TKR COLLEGE OF ENGINEERING & TECHNOLOGY (AUTONOMOUS)

B.TECH. CIVIL ENGINEERING-R18

B.TECH I SEMESTER COURSE STRUCTURE

B. Tech. I Semester

S. No	Course Code	Course Title	L	T	P	Credits
1	BBSM1	Engineering Mathematics-I	3	1	0	3
2	BBSP1	Engineering Physics	4	1	0	4
3	BHSEN	Professional Communication Language	3	0	0	3
4	BBSBE	Basic Electrical Engineering	3	1	0	3
5	BBSEG	Engineering Graphics	2	1	2	3
6	BP112	Engineering Physics Lab	0	0	3	1.5
7	BE22	Professional Communication Language Lab	0	0	3	1.5
8	BBEEL2	Basic Electrical Engineering Lab	0	0	3	1.5
9	BBSEW	Engineering Workshop	0	0	3	1.5
		TOTAL				22.0

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TKR COLLEGE OF ENGINEERING & TECHNOLOGY
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B.TECH. CIVIL ENGINEERING –R18

B.TECH I SEMESTER COURSE STRUCTURE

B. Tech. II Semester

S. No	Course Code	Course Title	L	T	P	Credits
1	BBSM2	Engineering Mathematics-II	3	1	0	3
2	BBSCP	Computer Programming using C	3	0	0	3
3	BESEM	Engineering Mechanics	3	0	0	3
3	BBSC1	Engineering Chemistry	4	1	0	4
4	BBSFE	Fundamentals of mechanical Engineering	2`	1	0	2
5	BCH2	Engineering Chemistry Lab	0	0	3	1.5
6	BCPL2	Computer Programming using C Lab	0	0	3	1.5
7	BBSCL	CAD Lab	0	0	3	1.5
					Total	**19.5**

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T K R COLLEGE OF ENGINEERING &TECHNOLOGY

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B.TECH. CIVIL ENGINEERING -R18

COURSE STRUCTURE& SYLLABUS

B. Tech. III Semester

Sl. No	Course Code	Course title	L	T	P	Credits
1	B13PC1	Building Materials, Construction & Planning	2	1	0	2
2	B13PC2	Surveying & Geomatics	3	1	0	3
3	B13PC3	Strength of Materials -I	3	1	0	3
4	B13PC4	Fluid Mechanics	3	1	0	3
5	BBSM3	Probability & Statistics	3	0	0	3
6	B13PC6	Surveying Lab-I	0	0	3	1.5
7	B13PC7	Strength of Materials Lab	0	0	3	1.5
8	B13PC8	Computer Aided Design Lab-II	0	0	3	1.5
					Total credits	18.5

B. Tech. IV Semester

Sl. No	Course Code	Course title	L	T	P	Credits
1	B14PC1	Engineering Geology	2	1	0	2
2	B14PC2	Strength of Materials –II	3	1	0	3
3	B14PC3	Hydraulics & Hydraulic Machinery	3	1	0	3
4	B14PC4	Structural Analysis -I	3	1	0	3
5	B14PC5	Soil Mechanics	3	1	0	3
6	BBSM6	Numerical Methods	2	1	0	2
7	B14PC7	Surveying Lab-II	0	0	3	1.5
8	B14PC8	Fluid Mechanics Lab	0	0	3	1.5
9	B14PC9	Engineering Geology Lab	0	0	3	1.5
					Total Credits	20.5

T K R COLLEGE OF ENGINEERING & TECHNOLOGY
(Autonomous)
B.TECH. CIVIL ENGINEERING –R17
COURSE STRUCTURE & SYLLABUS

III YEAR I SEMESTER

S.No.	Course Code	Course Title	L	T	P	Credits
1	A15PC1	Concrete Technology	3	0	0	3
2	A15PC2	Design of Reinforced Concrete Structures	4	1	0	4
3	A15PC3	Water Resources Engineering-I	4	0	0	4
4	A15PC4	Transportation Engineering	4	0	0	4
5		Open elective-I	3	0	0	3
6	A15PE6	**Professional Elective –I** 1. Bridge Engineering 2. Construction Equipment and Materials 3. Traffic Planning and Design	3	0	0	3
7	A15PC7	Concrete Technology Lab	0	0	3	2
8	A15PC8	Computer Aided Drafting - II Lab	0	0	3	2
9	A15PC9	Hydraulics and Hydraulic Machinery Lab	0	0	3	2
10	A15MC5	Professional Ethics	3	0	0	0
		Total Credits				27

III YEAR II SEMESTER

S.No.	Course Code	Course Title	L	T	P	Credits
1	A16PC1	Design of Steel Structures	4	1	0	4
2	A16PC2	Environmental Engineering	4	0	0	4
3	A16PC3	Soil Mechanics	4	0	0	4
4		Open elective-II	3	0	0	3
5	A16PE5	**Professional elective-II** 1. Remote Sensing & Geographic Information System 2. Advanced Structural Analysis. 3. Ground Water Development and Management.	3	0	0	3
6	A16PE6	**Professional Elective –III** 1. Ground Improvement Techniques 2. Infrastructure planning and Management 3.Elements of Earth Quake Engineering	3	0	0	3
7	A16PC7	Soil Mechanics Lab	0	0	3	2
8	A16PC8	Geographic Information Systems Lab	0	0	3	2
9	A16PC9	Advanced English Communication Skills Lab	0	0	3	2
		Total Credits				27

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.TECH. CIVIL ENGINEERING
IV YEAR COURSE STRUCTURE & SYLLABUS (R16)

Admitted From 2016-17 Admitted Batch

IV YEAR I SEMESTER

S. No	Course Code	Course Title	L	T	P	Credits
1	CE701PC	Transportation Engineering	4	0	0	4
2	CE702PC	Estimation Quantity Surveying and Valuation	4	1	0	4
3		Professional Elective - II	3	0	0	3
4		Professional Elective - III	3	0	0	3
5		Professional Elective -IV	3	0	0	3
6	CE703PC	Transportation Engineering Lab	0	0	3	2
7	CE704PC	Environmental Engineering Lab	0	0	3	2
8	CE705PC	Industry Oriented Mini Project	0	0	3	2
9	CE706PC	Seminar	0	0	2	1
		Total Credits	17	1	11	24

IV YEAR II SEMESTER

S. No	Course Code	Course Title	L	T	P	Credits
1		Open Elective - III	3	0	0	3
2		Professional Elective -V	3	0	0	3
3		Professional Elective -VI	3	0	0	3
4	CE801PC	Major Project	0	0	30	15
		Total Credits	9	0	30	24

Professional Elective - I

CE611PE	Air Pollution and Control.
CE612PE	Advanced Structural Analysis.
CE613PE	Ground Water Development and Management.
CE614PE	Earth and Rock fill Dams and Slope Stability.

Professional Elective – II

CE721PE	Stochastic Hydrology.
CE722PE	Construction Technology and Management.
CE723PE	Foundation Engineering.
CE724PE	Rehabilitation and Retrofitting of Structures.

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Professional Elective – III

CE731PE	Watershed Management.
CE732PE	Prestressed Concrete.
CE733PE	Ground Improvement Techniques.
CE734PE	Railway and Airport Engineering.

Professional Elective – IV

CE741PE	Traffic Engineering.
CE742PE	Bridge Engineering.
CE743PE	Soil Dynamics and Machine Foundation.
CE744PE	Irrigation and Hydraulic Structures.

Professional Elective – V

CE851PE	Waste Management.
CE852PE	Pavement Design.
CE853PE	Elements of Earthquake Engineering.
CE854PE	Water Resources Systems Analysis.

Professional Elective – VI

CE861PE	Finite Element Methods for Civil Engineering.
CE862PE	Geoenvironmental Engineering.
CE863PE	Design and Drawing of Irrigation Structures.
CE864PE	Industrial Waste Water Treatment.

