

JNTUK CoEeRD - Version 2.0 - List of Subjects and eLABs - Branches: ECE, EEE, MECH., CIVIL, CSE & IT

B.Tech. ECE - R13

S.No.	Subjects	Availability	
		Status	No. of Units
I Year - Semester I			
1	English - I	Not Applicable	
2	Mathematics - I	Available	3
3	Mathematical Methods	Available	6
4	Engineering Physics	Available	6
5	Professional Ethics and Human Values	Available	6
6	Engineering Drawing	Review in Progress	
7	Engineering Physics Laboratory	Available	
8	English Language Communication Skills Lab - I	Not Applicable	
9	Engineering Physics - Virtual Labs - Assignments	Not Applicable	
10	Engineering Workshop & IT Workshop	Not Applicable	
I Year - Semester II			
1	English - II	Not Applicable	
2	Mathematics - II	Available	6
3	Engineering Chemistry	Available	6
4	Engineering Mechanics	Available	4
5	Computer Programming	Available	6
6	Network Analysis	Available	4
7	Engineering Chemistry Laboratory	Review in Progress	
8	English - Communication Skills Lab - II	Not Applicable	
9	Computer Programming Lab	Done; Not Assigned	
II Year - Semester I			
1	Managerial Economics and Financial Analysis	Available	6
2	Electronic Devices and Circuits	Available	6
3	Data Structures	Available	6
4	Environmental Studies	Available	6
5	Signals & Systems	Available	4
6	Electrical Technology	Available	6
7	Electronic Devices and Circuits Lab	Available	
8	Networks & Electrical Technology Lab	Available	
II Year - Semester II			
1	Electronic Circuit Analysis	Review in Progress	
2	Management Science	Available	6
3	Random Variables & Stochastic Processes	Available	6
4	Switching Theory & Logic Design	Available	6
5	EM Waves and Transmission Lines	Available	6
6	Analog Communications	Available	6
7	Electronic Circuit Analysis Lab	Review in Progress	
8	Analog Communications Lab	Review in Progress	
III Year - Semester I			
1	Linear IC Applications	Available	6
2	Pulse and Digital Circuits	Available	6

3	Control Systems	Available	6
4	Digital System Design & Digital IC Applications	Available	4
5	Antennas and Wave Propagation	Available	6
6	Pulse and Digital Circuits Lab	Not Available	
7	Digital System Design & DICA Lab	Not Available	
8	LIC Applications Lab	Not Available	
9	I P R & Patents	Available	6
III Year - Semester II			
1	Microprocessor and Microcontroller	Available	6
2	Digital Signal Processing	Available	6
3	Digital Communication	Available	6
4	Microwave Engineering	Available	6
5	Microprocessor and Microcontroller-Lab	Available	
6	Digital Communication Lab	Available	
7	Digital Signal Processing Lab	Available	
IV Year - Semester I			
1	VLSI Design	Available	6
2	Computer Networks	Available	6
3	Digital Image Processing	Available	6
4	Computer Architecture & Organization	Available	6
5	VLSI Lab	Not Available	
6	Microwave Engineering Lab	Not Available	
Elective - I			
7	Radar Systems	Available	6
Elective - II			
8	Optical Communication	Available	6
9	Network Security & Cryptography	Available	6
IV Year - Semester II			
1	Cellular and Mobile Communications	Available	8
2	Electronic Measurements and Instrumentation	Available	8
Elective - III			
3	Embedded Systems	Available	8
B.Tech. EEE - R13			
S.No.	Subjects	Availability	
I Year - Semester I		Status	No. of Units
1	English - I	Not Applicable	
2	Mathematics - I	Available	3
3	Mathematical Methods	Available	6
4	Engineering Physics	Available	6
5	Professional Ethics and Human Values	Available	6
6	Engineering Drawing	Review in Progress	
7	Engineering Physics Laboratory	Available	
8	English - Communication Skills Lab - I	Not Applicable	
9	Engineering Physics - Virtual Labs - Assignments	Not Applicable	
10	Engineering Workshop & IT Workshop	Not Applicable	

