2016-17

With effect from 02/08/2016

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.Tech COURSE STRUCTURE (2016-17)

(Common for EEE, ECE, CSE, EIE, BME, IT, ETE, ECM, ICE)

I YEAR I SEMESTER

S. No	Course Code	Course Title	L	T	P	Credits
1	MA101BS	Mathematics-I	3	1	0	3
2	CH102BS	Engineering Chemistry	4	0	0	4
3	PH103BS	Engineering Physics-I	3	0	0	3
4	EN104HS	Professional Communication in English	3	0	0	3
5	ME105ES	Engineering Mechanics	3	0	0	3
6	EE106ES	Basic Electrical and Electronics Engineering	4	0	0	4
7	EN107HS	English Language Communication Skills Lab	0	0	3	2
8	ME108ES	Engineering Workshop	0	0	3	2
9	*EA109MC	NSS	0	0	0	0
		Total Credits	**20**	**1**	**6**	**24**

I YEAR II SEMESTER

S. No	Course Code	Course Title	L	T	P	Credits
1	PH201BS	Engineering Physics-II	3	0	0	3
2	MA202BS	Mathematics-II	4	1	0	4
3	MA203BS	Mathematics-III	4	1	0	4
4	CS204ES	Computer Programming in C	3	0	0	3
5	ME205ES	Engineering Graphics	2	0	4	4
6	CH206BS	Engineering Chemistry Lab	0	0	3	2
7	PH207BS	Engineering Physics Lab	0	0	3	2
8	CS208ES	Computer Programming in C Lab	0	0	3	2
9	*EA209MC	NCC/NSO	0	0	0	0
		Total Credits	**16**	**2**	**13**	**24**

*Mandatory Course.

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w. e. f. AY 2016-17

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.Tech COURSE STRUCTURE (2016-17)

(Common for EEE, ECE, CSE, EIE, BME, IT, ETE, ECM, ICE)

I YEAR II SEMESTER

S. No	Course Code	Course Title	L	T	P	Credits
1	PH201BS	Engineering Physics-II	3	0	0	3
2	MA202BS	Mathematics-II	4	1	0	4
3	MA203BS	Mathematics-III	4	1	0	4
4	CS204ES	Computer Programming in C	3	0	0	3
5	ME205ES	Engineering Graphics	2	0	4	4
6	CH206BS	Engineering Chemistry Lab	0	0	3	2
7	PH207BS	Engineering Physics Lab	0	0	3	2
8	CS208ES	Computer Programming in C Lab	0	0	3	2
9	*EA209MC	NCC/NSO	0	0	0	0
		Total Credits	**16**	**2**	**13**	**24**

*Mandatory Course.

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD.

B. TECH. ELECTRICAL AND ELECTRONICS ENGINEERING

I YEAR

Code	Subject	L	T/P/D	C
A10001	English	2	-	4
A10002	Mathematics – I	3	1	6
A10003	Mathematical Methods	3	-	6
A10004	Engineering Physics	3	-	6
A10005	Engineering Chemistry	3	-	6
A10501	Computer Programming	3	-	6
A10301	Engineering Drawing	2	3	6
A10581	Computer Programming Lab.	-	3	4
A10081	Engineering Physics / Engineering Chemistry Lab.	-	3	4
A10083	English Language Communication Skills Lab.	-	3	4
A10082	IT Workshop / Engineering Workshop	-	3	4
	Total	**19**	**16**	**56**

II YEAR I SEMESTER

Code	Subject	L	T/P/D	C
A30007	Mathematics – III	4	-	4
A30102	Fluid Mechanics and Hydraulic Machinery	4	-	4
A30404	Electronic Devices & Circuits	4	-	4
A30204	Electrical Circuits	4	-	4
A30403	Electromagnetic fields	4	-	4
A30206	Electrical Machines-I	4	-	4
A30181	Fluid Mechanics and Hydraulic Machinery Lab	-	3	2
A30482	Electronic devices & Circuit labs	-	3	2
	Total	**24**	**6**	**28**

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II YEAR II SEMESTER

Code	Subject	L	T/P/D	C
A40010	Managerial Economics & Financial Analysis	4	-	4
A40214	Power Systems-I	4	-	4
A40413	Electronic Circuits	4	-	4
A40407	Switching Theory and Logic Design	4	-	4
A40213	Network Theory	4	-	4
A40212	Electrical Machines-II	4	-	4
A40287	Electrical Machines lab -I	-	3	2
A40286	Electrical Circuits and Simulation Lab	-	3	2
	Total	**24**	**6**	**28**

III YEAR I SEMESTER

Code	Subject	L	T/P/D	C
A50423	IC Applications	4	-	4
A50014	Management Science	4	-	4
A50221	Power Systems-II	4	-	4
A50211	Control Systems	4	-	4
A50220	Power Electronics	4	-	4
A50218	Electrical Machines-III	4	-	4
A50289	Electrical Machines lab –II	-	3	2
A50086	Advanced Communication Skills Lab	-	3	2
	Total	**24**	**6**	**28**

III YEAR II SEMESTER

Code	Subject	L	T/P/D	C
A60223	Electrical and Electronics Instrumentation	4	-	4
A60225	Static Drives	4	-	4
A60222	Computer Methods in Power Systems	4	-	4
A60430	Microprocessors and Interfacing Devices	4	-	4
A60009	Environmental Studies	4	-	4
A60117 A60017 A60018	**Open Elective** Disaster Management Intellectual Property Rights Human Values and Professional Ethics	4	-	4
A60290	Control Systems and Simulation Lab	-	3	2
A60291	Power Electronics and Simulation Lab	-	3	2
	Total	**24**	**6**	**28**

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IV YEAR I SEMESTER

Code	Subject	L	T/P/D	C
A70231	Switch Gear and Protection	4	-	4
A70232	Utilization of Electrical Energy	4	-	4
A70421	Digital Signal Processing	4	-	4
A70230	Power System Operation and Control	4	-	4
	Elective-I	4	-	4
A70228	High Voltage Engineering			
A70432	VLSI Design			
A70435	Digital Control Systems			
	Elective-II	4	-	4
A70229	Optimization Techniques			
A70226	Electrical Distribution Systems			
A70227	Electrical Estimation and Costing			
A70498	Microprocessors and Interfacing Devices Lab	-	3	2
A70293	Electrical Measurements Lab	-	3	2
	Total	**24**	**6**	**28**

IV YEAR II SEMESTER

Code	Subject	L	T/P/D	C
A80237	Fundamentals of HVDC and FACTS Devices	4	-	4
	Elective-III	4	-	4
A80238	Neural Networks and Fuzzy Logic			
A80324	Renewable Energy Sources			
A80244	Principles of Reliability Engineering			
	Elective-IV	4	-	4
A80234	Advanced Control Systems			
A80235	EHV AC Transmission			
A82909	Nanotechnology			
A80087	Industry Oriented Mini Project	-	-	2
A80089	Seminar	-	6	2
A80088	Project Work	-	15	10
A80090	Comprehensive Viva-Voce	-	-	2
	Total	**12**	**21**	**28**

Note: All End Examinations (Theory and Practical) are of three hours duration.
T-Tutorial L – Theory P – Practical D-Drawing C – Credits

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD.