*Open Elective subjects' syllabus is provided in a separate document.

*Open Elective – Students should take Open Electives from The List of Open Electives Offered by Other Departments/Branches Only.

Ex: - A Student of Mechanical Engineering can take Open Electives from all other departments/branches except Open Electives offered by Mechanical Engineering Dept.

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TKR COLLEGE OF ENGINEERING & TECHNOLOGY
(AUTONOMOUS)

B.TECH. ELECTRICAL AND ELECTRONICS ENGINEERING-R18

COURSE STRUCTURE & SYLLABUS

B. Tech - I Semester

S. No	Course Code	Course Title	L	T	P	Credits
1	BBSM1	Engineering Mathematics-I	3	1	0	3
2	BBSP2	Applied Physics-I	3	0	0	3
3	BHSEN	Professional Communication Language	3	0	0	3
4	BBSBE	Basic Electrical Engineering	3	0	0	3
5	BBSEG	Engineering Graphics	3	0	0	3
6	BBSEW	Engineering Workshop	0	0	3	1.5
7	BBEEL2	Basic Electrical Engineering Lab	0	0	3	1.5
8	BE22	Professional Communication Language Lab	0	0	3	1.5
TOTAL						19.5

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TKR COLLEGE OF ENGINEERING & TECHNOLOGY
(AUTONOMOUS)

B.TECH. ELECTRICAL AND ELECTRONICS ENGINEERING-R18

B.TECH. II SEMESTER COURSE STRUCTURE

B. Tech - II Semester

S. No	Course Code	Course Title	L	T	P	Credits
1	BBSM2	Engineering Mathematic–II	3	1	0	3
2	BBSP3	Applied Physics-II	3	0	0	3
3	BBSC1	Engineering Chemistry	4	1	0	4
4	BBSED	Electronics Devices and Circuits	3`	0	0	3
5	BBSCP	Computer Programming using C	3	0	0	3
6	BP113	Applied Physics Lab	0	0	3	1.5
7	BCH2	Engineering Chemistry Lab	0	0	3	1.5
8	BEDCL2	Electronics Devices and Circuits Lab	0	0	3	1.5
9	BCPL2	Computer Programming using C Lab	0	0	3	1.5
					TOTAL	22

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T K R COLLEGE OF ENGINEERING &TECHNOLOGY

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B.TECH. ELECTRICAL AND ELECTRONICS ENGINEERING-R18

COURSE STRUCTURE & SYLLABUS

EEE- B. Tech - III Semester

S. No	Course Code	Course Title	Hour per week			Total	Credits
			Lecture	Tutorial	Practical		
1	BBSM4	Numerical Methods and Transforms	3	0	0	3	3
2	B23PC2	Electrical Circuit Analysis	3	0	0	3	3
3	B43PC3	Electronic Circuits	3	0	0	3	3
4	B23PC4	Electrical Machines-I	3	0	0	3	3
5	B23PC5	Electromagnetic Fields	3	0	0	3	3
6	B43PC6	Electronic Circuits Lab	0	0	3	3	1.5
7	B23PC7	Electrical Machines-I Lab	0	0	3	3	1.5
8	B23PC8	Electrical Circuit Analysis Lab	0	0	3	3	1.5
9	B23MC9	Environmental Science	0	0	0	0	0
						Total	19.5

EEE- B. Tech - IV Semester

S. No	Course Code	Course Title	Hour per week			Total	Credits
			Lecture	Tutorial	Practical		
1	BBSM7	Special functions & complex variables	3	0	0	3	3
2	B44PC2	Digital Logic Design	3	0	0	3	3
3	B24PC3	Electrical Machines-II	3	0	0	3	3
4	B24PC4	Control Systems	3	0	0	3	3
5	BHSFM	Fundamentals of Management	3	0	0	3	3
6	B44PC6	Digital Logic Design Lab	0	0	3	3	1.5
7	B24PC7	Electrical Machines-II Lab	0	0	3	3	1.5
8	B24PC8	Control Systems Lab	0	0	3	3	1.5
9	B24MC9	Essence of Indian Traditional Knowledge	0	0	0	0	0
						Total	19.5

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T K R COLLEGE OF ENGINEERING &TECHNOLOGY
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B.TECH. ELECTRICAL AND ELECTRONICS ENGINEERING
COURSE STRUCTURE & SYLLABUS-R17

III YEAR I SEMESTER

S.No	Course Code	Course Title	L	T	P	Credits
1	A25PC1	Electrical Measurements & Instrumentation	4	1	0	4
2	A25PC2	Power Systems – II	4	1	0	4
3	A25PC3	Microprocessors and Microcontrollers	4	1	0	4
4	A25HS4	Fundamentals of Management	3	0	0	3
5		**Open elective-I**	3	0	0	3
6	A25PE6	**Professional elective-I** 1.Computer Organization 2.Digital Signal Processing 3.Information Security	3	0	0	3
7	A25PC7	Electrical Measurements & Instrumentation Lab	0	0	3	2
8	A25PC8	Basic Electrical simulation Lab	0	0	3	2
9	A25PC9	Microprocessors and Microcontrollers Lab	0	0	3	2
		Total Credits				27

III YEAR II SEMESTER

S. No	Course Code	Course Title	L	T	P	Credits
1	A26PC1	Power Systems Analysis	4	1	0	4
2	A26PC2	Power Electronics	4	1	0	4
3	A26PC3	Switch Gear and Protection	4	1	0	4
4		**Open elective-II**	3	0	0	3
5	A26PE5	**Professional elective-II** 1. Electric Drives 2. Design of Electrical Machines 3. High Voltage Engineering	3	0	0	3
6	A26PE6	**Professional elective-III** 1. Linear System Analysis 2. Linear Discrete IC Application 3. Computer Aided analysis and Design	3	0	0	3
7	A26PC7	Power Systems Lab	0	0	3	2
8	A26PC8	Power Electronics & Simulation Lab	0	0	3	2
9	A26HS9	Advanced English Communication skills Lab	0	0	3	2
		Total Credits				27

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B.TECH. ELECTRICAL AND ELECTRONICS ENGINEERING
IV YEAR COURSE STRUCTURE & SYLLABUS (R16)

Applicable From 2016-17 Admitted Batch

IV YEAR I SEMESTER

S. No.	Course Code	Course Title	L	T	P	Credits
1	EE701PC	Power Semiconductor Drives	4	1	0	4
2	EE702PC	Power System Operation and control	4	1	0	4
3		Professional Elective - II	3	0	0	3
4		Professional Elective - III	3	0	0	3
5		Professional Elective - IV	3	0	0	3
6	EE703PC	Electrical Systems Simulation Lab	0	0	3	2
7	EE704PC	Electrical Workshop	0	0	3	2
8	EE705PC	Industry Oriented Mini Project	0	0	3	2
9	EE706PC	Seminar	0	0	2	1
		Total Credits	17	2	11	24

IV YEAR II SEMESTER

S. No.	Course Code	Course Title	L	T	P	Credits
1		Open Elective - III	3	0	0	3
2		Professional Elective-V	3	0	0	3
3		Professional Elective-VI	3	0	0	3
4	EE801PC	Major Project	0	0	30	15
		Total Credits	9	0	30	24

Professional Elective - I (PE - I):

EM611PE	Computer Organization
EE612PE	Linear Systems Analysis
EE613PE	Linear and Digital IC Applications
EE614PE	Electrical and Electronics Instrumentation

Professional Elective - II (PE - II):

EE721PE	Digital Signal Processing
EE722PE	HVDC Transmission
ET721PE	Switch Mode Power Supplies
EE724PE	Reliability Engineering

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Professional Elective - III (PE - III):

EE731PE	Digital Control Systems
EE732PE	Power Quality
EE733PE	Modern Power Electronics
EE734PE	Optimization Techniques

Professional Elective - IV (PE-IV):

EE741PE	Programmable Logic Controllers
EE742PE	EHV AC Transmission Systems
EE743PE	Flexible A.C. Transmission Systems
EE744PE	Special Machines

Professional Elective - V (PE-V):

EE851PE	Artificial Neural Networks and Fuzzy Systems
EE852PE	Electrical Distribution Systems
EE853PE	Wind, Solar and Hybrid Energy Systems
EE854PE	High Voltage Engineering

Professional Elective - VI (PE-VI):

EE861PE	VLSI Design
EE862PE	Smart Electric Grid
EE863PE	Utilization of Electric Power
EE864PE	Electric and Hybrid Vehicles

*Open Elective subjects' syllabus is provided in a separate document.