I Year - Semester II			
1	English - II	Not Applicable	
2	Mathematics - II	Available	6
3	Engineering Chemistry	Available	6
4	Engineering Mechanics	Available	6
5	Electrical Circuit Analysis - I	Available	6
6	Computer Programming	Available	6
7	Engineering Chemistry Lab	Review in Progress	
8	English - Communication Skills Lab - II	Not Applicable	
9	C Programming Lab	Done; Not Assigned	
II Year - Semester I			
1	Electrical Circuit Analysis - II	Available	6
2	Thermal and Hydro Prime Movers	Available	6
3	Basic Electronics and Devices	Available	6
4	Complex Variables and Statistical Methods	Available	6
5	Electro Magnetic Fields	Available	6
6	Electrical Machines - I	Available	6
7	Thermal and Hydro Lab	Available	
8	Electrical Circuit Lab	Available	
II Year - Semester II			
1	Environmental Studies	Available	6
2	Switching Theory and Logic Design	Available	6
3	Pulse & Digital Circuits	Available	4
4	Power Systems - I	Available	6
5	Electrical Machines - II	Available	5
6	Control Systems	Available	6
7	Electrical Machines - I Lab	Available	
8	Electronic Devices & Circuits Lab	Available	
III Year - Semester I			
1	Managerial Economics and Financial Analysis	Available	6
2	Electrical Measurements	Available	6
3	Power Systems - II	Available	6
4	Electrical Machines - III	Available	6
5	Power Electronics	Available	6
6	Linear & Digital IC Applications	Available	6
7	Electrical Machines - II Lab	Available	
8	Control Systems Lab	Available	
9	IPR & Patents	Available	6
III Year - Semester II			
1	Switchgear and Protection	Available	6
2	Microprocessors & Microcontrollers	Available	6
3	Utilization of Electrical Energy	Available	6
4	Power System Analysis	Available	6
5	Power Semiconductor Drives	Available	6
6	Management Science	Available	6

7	Power Electronics Lab	Available	
8	Electrical Measurements Lab	Available	
IV Year - Semester I			
1	Power System Operation & Control	Available	6
2	Renewable Energy Sources & Systems	Available	5
3	HVAC & DC Transmission	Available	4
4	Microprocessors & Microcontrollers Lab	Available	
5	Electrical Simulation Lab	Available	
6	Power Systems Lab	Not Available	
Elective - I			
7	VLSI Design	Available	6
IV Year - Semester II			
1	Digital Control Systems	Available	8
Elective - III			
2	Digital Signal Processing	Available	6
B.Tech. MECH - R13			
S.No.	Subjects	Availability	
I Year - Semester I		Status	No. of Units
1	English - I	Not Applicable	
2	Mathematics - I	Available	3
3	Engineering Chemistry	Available	6
4	Engineering Mechanics	Available	4
5	Computer Programming	Available	6
6	Environmental Studies	Available	6
7	Engineering Chemistry Lab	Review in Progress	
8	English Language Communication Skills Lab - I	Not Applicable	
9	C Programming Lab	Done; Not Assigned	
I Year - Semester II			
1	English - II	Not Applicable	
2	Mathematical Methods	Available	6
3	Mathematics - II	Available	6
4	Engineering Physics	Available	6
5	Professional Ethics and Human Values	Available	6
6	Engineering Drawing	Review in Progress	
7	Engineering Physics Laboratory	Available	
8	English - Communication Skills Lab - II	Not Applicable	
9	Engineering Physics - Virtual Labs - Assignments	Not Applicable	
10	Engineering Workshop & IT Workshop	Not Applicable	
II Year - Semester I			
1	Metallurgy & Materials Science	Available	6
2	Mechanics of Solids	Available	6
3	Thermodynamics	Available	6
4	Managerial Economics & Financial Analysis	Available	6
5	Basic Electrical & Electronics Engineering	Available	6