B. TECH. ELECTRONICS AND COMMUNICATION ENGINEERING

I YEAR

Code	Subject	L	T/P/D	C
A10001	English	2	-	4
A10002	Mathematics – I	3	1	6
A10003	Mathematical Methods	3	-	6
A10004	Engineering Physics	3	-	6
A10005	Engineering Chemistry	3	-	6
A10501	Computer Programming	3	-	6
A10301	Engineering Drawing	2	3	6
A10581	Computer Programming Lab.	-	3	4
A10081	Engineering Physics / Engineering Chemistry Lab.	-	3	4
A10083	English Language Communication Skills Lab.	-	3	4
A10082	IT Workshop / Engineering Workshop	-	3	4
	Total	19	16	56

II YEAR I SEMESTER

Code	Subject	L	T/P/D	C
A30007	Mathematics - III	4	-	4
A30405	Probability Theory and Stochastic Processes	4	-	4
A30407	Switching Theory and Logic Design	4	-	4
A30204	Electrical Circuits	4	-	4
A30404	Electronic Devices and Circuits	4	-	4
A30406	Signals and Systems	4	-	4
A30482	Electronic Devices and Circuits Lab.	-	3	2
A30481	Basic Simulation Lab.	-	3	2
	Total	24	6	28

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II YEAR II SEMESTER

Code	Subject	L	T/P/D	C
A40215	Principles of Electrical Engineering	4	-	4
A40412	Electronic Circuit Analysis	4	-	4
A40415	Pulse and Digital Circuits	4	-	4
A40009	Environmental Studies	4	—	4
A40411	Electromagnetic Theory and Transmission Lines	4	-	4
A40410	Digital Design using Verilog HDL	4	-	4
A40288	Electrical Technology Lab.	-	3	2
A40484	Electronic Circuits and Pulse Circuits Lab.	-	3	2
	Total	**24**	**6**	**28**

III YEAR I SEMESTER

Code	Subject	L	T/P/D	C
A50217	Control Systems Engineering	4	-	4
A50516	Computer Organization and Operating Systems	4	-	4
A50418	Antennas and Wave Propagation	4	-	4
A50422	Electronic Measurements and Instrumentation	4	-	4
A50408	Analog Communications	4	-	4
A50425	Linear and Digital IC Applications	4	-	4
A50482	Analog Communications Lab.	-	3	2
A50488	IC Applications and HDL Simulation Lab.	-	3	2
	Total	**24**	**6**	**28**

III YEAR II SEMESTER

Code	Subject	L	T/P/D	C
A60010	Managerial Economics and Financial Analysis	4	-	4
A60018 A60117 A60017	**Open Elective:** Human Values and Professional Ethics Disaster Management Intellectual Property Rights	4	-	4
A60420	Digital Communications	4	-	4
A60432	VLSI Design	4	-	4
A60430	Microprocessors and Microcontrollers	4	-	4
A60421	Digital Signal Processing	4	-	4
A60494	Microprocessors and Microcontrollers Lab.	-	3	2
A60493	Digital Signal Processing Lab.	-	3	2
	Total	**24**	**6**	**28**

PRINCIPAL
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IV YEAR I SEMESTER

Code	Subject	L	T/P/D	C
A70014	Management Science	4	-	4
A70442	Microwave Engineering	4	-	4
A70515	Computer Networks	4	-	4
A70434	Cellular and Mobile Communications	4	-	4
A70436 A70443 A70505	**Elective -I:** Digital Image Processing Multimedia and Signal Coding Object Oriented Programming through Java	4	-	4
A70447 A70444 A70440	**Elective -II:** Television Engineering Optical Communications Embedded Systems Design	4	-	4
A70086	Advanced Communication Skills Lab.	-	3	2
A70499	Microwave Engineering and Digital Communications Lab	-	3	2
	Total	**24**	**6**	**28**

IV YEAR II SEMESTER

Code	Subject	L	T/P/D	C
A80452 A81102 A80527	**Elective -III:** Satellite Communications Biomedical Instrumentation Artificial Neural Networks	4	-	4
A80431 A80450 A80449	**Elective -IV:** Telecommunication Switching Systems and Networks Radar Systems Network Security	4	-	4
A80454 A80437 A80451	**Elective -V:** Wireless Communications and Networks Digital Signal Processors and Architectures RF Circuit Design	4	-	4
A80087	Industry Oriented Mini Project	-	-	2
A80089	Seminar	-	6	2
A80088	Major Project Work	-	15	10
A80090	Comprehensive Viva	-	-	2
	Total	**12**	**21**	**28**

Note: All End Examinations (Theory and Practical) are of three hours duration.
T-Tutorial **L – Theory** **P – Practical** **D-Drawing** **C – Credits**

PRINCIPAL
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College Code: 08

16-17

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD.

B. TECH. CIVIL ENGINEERING

I YEAR

Code	Subject	L	T/P/D	C
A10001	English	2	-	4
A10002	Mathematics – I	3	1	6
A10302	Engineering Mechanics	3	-	6
A10004	Engineering Physics	3	-	6
A10005	Engineering Chemistry	3	-	6
A10501	Computer Programming	3	-	6
A10301	Engineering Drawing	2	3	6
A10581	Computer Programming Lab.	-	3	4
A10081	Engineering Physics & Engineering Chemistry Lab.	-	3	4
A10083	English Language Communication Skills Lab.	-	3	4
A10082	IT Workshop / Engineering Workshop	-	3	4
	Total	19	16	56

II YEAR I SEMESTER

Code	Subject	L	T/P/D	C
A30006	Mathematics – II	4	-	4
A30203	Electrical & Electronics Engineering	4	-	4
A30107	Strength of Materials –I	4	-	4
A30108	Surveying	4	-	4
A30101	Fluid Mechanics	4	-	4
A30010	Managerial Economics and Financial Analysis	4	-	4
A30185	Surveying Lab- I	-	3	2
A30183	Strength of Materials Lab	-	3	2
	Total	24	6	28

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II YEAR II SEMESTER

Code	Subject	L	T/P/D	C
A40008	Probability & Statistics	4	-	4
A40114	Strength of Materials - II	4	-	4
A40111	Hydraulics & Hydraulic Machinery	4	-	4
A40009	Environmental Studies	4	-	4
A40115	Structural Analysis –I	4	-	4
A40109	Building Materials, Construction & Planning	4	-	4
A40186	Computer Aided Drafting of Buildings	-	3	2
A40190	Surveying Lab- II	-	3	2
	Total	24	6	28

III YEAR I SEMESTER

Code	Subject	L	T/P/D	C
A50116	Concrete Technology	4	-	4
A50121	Reinforced Concrete Structures Design and Drawing	4	-	4
A50118	Engineering Geology	4	-	4
A50120	Geotechnical Engineering	4	-	4
A50122	Water Resources Engineering-I	4	-	4
	Open Elective	4	-	4
A50117	Disaster Management			
A50017	Intellectual Property Rights			
A50018	Human Values and Professional Ethics			
A50181	Fluid Mechanics & Hydraulic Machinery Lab	-	3	2
A50191	Engineering Geology Lab	-	3	2
	Total	24	6	28

III YEAR II SEMESTER

Code	Subject	L	T/P/D	C
A60130	Steel Structures Design and Drawing	3	2	4
A60119	Environmental Engineering	4		4
A60132	Transportation Engineering -I	4		4
A60126	Foundation Engineering	4		4
A60131	Structural Analysis -II	4		4
	Elective -I	4	-	4
A60123	Elements of Earthquake Engineering			
A60127	Ground Improvement Techniques			
A60128	Ground Water Hydrology			
A60124	Environmental Impact Assessment			
A60129	Principles of Entrepreneurship			
A60194	Geotechnical Engineering Lab	-	3	2
A60086	Advanced Communication Skills Lab	-	3	2
	Total	23	8	28

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IV YEAR I SEMESTER

Code	Subject	L	T/P/D	C
A70140	Remote Sensing & GIS	4	-	4
A70143	Transportation Engineering -II	4	-	4
A70138	Estimating & Costing	4	-	4
A70133	Water Resources Engineering-II	4	-	4
	Elective-II	4	-	4
A70330	Finite Element Methods			
A70134	Advanced Foundation Engineering			
A70145	Watershed Management			
A70136	Air Pollution and Control			
	Elective-III	4	-	4
A70135	Advanced Structural Design			
A70137	Earth and Rock fill Dams and Slope Stability			
A70144	Water Resources Systems Analysis			
A70139	Industrial Waste Water Treatment			
A70195	Concrete & Highway Materials Lab	-	3	2
A70192	Environmental Engineering Lab	-	3	2
	Total	**24**	**6**	**28**

IV YEAR II SEMESTER

Code	Subject	L	T/P/D	C
	Elective-IV	4	-	4
A80151	Rehabilitation and Retrofitting of Structures			
A80148	Geo-Environmental Engineering			
A80147	Design and Drawing of Irrigation Structures			
A80141	Solid Waste Management			
A80150	Prestressed Concrete Structures	4	-	4
A80146	Construction Management	4	-	4
A80087	Industry Oriented Mini project	-	-	2
A80089	Seminar	-	6	2
A80088	Project Work	-	15	10
A80090	Comprehensive viva	-	-	2
	Total	**12**	**21**	**28**

Note: All End Examinations (Theory and Practical) are of three hours duration.
T-Tutorial L – Theory P – Practical D-Drawing C – Credits

Shadan College of Engineering & Technology College Code: 08 Hyderabad-86, T.S. Peeran Cheru

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R15 - 2016-17, 2-1

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD.