*Open Elective – Students should take Open Electives from the List of Open Electives Offered by Other Departments/Branches Only.

Ex: - A Student of Mechanical Engineering can take Open Electives from all other departments/branches except Open Electives offered by Mechanical Engineering Dept.

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TKR COLLEGE OF ENGINEERING & TECHNOLOGY
(AUTONOMOUS)

B.TECH. MECHANICAL ENGINEERING-R18

COURSE STRUCTURE & SYLLABUS

B. Tech. I Semester

S. No	Course Code	Course Title	L	T	P	Credits
1	**BBSM1**	Engineering Mathematics-I	3	1	0	3
2	**BBSP1**	Engineering Physics	4	1	0	4
3	**BHSEN**	Professional Communication Language	3	1	0	3
4	**BBSBE**	Basic Electrical Engineering	3	0	0	3
5	**BBSEG**	Engineering Graphics	3	0	0	3
6	**BP112**	Engineering Physics Lab	0	0	3	1.5
7	**BE22**	Professional Communication Language Lab	0	0	3	1.5
8	**BBEEL2**	Basic Electrical Engineering Lab	0	0	3	1.5
9	**BBSEW**	Engineering Workshop	0	0	3	1.5
						22.0

TKR COLLEGE OF ENGINEERING & TECHNOLOGY (AUTONOMOUS)

B.TECH. MECHANICAL ENGINEERING-R18

COURSE STRUCTURE & SYLLABUS

B. Tech. II Semester

S. No	Course Code	Course Title	L	T	P	Credits
1	BBSM2	Engineering Mathematics–II	3	1	0	3
2	BBSC1	Engineering Chemistry	4	1	0	4
3	BBSCP	Computer Programming using C	3	0	0	3
3	BESEM	Engineering Mechanics	3	0	0	3
4	BBSFE	Fundamental of Mechanical Engineering	2	1	0	2
5	BCH2	Engineering Chemistry Lab	0	0	3	1.5
6	BCPL2	Computer Programming using C Lab	0	0	3	1.5
7	BFLL1	Fuels and Lubricants Lab	0	0	3	1.5
						19.5

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T K R COLLEGE OF ENGINEERING &TECHNOLOGY

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B.TECH. MECHANICAL ENGINEERING -R18

COURSE STRUCTURE& SYLLABUS

B. Tech. III Semester

Sl. No	Course Code	Course title	L	T	P	Credits
1	BBSM3	Probability and Statistics	3	1	0	3
2	B33ES1	Thermodynamics	3	1	0	3
3	B33PC2	Kinematics of Machinery	3	1	0	3
4	B33PC3	Metallurgy and Material Science	3	1	0	3
5	B33PC4	Mechanics of Solids	3	1	0	3
6	B33PC5	Metallurgy and Material Science Lab	0	0	3	1.5
7	B33PC6	Mechanics of Solids Lab	0	0	3	1.5
8	B33PC7	Kinematics and Dynamics Lab	0	0	3	1.5
Total credits						19.5

B. Tech. IV Semester

Sl. No	Course Code	Course title	L	T	P	Credits
1	B34PC1	Dynamics of Machinery	3	1	0	3
2	B34PC2	Fluid Mechanics and Hydraulic Machines	3	1	0	3
3	B34ES3	Machine Drawing	0	0	3	1.5
4	B34PE4	Professional Elective-I A) Manufacturing Process B)Machine Tool Design C)Computer Graphics	3	1	0	3
5	B34OE5	Open Elective -I A) Disaster Management B) Introduction to Mechatronics C) Non Destructive Testing methods	3	1	0	3
6	BBSM6	Numerical Methods	3	1	0	3
7	B34PC7	Fluid Mechanics and Hydraulic Machines Lab	0	0	3	1.5
8	B34PC8	Manufacturing Process Lab	0	0	3	1.5
Total Credits						19.5

T K R COLLEGE OF ENGINEERING &TECHNOLOGY
(Autonomous)

B.TECH. MECHANICAL ENGINEERING –R17

COURSESTRUCTURE & SYLLABUS

III YEAR I SEMESTER

S. No.	Course Code	Course Title	L	T	P	Credits
1	A35PC1	Design of Machine members-1	4	1	0	4
2	A35PC2	Thermal Engineering-1	4	1	0	4
3	A35PC3	Metrology and Machine tools	4	1	0	4
4	A35MS4	Fundamentals of Management	3	1	0	3
5	A35OE5	Open Elective-1	3	0	0	3
6	A35PE6	**Professional Elective-1** A: Automobile Engineering B: IC Engine and Gas Turbines C: Nuclear Power generation and Supply	3	1	0	3
7	A35PC7	Thermal engineering Lab	0	0	3	2
8	A35PC8	Machine tools lab	0	0	3	2
9	A35PC9	Engineering Metrology Lab	0	0	3	2
		Total Credits				27

* MC--Mandatory course, Satisfactory/Unsatisfactory

III YEAR II SEMESTER

S. No.	Course Code	Course Title	L	T	P	Credit
1	A36PC1	Thermal Engineering-II	4	1	0	4
2	A36PC2	Design of machine members -II	4	1	0	4
3	A36PC3	Heat Transfer	4	1	0	4
4	A36OE4	Open Elective -2	3	1	0	3
5	A36PE5	Professional Elective-2 A: Finite Element Methods B: Refrigeration and Air Conditioning C: Machine tool Design	3	1	0	3
	A36PE6	Professional Elective-3 A Instrumentation and controlsystems B: Non Destructive Testing C : Composite Materials	3	1	0	3
6	A36PC7	Heat transfer Lab	0	0	3	2
7	A36PC8	CADD and MAT lab	0	0	3	2
8	A36HS9	Advanced English Communications skill lab	0	0	3	2
		Total Credits				27

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.TECH. MECHANICAL ENGINEERING
IV YEAR COURSE STRUCTURE & SYLLABUS (R16)

Applicable From 2016-17 Admitted Batch

IV YEAR I SEMESTER

S. No.	Course Code	Course Title	L	T	P	Credits
1	ME701PC	CAD/CAM	4	0	0	4
2	ME702PC	Instrumentation and Control System	4	0	0	4
3		Professional Elective - II	3	0	0	3
4		Professional Elective - III	3	0	0	3
5		Professional Elective - IV	3	0	0	3
6	ME703PC	CAD/CAM Lab	0	0	3	2
7	ME704PC	Instrumentation and Control Systems Lab	0	0	3	2
8	ME705PC	Industry Oriented Mini Project	0	0	3	2
9	ME706PC	Seminar	0	0	2	1
		Total Credits	17	0	11	24

IV YEAR II SEMESTER

S. No.	Course Code	Course Title	L	T	P	Credits
1	-	Open Elective – III	3	0	0	3
2		Professional Elective - V	3	0	0	3
3		Professional Elective - VI	3	0	0	3
4	ME801PC	Major Project	0	0	30	15
		Total Credits	9	0	30	24

Professional Elective - I

ME611PE	Finite Element Methods
ME612PE	Refrigeration and Air Conditioning
ME613PE	Machine Tool Design
ME614PE	IC Engines and Gas Turbines

Professional Elective - II

ME721PE	Composite materials
ME722PE	Industrial Management
ME723PE	Power Plant Engineering
ME724PE	Operations Research

Professional Elective – III

ME731PE	Engineering Tribology
ME732PE	Computational Fluid Dynamics
ME733PE	Robotics
ME734PE	CNC Technology

Professional Elective - IV

ME741PE	Mechanical Vibrations
ME742PE	Turbo Machines
ME743PE	MEMS
ME744PE	Additive Manufacturing Technology

Professional Elective - V

ME851PE	Automation in Manufacturing
ME852PE	Fluid Power System
ME853PE	Renewable Energy Sources
ME854PE	Production Planning and Control

Professional Elective - VI

ME861PE	Automobile Engineering
ME862PE	Advanced Mechanics of Solids
ME863PE	Unconventional Machining Processes
ME864PE	Advanced Materials Technology

*Open Elective subjects' syllabus is provided in a separate document.