6	Computer Aided Engineering Drawing Practice	Available	6
7	Basic Electrical & Electronics Engineering Lab	Available	
8	Mechanics of Solids & Metallurgy Lab	Available	
II Year - Semester II			
1	Kinematics of Machinery	Available	6
2	Thermal Engineering - I	Available	6
3	Production Technology	Not Available	
4	Fluid Mechanics & Hydraulic Machinery	Available	5
5	Machine Drawing	Available	4
6	Fluid Mechanics & Hydraulic Machinery Lab	Available	
7	Production Technology Lab	Available	
8	Thermal Engineering Lab	Available	
III Year - Semester I			
1	Dynamics of Machinery	Available	6
2	Metal Cutting & Machine Tools	Available	6
3	Design of Machine Members - I	Available	6
4	Instrumentation & Control Systems	Available	6
5	Thermal Engineering - II	Available	6
6	Metrology	Available	6
7	Machine Tools Lab	Available	
8	Metrology & Instrumentation Lab	Available	
9	IPR & Patents	Available	6
III Year - Semester II			
1	Operations Research	Available	6
2	Interactive Computer Graphics	Available	6
3	Design of Machine Members-II	Available	6
4	Robotics	Available	6
5	Heat Transfer	Available	6
6	Industrial Engineering Management	Available	6
7	Refrigeration & Air Conditioning	Available	6
8	Heat Transfer Lab	Available	
IV Year - Semester I			
1	Automobile Engineering	Available	6
2	CAD/CAM	Available	6
3	Finite Element Methods	Available	6
4	Unconventional Machining Processes	Available	6
5	Simulation Lab	Available	
IV Year - Semester II			
1	Production Planning and Control	Available	8
2	Green Engineering Systems	Not Available	
DEPARTMENTAL ELECTIVE - III			
3	Power Plant Engineering	Available	6

B.Tech. CIVIL - R13

S.No.	Subjects	Availability	
		Status	No. of Units
I Year - Semester I			
1	English - I	Not Applicable	
2	Mathematics - I	Available	3
3	Engineering Chemistry	Available	6
4	Engineering Mechanics	Available	6
5	Environmental Studies	Available	6
6	Computer Programming	Available	6
7	Engineering Chemistry Lab	Review in Progress	
8	English Language Communication Skills Lab - I	Not Applicable	
9	C Programming Lab	Done; Not Assigned	
I Year - Semester II			
1	English - II	Not Applicable	
2	Mathematical Methods	Available	6
3	Mathematics - II	Available	6
4	Engineering Physics	Available	6
5	Professional Ethics and Human Values	Available	6
6	Engineering Drawing	Review in Progress	
7	Engineering Physics Laboratory	Available	
8	English - Communication Skills Lab - II	Not Applicable	
9	Engineering Physics - Virtual Labs - Assignments	Not Applicable	
10	Engineering Workshop & IT Workshop	Not Applicable	
II Year - Semester I			
1	Basic Electrical & Electronics Engineering	Available	6
2	Probability & Statistics	Available	6
3	Strength of Materials - I	Available	6
4	Building Materials and Construction	Available	6
5	Surveying	Available	6
6	Fluid Mechanics	Available	6
7	Surveying Field work-I Lab	Available	
8	Strength of Materials Lab	Available	
II Year - Semester II			
1	Building Planning & Drawing	Available	6
2	Managerial Economics and Financial Analysis	Available	6
3	Strength of Materials - II	Available	6
4	Hydraulics and Hydraulic Machinery	Available	6
5	Concrete Technology	Available	6
6	Structural Analysis - I	Available	6
7	Fluid Mechanics and Hydraulic Machinery Lab	Available	
8	Concrete Technology Lab	Available	
9	Surveying Field work - II	Not Applicable	
III Year - Semester I			
1	Engineering Geology	Available	6
2	Structural Analysis - II	Available	6