B. TECH. COMPUTER SCIENCE AND ENGINEERING

I YEAR

Code	Subject	L	T/P/D	C
A10001	English	2	-	4
A10002	Mathematics – I	3	1	6
A10003	Mathematical Methods	3	-	6
A10004	Engineering Physics	3	-	6
A10005	Engineering Chemistry	3	-	6
A10501	Computer Programming	3	-	6
A10301	Engineering Drawing	2	3	6
A10581	Computer Programming Lab.	-	3	4
A10081	Engineering Physics / Engineering Chemistry Lab.	-	3	4
A10083	English Language Communication Skills Lab.	-	3	4
A10082	IT Workshop / Engineering Workshop	-	3	4
	Total	19	16	56

II YEAR I SEMESTER

Code	Subject	L	T/P/D	C
A30008	Probability and Statistics	4	-	4
A30504	Mathematical Foundations of Computer Science	4	-	4
A30502	Data Structures	4	-	4
A30401	Digital Logic Design	4	-	4
A30404	Electronic Devices and Circuits	4	-	4
A30202	Basic Electrical Engineering	4	-	4
A30282	Electrical and Electronics Lab	-	3	2
A30582	Data Structures Lab	-	3	2
	Total	24	6	28

Shadan College of Engineering & Technology College Code 08 Hyderabad-86, T.S. Peeran Cheru

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College Code: 08

R13 - 2016-17 (3-1, 5-2)
R15 - 2016-17 (2-2)

II YEAR II SEMESTER

Code	Subject	L	T/P/D	C
A40506	Computer Organization	4	-	4
A40507	Database Management Systems	4	-	4
A40503	Java Programming	4	-	4
A40009	Environmental studies	4	-	4
A40509	Formal Languages and Automata Theory	4	-	4
A40508	Design and Analysis of Algorithms	4	-	4
A40585	Java Programming Lab	-	3	2
A40584	Database Management Systems Lab	-	3	2
	Total	**24**	**6**	**28**

III YEAR I SEMESTER

Code	Subject	L	T/P/D	C
A50511	Principles of Programming Languages	4	-	4
	OPEN ELECTIVE	4	-	4
A50018	Human Values and Professional Ethics			
A50017	Intellectual Property Rights			
A50117	Disaster Management			
A50518	Software Engineering	4	-	4
A50514	Compiler Design	4	-	4
A50510	Operating Systems	4	-	4
A50515	Computer Networks	4	-	4
A50589	Operating Systems Lab	-	3	2
A50587	Compiler Design Lab	-	3	2
	Total	**24**	**6**	**28**

III YEAR II SEMESTER

Code	Subject	L	T/P/D	C
A60521	Distributed Systems	4	-	4
A60522	Information Security	4	-	4
A60524	Object Oriented Analysis and Design	4	-	4
A60525	Software Testing Methodologies	4	-	4
A60010	Managerial Economics and Financial Analysis	4	-	4
A60512	Web Technologies	4	-	4
A60591	Case Tools and Web Technologies Lab	-	3	2
A60086	Advanced Communication Skills Lab	-	3	2
	Total	**24**	**6**	**28**

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R13 - 2016-17 (4-1, 4-2)

IV YEAR I SEMESTER

Code	Subject	L	T/P/D	C
A70511	Linux Programming	4	-	4
A70530	Design Patterns	4	-	4
A70520	Data Warehousing and Data Mining	4	-	4
A70519	Cloud Computing	4	-	4
	ELECTIVE – I	4	-	4
A70540	Software Project Management			
A70532	Image processing and Pattern Recognition			
A70536	Mobile Computing			
A70529	Computer Graphics			
A70352	Operations Research			
	ELECTIVE – II	4	-	4
A70534	Machine Learning			
A70539	Soft Computing			
A70533	Information Retrieval Systems			
A70526	Artificial Intelligence			
A70628	Computer Forensics			
A70596	Linux Programming Lab	-	3	2
A70595	Data Warehousing and Mining Lab	-	3	2
	Total	24	6	28

IV YEAR II SEMESTER

Code	Subject	L	T/P/D	C
A80014	Management Science	4	-	4
	ELECTIVE III	4	-	4
A80551	Web Services			
A80538	Semantic Web and Social Networks			
A80537	Scripting Languages			
A80547	Multimedia & Rich Internet Applications			
	ELECTIVE – IV	4	-	4
A80542	Ad hoc and Sensor Networks			
A80550	Storage Area Networks			
A80543	Database Security			
A80439	Embedded Systems			
A80087	Industry Oriented Mini Project	-	-	2
A80089	Seminar	-	6	2
A80088	Project Work	-	15	10
A80090	Comprehensive Viva	-	-	2
	Total	12	21	28

Note: All End Examinations (Theory and Practical) are of three hours duration.
T-Tutorial L – Theory P – Practical D-Drawing C – Credits

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2016-17 R15

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.TECH. (COMPUTER SCIENCE)
COURSE STRUCTURE AND SYLLABUS

I Year – I Semester

	Course Title	Int. marks	Ext. marks	L	P	C
Core Course I	Data Structures and Algorithms	**25**	**75**	**4**	**--**	**4**
Core Course II	Database Internals	25	75	4	--	4
Core Course III	Distributed Systems	25	75	4	--	4
Core Elective I	1. Network Security 2. Android Application Development 3. Cloud Computing 4. Internet of Things	25	75	4	--	4
Core Elective II	1. Machine Learning 2. Parallel and Distributed Algorithms 3. Software Architecture and Design Patterns 4. Embedded Systems	25	75	4	--	4
Open Elective I	**Open Elective – 1**	25	75	4	--	4
Laboratory I	Data Structures and Algorithms Lab	25	75	--	4	2
Seminar I		50	--	--	4	2
	Total Credits			**24**	**8**	**28**

I Year – II Semester

	Course Title	Int. marks	Ext. marks	L	P	C
Core Course IV	Network Programming	25	75	4	--	4
Core Course V	Information Retrieval Systems	25	75	4	--	4
Core Course VI	Internet Technologies and Services	25	75	4	--	4
Core Elective III	1. Data Mining 2. Storage Area Networks 3. Semantic Web and Social Networks 4. Cyber Security	25	75	4	--	4
Core Elective IV	1. Big Data Analytics 2. Soft Computing 3. Software Process and Project Management 4. Distributed Computing	25	75	4	--	4
Open Elective II	**Open Elective – 2**	25	75	4	--	4
Laboratory II	Internet Technologies and Services Lab	25	75	--	4	2
Seminar II		50	--	--	4	2
Total Credits			**24**	**8**	**28**	

II Year - I Semester

Course Title	Int. marks	Ext. marks	L	P	C
Comprehensive Viva-Voce	--	100	--	--	4
Project work Review I	50	--	--	24	12
Total Credits			--	24	**16**