*Open Elective – Students should take Open Electives from the List of Open Electives Offered by Other Departments/Branches Only.

Ex: - A Student of Mechanical Engineering can take Open Electives from all other departments/branches except Open Electives offered by Mechanical Engineering Dept.

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TKR COLLEGE OF ENGINEERING & TECHNOLOGY
(AUTONOMOUS)

B.TECH. ELECTRONICS & COMMUNICATION ENGINEERING – R18

B.TECH. I SEMESTER COURSE STRUCTURE

B. Tech. I Semester

S. No	Course Code	Course Title	L	T	P	Credits
1	BBSM1	Engineering Mathematics-I	3	1	0	3
2	BBSP2	Applied Physics-I	3	0	0	3
3	BBSC1	Engineering Chemistry	4	1	0	4
4	BBSED	Electronics Devices and Circuits	3	0	0	3
5	DBSCP	Computer Programming using C	3	0	0	3
6	BEDCL2	Electronic Devices and Circuits Lab	0	0	3	1.5
7	BCPL2	Computer Programming using C Lab	0	0	3	1.5
8	BCH2	Engineering Chemistry Lab	0	0	3	1.5
					TOTAL	20.5

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TKR COLLEGE OF ENGINEERING & TECHNOLOGY
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B.TECH. ELECTRONICS & COMMUNICATION ENGINEERING – R18

B.TECH. II SEMESTER COURSE STRUCTURE

B. Tech. II Semester

S. No	Course Code	Course Title	L	T	P	Credits
1	BBSM2	Engineering Mathematics-II	3	1	0	3
2	BBSP3	Applied Physics-II	3	0	0	3
3	BHSEN	Professional Communication Language	3	0	0	3
4	BBSBE	Basic Electrical Engineering	3`	0	0	3
5	BBSEG	Engineering Graphics	3	0	0	3
6	BP113	Applied Physics Lab	0	0	3	1.5
7	BE22	Professional Communication Language Lab	0	0	3	1.5
8	BBEEL2	Basic Electrical Engineering Lab	0	0	3	1.5
9	BBSEW	Engineering Workshop	0	0	3	1.5
		TOTAL				21.0

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B.Tech III Semester

S. No.	Course Code	Course Title	L	T	P	Credits
1	BBSMS4	Numerical Methods and Transforms	3	1	0	3
2	B43ES2	Digital Logic Design	3	0	0	3
3	B43EC3	Analog Electronic Circuit Analysis	3	0	0	3
4	B43EC4	Signals and Systems	3	1	0	3
5	B43EC5	Pulse and Digital Circuits	3	0	0	3
6	B43ES6	Network Analysis	2	0	0	2
7	B43EC7	Analog Electronic Circuit Analysis Lab	0	0	3	1.5
8	B43EC8	Basic Simulation Lab	0	0	2	1
9	B43MC9	Constitution of India	0	2	0	0
		TOTAL CREDITS				19.5

B.Tech IV SEMESTER

Sl. No.	Course Code	Course Title	L	T	P	Credits
1	BBSM7	Special functions and complex variables	3	1	0	3
2	B44PC2	Control Systems	3	0	0	3
3	B44PC3	Analog Communications	3	0	0	3
4	B44PC4	Linear and Digital IC Applications	3	0	0	3
5	B44PC5	Probability Theory and Stochastic Process	3	1	0	3
6	B44PC6	Analog Communications Lab	0	0	3	1.5
7	B44PC7	Linear and Digital IC Applications Lab	0	0	3	1.5
8	B44PC8	Pulse and Digital Circuits Lab	0	0	3	1.5
9	B44HS5	Disaster Management	0	2	0	0
		TOTAL CREDITS				19.5

III YEAR I SEMESTER

S.No	Course Code	Course Title	L	T	P	Credits
1	A45PC1	Electromagnetic Theory and Transmission Lines	4	1	0	4
2	A45PC2	Linear & Digital IC Applications	4	1	0	4
3	A45PC3	Digital Communications	4	1	0	4
4	A45HS4	Fundamentals of Management	3	1	0	3
5	A45OE5	**Open Elective-I**	3	1	0	3
6	A45PE6	**Professional Elective-I** 1. Digital Design Using Verilog HDL 2. Information Security 3. Design of Fault Tolerant Systems	4	1	0	3
7	A45PC7	Linear IC Applications Lab	0	0	3	2
8	A45PC8	Digital IC Applications Lab	0	0	3	2
9	A45PC9	Digital Communications Lab	0	0	3	2
10	A45MC5	Professional Ethics	3	0	0	0
		Total Credits				27

III YEAR II SEMESTER

S.No	Course Code	Course Title	L	T	P	Credits
1	A46PC1	Antennas and Wave Propagation	4	1	0	4
2	A46PC2	Microprocessors and Microcontrollers	4	1	0	4
3	A46PC3	Digital Signal Processing	4	1	0	4
4	A46PE4	**Professional Elective-II** 1. Digital Image Processing 2. Spread Spectrum Communications 3. Digital system Design	3	0	0	3
5	A46PE5	**Professional Elective-III** VLSI Design Multimedia & Signal Coding Optical Communications	3	1	0	3
6	A46OE6	**Open Elective-II**	3	1	0	3
7	A46PC7	Digital Signal Processing Lab	0	0	3	2
8	A46PC8	Microprocessors and Microcontrollers Lab	0	0	3	2
9	A46HS9	Advanced English Communication Skills Lab	0	0	3	2
		Total Credits				27

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.TECH. ELECTRONICS AND COMMUNICATION ENGINEERING
IV YEAR COURSE STRUCTURE & SYLLABUS (R16)

Applicable From 2016-17 Admitted Batch

IV YEAR I SEMESTER

S.No.	Course Code	Course Title	L	T	P	Credits
1	EC701PC	Microwave Engineering	4	0	0	4
2		Professional Elective - II	3	0	0	3
3		Professional Elective - III	3	0	0	3
4		Professional Elective - IV	3	0	0	3
5	EC702PC	VLSI Design	4	0	0	4
6	EC703PC	VLSI and E-CAD Lab	0	0	3	2
7	EC704PC	Microwave Engineering Lab	0	0	3	2
8	EC705PC	Industry Oriented Mini Project	0	0	3	2
9	EC706PC	Seminar	0	0	2	1
		Total Credits	17	0	11	24

IV YEAR II SEMESTER

S.No.	Course Code	Course Title	L	T	P	Credits
1		Open Elective – III	3	0	0	3
2		Professional Elective -V	3	0	0	3
3		Professional Elective -VI	3	0	0	3
4	EC801PC	Major Project	0	0	30	15
		Total Credits	9	0	30	24
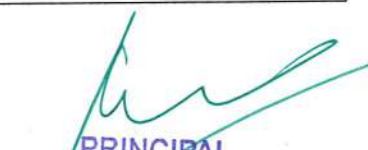
Professional Elective – I

EC611PE	Computer Organization and Operating System
EC612PE	Digital Image Processing
EC613PE	Spread Spectrum Communications
EC614PE	Digital system Design

Professional Elective – II

EC721PE	Computer Networks
EC722PE	FPGA Programming
EC723PE	Coding Theory and Techniques
EC724PE	Soft Computing Techniques

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Professional Elective – III

EC731PE	Wireless Communications and Networks
EC732PE	Internet of Things
EC733PE	Radar Systems
EC734PE	Embedded Sytem Design

Professional Elective – IV

EC741PE	Optimization Techniques
EC742PE	Object Oriented Programming
EC743PE	Electronic Measurements and Instrumentation
EC744PE	Artificial Intelligence

Professional Elective – V

EC851PE	Network Security and Cryptography
EC852PE	System Design Using FPGAs
EC853PE	Optical Communications
EC854PE	Machine Learning

Professional Elective – VI

EC861PE	Actuators and Robot Systems
EC862PE	Analog CMOS IC Design
EC863PE	Global Positioning System
EC864PE	Computer Vision

*Open Elective subjects' syllabus is provided in a separate document.