3	Design & Drawing of Reinforced Concrete Structures	Available	6
4	Geotechnical Engineering - I	Available	6
5	Transportation Engineering - I	Available	6
6	Engineering Geology Lab	Available	
7	Geotechnical Engineering Lab	Available	
8	IPR and Patents	Available	6
III Year - Semester II			
1	Design and Drawing of steel Structures	Available	6
2	Geotechnical Engineering-II	Available	5
3	Transporation Engineering-II	Available	6
4	Environmental Engineering-I	Not Available	
5	Water Resources Engineering-I	Available	5
6	Computer Aided Engineering Drawing	Available	6
7	Transporation Engineering Lab	Available	
Open Elective			
8	Finite Element Method	Available	6
IV Year - Semester I			
1	Water Resources Engineering-II	Available	4
2	Remote Sensing and GIS Applications	Available	6
3	Environmental Engineering-II	Available	6
4	GIS and CAD Lab	Available	
5	Construction Technology and Management	Not Available	
6	Prestressed Concrete	Not Available	
7	Environmental Engineering Lab	Not Available	
IV Year - Semester II			
1	Estimation, Specifications & Contracts	Available	6
B.Tech. CSE - R13			
S.No.	Subjects	Availability	
I Year - Semester I		Status	No. of Units
1	English - I	Not Applicable	
2	Mathematics - I	Available	3
3	Engineering Chemistry	Available	6
4	Engineering Mechanics	Available	6
5	Computer Programming	Available	6
6	Environmental Studies	Available	6
7	Engineering Chemistry Lab	Review in Progress	
8	English Language Communication Skills Lab - I	Not Applicable	
9	C Programming Lab	Done; Not Assigned	
I Year - Semester II			
1	English - II	Not Applicable	
2	Mathematical Methods	Available	6
3	Mathematics - II	Available	6
4	Engineering Physics	Available	6
5	Professional Ethics and Human Values	Available	6

6	Engineering Drawing	Review in Progress	
7	Engineering Physics Laboratory	Available	
8	English - Communication Skills Lab - II	Not Applicable	
9	Engineering Physics - Virtual Labs - Assignments	Not Applicable	
10	Engineering Workshop & IT Workshop	Not Applicable	
II Year - Semester I			
1	Managerial Economics and Financial Analysis	Available	6
2	Object Oriented Programming through C++	Available	6
3	Mathematical Foundations of Computer Science	Available	6
4	Digital Logic Design	Available	6
5	Data Structures	Available	6
6	Object Oriented Programming Lab	Available	
7	Data Structures Lab	Available	
8	Digital Logic Design Lab	Available	
II Year - Semester II			
1	Probability and Statistics	Available	6
2	Java Programming	Not Available	
3	Advanced Data Structures	Available	6
4	Computer Organization	Not Available	
5	Formal Languages and Automata Theory	Not Available	
6	Advanced Data Structures Lab	Available	
7	Object Oriented Programming through Java Lab	Available	
8	Free Open Source Software (FOSS) Lab	Done; Not Assigned	
III Year - Semester I			
1	Compiler Design	Available	6
2	Data Communication	Available	5
3	Principles of Programming Languages	Available	6
4	Operating Systems	Available	6
5	Database Management systems	Available	6
6	Compiler Design Lab	Available	
7	Operating Systems Lab	Available	
8	Linux Programming Lab	Not Available	
9	IPR and Patents - I	Available	4
10	Database Management systems Lab	Not Available	
III Year - Semester II			
1	Computer Networks	Available	6
2	DataWare Housing and Mining	Available	6
3	Design and Analysis of Algorithms	Available	6
4	Software Engineering	Available	6
5	Web Technologies	Available	6
6	Computer Networks and Unix Lab	Available	
7	Software Engineering Lab	Not Available	
8	Web Technologies Lab	Not Available	
9	IPR & Patents - II	Available	4