II Year - II Semester

Course Title	Int. marks	Ext. marks	L	P	C
Project work Review II	50	--	--	8	4
Project Evaluation (Viva-Voce)	--	150	--	16	12
Total Credits			--	**24**	**16**

Shadan College of Engineering & Technology College Code 08 Hyderabad-86, T.S. Peeran Cheru

PRINCIPAL
Shadan College of Engineering & Technology
Peeran Cheru, Hyderabad-86, T.S.
College Code: 08

2016-19 R15

Open Electives

1. Basic Computer Programming skills are required for all open electives. Additionally, knowledge on the specified area mentioned in prerequisites is required for opting the open elective
2. Note: A student can register for any open elective subject provided that he has not already registered for the same subject

S.NO	Open Elective subject	Prerequisites
1.	"R" Programming	Maths, Statistics
2.	Android Application Development	Java
3.	Algorithmics	-------
4.	Big Data Analytics	Data Bases , Maths
5.	Bioinformatics	Data Structures
6.	Biometrics	----
7.	Computer Forensics	Maths, Data Structures
8.	Cyber Security	Internet Technologies
9.	Database Internals	---
10.	Distributed Systems Security	Information Security
11.	E-Commerce	Internet Technologies
12.	Embedded Systems	Digital logic
13.	Information Security and Audit	------
14.	Intellectual Property Rights	---
15.	Internet of Things	Java
16.	Internet Technologies and Services	Java
17.	Java Programming	---
18.	Linux Programming	---
19.	Mobile Computing	Java
20.	Mobile Application Security	Mobile Application Development
21.	OpenStack Cloud Computing	Linux Programming
22.	Operations Research	Maths, Data Structures
23.	Principles of Information Security	------
24.	Scripting Languages	---
25.	Social Media Intelligence	---
26.	Software Engineering	---
27.	Storage Area Networks	Computer Networks
28.	Web Usability	------

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College Code: 08

Shadan College of Engineering & Technology
College Code
08
Hyderabad-86, T.S.
Peeran Cheru

2016-17 R15

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.TECH. (COMPUTER SCIENCE AND ENGINEERING)
COURSE STRUCTURE AND SYLLABUS

I Year – I Semester

	Course Title	Int. marks	Ext. marks	L	P	C
Core Course I	Data Structures and Algorithms	**25**	**75**	**4**	**--**	**4**
Core Course II	Database Internals	25	75	4	--	4
Core Course III	Distributed Systems	25	75	4	--	4
Core Elective I	1. Network Security 2. Android Application Development 3. Cloud Computing 4. Internet of Things	25	75	4	--	4
Core Elective II	1. Machine Learning 2. Parallel and Distributed Algorithms 3. Software Architecture and Design Patterns 4. Embedded Systems	25	75	4	--	4
Open Elective I	**Open Elective – 1**	25	75	4	--	4
Laboratory I	Data Structures and Algorithms Lab	25	75	--	4	2
Seminar I	Seminar	50	--	--	4	2
	Total Credits			**24**	**8**	**28**

I Year – II Semester

	Course Title	Int. marks	Ext. marks	L	P	C
Core Course IV	Network Programming	25	75	4	--	4
Core Course V	Information Retrieval Systems	25	75	4	--	4
Core Course VI	Internet Technologies and Services	25	75	4	--	4
Core Elective III	**Core Elective– 3** 1. Data Mining 2. Storage Area Networks 3. Semantic Web and Social Networks 4. Cyber Security	25	75	4	--	4
Core Elective IV	**Core Elective– 4** 1. Big Data Analytics 2. Soft Computing 3. Software Process and Project Management 4. Distributed Computing	25	75	4	--	4
Open Elective II	**Open Elective – 2**	25	75	4	--	4
Laboratory II	Internet Technologies and Services Lab	25	75	--	4	2
Seminar II	Seminar	50	--	--	4	2
Total Credits			**24**	**8**	**28**	

II Year - I Semester

Course Title	Int. marks	Ext. marks	L	P	C
Comprehensive Viva-Voce	--	100	--	--	4
Project work Review I	50	--	--	24	12
Total Credits			--	24	**16**

II Year - II Semester

Course Title	Int. marks	Ext. marks	L	P	C
Project work Review II	50	--	--	8	4
Project Evaluation (Viva-Voce)	--	150	--	16	12
Total Credits			--	**24**	**16**

Sreenidhi College of Engineering & Technology College Code: 08 Hyderabad-65, T.S. Peeran Cheru

PRINCIPAL
Sreenidhi College of Engineering & Technology
Peeran Cheru, Hyderabad-65, T.S.
College Code: 08

2016-19 R15

Open Electives

1. Basic Computer Programming skills are required for all open electives. Additionally, knowledge on the specified area mentioned in prerequisites is required for opting the open elective
2. Note: A student can register for any open elective subject provided that he has not already registered for the same subject

S.NO	Open Elective subject	Prerequisites
1.	"R" Programming	Maths, Statistics
2.	Android Application Development	Java
3.	Algorithmics	-------
4.	Big Data Analytics	Data Bases , Maths
5.	Bioinformatics	Data Structures
6.	Biometrics	----
7.	Computer Forensics	Maths, Data Structures
8.	Cyber Security	Internet Technologies
9.	Database Internals	---
10.	Distributed Systems Security	Information Security
11.	E-Commerce	Internet Technologies
12.	Embedded Systems	Digital logic
13.	Information Security and Audit	------
14.	Intellectual Property Rights	---
15.	Internet of Things	Java
16.	Internet Technologies and Services	Java
17.	Java Programming	---
18.	Linux Programming	---
19.	Mobile Computing	Java
20.	Mobile Application Security	Mobile Application Development
21.	OpenStack Cloud Computing	Linux Programming
22.	Operations Research	Maths, Data Structures
23.	Principles of Information Security	------
24.	Scripting Languages	---
25.	Social Media Intelligence	---
26.	Software Engineering	---
27.	Storage Area Networks	Computer Networks
28.	Web Usability	------

PRINCIPAL
Sharfan College of Engineering & Technology
Peerzam Cheru, Hyderabad
College Code: 08



2016-17 R15

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.Tech. (COMPUTER NETWORKS)
COURSE STRUCTURE AND SYLLABUS

I Year – I Semester

	Course Title	Int. marks	Ext. marks	L	P	C
Core Course I	Data Structures and Algorithms	**25**	**75**	**4**	**--**	**4**
Core Course II	Computer Networking	25	75	4	--	4
Core Course III	Network Programming	25	75	4	--	4
Core Elective I	1. Database Internals 2. Software Defined Networks 3. TCP/IP Protocol Suite 4. Cloud Computing	25	75	4	--	4
Core Elective II	1. Internet of Things 2. Embedded Systems 3. Distributed Systems 4. Distributed Computing	25	75	4	--	4
Open Elective I	**Open Elective – 1**	25	75	4	--	4
Laboratory I	Network Programming Lab	25	75	--	4	2
Seminar I	Seminar	50	--	--	4	2
Total Credits				**24**	**8**	**28**

I Year – II Semester

	Course Title	Int. marks	Ext. marks	L	P	C
Core Course IV	Network Security	**25**	**75**	**4**	**--**	**4**
Core Course V	Wireless Networks	**25**	**75**	**4**	**--**	**4**
Core Course VI	Network Security Standards and Applications	**25**	**75**	**4**	**--**	**4**
Core Elective III	1. Internet Technologies and Services 2. Digital Water Marking and Steganography 3. Security Threats 4. Network Management and Performance Evaluation	**25**	**75**	**4**	**--**	**4**
Core Elective IV	1. Storage Area Networks 2. Distributed Systems Security 3. Cyber Security 4. Information Systems control and Audit	**25**	**75**	**4**	**--**	**4**
Open Elective II	**Open Elective – 2**	**25**	**75**	**4**	**--**	**4**
Laboratory II	Network Security Lab	**25**	**75**	**--**	**4**	**2**
Seminar II	Seminar	**50**	**--**	**--**	**4**	**2**
Total Credits			**24**	**8**	**28**	