*Open Elective – Students should take Open Electives from the List of Open Electives Offered by Other Departments/Branches Only.

Ex: - A Student of Mechanical Engineering can take Open Electives from all other departments/branches except Open Electives offered by Mechanical Engineering Dept.

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TKR COLLEGE OF ENGINEERING & TECHNOLOGY (AUTONOMOUS)

B.TECH. COMPUTER SCIENCE & ENGINEERING-R18

B.TECH I SEMSTER COURSE STRUCTURE

B. Tech - I Semester

S. No	Course Code	Course Title	L	T	P	Credits
1	BBSM1	Engineering Mathematics-I	3	1	0	3
2	BBSP2	Applied Physics-I	3	0	0	3
3	BBSC1	Engineering Chemistry	4	1	0	4
4	BBSED	Electronics Devices and Circuits	3	0	0	3
5	DBSCP	Computer Programming using C	3	1	0	3
6	BEDCL2	Electronics Devices and Circuits Lab	0	0	3	1.5
7	BCPL2	Computer Programming using C Lab	0	0	3	1.5
8	BCH2	Engineering Chemistry Lab	0	0	3	1.5
TOTAL						20.5

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TKR COLLEGE OF ENGINEERING & TECHNOLOGY (AUTONOMOUS)

B.TECH. COMPUTER SCIENCE & ENGINEERING –R18

B.TECH II SEMESTER COURSE STRUCTURE

B. Tech. II Semester

S. No	Course Code	Course Title	L	T	P	Credits
1	BBSM2	Engineering Mathematics-II	3	1	0	3
2	BBSP3	Applied Physics-II	3	0	0	3
3	BHSEN	Professional Communication Language	3	0	0	3
4	BBSBE	Basic Electrical Engineering	3`	0	0	3
5	BBSEG	Engineering Graphics	3	0	0	3
6	BP113	Applied Physics Lab	0	0	3	1.5
7	BE22	Professional Communication Language Lab	0	0	3	1.5
8	BBEEL2	Basic Electrical Engineering Lab	0	0	3	1.5
9	BBSEW	Engineering Workshop	0	0	3	1.5
					Total	**21.0**

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T K R COLLEGE OF ENGINEERING &TECHNOLOGY
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B.TECH. COMPUTER SCIENCE & ENGINEERING - R18
COURSE STRUCTURE & SYLLABUS

B.Tech. III Semester

S.No.	Course Code	Course Title	L	T	P	Credits
1.	BBSM3	Probability & Statistics	3	0	0	3
2.	B53PC2	Data Structures	3	0	0	3
3.	B53PC3	Digital Logic Design	3	0	0	3
4.	B53PC4	Object Oriented Programming	3	0	0	3
5.	B53PC5	Digital Logic Design lab	0	0	3	1.5
6.	B53PC6	Data Structures Lab	0	0	3	1.5
7.	BE23	Advanced Communication Skills Lab	0	0	3	1.5
8.	B53PC7	Object Oriented Programming Lab	0	0	3	1.5
9.	BITW1	IT Workshop	0	0	3	1.5
		Total Credits				19.5

B.Tech. IV Semester

S.No.	Course Code	Course Title	L	T	P	Credits
1.	BBSM5	Discrete Mathematics	3	0	0	3
2.	B54PC2	Computer Organization	3	0	0	3
3.	B54PC3	Python Programming	3	0	0	3
4.	B54PC4	Database Management System	3	0	0	3
5.	B54PC5	Software Engineering	3	0	0	3
6.	B54PC6	Python Programming Lab	0	0	3	1.5
7.	B54PC7	Database Management System Lab	0	0	3	1.5
8.	B54PC8	Software Engineering lab	0	0	3	1.5
		Total Credits				19.5

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T K R COLLEGE OF ENGINEERING & TECHNOLOGY
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COURSE STRUCTURE & SYLLABUS for R-17 III YEAR

III YEAR I SEMESTER

S.No	Course code	Course Title	L	T	P	Credits
1	A55PC1	Computer Networks	4	1	0	4
2	A55PC2	Principles of Programming Languages	4	1	0	4
3	A55PC3	Design and Analysis of Algorithms	4	1	0	4
4	A55PC4	Compiler Design	3	1	0	3
5	A55PE5	1. Software Engineering 2. Computer Graphics 3. Image Processing and Pattern Recognition	3	0	0	3
6		(Open Elective -1)	3	1	0	3
7	A55PC6	Computer Networking Lab	0	0	3	2
8	A55PC7	Compiler Design Lab	0	0	3	2
9	A55HS8	Advanced Communication Skills Lab	0	0	3	2
		Total Credits	**21**	**5**	**9**	**27**

III YEAR II SEMESTER

S.No	Course code	Course Title	L	T	P	Credits
1	A56PC1	Web Technologies	4	1	0	4
2	A56PC2	Data Warehousing and Data Mining	4	1	0	4
3	A56PC3	Object Oriented Analysis and Design	4	0	0	4
4	A56PE4	1. Introduction to Analytics. 2. Information Security & Management 3. Cloud Computing	3	0	0	3
5	A56PE5	1. Software Testing Methodologies 2. Artificial Intelligence 3. Semantic Web and Social Networks	3	0	0	3
6		Open Elective -2	3	0	0	3
7	A56PC7	Technical Skills Enhancement Lab	0	1	3	2
8	A56PC8	Case Tools and Web Technologies Lab	0	0	3	2
9	A56PC9	Data Warehousing and Data Mining Lab	0	0	3	2
		Total Credits	**21**	**3**	**9**	**27**

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.TECH. COMPUTER SCIENCE AND ENGINEERING
IV YEAR COURSE STRUCTURE & SYLLABUS (R16)

Applicable From 2016-17 Admitted Batch

IV YEAR I SEMESTER

S. No	Course Code	Course Title	L	T	P	Credits
1	CS701PC	Data Mining	4	0	0	4
2	CS702PC	Principles of Programming Languages	4	0	0	4
3		Professional Elective – II	3	0	0	3
4		Professional Elective – III	3	0	0	3
5		Professional Elective – IV	3	0	0	3
6	CS703PC	Data Mining Lab	0	0	3	2
7		PE-II Lab #	0	0	3	2
	CS751PC	Python Programming Lab				
	CS752PC	Mobile Application Development Lab				
	CS753PC	Web Scripting Languages Lab				
	CS754PC	Internet of Things Lab				
8	CS705PC	Industry Oriented Mini Project	0	0	3	2
9	CS706PC	Seminar	0	0	2	1
		Total Credits	17	0	11	24

Courses in PE - II and PE - II Lab must be in 1-1 correspondence.