IV Year - Semester I			
1	Cryptography and Network Security	Available	6
2	UML & Design Patterns	Available	3
3	Mobile Computing	Available	6
	Elective - I		
4	Software Testing Methodologies	Available	8
	Elective - II		
5	Software Project Management	Available	8
6	UML & Design Patterns Lab	Available	
7	Mobile Application Development Lab	Available	
8	Software Testing Lab	Not Available	
9	Hadoop & BigData Lab	Not Available	
IV Year - Semester II			
1	Distributed Systems	Available	8
2	Management Science	Available	6
	Elective - III		
3	Digital Image Processing	Available	6
B.Tech. IT - R13			
S.No.	Subjects	Availability	
I Year - Semester I		Status	No. of Units
1	English - I	Not Applicable	
2	Mathematics - I	Available	3
3	Engineering Chemistry	Available	6
4	Engineering Mechanics	Available	6
5	Computer Programming	Available	6
6	Environmental Studies	Available	6
7	Engineering Chemistry Lab	Review in Progress	
8	English Language Communication Skills Lab - I	Not Applicable	
9	C Programming Lab	Done; Not Assigned	
I Year - Semester II			
1	English - II	Not Applicable	
2	Mathematical Methods	Available	6
3	Mathematics - II	Available	6
4	Engineering Physics	Available	6
5	Professional Ethics and Human Values	Available	6
6	Engineering Drawing	Review in Progress	
7	Engineering Physics Laboratory	Available	
8	English - Communication Skills Lab - II	Not Applicable	
9	Engineering Physics - Virtual Labs - Assignments	Not Applicable	
10	Engineering Workshop & IT Workshop	Not Applicable	
II Year - Semester I			
1	Managerial Economics and Financial Analysis	Available	6
2	Object Oriented Programming through C++	Available	6
3	Mathematical Foundations of Computer Science	Available	6
4	Digital Logic Design	Available	6

5	Data Structures	Available	6
6	Object Oriented Programming Lab	Available	
7	Data Structures Lab	Available	
8	Digital Logic Design Lab	Available	
II Year - Semester II			
1	Probability and Statistics	Available	6
2	Java Programming	Not Available	
3	Advanced Data Structures	Available	6
4	Computer Organization	Not Available	
5	Language Processors	Available	6
6	Advanced Data Structures Lab	Available	
7	Object Oriented Programming through Java Lab	Available	
8	Free Open Source Software (FOSS) Lab	Done; Not Assigned	
III Year - Semester I			
1	Software Engineering	Available	6
2	Data Communication	Available	5
3	Advanced JAVA	Review in Progress	
4	Operating Systems	Available	6
5	Database Management systems	Available	6
6	Advanced JAVA Lab	Available	
7	Operating Systems Lab	Available	
8	Database Management systems Lab	Not Available	
9	Linux Programming Lab	Not Available	
10	IPR & Patents- I	Available	4
III Year - Semester II			
1	Computer Networks	Available	6
2	DataWare Housing and Mining	Available	6
3	Design and Analysis of Algorithms	Available	6
4	Software Testing	Available	4
5	Web Technologies	Available	6
6	Computer networks and Unix Lab	Available	
7	Software Testing Lab	Not Available	
8	Web Technologies Lab	Not Available	
9	IPR & Patents - II	Available	4
IV Year - Semester I			
1	Cryptography and Network Security	Available	6
2	UML & Design Patterns	Available	3
3	Mobile Computing	Available	6
Elective - II			
4	Software Project Management	Available	8
5	UML & Design Patterns Lab	Available	
6	Mobile Application Development Lab	Available	
7	Software Testing Lab	Not Available	
8	Hadoop & BigData Lab	Not Available	
IV Year - Semester II			

1	Distributed Systems	Available	8
2	Management Science	Available	6