II Year - I Semester

Course Title	Int. marks	Ext. marks	L	P	C
Comprehensive Viva-Voce	--	100	--	--	4
Project work Review I	50	--	--	24	12
Total Credits			--	24	**16**

II Year - II Semester

Course Title	Int. marks	Ext. marks	L	P	C
Project work Review II	50	--	--	8	4
Project Evaluation (Viva-Voce)	--	150	--	16	12
Total Credits			--	**24**	**16**

Sheshan College of Engineering & Technology
College Code 08
Hyderabad-TS
Posen Cheru

PRINCIPAL
Sheshan College of Engineering & Technology
Posen Cheru, Hyderabad-500 014
College Code: 08

2016-17 R15

Open Electives

1. Basic Computer Programming skills are required for all open electives. Additionally, knowledge on the specified area mentioned in prerequisites is required for opting the open elective
2. Note: A student can register for any open elective subject provided that he has not already registered for the same subject

S.NO	Open Elective subject	Prerequisites
1.	"R" Programming	Maths, Statistics
2.	Android Application Development	Java
3.	Algorithmics	-------
4.	Big Data Analytics	Data Bases , Maths
5.	Bioinformatics	Data Structures
6.	Biometrics	----
7.	Computer Forensics	Maths, Data Structures
8.	Cyber Security	Internet Technologies
9.	Database Internals	---
10.	Distributed Systems Security	Information Security
11.	E-Commerce	Internet Technologies
12.	Embedded Systems	Digital logic
13.	Information Security and Audit	------
14.	Intellectual Property Rights	---
15.	Internet of Things	Java
16.	Internet Technologies and Services	Java
17.	Java Programming	---
18.	Linux Programming	---
19.	Mobile Computing	Java
20.	Mobile Application Security	Mobile Application Development
21.	OpenStack Cloud Computing	Linux Programming
22.	Operations Research	Maths, Data Structures
23.	Principles of Information Security	------
24.	Scripting Languages	---
25.	Social Media Intelligence	---
26.	Software Engineering	---
27.	Storage Area Networks	Computer Networks
28.	Web Usability	------

PRINCIPAL
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College Code: 03

R15 - 2016-17 (2-1)

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD.

B. TECH. INFORMATION TECHNOLOGY / COMPUTER SCIENCE TECHNOLOGY

I YEAR

Code	Subject	L	T/P/D	C
	English	2	-	4
	Mathematics – I	3	1	6
	Mathematical Methods	3	-	6
	Engineering Physics	3	-	6
	Engineering Chemistry	3	-	6
	Computer Programming	3	-	6
	Engineering Drawing	2	3	6
	Computer Programming Lab.	-	3	4
	Engineering Physics / Engineering Chemistry Lab.	-	3	4
	English Language Communication Skills Lab.	-	3	4
	IT Workshop / Engineering Workshop	-	3	4
	Total	**19**	**16**	**56**

II YEAR I SEMESTER

Code	Subject	L	T/P/D	C
	Probability and Statistics	4	-	4
	Mathematical Foundations of Computer Science	4	-	4
	Data Structures	4	-	4
	Digital Logic Design and Computer Organization	4	-	4
	Electronic Devices and Circuits	4	-	4
	Basic Electrical Engineering	4	-	4
	Electrical and Electronics Lab	-	3	2
	Data Structures Lab	-	3	2
	Total	**24**	**6**	**28**

Shadan College of Engineering & Technology College Code: 08 Hyderabad-86, T.S. Peeran Cheru

PRINCIPAL
Shadan College of Engineering & Technology
Peeran Cheru, Hyderabad-86, T.S.
College Code: 08

R15-2016-17 (2-2)
R13-2016-17 (3-1, 3-2)

II YEAR II SEMESTER

Code	Subject	L	T/P/D	C
	Principles of Programming Languages	4	-	4
	Database Management Systems	4	-	4
	Java Programming	4	-	4
	Environmental studies	4	-	4
	Data Communication	4	-	4
	Design and Analysis of Algorithms	4	-	4
	Java Programming Lab	-	3	2
	Database Management Systems Lab	-	3	2
	Total	**24**	**6**	**28**

III YEAR I SEMESTER

Code	Subject	L	T/P/D	C
	Automata and Compiler Design	4	-	4
	Linux Programming	4	-	4
	Software Engineering	4	-	4
	Operating Systems	4	-	4
	Computer Networks	4	-	4
	Managerial Economics and Financial Analysis	4	-	4
	Operating Systems Lab	-	3	2
	Computer Networks Lab (Through Linux)	-	3	2
	Total	**24**	**6**	**28**

III YEAR II SEMESTER

Code	Subject	L	T/P/D	C
	Web Technologies	4	-	4
	OPEN ELECTIVE Human Values and Professional Ethics Intellectual Property Rights Disaster Management	4	-	4
	Object Oriented Analysis and Design	4	-	4
	Data Warehousing and Data Mining	4	-	4
	Software Testing Methodologies	4	-	4
	Cloud Computing	4	-	4
	Data Mining and Web Technologies Lab	-	3	2
	Advanced Communication Skills Lab	-	3	2
	Total	**24**	**6**	**28**

Shadan College of Engineering & Technology College Code 08 Hyderabad-86, T.S. Peeran Cheru

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Shadan College of Engineering & Technology
Peeran Cheru, Hyderabad-86, T.S.
College Code: 08

R13- 2016-17 (4-1, 4-2)

IV YEAR I SEMESTER

Code	Subject	L	T/P/D	C
	Information Security	4	-	4
	Design Patterns	4	-	4
	Mobile Application Development	4	-	4
	Information Retrieval Systems	4	-	4
	ELECTIVE – I Wireless Networks and Mobile Computing Image Processing and Pattern Recognition Soft Computing Semantic Web and Social Networks Operations Research	4	-	4
	ELECTIVE – II Software Project Management Computer Graphics Human Computer Interaction Scripting Languages Computer Forensics	4	-	4
	Case Tools and Software Testing Lab	-	3	2
	Mobile Applications Development Lab	-	3	2
	Total	24	6	28

IV YEAR II SEMESTER

Code	Subject	L	T/P/D	C
	Management Science	4	-	4
	ELECTIVE III Web Services E – Commerce Middleware Technologies Ad hoc and Sensor Networks	4	-	4
	ELECTIVE IV Multimedia & Rich Internet Applications Artificial Intelligence Storage Area Networks Machine Learning	4	-	4
	Industry Oriented Mini Project	-	-	2
	Seminar	-	6	2
	Project Work	-	15	10
	Comprehensive Viva	-	-	2
	Total	12	21	28

Note: All End Examinations (Theory and Practical) are of three hours duration.
T-Tutorial L – Theory P – Practical D-Drawing C – Credits

Shadan College of Engineering & Technology College Code 08 Hyderabad-86 T.S. Peeran Cheru

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Shadan College of Engineering & Technology
Peeran Cheru, Hyderabad-86, T.S.
College Code: 08

2016-17 R15

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

M.Tech. (COMPUTER NETWORKS AND INFORMATION SECURITY)

COURSE STRUCTURE AND SYLLABUS

I Year – I Semester

	Course Title	Int. marks	Ext. marks	L	P	C
Core Course I	Data Structures and Algorithms	**25**	**75**	**4**	--	**4**
Core Course II	Computer Networking	25	75	4	--	4
Core Course III	Network Programming	25	75	4	--	4
Core Elective I	1. Database Internals 2. Software Defined Networks 3. TCP/IP Protocol Suite 4. Cloud Computing	25	75	4	--	4
Core Elective II	1. Internet of Things 2. Embedded Systems 3. Distributed Systems 4. Distributed Computing	25	75	4	--	4
Open Elective I	**Open Elective – 1**	25	75	4	--	4
Laboratory I	Network Programming Lab	25	75	--	4	2
Seminar I	Semina	50	--	--	4	2
	Total Credits			**24**	**8**	**28**