IV YEAR II SEMESTER

S. No	Course Code	Course Title	L	T	P	Credits
1		Open Elective – III	3	0	0	3
2		Professional Elective – V	3	0	0	3
3		Professional Elective – VI	3	0	0	3
4	CS801PC	Major Project	0	0	30	15
		Total Credits	9	0	30	24

Professional Elective – I

CS611PE	Mobile Computing
CS612PE	Design Patterns
CS613PE	Artificial Intelligence
CS614PE	Information Security Management (Security Analyst - I)
CS615PE	Introduction to Analytics (Associate Analytics - I)

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Professional Elective – II

CS721PE	Python Programming
CS722PE	Mobile Application Development
CS723PE	Web Scripting Languages
CS724PE	Internet of Things

Professional Elective - III

CS731PE	Graph Theory
CS732PE	Distributed Systems
CS733PE	Machine Learning
CS734PE	Software Process and Project Management

Professional Elective - IV

CS741PE	Computational Complexity
CS742PE	Cloud Computing
CS743PE	Blockchain Technology
CS744PE	Social Network Analysis

Professional Elective - V

CS851PE	Information Theory & Coding
CS852PE	Real-Time Systems
CS853PE	Data Analytics
CS854PE	Modern Software Engineering

Professional Elective - VI

CS861PE	Advanced Algorithms
CS862PE	Web Services and Service Oriented Architecture
CS863PE	Computer Forensics
CS864PE	Neural Networks and Deep Learning

*Open Elective subjects' syllabus is provided in a separate document.

*Open Elective – Students should take Open Electives from the List of Open Electives Offered by Other Departments/Branches Only.

Ex: - A Student of Mechanical Engineering can take Open Electives from all other departments/branches except Open Electives offered by Mechanical Engineering Dept.

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TKR COLLEGE OF ENGINEERING & TECHNOLOGY
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B.TECH. INFORMATION TECHNOLOGY-R18

B.TECH. I SEMESTER COURSE STRUCTURE

IT B. Tech - I Semester

S. No	Course Code	Course Title	L	T	P	Credits
1	BBSM1	Engineering Mathematics-I	3	1	0	3
2	BBSP2	Applied Physics-I	3	0	0	3
3	BHSEN	Professional Communication Language	3	0	0	3
4	BBSBE	Basic Electrical Engineering	3	0	0	3
5	BBSEG	Engineering Graphics	3	0	0	3
6	BBSEW	Engineering Workshop	0	0	3	1.5
7	BBEEL2	BEE Lab	0	0	3	1.5
8	BE22	Professional Communication Language Lab	0	0	3	1.5
		TOTAL				19.5

TKR COLLEGE OF ENGINEERING & TECHNOLOGY
(AUTONOMOUS)

B.TECH. INFORMATION TECHNOLOGY-R18

B.TECH. II SEMESTER COURSE STRUCTURE

B.Tech. II Semester

S. No	Course Code	Course Title	Hour per week			Credits
			Lecture	Tutorial	Practical	
1	BBSM2	Engineering Mathematics–II	3	1	0	3
2	BBSP3	Applied Physics-II	3	1	0	3
3	BBSC1	Engineering Chemistry	4	1	0	4
4	BBSED	Electronics Devices and Circuits	3`	1	0	3
5	BBSCP	Computer Programming using C	3	1	0	3
6	BP113	Applied Physics Lab	0	0	3	1.5
7	BCH2	Engineering Chemistry Lab	0	0	3	1.5
8	BEDCL2	Electronics Devices and Circuits Lab	0	0	3	1.5
9	BCPL2	Computer Programming using C Lab	0	0	3	1.5
					TOTAL	22

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(Autonomous)

DEPARTMENT OF INFORMATION TECHNOLOGY -R18

COURSE STRUCTURE & SYLLABUS

III SEMESTER

S.No.	Course Code	Course Title	L	T	P	Credits
1.	BBSM3	Probability & Statistics	3	0	0	3
2.	B63PC1	Data Structures	3	0	0	3
3.	B63PC2	Digital Logic Design	3	0	0	3
4.	B63PC3	Object Oriented Programming	3	0	0	3
5.	B63PC4	Introduction to Analytics	3	0	0	3
6.	B63PC5	Data Structures Lab	0	0	3	1.5
7.	B63PC6	Object Oriented Programming Lab	0	0	3	1.5
8.	B63PC7	Digital Logic Design Lab	0	0	3	1.5
					Total	19.5

IV SEMESTER

S.No	Course Code	Course Title	L	T	P	Credits
1.	BBSM5	Discrete Mathematics	3	0	0	3
2.	B64PC2	Computer Organization	3	0	0	3
3.	B64PC3	Database Management Systems	3	0	0	3
4.	B64PC4	Software Engineering	3	0	0	3
5.	B64PC5	Formal Language & Automata Theory	3	0	0	3
6.	B64PC6	Database Management System Lab	0	0	3	1.5
7.	B64PC7	Software Engineering Lab	0	0	3	1.5
8.	BITW1	IT Workshop	0	0	3	1.5
		Total				19.5

TKR COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous)

DEPARTMENTOF INFORMATION TECHNOLOGY-R17

COURSE STRUCTURE & SYLLABUS

B.TECH. III Year I semester

S. No	Course Code	Course Title	L	T	P	Credits
1	A65PC1	Design and Analysis of Algorithms	4	0	0	4
2	A65PC2	Data Communication & Computer Networks	4	0	0	4
3	A65PC3	Software Engineering	4	0	0	4
4	A65HS4	Fundamentals of Management	3	0	0	3
5		**Open Elective-I**	3	0	0	3
6	A65PE6	**Professional Elective-I** 1. DistributedSystems 2. Image Processing and PatternRecognition 3. Information Security	3	0	0	3
7	A65PC7	Design and Analysis of Algorithms Lab	0	0	3	2
8	A65PC8	Computer Networks Lab	0	0	3	2
9	A65PC9	Software Engineering Lab	0	0	3	2
10	A65MC5	*Professional Ethics	0	3	0	0
		Total Credits				27

B.TECH. III Year II semester

S. No	Course Code	Course Title	L	T	P	Credits
1	A66PC1	Compiler Design	4	0	0	4
2	A66PC2	Web Technologies	4	0	0	4
3	A66PC3	Cryptography and Network Security	4	0	0	4
4		**Open Elective-II**	3	0	0	3
5	A66PE5	**Professional Elective–II** 1. MobileComputing 2. Information SecurityManagement 3. Introduction toAnalytics	3	0	0	3
6	A66PE6	**Professional Elective-III** 1. Object Oriented Analysis andDesign 2. ComputerForensics 3. Advanced OperatingSystems	3	0	0	3
7	A66HS7	Advanced Communication Skills Lab	0	0	3	2
8	A66PC8	Web Technologies Lab	0	0	3	2
9	A66PC9	Cryptography and Network Security Lab	0	0	3	2
10	A66MC6	*Constitution of India	0	3	0	0
		Total Credits				27

* Satisfactory/ Unsatisfactory

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B.TECH. INFORMATION TECHNOLOGY
IV YEAR COURSE STRUCTURE & SYLLABUS (R16)

Applicable From 2016-17 Admitted Batch

IV YEAR I SEMESTER

S. No	Course Code	Course Title	L	T	P	Credits
1	CS701PC	Data Mining	4	0	0	4
2	IT702PC	Android Application Development	4	0	0	4
3		Professional Elective – II	3	0	0	3
4		Professional Elective – III	3	0	0	3
5		Professional Elective – IV	3	0	0	3
6	IT703PC	Android Application Development Lab	0	0	3	2
7		PE-II Lab #	0	0	3	2
	CS751PC	Python Programming Lab				
	CS753PC	Web Scripting Languages Lab				
	IT752PC	Ethical Hacking Lab				
	CS754PC	Internet of Things Lab				
8	IT705PC	Industry Oriented Mini Project	0	0	3	2
9	IT706PC	Seminar	0	0	2	1
		Total Credits	17	0	11	24
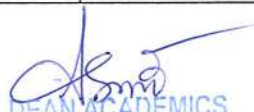
Courses in PE - II and PE - II Lab must be in 1-1 correspondence.

