0303[P]	Semiconductor Devices	0	0	0	40	30	30	100	0	0	1	1
9	ECL0304[P]	Architecturing of Smart IoT Devices	0	0	0	40	30	30	100	0	0	1	1
10	ECL0306[P]	Digital Electronics	0	0	0	40	30	30	100	0	0	1	1
11	ECL0307[P]	Network Analysis & Synthesis	0	0	0	40	30	30	100	0	0	1	1
												Total Credits	26

*Newly Added Courses

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Programme:BTech(Electronics_and_Communication)

Semester:4th

S.No.	Course Code	Course Name	Maximum Marks Allotted							Credits Allotted			Total Credits
			Theory			Practical			Total Marks	L	T	P	
			End Sem. Exam	Mid Sem. Exam	Class Participation	End Sem. Exam	Prograssive Evaluation	Internal Viva					
1	CSL0457[T]	Data Structure and Application	40	30	30	0	0	0	100	2	1	0	3
2	ECL0408[T]	Electronics Circuits & Linear ICs Applications	40	30	30	0	0	0	100	3	1	0	4
3	ECL0409[T]	Digital System Design	40	30	30	0	0	0	100	3	1	0	4
4	ECL0411[T]	Analog Communication	40	30	30	0	0	0	100	3	1	0	4
5	ECL0460[T]	Wireless Sensor Networks & IoT	40	30	30	0	0	0	100	2	1	0	3
6	CSL0457[P]	Data Structure and Application	0	0	0	40	30	30	100	0	0	1	1
7	CSP0405[P]	Computer Programming Lab (PYTHON)	0	0	0	40	30	30	100	0	0	2	2
8	ECL0408[P]	Electronics Circuits & Linear ICs Applications	0	0	0	40	30	30	100	0	0	1	1
9	ECL0409[P]	Digital System Design	0	0	0	40	30	30	100	0	0	1	1
10	ECL0411[P]	Analog Communication	0	0	0	40	30	30	100	0	0	1	1
11	ECL0460[P]	Wireless Sensor Networks & IoT	0	0	0	40	30	30	100	0	0	1	1
Total Credits												25	

*Newly Added Courses

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Programme:BTech(Electronics_and_Communication)

Semester:5th

S.No.	Course Code	Course Name	Maximum Marks Allotted							Credits Allotted			Total Credits
			Theory			Practical			Total Marks	L	T	P	
			End Sem. Exam	Mid Sem. Exam	Class Participation	End Sem. Exam	Progressive Evaluation	Internal Viva					
1	ECL0512[T]	Electromagnetic Theory	40	30	30	0	0	0	100	3	1	0	4
2	ECL0513[T]	Digital Communication	40	30	30	0	0	0	100	3	1	0	4
3	ECL0514[T]	Control System	40	30	30	0	0	0	100	3	1	0	4
4	ECL0515[T]	Advanced Microprocessors and Interfacing	40	30	30	0	0	0	100	3	1	0	4
5	ECL0519[T]	Digital Signal Processing	40	30	30	0	0	0	100	3	1	0	4
6	ECD0502[P]	Evaluation of Industrial Training-II	0	0	0	40	30	30	100	0	0	2	2
7	ECL0513[P]	Digital Communication	0	0	0	40	30	30	100	0	0	1	1
8	ECL0515[P]	Advanced Microprocessors and Interfacing	0	0	0	40	30	30	100	0	0	1	1
9	ECP0502[P]	Software Lab-I	0	0	0	40	30	30	100	0	0	2	2
Total Credits												26	

*Newly Added Courses

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Programme:BTech(Electronics_and_Communication)

Semester:6th

S.No.	Course Code	Course Name	Maximum Marks Allotted							Credits Allotted			Total Credits
			Theory			Practical			Total Marks	L	T	P	
			End Sem. Exam	Mid Sem. Exam	Class Participation	End Sem. Exam	Prograssive Evaluation	Internal Viva					
1	ECL0617[T]	Antenna & Wave Propagation	40	30	30	0	0	0	100	3	1	0	4
2	ECL0618[T]	Micro controller & Embedded System	40	30	30	0	0	0	100	3	1	0	4
3	ECL0621[T]	Cellular & Mobile Communication	40	30	30	0	0	0	100	3	1	0	4
4	ECL0662[T]	Machine Learning	40	30	30	0	0	0	100	2	1	0	3
5	ECD0603[P]	Mini Project	0	0	0	40	30	30	100	0	0	2	2
6	ECL0617[P]	Antenna & Wave Propagation	0	0	0	40	30	30	100	0	0	1	1
7	ECL0618[P]	Micro controller & Embedded System	0	0	0	40	30	30	100	0	0	1	1
8	ECL0662[P]	Machine Learning	0	0	0	40	30	30	100	0	0	1	1
9	ECP0603[P]	Software Lab-II	0	0	0	40	30	30	100	0	0	2	2
10		Elective I.	40	30	30	0	0	0	100	3	1	0	4
												Total Credits	26

