MALLA REDDY TECHNICAL CAMPUS

A Constituent Unit of MALLA REDDY VISHWAVIDYAPEETH
Deemed to be University
Approved by UGC & AICTE New Delhi
Maisammaguda, Medchal (Dist), Hyderabad - 500100, Telangana

COURSE STRUCTURE

B. Tech – ELECTRONICS AND COMMUNICATION ENGINEERING

Admitted from A.Y. 2025-26 Batch

I Year I Semester							
3 Week Induction Programme							
S. No	**Subject Code**	**Course Code**	**Course Title**	**L**	**T**	**P**	**C**
1	EC25487101	BS	Mathematics for Computing	3	0	0	3
2	EC25487102	BS	Fundamentals of Quantum Computing	2	0	0	2
3	EC25487103	HS	Professional Skills for Engineers	2	0	0	2
4	EC25487104	ES	Computer Programming	4	0	2	5
5	EC25487105	PC	Web Application Development-1	2	1	4	5
6	EC25487106	BS	Quantitative Skills	2	1	0	3
7	EC25487107	MC	Indian Knowledge System	0	0	2	1
8	EC25487108	AEC	Foreign Language-I (Not limited to Spanish/ German/French/Korean/Mandarin etc.)	0	0	1	0
Total				**15**	**2**	**11**	**21**

I Year II Semester							
S. No	**Subject Code**	**Course Code**	**Course Title**	**L**	**T**	**P**	**C**
1	EC25487201	BS	Mathematics for Problem Solving	3	0	0	3
2	EC25487202	ES	Computer Aided Engineering Graphics	1	0	2	2
3	EC25487203	HS	Technical Communication for Engineers	2	0	0	2
4	EC25487204	ES	Data Structures	3	0	4	5
5	EC25487205	PC	Database Management Systems	3	0	2	4
6	EC25487206	PC	Web Application Development-II	2	1	4	5
7	EC25487207	MC	Universal Human values – Understanding Harmony & Ethics	1	1	0	2
8	EC25487208	AEC	Foreign Language-II (Not limited to Spanish/ German/French/Korean/Mandarin etc.)	0	0	1	0
Total				**15**	**2**	**13**	**23**

Skill-Enhancement program	**Industry Preparedness Internship-1 – Regional/National/ International**	**1.5 credits**

II Year I Semester							
S. No	**Subject Code**	**Course Code**	**Course Title**	**L**	**T**	**P**	**C**
1	EC25487301	BS	Digital System Design	3	0	4	5
2	EC25487302	PC	Signals and Systems	3	1	0	4
3	EC25487303	ES	Linear and Digital IC Applications	3	0	4	5
4	EC25487304	PC	Electronic Circuit Analysis	3	0	4	5
5	EC25487305	HS	Logical Reasoning and Analytical Skills	3	1	0	4
6	EC25487306	HS	Constitution of India	0	1	0	0
Total				**15**	**3**	**12**	**23**

II Year II Semester							
S.No	**Subject Code**	**Course Code**	**Course Title**	**L**	**T**	**P**	**C**
1	EC25487401	BS	Analog and Digital Communication	3	1	3	5
2	EC25487402	PC	IOT Architecture & Protocols	3	1	3	5
3	EC25487403	PC	Micro Controllers & Interfacing	3	1	0	4
4	EC25487404	PC	Digital Signal Processing	3	0	3	5
5	EC25487405	PC	Object–Oriented Programming with JAVA	3	0	2	4
6	EC25487406	HS	Personal Branding and Employability Skills	0	1	2	2
7	EC25487407	PRJ	Mini Project / Virtual Internship – I	0	0	3	2
Total				**15**	**4**	**16**	**27**

Skill-Enhancement program	**Industry Preparedness Internship-2 – Regional/National/ International**	**1.5 credits**

III Year I Semester							
S.No	**Subject Code**	**Course Code**	**Course Title**	**L**	**T**	**P**	**C**
1	EC25487501	PC	Antenna and Wave Propagation	3	1	0	4
2	EC25487502	PC	VLSI Design	3	0	4	5
3	EC25487503	PE	Professional Elective -1/MOOCS	3	1	0	3
4	EC25487504	PE	Professional Elective -2	3	1	0	3
5	EC25487505	PE	Professional Elective -3	3	1	0	3
6	EC25487506	HS	Life Skills for Engineers III	0	1	0	1
7	EC25487507	HS	MRV Value Added Program – II	0	1	0	1
Total				**15**	**6**	**4**	**20**