IV YEAR II SEMESTER

S. No	Course Code	Course Title	L	T	P	Credits
1		Open Elective – III	3	0	0	3
2		Professional Elective – V	3	0	0	3
3		Professional Elective – VI	3	0	0	3
4	IT801PC	Major Project	0	0	30	15
		Total Credits	9	0	30	24

Professional Elective – I

CS611PE	Mobile Computing
IT612PE	Object Oriented Analysis and Design
IT613PE	Computer Forensics
CS614PE	Information Security Management (Security Analyst - I)
CS615PE	Introduction to Analytics (Associate Analytics - I)

Professional Elective - II

CS721PE	Python Programming
CS723PE	Web Scripting Languages
IT722PE	Ethical Hacking
CS724PE	Internet of Things

Professional Elective - III

IT731PE	Web and Database Security
IT732PE	Embedded Systems
IT733PE	Artificial Intelligence
CS734PE	Software Process and Project Management

Professional Elective - IV

CS743PE	Blockchain Technology
CS742PE	Cloud Computing
CS744PE	Social Network Analysis
IT741PE	Information Retrieval Systems

Professional Elective -V

IT851PE	Steganography and Watermarking
CS852PE	Real-Time Systems
CS853PE	Data Analytics
CS854PE	Modern Software Engineering

Professional Elective –VI

IT861PE	Intrusion Detection System
IT862PE	ADHOC and Sensor Networks
CS864PE	Neural Networks and Deep Learning
IT863PE	Human Computer Interaction

*Open Elective subjects' syllabus is provided in a separate document.

*Open Elective – Students should take Open Electives from the List of Open Electives Offered by Other Departments/Branches Only.

Ex: - A Student of Mechanical Engineering can take Open Electives from all other departments/branches except Open Electives offered by Mechanical Engineering Dept.

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M.TECH - POWER ELECTRONICS
Course Structure R-19

I YEAR – I SEMESTER

S. No	Course Code	Course Title	Int. Marks	Ext. Marks	L	P	C
1	B121PC1	Machine Modeling and Analysis	30	70	3	--	3
2	B121PC2	Modern Control Theory	30	70	3	--	3
3	B121PC3	Power Electronic Devices and Circuits	30	70	3	--	3
4	B121PE4	1. Special Machines 2. HVDC Transmission 3. Programmable Logic Controllers and their Applications	30	70	3	--	3
5	B121PE5	1. Microcontrollers and Applications 2. Embedded Systems 3. Digital Control Systems	30	70	3	--	3
6	B121PC6	Power Converters Simulation Lab	30	70	--	4	2
Total Credits					15	4	17

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M.TECH - POWER ELECTRONICS
Course Structure R-19

I YEAR – II SEMESTER

S. No	Course Code	Course Title	Int. Marks	Ext. Marks	L	P	C
1	B122PC1	Advanced Power Electronic Converters	30	70	3	--	3
2	B122PE2	1. Power Quality 2. Power Electronic Control of DC Drives 3. Switched Mode Power Supplies(SMPS)	30	70	3	--	3
3	B122PE3	1. Flexible AC Transmission Systems 2. Industrial Load Modeling and Control 3. Dynamics of Electrical Machines	30	70	3	--	3
4	B122PE4	1. Power Electronic Control of AC Drives. 2. Advanced Digital Signal Processing 3. Reliability Engineering	30	70	3	--	3
5	B122PC5	Electrical Drives Lab	30	70	--	4	2
6	B122PC6	Machine Modeling Analysis Lab	30	70	--	4	2
7	B122PC7	Advanced Power Electronic Converters Lab	30	70	--	4	2
8	Audit-I	Audit-I	--	--	2	--	0
Total Credits					**14**	**12**	**18**

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TKR COLLEGE OF ENGINEERING & TECHNOLOGY (AUTONOMOUS)
M.TECH (POWERELECTRONICS)
COURSE STRUCTURE AND SYLLABUS

IYear–ISemester

Category	CourseTitle	Int. marks	Ext. marks	L	P	C
CoreCourse I	Machine Modeling and Analysis	30	70	4	--	4
Core Course II	Modern Control Theory	30	70	4	--	4
Core Course III	PowerElectronicDevicesand Circuits	30	70	4	--	4
Core ElectiveI	1. Special Machines 2. HVDC Transmission 3. Programmable LogicControllers and their Applications	30	70	4	--	4
Core ElectiveII	1. Microcontrollers and Applications 2. Embedded Systems 3. DigitalControlSystems	30	70	4	--	4
Open ElectiveI	1. Optimization Techniques 2.Renewable energysystems 3. Solar energy and applications 4. Analysisofpowerconverters	30	70	4	--	4
LaboratoryI	PowerConvertersSimulationLab	30	70	--	4	2
SeminarI	Seminar-I	50	--	--	4	2
Total Credits				24	8	28

IYear–II Semester

Category	CourseTitle	Int. marks	Ext. Marks	L	P	C
Core Course IV	PowerElectronicConverters	30	70	4	--	4
Core Course V	PowerElectronicControlofDC Drives	30	70	4	--	4
Core Course VI	PowerElectronicControlofAC Drives	30	70	4	--	4
Core ElectiveIII	1. PowerQuality 2. Advanced DigitalSignal Processing 3. SwitchedMode PowerSupplies(SMPS)	30	70	4	--	4
Core ElectiveIV	1. Flexible ACTransmission Systems 2. High-FrequencyMagneticComponents 3. DynamicsofElectricalMachines	30	70	4	--	4
Open ElectiveII	1. Smartgridtechnologies 2. AI Techniquesin Electrical Engineering 3. ReliabilityEngineering 4. EnergyAuditing, Conservation&Management	30	70	4	--	4
LaboratoryII	PowerConvertersand DrivesLab	30	70	--	4	2
SeminarII	Seminar-II	50	--	--	4	2
Total Credits				24	8	28

IIYear-I Semester

CourseTitle	Int. marks	Ext. marks	L	P	C
ComprehensiveViva-Voce	--	100	--	--	4
ProjectworkReviewI	50	--	--	24	12
Total Credits			--	24	16

IIYear- IISemester

CourseTitle	Int. marks	Ext. marks	L	P	C
ProjectworkReviewII	50	--	--	8	4
ProjectEvaluation(Viva-Voce)	--	150	--	16	12
Total Credits			--	24	16

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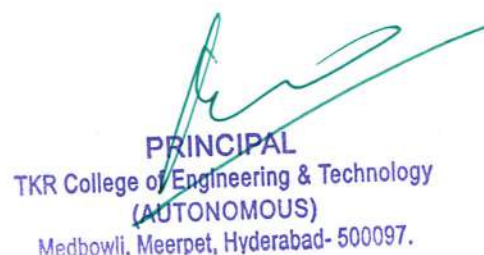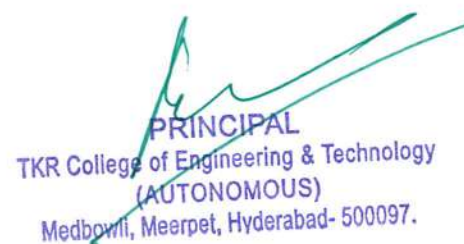Accredited by NBA & NAAC with 'A' Grade)

M.TECH - COMPUTER SCIENCE & ENGINEERING
Course Structure - R 19

I YEAR – I SEMESTER

Course Code	Course Title	Int. marks	Ext. marks	L	P	C
B251PC1	Data Structures and Algorithms	30	70	3	--	3
B251PC2	Fundamentals of Data Science	30	70	3	--	3
B251PC3	Distributed Systems	30	70	3	--	3
B251PE1	1. Information Security 2. Mobile Applications Development 3. Wireless Networks 4. Multimedia and Gaming	30	70	3	--	3
B251PE2	1. Machine Learning 2. Natural Language Processing 3. Design Patterns 4. Advanced Computer Architecture	30	70	3	--	3
B251PC4	Software Lab-1	30	70	--	4	2
Total Credits				15	4	17