*Newly Added Courses

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Programme:BTech(Electronics_and_Communication)

Semester:7th

S.No.	Course Code	Course Name	Maximum Marks Allotted							Credits Allotted			Total Credits
			Theory			Practical			Total Marks	L	T	P	
			End Sem. Exam	Mid Sem. Exam	Class Participation	End Sem. Exam	Prograssive Evaluation	Internal Viva					
1	ECL0723[T]	Microwave Engineering	40	30	30	0	0	0	100	3	1	0	4
2	ECL0733[T]	VLSI Technology	40	30	30	0	0	0	100	3	1	0	4
3	ECD0704[P]	Major Project-I	0	0	0	40	30	30	100	0	0	2	2
4	ECL0723[P]	Microwave Engineering	0	0	0	40	30	30	100	0	0	1	1
5	ECP0704[P]	Evaluation of Industrial Training-III	0	0	0	40	30	30	100	0	0	2	2
6		Elective4.	40	30	30	0	0	0	100	3	1	0	4
7		Elective3.	40	30	30	0	0	0	100	3	1	0	4
8		Elective2.	40	30	30	0	0	0	100	3	0	0	3
												Total Credits	24

*Newly Added Courses

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STUDY AND EVALUATION SCHEME (2020-2021)
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Programme:BTech(Electronics_and_Communication)

Semester:8th

S.No.	Course Code	Course Name	Maximum Marks Allotted							Credits Allotted			Total Credits
			Theory			Practical			Total Marks	L	T	P	
			End Sem. Exam	Mid Sem. Exam	Class Participation	End Sem. Exam	Prograssive Evaluation	Internal Viva					
1	ECL0825[T]	Optical Fiber Communication	40	30	30	0	0	0	100	2	1	0	3
2	ECL0826[T]	VLSI Design	40	30	30	0	0	0	100	2	1	0	3
3	ECD0805[P]	Major Project-II	0	0	0	40	30	30	100	0	0	8	8
4	ECL0825[P]	Optical Fiber Communication	0	0	0	40	30	30	100	0	0	1	1
5	ECL0826[P]	VLSI Design	0	0	0	40	30	30	100	0	0	1	1
6		Elective6.	40	30	30	0	0	0	100	3	1	0	4
7		Elective5.	40	30	30	0	0	0	100	3	1	0	4
											Total Credits		24

*Newly Added Courses

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List of Elective Subjects

Course Code	Course Name	Subject Type	Semester
30665[T]	Micro Electro Mechanical System (MEMS)	Elective1	6th
30620[T]	Data Communication	Elective1.	6th
30701B [T]	Web Technologies	Elective2	7th
30701C[T]	Intellectual Property Rights	Elective2	7th
30701A[T]	Electric Vehicle Technology	Elective2.	7th
30763 [T]	IoT Data Analytics	Elective3	7th
30752[T]	Wireless Ad hoc Networks	Elective3.	7th
30736 [T]	Nanoelectronics	Elective4	7th
30764[T]	Cloud Computing	Elective4.	7th
30829[T]	Industrial Electronics	Elective5	8th
30843[T]	Wireless Networks	Elective5.	8th
30840 [T]	Soft Computing	Elective6	8th
30839[T]	Digital Image & Video Processing	Elective6.	8th


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Syllabus-2020-2021

(SOET)(BTech-Electronics_and_Communication)

Title of the Course	Evaluation of Industrial Training-II
Course Code	ECD0502[P]