I Year – II Semester

	Course Title	Int. marks	Ext. marks	L	P	C
Core Course IV	Network Security	**25**	**75**	**4**	--	**4**
Core Course V	Wireless Networks	**25**	**75**	**4**	--	**4**
Core Course VI	Network Security Standards and Applications	**25**	**75**	**4**	--	**4**
Core Elective III	1. Internet Technologies and Services 2. Digital Water Marking and Steganography 3. Security Threats 4. Network Management and Performance Evaluation	**25**	**75**	**4**	--	**4**
Core Elective IV	1. Storage Area Networks 2. Distributed Systems Security 3. Cyber Security 4. Information Systems control and Audit	**25**	**75**	**4**	--	**4**
Open Elective II	**Open Elective – 2**	**25**	**75**	**4**	--	**4**
Laboratory II	Network Security Lab	**25**	**75**	--	**4**	**2**
Seminar II	Semina	**50**	--	--	**4**	**2**
Total Credits			**24**	**8**	**28**	

II Year - I Semester

Course Title	Int. marks	Ext. marks	L	P	C
Comprehensive Viva-Voce	--	100	--	--	4
Project work Review I	50	--	--	24	12
Total Credits			--	24	**16**

II Year - II Semester

Course Title	Int. marks	Ext. marks	L	P	C
Project work Review II	50	--	--	8	4
Project Evaluation (Viva-Voce)	--	150	--	16	12
Total Credits			--	**24**	**16**





2016-17 R15

Open Electives

1. Basic Computer Programming skills are required for all open electives. Additionally, knowledge on the specified area mentioned in prerequisites is required for opting the open elective
2. Note: A student can register for any open elective subject provided that he has not already registered for the same subject

S.NO	Open Elective subject	Prerequisites
1.	"R" Programming	Maths, Statistics
2.	Android Application Development	Java
3.	Algorithmics	-------
4.	Big Data Analytics	Data Bases , Maths
5.	Bioinformatics	Data Structures
6.	Biometrics	----
7.	Computer Forensics	Maths, Data Structures
8.	Cyber Security	Internet Technologies
9.	Database Internals	---
10.	Distributed Systems Security	Information Security
11.	E-Commerce	Internet Technologies
12.	Embedded Systems	Digital logic
13.	Information Security and Audit	------
14.	Intellectual Property Rights	---
15.	Internet of Things	Java
16.	Internet Technologies and Services	Java
17.	Java Programming	---
18.	Linux Programming	---
19.	Mobile Computing	Java
20.	Mobile Application Security	Mobile Application Development
21.	OpenStack Cloud Computing	Linux Programming
22.	Operations Research	Maths, Data Structures
23.	Principles of Information Security	------
24.	Scripting Languages	---
25.	Social Media Intelligence	---
26.	Software Engineering	---
27.	Storage Area Networks	Computer Networks
28.	Web Usability	------

PRINCIPAL
Sphoorthy Engineering College
Nadergul, Hyderabad-501 510
College Code: 08

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

M.TECH. (EMBEDDED SYSTEMS)

COURSE STRUCTURE AND SYLLABUS

I Year – I Semester

Category	Course Title	Int. marks	Ext. marks	L	P	C
Core Course I	Embedded System Design	25	75	4	--	4
Core Course II	ARM Architectures	25	75	4	--	4
Core Course III	Real Time Operating Systems	25	75	4	--	4
Core Elective I	Advanced Computer Architecture VLSI Technology and Design Embedded Computing	25	75	4	--	4
Core Elective II	Digital System Design Embedded C Design for Testability	25	75	4	--	4
Open Elective I	TCP/IP Networks Coding Theory and Techniques Soft Computing Techniques	25	75	4	--	4
Laboratory I	Embedded Systems Laboratory	25	75	--	4	2
Seminar I	Seminar	50	--	--	4	2
Total Credits				**24**	**8**	**28**

I Year – IISemester

Category	Course Title	Int. marks	Ext. marks	L	P	C
Core Course IV	Digital Signal Processors and Architectures	25	75	4	--	4
Core Course V	Embedded Networking	25	75	4	--	4
Core Course VI	Sensors and Actuators	25	75	4	--	4
Core Elective III	CPLD and FPGA Architectures and Applications Wireless Communication and Networks System On Chip Architecture	25	75	4	--	4
Core Elective IV	Multimedia and Signal Coding Network Security and Cryptography Hardware Software Co-Design	25	75	4	--	4
Open Elective II	Scripting languages Adhoc Wireless and Sensor Networks Device Modeling	25	75	4	--	4
Laboratory II	Advanced Embedded SystemsLaboratory	25	75	--	4	2
Seminar II	Seminar	50	--	--	4	2
Total Credits				**24**	**8**	**28**

II Year - ISemester

Course Title	Int. marks	Ext. marks	L	P	C
Comprehensive Viva-Voce	--	100	--	--	4
Project work Review I	50	--	--	24	12
Total Credits			--	24	**16**

II Year - II Semester

Course Title	Int. marks	Ext. marks	L	P	C
Project work Review II	50	--	--	8	4
Project Evaluation (Viva-Voce)	--	150	--	16	12
Total Credits			--	**24**	**16**

Shadan College of Engineering & Technology College Code: 08 Hyderabad

PRINCIPAL
Shadan College of Engineering & Technology
Peeran Cheru, Hyderabad-86, T.S.
College Code: 08

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

M.Tech. (VLSI/ VLSI DESIGN/VLSI SYSTEM DESIGN)

COURSE STRUCTURE AND SYLLABUS

I Year – I Semester

Category	Course Title	Int. marks	Ext. marks	L	P	C
Core Course I	VLSI Technology	25	75	4	--	4
Core Course II	CMOS Analog Integrated Circuit Design	25	75	4	--	4
Core Course III	CMOS Digital Integrated Circuit Design	25	75	4	--	4
Core Elective I	Digital System Design Hardware Software Co-Design CPLD and FPGA Architectures and Applications	25	75	4	--	4
Core Elective II	Algorithms for VLSI Design Automation Embedded System Design Device Modeling	25	75	4	--	4
Open Elective I	Soft Computing Techniques Image and Video processing Software Defined Radio	25	75	4	--	4
Laboratory I	VLSI Laboratory – I	25	75	--	4	2
Seminar I	Seminar	50	--	--	4	2
Total Credits				**24**	**8**	**28**

I Year – IISemester

Category	Course Title	Int. marks	Ext. marks	L	P	C
Core Course IV	Low Power VLSI Design	25	75	4	--	4
Core Course V	Design for Testability	25	75	4	--	4
Core Course VI	CMOS Mixed Signal Circuit Design	25	75	4	--	4
Core Elective III	VLSI and DSP Architectures Full custom IC Design Hardware DescriptionLanguage	25	75	4	--	4
Core Elective IV	Optimization Techniques in VLSI Design System On Chip Architecture Semiconductor Memory Design and Testing	25	75	4	--	4
Open Elective II	Scripting Languages Coding Theory and Techniques Adhoc Wireless Networks	25	75	4	--	4
Laboratory II	VLSI Laboratory – II	25	75	--	4	2
Seminar II	Seminar	50	--	--	4	2
Total Credits				**24**	**8**	**28**

II Year - ISemester

Course Title	Int. marks	Ext. marks	L	P	C
Comprehensive Viva-Voce	--	100	--	--	4
Project work Review I	50	--	--	24	12
Total Credits			--	24	**16**