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M.TECH - COMPUTER SCIENCE & ENGINEERING
Course Structure - R 19

I YEAR – II SEMESTER

Course Code	Course Title	Int. marks	Ext. marks	L	P	C
B252PC5	Network Programming	30	70	3	--	3
B252PE3	1. Cyber Security 2. Advanced Databases 3. Social Network Analysis 4. Cloud Computing	30	70	3	--	3
B252PE4	1. Deep Learning 2. Internet of Things 3. Service Oriented Computing 4. Distributed Computing	30	70	3	--	3
B252PE5	1. Storage Area Networks 2. Mobile Computing 3. Computer Forensics 4. Scripting Languages	30	70	3	--	3
B252PC6	Software Lab-2	30	70	--	4	2
B252PC7	Software Lab-3	30	70	--	4	2
B252PC8	Software Lab-4	30	70	--	4	2
B252AT1	Audit Course-I			2		
Total Credits				**14**	**12**	**18**

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TKR COLLEGE OF ENGINEERING & TECHNOLOGY
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M.TECH (COMPUTER SCIENCE AND ENGINEERING)

COURSE STRUCTURE

I Semester

	Course Title	Int. marks	Ext. marks	L	P	C
A251PC1	Data Structures and Algorithms	30	70	4	--	4
A251PC2	Data Science	30	70	4	--	4
A251PC3	Distributed Systems	30	70	4	--	4
A251PE4	1. Information Security 2. Mobile Applications Development 3. Wireless Networks 4. Multimedia and Gaming	30	70	3	2	4
A251PE5	1. Machine Learning 2. Natural Language Processing 3. Design Patterns 4. Advanced Computer Architecture	30	70	3	2	4
A251OE6	Open Elective – 1	30	70	4	--	4
A251PC7	Software Lab-1	30	70	--	4	2
A251SE8	Seminar	50	--	--	4	2
	Total Credits			24	8	28

II Semester

	Course Title	Int. marks	Ext. marks	L	P	C
A252PC1	Network Programming	30	70	4	--	4
A252PC2	Mining with Big Data	30	70	4	--	4
A252PC3	Internet Technologies and Services	30	70	4	--	4
A252PE4	**Core Elective– 3** 1. Cyber Security 2. Advanced Databases 3. Social Network Analysis 4. Cloud Computing	30	70	3	2	4
A252PE5	**Core Elective– 4** 1. Deep Learning 2. Internet of Things 3. Service Oriented Computing 4. Distributed Computing	30	70	3	2	4
A252OE6	**Open Elective – 2**	30	70	4	--	4
A252PC7	Software Lab-2	30	70	--	4	2
A252SE8	Seminar	50	--	--	4	2
	Total Credits			24	8	28

Note: In core elective courses two practical hours to be conducted for every week and implement the concepts discussed in theory hours.

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II Year - I Semester

Course Title	Int. marks	Ext. marks	L	P	C
A253CV1	--	100	--	--	4
A253PW2	50	--	--	24	12
Total Credits	---	---	---	24	**16**

II Year - II Semester

Course Title	Int. marks	Ext. marks	L	P	C
A254PW1	50	--	--	8	4
A254PW2	--	150	--	16	12
Total Credits	--			24	**16**

TKR COLLEGE OF ENGINEERING& TECHNOLOGY
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MASTER OF BUSINESS ADMINISTRATION (MBA) R18

From Academic Year 2018- 19 Admitted batch
COURSE STRUCTURE AND SYLLABUS

I Semester

Course Code	Course title	Int. marks	Ext. marks	L	T	P	C
B141PC1	Management and Organizational Behavior	30	70	3	1	0	4
B141PC2	Business Economics	30	70	3	1	0	4
B141PC3	Financial Accounting & Analysis	30	70	3	1	0	4
B141PC4	Business Statistics	30	70	3	1	0	4
B141PC5	Business Law and Ethics	30	70	3	1	0	4
B141PC6	Entrepreneurship	30	70	3	1	0	4
B141PC7	Business Communication - Lab	100		0	0	3	2
	TOTAL	**280**	**420**	**18**	**6**	**3**	**26**

II Semester

Course Code	Course title	Int. marks	Ext. marks	L	T	P	C
B142PC1	Human Resource Management	30	70	3	1	0	4
B142PC2	Marketing Management	30	70	3	1	0	4
B142PC3	Financial Management	30	70	3	1	0	4
B142PC4	Quantitative Analysis for Business Decisions	30	70	3	1	0	4
B142PC5	Business Research Methodology	30	70	3	1	0	4
B142PC6	Total Quality Management	30	70	3	1	0	4
B142PC7	Management Information system	30	70	3	1	0	4
	TOTAL	**210**	**490**	**21**	**7**	**0**	**28**

III Semester

Course Code	Course title	Int. marks	Ext. marks	L	T	P	C
B143PC1	Production &Operations Management	30	70	3	1	0	3
B143PC2	Innovation Management	30	70	3	1	0	3
B143OE3	**B141OE3A**: Project Management **B141OE3B**: Technology management **B141OE3C**: Rural Marketing **B141OE3D**: Indian Ethos in Management	30	70	3	0	0	3
B143PE4	(MRKG/HRM/FIN/ Entrepreneurship)	30	70	3	1	0	4
	B143M1: Digital Marketing						
	B143F1: Security Analysis and portfolio Management						
	B143H1: Performance Management Systems						
	B143E1: Start up Management						
B143PE5	(MRKG/HRM/FIN/ Entrepreneurship)	30	70	3	1	0	4
	B143M2: Advertising and Sales management						
	B143F2: Financial Institutions, Markets & Services						
	B143H2: Learning and Development						
	B143E2 MSME Management						
B143PE6	(MRKG/HRM/FIN/ Entrepreneurship)	30	70	3	1	0	4
	B143M3: Consumer Behavior						
	B143F3: Strategic Management Accounting						
	B143H3: Management of Industrial Relations						
	B143E3: Family Business Management						
B143PC7	Summer Internship	100			0	3	2
	TOTAL	280	420	18	5	3	23

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IV Semester

Course Code	Course title	Int. marks	Ext. marks	L	T	P	C
B144PC1	Strategic Management	30	70	3	1	0	3
B144OE2	**B144OE2A:** Corporate Governance	30	70	3	0	0	3
	B144OE2B: International Business						
	B144OE2C: Supply Chain Management						
	B144OE2D: Computing Skills						
B144PE3	(MRKG/HRM/FIN/ Entrepreneurship)	30	70	3	1	0	4
	B144M1: Customer Relationship Management						
	B144F1: International Finance Management						
	B144H1: International Human Resource Management						
	B144E1: Entrepreneurial Finance						
B144PE4	(MRKG/HRM/FIN/ Entrepreneurship)	30	70	3	1	0	4
	B144M2: International Marketing						
	B144F2: Strategic Investment and Financing Decisions						
	B144H2: Leadership and Change Management						
	B144E2 Entrepreneurial Marketing						
B144PE5	(MRKG/HRM/FIN/Entrepreneurship)	30	70	3	1	0	4
	B144M3: Marketing of Services						
	B144F3: Risk Management						
	B144H3: Talent and Knowledge Management						
	B144E3: Creativity Innovation and Entrepreneurship						
B144PC6	Pre Submission of Project Work	(100) (NCR)	-	0	0	0	0
B144PC7	Comprehensive Viva-Voce	-	100	0	1	2	3
B144PC8	Main Project Viva-Voce	50	150	0	1	3	4
	TOTAL	200 (100 pre submission)	600	15	5	5	25