Part A

Year	3rd	Semester	5th	Credits	L	T	P	C
					0	0	2	2
Course Type	Lab only							
Course Category	Internships							
Pre-Requisite/s	Basic theoretical knowledge of electronics and communication.			Co-Requisite/s				
Course Outcomes & Bloom's Level	<p>CO1- Apply theoretical knowledge from coursework to solve real-world industry problems. (e.g., utilize marketing principles to develop a campaign for a local business) (BL1-Remember)</p> <p>CO2- Demonstrate proficiency in industry-standard tools and technologies relevant to the internship field. (e.g., use design software to create graphics for a company website) (BL2-Understand)</p> <p>CO3- Analyze and interpret data collected during the internship experience. (e.g., analyze customer feedback to improve product design)(BL3-Apply)</p> <p>CO4- Enhance critical thinking skills by analyzing and evaluating the outcomes of assigned projects or tasks.(BL4-Analyze)</p> <p>CO5- Compile a comprehensive report documenting the learning experiences, challenges, and achievements during the internship period.(BL5-Evaluate)</p>							
Course Elements	Skill Development ✓ Entrepreneurship ✗ Employability ✓ Professional Ethics ✗ Gender ✗ Human Values ✗ Environment ✗		SDG (Goals)					

Part B

Modules	Contents	Pedagogy	Hours
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Part C

Modules	Title	Indicative-ABCA/PBL/ Experiments/Field work/ Internships	Bloom's Level	Hours
1	Learning of how to do team work, collaboration with others and learning of insight regarding the internal working atmosphere of companies.	Internships	BL2-Understand	15
2	Learning of how to use the theoretical knowledge for solving the industry problem.	Internships	BL3-Apply	15
3	Development of communication skill, managerial skill and exposure to current work practices as opposed to possibly theoretical knowledge being taught at college.	Internships	BL4-Analyze	15
4	Adapting to evolving business cultures, new methods and technologies, services, technical interface.	Internships	BL4-Analyze	15
5	Learning of how to make industrial training reports and presentation of the reports and training.	Internships	BL5-Evaluate	20

Part D(Marks Distribution)

Theory					
Total Marks	Minimum Passing Marks	External Evaluation	Min. External Evaluation	Internal Evaluation	Min. Internal Evaluation
Practical					
Total Marks	Minimum Passing Marks	External Evaluation	Min. External Evaluation	Internal Evaluation	Min. Internal Evaluation
100	50	40	20	60	

Part E

Books	
Articles	
References Books	
MOOC Courses	
Videos	


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Course Articulation Matrix

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	-	-	-	-	-	-	-	-	2	-	-	-	-	2
CO2	1	2	1	2	-	-	-	-	-	2	-	-	-	-	3
CO3	1	2	2	2	-	-	-	-	-	-	-	-	-	-	3
CO4	1	2	2	3	-	-	-	-	-	-	-	-	-	-	2
CO5	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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Syllabus-2020-2021

(SOET)(BTech-Electronics_and_Communication)

Title of the Course	Major Project-II
Course Code	ECD0805[P]

Part A

Year	4th	Semester	8th	Credits	L	T	P	C
					0	0	8	8
Course Type	Lab only							
Course Category	Projects and Internship							
Pre-Requisite/s				Co-Requisite/s				
Course Outcomes & Bloom's Level	CO1- To increase writing skills and knowledge(BL2-Understand) CO2- To enhance their mental ability(BL3-Apply) CO3- To inculcate the ability to express innovative opinion and thought(BL4-Analyze) CO4- To have Dissertation works as skills development in student (BL5-Evaluate)							
Course Elements	Skill Development ✓ Entrepreneurship ✓ Employability ✓ Professional Ethics ✗ Gender ✗ Human Values ✗ Environment ✗		SDG (Goals)					

Part B

Modules	Contents	Pedagogy	Hours
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Part C

Modules	Title	Indicative-ABCA/PBL/ Experiments/Field work/ Internships	Bloom's Level	Hours
Module-1	Identification of a problem and formulation of a topic of project/Thesis	PBL	BL6-Create	15
Module-2	To have field work and data collection through a chosen methodology	PBL	BL6-Create	15
Module-3	Dissertation and VIVA-VOCI	PBL	BL6-Create	15


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Part D(Marks Distribution)

Theory					
Total Marks	Minimum Passing Marks	External Evaluation	Min. External Evaluation	Internal Evaluation	Min. Internal Evaluation
Practical					
Total Marks	Minimum Passing Marks	External Evaluation	Min. External Evaluation	Internal Evaluation	Min. Internal Evaluation
100	50	40	20	60	

Part E

Books	1)Electronics for you https://www.electronicsforu.com/category/electronics-projects/hardware-diy
Articles	https://www.ietlucknow.ac.in/sites/default/files/mag/Projects%20of%20Electronics%20and%20communication%20deptt._1.pdf
References Books	1)Electronics for you https://www.electronicsforu.com/category/electronics-projects/hardware-diy
MOOC Courses	https://www.coursera.org/learn/major-engineering-project-performance
Videos	https://nptel.ac.in/courses/110104073