III Year II Semester							
S.No	**Subject Code**	**Course Code**	**Course Title**	**L**	**T**	**P**	**C**
1	EC25487601	PE	Professional Elective – 4 / MOOCS	3	1	0	3
2	EC25487602	PE	Professional Elective - 5	3	1	0	3
3	EC25487603	OE	Open Elective –1	3	0	0	3
4	EC25487604	OE	Open Elective –2	3	0	0	3
5	EC25487605	HS	Management Elective –1	2	1	0	2
6	EC25487606	HS	Technical English for Engineers/MOOCS	2	1	0	3
7	EC25487607	PRJ	Societal / Industry Oriented Mini Project/Internship	0	0	6	3
8	EC25487608	MC	Constitution of INDIA	3	-	-	-
Total				**19**	**4**	**6**	**20**

IV Year I Semester							
S.No	**Subject Code**	**Course Code**	**Course Title**	**L**	**T**	**P**	**C**
1	EC25487701	PC	Mobile Communication and Networks	3	1	0	3
2	EC25487702	PE	Professional Elective – 6/ MOOCS	3	1	0	3
3	EC25487703	PE	Professional Elective - 7	3	1	0	3
4	EC25487704	OE	Open Elective –3	3	0	0	3
5	EC25487705	OE	Open Elective –4	3	0	0	3
6	EC25487706	PRJ	Project Phase-1	0	0	6	3
Total				**15**	**3**	**6**	**18**

IV Year II Semester							
S.No	**Subject Code**	**Course Code**	**Course Title**	**L**	**T**	**P**	**C**
1	EC25487801	PRJ	Project Phase – II	0	0	18	7
Total				**0**	**0**	**18**	**7**

PROFESSIONAL ELECTIVES

Subject code	**Professional Elective - 1**
EC25487503	Computer Networks And Internet Protocol / MOOCS
EC25487503	Data Communications and Computer Networks
EC25487503	Electronic Measuring Instruments
EC25487503	Digital Electronics
EC25487503	Wireless Communications and Networks

Subject code	**Professional Elective– 2**
EC25487504	Embedded System Design
EC25487504	Radar Systems
EC25487504	CMOS Analog IC Design
EC25487504	Artificial Neural Networks
EC25487504	Network Security and Cryptography

Subject code	**Professional Elective - 3**
EC25487505	Satellite Communications
EC25487505	Biomedical Instrumentation
EC25487505	Artificial Intelligence
EC25487505	5G and beyond Communications
EC25487505	Error Correcting Codes

Subject code	**Professional Elective- 4**
EC25487601	Multimedia Database Management Systems
EC25487601	Microwave Engineering
EC25487601	Optical Communications
EC25487601	Adhoc Sensor Networks
EC25487601	Machine learning /MOOCS

Subject code	Professional Elective - 5
EC25487602	System on Chip Architecture
EC25487602	Test and Testability
EC25487602	Low Power VLSI Design
EC25487602	Control Systems
EC25487602	Digital Image Processing

Subject code	Professional Elective - 6
EC25487702	Network Protocols
EC25487702	Optimization Techniques
EC25487702	Electronics Sensors
EC25487702	Introduction to Internet of Things /MOOCS
EC25487702	Introduction to Robotics

Subject code	Professional Elective - 7
EC25487703	Principles of Signal Processing
EC25487703	Wireless Sensor Networks
EC25487703	Network Security and Cryptography
EC25487703	Electromagnetic Theory
EC25487703	Deep Learning

OPEN ELECTIVES

Subject Code	Open Elective-1
EC25487603	Electronics Sensors
EC25487603	Digital Image Processing
EC25487603	Electronic Measuring Instruments
EC25487603	Introduction to Robotics
EC25487603	Deep Learning for Natural Language Processing

Subject code	Open Elective-2
EC25487604	Cell Biology and Biochemistry
EC25487604	Genetics and Molecular Biology
EC25487604	Product Management for Software Engineers
EC25487604	Basics of Power Plant Engineering
EC25487604	Energy Sources and Applications

Subject code	Open Elective-3
EC25487704	Renewable Energy Sources
EC25487704	Disaster Management
EC25487704	Green Building Technologies
EC25487704	Smart Cities Planning and Management
EC25487704	Numerical Programming in Python

MANAGEMENT ELECTIVES

Subject code	Management Elective-1
EC25487705	Organizational Behavior
EC25487705	Fundamentals of Management
EC25487705	Business Economics and Financial Analysis
EC25487705	Digital Marketing
EC25487705	Intellectual Property Rights
EC25487705	Entrepreneurial Communication