II Year - II Semester

Course Title	Int. marks	Ext. marks	L	P	C
Project work Review II	50	--	--	8	4
Project Evaluation (Viva-Voce)	--	150	--	16	12
Total Credits			--	**24**	**16**

Shadan College of Engineering & Technology College Code: 08 Hyderabad-86 Peeran Cheru

PRINCIPAL
Shadan College of Engineering & Technology
Peeran Cheru, Hyderabad-86, T.S.
College Code: 08

MBA 2016-17

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

MASTER OF BUSINESS ADMINISTRATION (MBA) R15

COURSE STRUCTURE AND SYLLABUS

I Year – I Semester

Category	Course Title	Int. marks	Ext. marks	L	P	C
Core Course II	MANAGEMENT AND ORGANISATIONAL BEHAVIOUR	25	75	3	-	3
Core Course II	BUSINESS LAWS & BUSINESS ENVIRONMENT	25	75	3	-	3
Core Course III	MANAGERIAL ECONOMICS	25	75	3	-	3
Core Course IV	FINANCIAL ACCOUNTING & ANALYSIS	25	75	3	-	3
Core Course V	STATISTICS FOR MANAGEMENT	25	75	3	-	3
Open Elective I	• CROSS CULTURE MANAGEMENT • WTO & IPR • TOTAL QUALITY MANAGEMENT • PROJECT MANAGEMENT	25	75	3	-	3
Laboratory	STATISTICAL DATA ANALYSIS - LAB	50	-	-	4	2
Seminar	BUSINESS COMMUNICATION- SEMINAR	50	-	-	4	2
Total Credits				**18**	**8**	**22**

I Year - II Semester

Category	Course Title	Int. marks	Ext. marks	L	P	C
Core Course I	HUMAN RESOURCE MANAGEMENT	25	75	3	-	3
Core Course II	MARKETING MANAGEMENT	25	75	3	-	3
Core Course III	FINANCIAL MANAGEMENT	25	75	3	-	3
Core Course IV	QUANTITATIVE ANALYSIS FOR BUSINESS DECISIONS	25	75	3	-	3
Core Course V	MIS & ERP	25	75	3	-	3
Open Elective I	• FOREIGN TRADE • BANKING,INSURANCE & RISK MANAGEMENT • LOGISTICS & SUPPLY CHAIN MANAGEMENT • MSME MANAGEMENT	25	75	3	-	3
Laboratory	ANNUAL REPORT ANALYSIS - LAB	50	-	-	4	2
Seminar	SUMMER INTERNSHIP - SEMINAR	50	-	-	4	2
Total Credits				**18**	**8**	**22**

II Year – I Semester

Category	Course Title	Int. marks	Ext. marks	L	P	C
Core Course I	PRODUCTION & OPERATIONS MANAGEMENT	25	75	3	-	3
Core Course II	STRATEGIC MANAGEMENT	25	75	3	-	3
Core Course III	RESEARCH METHDOLOGY	25	75	3	-	3
Core Elective I	(MRKG/HRM/FIN/SYS)	25	75	3	-	3
Core Elective II	(MRKG/HRM/FIN/SYS)	25	75	3	-	3
Core Elective III	(MRKG/HRM/FIN/SYS)	25	75	3	-	3
Seminar	PERSONAL EFFECTIVENESS - SEMINAR	50	-	-	4	2
Seminar	BUSINESS BEST PRACTICES AND SUCCESS STORIES OF EMERGING LEADERS - SEMINAR	50	-	-	4	2
Total Credits				**18**	**8**	**22**

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II Year - II Semester

Category	Course Title	Int. marks	Ext. marks	L	P	C
Core Course I	ENTREPRENUERSHIP	25	75	3	-	3
Core Course II	MANAGEMENT OF TECHNOLOGY	25	75	3	-	3
Core Elective IV	(MRKG/HRM/FIN/SYS)	25	75	3	-	3
Core Elective V	(MRKG/HRM/FIN/SYS)	25	75	3	-	3
Core Elective VI	(MRKG/HRM/FIN/SYS)	25	75	3	-	3
Seminar	PRE SUBMISSION OF PROJECT –SEMINAR	50	-	-	4	2
	COMPREHENSIVE VIVA	-	100	-	4	2
	PROJECT	25	75	-		3
Total Credits				15	8	22

CORE ELECTIVE STREAMS (choose any one stream subjects as Core Electives)

MARKETING ELECTIVES
CONSUMER BEHAVIOUR
SALES AND DISTRIBUTION
INTEGRATED MARKETING COMMUNICATIONS
RETAILING MANAGEMENT
SERVICES MARKETING
INTERNATIONAL MARKETING
FINANCE ELECTIVES
STRATEGIC MANAGEMENT ACCOUNTING
SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT
FINANCIAL INSTITUTIONS, MARKETS & SERVICES
STRATEGIC INVESTMENT AND FINANCING DECISIONS
INTERNATIONAL FINANCIAL MANAGEMENT
FINANCIAL DERIVATIVES
HR ELECTIVES
PERFORMANCE MANAGEMENT
TRAINING AND DEVELOPMENT
MANAGEMENT OF INDUSTRIAL RELATIONS
COMPENSATION & REWARD MANAGEMENT
INTERNATIONAL HUMAN RESOURCE MANAGEMENT
LEADERSHIP & CHANGE MANAGEMENT
SYSTEMS ELECTIVES
BUSINESS INTELLIGENCE
DATABASE MANAGEMENT SYSTEMS
DECISION SUPPORT SYSTEMS
E-BUSINESS
KNOWLEDGE MANAGEMENT
INFORMATION SYSTEMS, CONTROL AND AUDIT

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

(Established by an Act No.30 of 2008 of A.P. State Legislature)

Kukatpally, Hyderabad – 500 085, Andhra Pradesh (India)

M.Tech. (CAD/CAM)
(R15) COURSE STRUCTURE AND SYLLABUS

I YEAR I SEMESTER

Code	Group	Subject	L	P	Credits
		Advanced CAD	3	0	3
		Advanced Finite Element Analysis	3	0	3
		Precision Engineering	3	0	3
		Design for Manufacturing and Assembly	3	0	3
	Elective -I	Numerical Methods for Partial Differential Equations Advanced Mechanics of Solids Advanced Mechatronics	3	0	3
	Elective -II	Advanced Mechanics of Composite Materials Total Quality Management Stress Analysis and Vibrations	3	0	3
	Lab	Computer Aided Design Lab	0	3	2
		Seminar	-	-	2
		Total Credits	18	3	22

I YEAR II SEMESTER

Code	Group	Subject	L	P	Credits
		Design of Hydraulics and Pneumatics Systems	3	0	3
		Flexible Manufacturing Systems	3	0	3
		Computer Aided Manufacturing	3	0	3
		Industrial Robotics	3	0	3
	Elective –III	Production and Operations Management Computational Fluid Dynamics Automation in Manufacturing	3	0	3
	Elective -IV	Design Optimization Intelligent Manufacturing Systems Computer Aided Process Planning	3	0	3
	Lab	Computer Aided Machining and Robotics Lab	0	3	2
		Seminar	-	-	2
		Total Credits	18	3	22

II YEAR - I Semester

Code	Group	Subject	L	P	Credits
		Comprehensive Viva	-	-	2
		Project Seminar	0	3	2
		Project work	-	-	18
		Total Credits	-	3	22

II YEAR - II Semester

Code	Group	Subject	L	P	Credits
		Project work and Seminar	-	-	22
		Total Credits	-		22

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

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Kukatpally, Hyderabad – 500 085, Andhra Pradesh (India)