Course Articulation Matrix

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	3	-	1	-	-	1	2	3	-	-	-	3	1	-
CO2	-	3	2	3	-	3	1	-	3	3	-	2	-	2	2
CO3	-	-	3	3	3	-	-	3	3	3	1	2	-	3	2
CO4	-	-	-	-	-	-	3	3	3	3	2	3	-	3	3
CO5	-	-	-	-	-	-	-	-	3	3	-	3	-	-	3
CO6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-


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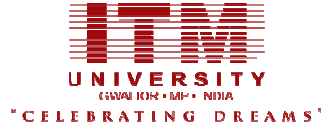
Department of Electronic & Communication Engineering
School of Engineering & Technology SoET ITM University Gwalior.
Major Project Session 2020-21

S.no	Branch/Specialization	Student Name	Roll Number	Project Name	Duration	Guide Name
1	B.Tech. ECE	Kshitij Goyal	BET11EC17001	IoT Based advanced border security for defence	6 Month	Mr. Mayank Sharma
2	B.Tech. ECE	Satish Kumar Singh	BETN1EC17005	Modern food step power generation	6 Month	Prof. Ranjeet Singh Tomar
3	B.Tech. ECE	Sarthak Kulshrestha	BETN1EC17004	Home automation and security control by using IoT	6 Month	Prof. Ranjeet Singh Tomar
		Manthan Saxena	BETN1EC17002			
		Yash Mangal	BETN1EC17006			
4	B.Tech. ECE	Ornab Devnath	BETN1EC17007	Self driving RC Car	6 Month	Mr. Mayank Sharma
5	B.Tech. ECE	Nupurr Roy	BETN1EC17003	Design and Implementation of women auspice system by utilizing gps and gsm	6 Month	Mr. Mayank Sharma
6	B.Tech. ECE	Emmanuel Chimombe	BETN1EC17001	Design and simulation of micro strip patch antenna using cst microwave studio software	6 Month	Mr. Shailendra Ojha


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HOD-ECE


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IOT BASED ADVANCED BORDER SECURITY FOR DEFENCE

MAJOR PROJECT REPORT *SUBMITTED BY: KSHITIJ GOEL (BETI1EC17001) In partial fulfillment for the award of the degree*

Of BACHELOR OF TECHNOLOGY IN ELECTRONICS AND COMMUNICATION ENGINEERING at

ITM UNIVERSITY GWALIOR (MADHYA PRADESH) MAY 2021 SUBMITTED TO:

Mr. MAYANK


Head of Department
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ITM University
Gwalior (M.P.)

Of BACHELOR OF TECHNOLOGY IN ELECTRONICS AND COMMUNICATION ENGINEERING at

ITM UNIVERSITY GWALIOR (MADHYA PRADESH) MAY 2021 SUBMITTED TO:

Mr. MAYANK SHARMA (ASSISTANT PROFESSOR)


Dr. Omveer Singh
REGISTRAR
ITM University
Gwalior (M.P.)



A

Major Project Report

On

“MODERN FOOTSTEP POWER GENERATION”

Submitted in partial fulfillment for the award of the degree of

BACHELOR OF TECHNOLOGY IN

ELECTRONICS AND COMMUNICATION ENGINEERING

by:

MR. SATISH KUMAR SINGH

(BETN1EC17005)

Under the guidance of

Dr. Ranjeet Singh Tomar

(Professor & Head of the department)

Department of Electronics and Communication Engineering

School of Engineering and Technology

ITM UNIVERSITY, GWALIOR - 474026 MP, INDIA

Head of Department
Electronics & Communication Engg.
ITM University
Gwalior (M.P.)

Dr. Omveer Singh
REGISTRAR
ITM University
Gwalior (M.P.)



A

Major Project Report

On

“Home Automation and Security control by using IoT”

Submitted in partial fulfillment for the award of the degree of

BACHELOR OF TECHNOLOGY

IN

ELECTRONICS AND COMMUNICATION

By-

Sarthak Kulshrestha (BETN1EC17004)

Manthan saxena (BETN1EC17002)

Yash mangal(BETN1EC17006)

Under the guidance of

Dr. Ranjeet Singh Tomar

(Head of Department)



Head of Department
Electronics & Communication Engg.
ITM University
Gwalior (M.P.)

Department of Electronics and Communication Engineering

School of Engineering and Technology

ITM University Gwalior



Dr. Omveer Singh
REGISTRAR
ITM University
Gwalior (M.P.)



SELF DRIVING RC CAR

A MINOR PROJECT REPORT

*Submitted in partial fulfilment of the requirements for the award
Of*

BACHELOR OF TECHNOLOGY
IN
ELECTRONICS AND COMMUNICATION ENGINEERING

JUNE 2021

Submitted by.
Ornab Debnath (BETN1EC17007)


Head of Department
Electronics & Communication Engg.
ITM University
Gwalior (M.P.)

*Under the Guidance
Of*
Mr MAYANK SHARMA
(Assistant Professor)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
ITM UNIVERSITY, GWALIOR, MADHYA PRADESH, INDIA
474001


Dr. Omveer Singh
REGISTRAR
ITM University
Gwalior (M.P.)

A MAJOR PROJECT REPORT ON
DESIGN AND SIMULATION OF MICROSTRIP PATCH ANTENNA
USING CST MICROWAVE STUDIO SOFTWARE

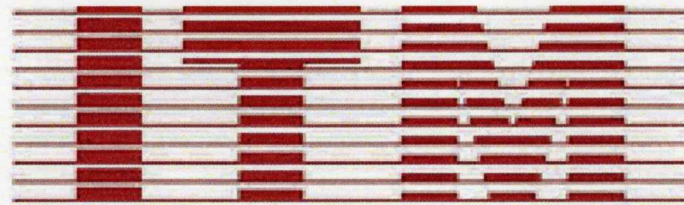
Submitted in partial fulfilment for the award of degree for

BACHELOR OF TECHNOLOGY

IN

ELECTRONICS AND COMMUNICATIONS ENGINEERING

2017-2022



UNIVERSITY
Gwalior • MP • INDIA

“ CELEBRATING DREAMS ”

Submitted by

EMMANUEL CHIMOMBE

BETN1EC17001

Under the Guidance of

Assistant Prof. Shailendra Ojha sir.

A handwritten signature in blue ink, appearing to read 'Shailendra Ojha'.

Head of Department
Electronics & Communication Engg.
ITM University
Gwalior (M.P.)

Department of Electronics and Communications Engineering

School of Engineering and Technology


ITM University Gwalior

A handwritten signature in blue ink, appearing to read 'Omveer Singh'.

ELECTRONICS AND COMMUNICATION ENGINEERING Year 2020-2021

Student's internship details ECE

/S/No	Student Name	Semester	Industry/Institute	Subject/Area
1	Parikshit Kumar	3rd	udemy	python
2	Rami Reddy Velpula	3rd	Kaashivi infotech chennai	IOT
3	Saloni Gupta	3rd	intershala	java
4	Bado Gaston Clovis Diemayila	3rd	University of California Irvine	Arduino platform and c programing
5	Rishab Godrey	3rd	Electric loco shed north central railway jhansi	Electric engines work
6	Abhiranjan Kumar	5th	IBM	Introduction to cloud
7	Amit Kumar	5th	Udemy	lo t
8	Ashish Kumar Dudpuri	5th	Udemy	Web development
9	Gagan Kumar	5th	Google	Digital marketing
10	Megha Prakash Bachchan	5th	Skillzcafe	C++
11	Patil Grishma Lalit	5th	STEP- national institute of technology surathkal	IOT with machine learning using python
12	Raman Bihari Gupta	5th	Udemy	c/c++
13	Shailly Upadhyay	5th	Kanishka enterprises	C/C++


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14	Mahima	5th	Udemy	Machine learning
15	Manthan Saxena	7th	EDGATE	Embedded system
16	Nupurr Roy	7th	Apex training institute of BSNL	OFC ,green energy technology in telecom
17	Sarthak Kulshrestha	7th	Edgate technology Bengaluru	Embedded system design ,IOT using texas instrument
18	SatishKumar Singh	7th	hIOTron Pune	Hand-on IOT
19	Yash Mangal	7th	EDGATE Bengaluru	Embedded system
20	Ornab Debnath	7th	Internshala	Cloud Computing
21	Somnath Rai	7th	Texas instrument	Advanced embedded system design ,IOT and robotics
22	Kshitij	7th	APTRON Noida	IOT using rasbery pi


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Certificate Number
RHYTMNB1742-2020-7419006
RHYTMNB1742-2020-7419006



Bharat Sanchar Nigam Limited

(A Govt. of India Enterprise)

Regional Telecom Training Centre

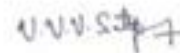
Gachibowli, Hyderabad - 500 032
Phone: 040-23000232 Fax : 040-23000229
Web site: www.rttchyd.bsnl.co.in

An ISO 9001-2000 Certified Institute



CERTIFICATE

This is to certify that KSHITIJ GOEL studying Bachelor of Technology in ECE at ITM University Gwalior has successfully completed the Online Internship program conducted by RTTC, Bharat Sanchar Nigam Limited, Hyderabad from 13-07-2020 for a period of two weeks. He has studied the global telecom technologies used in the telecom service provider domain and successfully delivered the presentation at the end of the program.