M.Tech. (CAD/CAM)
(R13) COURSE STRUCTURE AND SYLLABUS

I YEAR I SEMESTER

Code	Group	Subject	L	P	Credits
		Advanced CAD	3	0	3
		Advanced Finite Element Analysis	3	0	3
		Precision Engineering	3	0	3
		Design for Manufacturing and Assembly	3	0	3
	Elective -I	Numerical Methods for Partial Differential Equations Advanced Mechanics of Solids Advanced Mechatronics	3	0	3
	Elective -II	Advanced Mechanics of Composite Materials Total Quality Management Stress Analysis and Vibrations	3	0	3
	Lab	Computer Aided Design Lab	0	3	2
		Seminar	-	-	2
		Total Credits	18	3	22

I YEAR II SEMESTER

Code	Group	Subject	L	P	Credits
		Design of Hydraulics and Pneumatics Systems	3	0	3
		Flexible Manufacturing Systems	3	0	3
		Computer Aided Manufacturing	3	0	3
		Industrial Robotics	3	0	3
	Elective –III	Production and Operations Management Computational Fluid Dynamics Automation in Manufacturing	3	0	3
	Elective -IV	Design Optimization Intelligent Manufacturing Systems Computer Aided Process Planning	3	0	3
	Lab	Computer Aided Machining and Robotics Lab	0	3	2
		Seminar	-	-	2
		Total Credits	18	3	22

II YEAR - I Semester

Code	Group	Subject	L	P	Credits
		Comprehensive Viva	-	-	2
		Project Seminar	0	3	2
		Project work	-	-	18
		Total Credits	-	3	22

II YEAR - II Semester

Code	Group	Subject	L	P	Credits
		Project work and Seminar	-		22
		Total Credits			22

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With effect from 02/08/2016

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.TECH. COURSE STRUCTURE (2016-17)

(Common for Civil, ME, AE, ME (M), MME, AU, Mining, Petroleum, CEE, ME (Nanotech))

I YEAR I SEMESTER

S. No	Course Code	Course Title	L	T	P	Credits
1	MA101BS	Mathematics-I	3	1	0	3
2	MA102BS	Mathematics-II	4	1	0	4
3	PH103BS	Engineering Physics	3	0	0	3
4	CS104ES	Computer Programming in C	3	0	0	3
5	ME105ES	Engineering Mechanics	3	0	0	3
6	ME106ES	Engineering Graphics	2	0	4	4
7	PH107BS	Engineering Physics Lab	0	0	3	2
8	CS108ES	Computer Programming in C Lab	0	0	3	2
9	*EA109MC	NSS	0	0	0	0
		Total Credits	**18**	**2**	**10**	**24**

I YEAR II SEMESTER

S. No	Course Code	Course Title	L	T	P	Credits
1	AP201BS	Applied Physics	3	0	0	3
2	CH202BS	Engineering Chemistry	4	0	0	4
3	MA203BS	Mathematics-III	4	1	0	4
4	EN204HS	Professional Communication in English	3	0	0	3
5	EE205ES	Basic Electrical & Electronics Engineering	4	0	0	4
6	CH206BS	Engineering Chemistry Lab	0	0	3	2
7	EN207HS	English Language Communication Skills Lab	0	0	3	2
8	ME208ES	Engineering Workshop	0	0	3	2
9	*EA209MC	NCC/NSO	0	0	0	0
		Total Credits	**18**	**1**	**9**	**24**

*Mandatory Course

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD.

B. TECH. MECHANICAL ENGINEERING

I YEAR

Code	Subject	L	T/P/D	C
A10001	English	2	-	4
A10002	Mathematics – I	3	1	6
A10302	Engineering Mechanics	3	-	6
A10004	Engineering Physics	3	-	6
A10005	Engineering Chemistry	3	-	6
A10501	Computer Programming	3	-	6
A10301	Engineering Drawing	2	3	6
A10581	Computer Programming Lab.	-	3	4
A10081	Engineering Physics & Engineering Chemistry Lab.	-	3	4
A10083	English Language Communication Skills Lab.	-	3	4
A10082	IT Workshop / Engineering Workshop	-	3	4
	Total	**19**	**16**	**56**

II YEAR I SEMESTER

Code	Subject	L	T/P/D	C
A30009	Environmental Studies	4	-	4
A30008	Probability and Statistics	4	-	4
A30203	Electrical and Electronics Engineering	4	-	4
A30104	Mechanics of Solids	4	-	4
A30306	Thermodynamics	4	-	4
A31803	Metallurgy and Materials Science	4	-	4
A30281	Electrical and Electronics Engineering Lab	-	3	2
A30085	Metallurgy & Mechanics of Solids Lab	-	3	2
	Total	**24**	**6**	**28**

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II YEAR II SEMESTER

Code	Subject	L	T/P/D	C
A40312	Production Technology	4	-	4
A40309	Kinematics of Machinery	4	-	4
A40313	Thermal Engineering -I	4	-	4
A40112	Mechanics of Fluids and Hydraulic Machines	4	-	4
A40310	Machine Drawing	-	6	4
A40006	Mathematics–II	4	-	4
A40382	Production Technology Lab	-	3	2
A40188	Mechanics of Fluids & Hydraulic Machines Lab	-	3	2
	Total	**20**	**12**	**28**

III YEAR I SEMESTER

Code	Subject	L	T/P/D	C
A50010	Managerial Economics and Financial Analysis	4	-	4
A50318	Engineering Metrology	4	-	4
A50317	Dynamics of Machinery	4	-	4
A50321	Machine Tools	4	-	4
A50316	Design of Machine Members – I	4	-	4
A50326	Thermal Engineering -II	4	-	4
A50384	Machine Tools & Metrology Lab	-	3	2
A50383	Thermal Engineering Lab	-	3	2
	Total	**24**	**6**	**28**

III YEAR II SEMESTER

Code	Subject	L	T/P/D	C
A62405	Automobile Engineering	4	-	4
A60330	Finite Element Methods	4	-	4
A60334	Refrigeration and Air Conditioning	4	-	4
A60329	Design of Machine Members – II	4	-	4
A60331	Heat Transfer	4	-	4
A60117 A60017 A60018	**Open Elective** Disaster Management Intellectual Property Rights Human Values and Professional Ethics	4	-	4
A60387	Heat Transfer Lab	-	3	2
A60066	Advanced Communication Skills Lab	-	3	2
	Total	**24**	**6**	**28**

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IV YEAR I SEMESTER

Code	Subject	L	T/P/D	C
A70352	Operations Research	4	-	4
A70353	Power Plant Engineering	4	-	4
A70328	CAD/CAM	4	-	4
A70343	Instrumentation and Control Systems	4	-	4
	ELECTIVE – I	4	-	4
A70355	Robotics			
A70346	Mechanical Vibrations			
A70348	Mechatronics			
A70347	Mechanics of Composite Materials			
A70332	Industrial Management			
	ELECTIVE – II	4	-	4
A70359	Unconventional Machining Processes			
A70337	CNC Technology			
A70336	Automation in Manufacturing			
A70339	Design for Manufacturing			
A72909	Nanotechnology			
A70390	Computer Aided Design & Manufacturing Lab	-	3	2
A70391	Production Drawing Practice and Instrumentation Lab	-	3	2
	Total	**24**	**6**	**28**

IV YEAR II SEMESTER

Code	Subject	L	T/P/D	C
A80366	Production Planning and Control	4	-	4
	ELECTIVE – III	4	-	4
A80527	Artificial Neural Networks			
A80367	Total Quality Management			
A80363	Maintenance and Safety Engineering			
A80365	Plant Layout & Material Handling			
	ELECTIVE – IV	4	-	4
A80324	Renewable Energy Sources			
A80362	Jet Propulsion & Rocket Engineering			
A80338	Computational Fluid Dynamics			
A80361	Gas Dynamics			
A80067	Industry Oriented Mini Project	-	-	2
A80069	Seminar	-	6	2
A80068	Project Work	-	15	10
A80090	Comprehensive Viva	-	-	2
	Total	**12**	**21**	**28**

Note: All End Examinations (Theory and Practical) are of three hours duration.

T-Tutorial L – Theory P – Practical D-Drawing C – Credits

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