(SATYANARAYANA V V V)
ASSISTANT GENERAL MANAGER

Dated : 27-07-2020

Course Code : RHYTMNB1742 Course Schedule Code : RHYTMNB1742-2020-7419
Registered & Corporate Office: Bharat Sanchar Bhawan, H.C. Mathur Lane, Janpath New Delhi-110 001

Activate Windows

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Omveer Singh
Dr. Omveer Singh
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IS26B023



CERTIFICATE OF INTERNSHIP

This is to certify that Yash Mangal of ITM University Gwalior has successfully undergone one month Online Internship Program starting from 24th November '2020 on Embedded System Design & IoT organized by EdGate Technologies Pvt Ltd Bangalore under Texas Instruments India University Program.

Mansab Khan
EdGate Technologies Pvt Ltd



EDGATE PARTNERS


Dr. Omveer Singh
REGISTRAR
ITM University
Gwalior (M.P.)



KANISHKA



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Regn No. U72200MP2010FTCC23769

To WHOMSOEVER IT MAY CONCERN

Certificate No. 2020/KIT/39

Date of Issue 08/09/2020

This is to certify that Mr./Mrs.SHAILLY UPADHYAY.....
Son / Daughter ofSHAILENDRA UPADHYAY..... Has successfully
completedC & C++..... at "Kanishka I.T. (P) Ltd.
01/03/2020 to 01/08/2020 towards partial fulfillment of his academic requirement.

His performance was satisfactory during the tenure

we wish him bright and successful career.



GIRDHAR PRADEEP JAINI

(Director)



HEMANT KUMAR BHAT

(Director)

209-210 Garima Arcade, MLB Road, Gwalior (M.P.) Mob. : 9300316290, 9300666805


Dr. Omveer Singh
REGISTRAR
ITM University
Gwalior (M.P.)




Dr. Omveer Singh
REGISTRAR
ITM University
Gwalior (M.P.)




Dr. Omveer Singh
REGISTRAR
ITM University
Gwalior (M.P.)



Registration Number (LIN): AP-06-84-053-02229411



Meal on Wheel

Presented to

GAGAN KUMAR

ITM UNIVERSITY

With an honour and recognition of your outstanding work along with full dedication this is to certify that GAGAN KUMAR successfully completed our Meal on Wheel Project.

Hereby wishing you continued progress and success in all your future deliberation and endeavours in the scientific approach and progress in the service of mankind. We are very happy while appointing you as our Technical Engineer for next upcoming Six months.

Date: 22-09-2020



Gajavalli Aashish
Business Development Manager



Dr. Omveer Singh
REGISTRAR
ITM University
Gwalior (M.P.)



NITK-STEP
National Institute of Technology
Karnataka, Surathkal

Certificate of Completion

This is to certify that

Grishma Patil

Itm university Gwalior

has completed the One Month Industrial Internship Program on

IoT with Machine Learning using Python

conducted by STEP – National Institute of Technology, Surathkal
in association with Pantech eLearning

Date: 21.10.2020 to 24.11.2020

N. Srinivasan

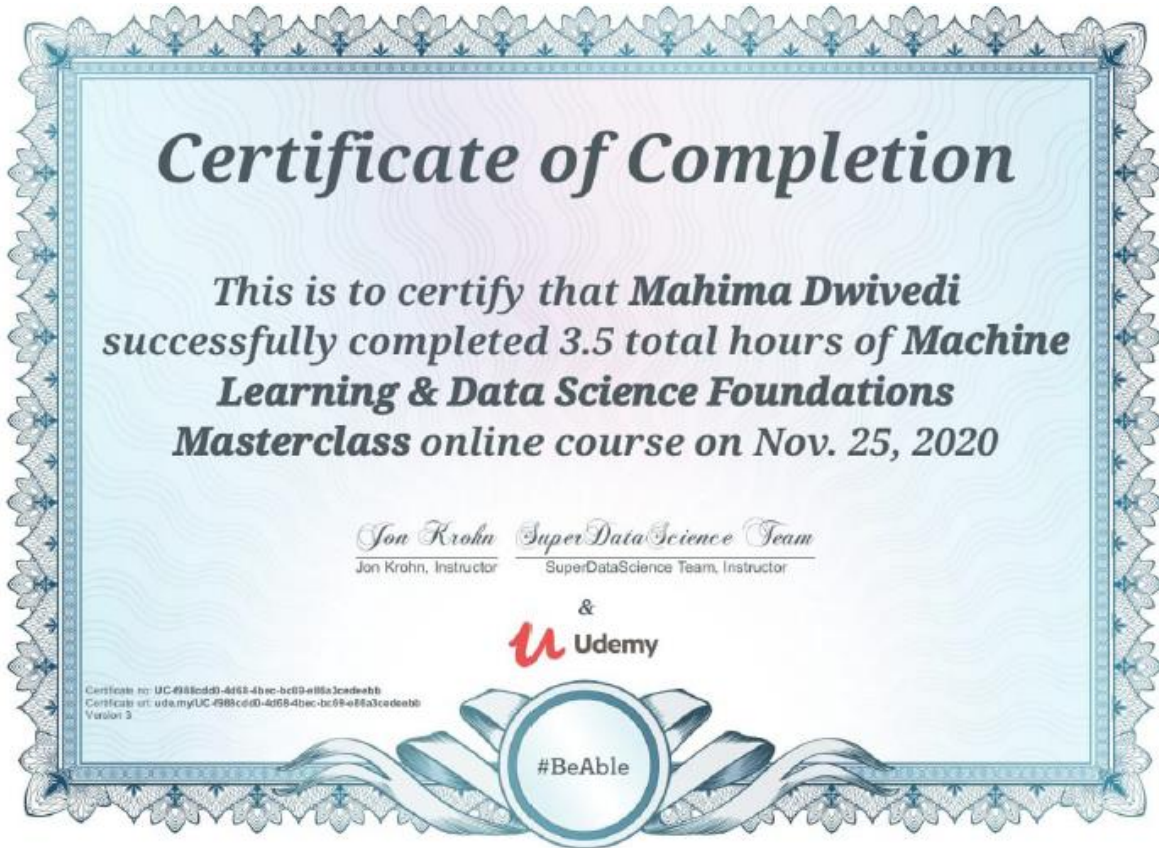
Director – Pantech eLearning

Dr. P. VenkatesaPerumal

Professor Incharge - NITK STEP

NIT K Cert No: STEP-NITK- INT-273

Dr. Omveer Singh
REGISTRAR
ITM University
Gwalior (M.P.)




Dr. Omveer Singh
REGISTRAR
ITM University
Gwalior (M.P.)



CERTIFICATION OF COMPLETION

THIS IS AWARDED TO

Megha Prakash Bachchan

for completing 18 hours of "C++ Tutorial for Complete Beginners" by John Purcell on December 03, 2020.

Rahul Batra





RAHUL BATRA
CEO & Founder, Skillzcafe

Shweta Jasuja

SHWETA JASUJA
Co-Founder, Skillzcafe

Skillzcafe Learning Solutions Pvt. Ltd. - CIN:U80903HR2020PTC084977


Dr. Omveer Singh
REGISTRAR
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Gwalior (M.P.)

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(WEBSITE & SOFTWARE TRAINING AND DEVELOPMENT COMPANY) INCORPORATED UNDER THE COMPANIES ACT, 1956 (NO. 1 OF 1956) Regn No. U72200MP2010FTCC23769	
To WHOMSOEVER IT MAY CONCERN	
Certificate No. <u>2020/KIT/39</u> Date of Issue <u>28/09/2020</u>	
<i>This is to certify that Mr./Mrs. <u>SHALLY UPADHYAY</u> Son / Daughter of <u>SHALENDRA UPADHYAY</u> Has successfully completed <u>C & C++</u> at "Kanishka I.T. (P) Ltd. <u>01/03/2020</u> to <u>01/08/2020</u> towards partial fulfillment of his academic requirement. His performance was satisfactory during the tenure we wish him bright and successful career.</i>	
 G. P. R. S. ANANI (Director)	 HEMAN (Officer)
209-210 Garima Arcade, MLB Road, Gwalior (M.P.) Mob. : 9300316290, 9300666805	


Dr. Omveer Singh
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Dr. Omveer Singh
REGISTRAR
ITM University
Gwalior (M.P.)



Registration Number (LIN): AP-06-84-053-02229411



Meal on Wheel

Presented to

GAGAN KUMAR

ITM UNIVERSITY

With an honour and recognition of your outstanding work along with full dedication this is to certify that GAGAN KUMAR successfully completed our Meal on Wheel Project.

Hereby wishing you continued progress and success in all your future deliberation and endeavours in the scientific approach and progress in the service of mankind. We are very happy while appointing you as our Technical Engineer for next upcoming Six months.

Date: 22-09-2020



Gajavalli Aashish
Business Development Manager



Dr. Omveer Singh
REGISTRAR
ITM University
Gwalior (M.P.)



NITK-STEP
National Institute of Technology
Karnataka, Surathkal

Certificate of Completion

This is to certify that

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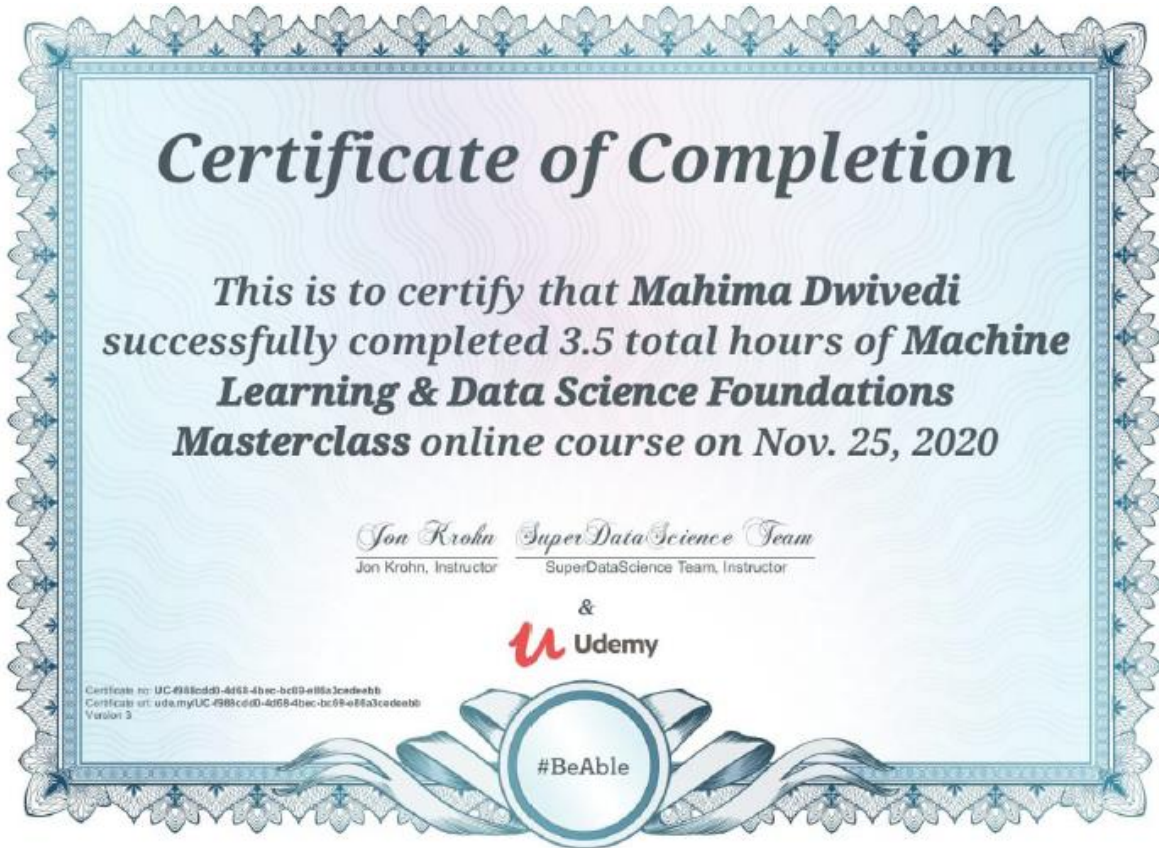
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Professor Incharge - NITK STEP

NIT K Cert No: STEP-NITK- INT-273


Dr. Omveer Singh
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THIS IS AWARDED TO

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Rahul Batra

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SHWETA JASUJA
Co-Founder, Skillzcafe

Skillzcafe Learning Solutions Pvt. Ltd. - CIN:U80903HR2020PTC084977


Dr. Omveer Singh
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Gwalior (M.P.)