

R.V.R.& J.C COLLEGE OF ENGINEERING, CHOWDAVARAM::GUNTUR-522019
DEPARTMENT OF INFORMATION TECHNOLOGY

1.1.2 % Syllabus Changes proof with HOD signature (B.Tech R12 - R16)

R-16 SYLLBAUS					
S.No	SUBJECT NAME	SUBJECT CODE	CONTENT ADDED/REPLACED	Summary	% OF SYLLABUS CHANGE
1	Differential Equations & Transforms	IT 101		Newly Introduced	100
2	Engineering Physics	IT 102	NDT: Normal beam pulse echo testing, ultrasonic scanner (A & B modes) WITH new Content Principles of Quantum Mechanics : de Broglie's concept of matter waves, Davisson and Germer experiment, Heisenberg's uncertainty principle-experimental verification (electron diffraction - single slit) Schrodinger equation and application : Time independent Schrodinger's wave equation, physical significance of the wave function, particle in a box (one dimensional), tunneling effect, expression for transition probability (Qualitative	ONE TOPIC IN I UNIT AND IV UNIT COMPLETELY CHANGED	20
3	Applied Chemistry	IT 103	Corrosion and it's control, protection methods, Colorimetry ,Analytical Techniques	Unit IV and Unit V Added	40
4	Environmental Studies	IT 104		No Change	0
5	Problem Solving With C	IT 105		No Change	0
6	Mechanics For Engineers	IT 106		No Change	0
7	Physics Laboratory	IT 151		No Change	0
8	C - Programming Lab	IT 152		No Change	0
9	Communication Skills Lab	IT 153		Newly Introduced	100
10	Matrix Algebra & Numerical Analysis	IT 107		Newly Introduced	100
11	Electronic And Electrical Engineering Materials	IT 108		Newly Introduced	100
12	Chemistry For Engineering Materials	IT 109	Refractories, Lubricants, Liquid crystals, Explosives	Unit IV and Unit V Added	40
13	English For Communication	IT 110		UNIT II, UNIT III , IV AND SOME PARTS OF UNIT V	70
14	Object Oriented Programming	IT 111		No change	0
15	Professional Ethics & Human Values	IT 112		No Change	0
16	Chemistry Laboratory	IT 154		No Change	0
17	Object Oriented Programming Lab	IT 155		No Change	0
18	Engineering Graphics Lab	IT 156		No Change	0

19	Probability – Statistics & Random Processes	IT 201	Analytical representation of random processes, Gaussian process, Markov process	Minor changes in UNIT IV, UNIT V Added	30
20	Basic Electrical & Electronics Engineering	IT 202		No Change	0
21	Digital Logic Design	IT 203		No Change	0
22	Data Structures	IT 204		No Change	0
23	Computer Organization	IT 205		No Change	0
24	Discrete Mathematical Structures	IT 206		No Change	0
25	Basic Electrical Engineering Lab	IT 251		No Change	0
26	Data Structures Lab	IT 252		No Change	0
27	Professional Communication Skills Lab	IT 253		Unit IV and V added	40
28	Number Theory And Algebra	IT 207		Newly Introduced	100
29	Microprocessors & Interfacing	IT 208		No Change	0
30	Theory Of Computation	IT 209		No Change	0
31	Database Management Systems	IT 210		No Change	0
32	Java Programming	IT 211		No Change	0
33	Operating Systems	IT 212	Concurrency And Synchronization	Minor changes in UNIT I and UNIT II	20
34	Microprocessors & Interfacing Lab	IT 254		Three experiments are added	30
35	Database Management Systems Lab	IT 255		No Change	0
36	Java Programming Lab	IT 256	GUI Components	One Experiment added	10
37	Computer Networks	IT 301	Layers of networks in detail	Major changes in all units	90
38	Web Technologies	IT 302		No Change	0
39	Design & Analysis Of Algorithms	IT 303		No Change	0
40	Unix Programming	IT 304		No Change	0
41	Compiler Design	IT 305		No Change	0
42	Software Engineering	IT 306		UNIT I, UNIT II, UNIT III, UNIT IV AND UNIT V	60
43	Web Technologies Lab	IT 351		No Change	0
44	Design & Analysis Of Algorithms Lab	IT 352		Newly Introduced	100
45	Unix Programming Lab	IT 353	IPC Programming	Lab cycle V added	20
46	Network Programming	IT 307		No Change	0
47	Data Engineering	IT 308		No Change	0
48	Object Oriented Analysis & Design	IT 309		No Change	0
49	Cryptography & Network Security	IT 310		No Change	0
50	Artificial Intelligence	IT 311(A)		Major changes in all units	90
51	Principles Of Programming Languages	IT 311(B)		Newly Introduced	100
52	Multimedia Systems	IT 311(C)		No Change	0
53	Mobile Computing	IT 311(D)		Major changes in all units	90
54	Embedded Systems	IT 312(A)		No Change	0
55	Adbms	IT 312(B)		Changes in UNIT I	20
56	Graph Theory	IT 312©		Newly Introduced	100
57	Mobile Application Development	IT 312(D)		Newly Introduced	100
58	Network Programming Lab	IT 354		Six experiments are changed	50
59	Data Engineering Lab	IT 355		Some experiments are changed	70
60	Object Oriented Analysis & Design Lab	IT 356		No Change	0
61	Distributed Systems	IT 401		Part of UNIT V is changed	10
62	Web Services	IT 402		No Change	0

63	Moocs	IT 403		Newly Introduced	100
64	Basic Surveying	CE 404(A)		Newly Introduced	100
65	Building Materials & Estimation	CE 404(B)		Newly Introduced	100
66	Energy Engineering	CH 404(A)		No change	0
67	Bio-Fuels	CH 404(B)		Unit III 80% change Unit IV second topic 20% changed , 80 % Unit V	22
68	Applied Electronics	EC 404(A)		80% Unit IV and Unit V newly added	36
69	Basic Communication	EC 404(B)		Unit V added	20
70	Non-Conventional Energy Sources	EE 404(A)		Newly Introduced	100
71	Utilization Of Electrical Energy	EE 404(B)		Second part in Unit II and Unit III are added	20
72	Robotics	ME 404(A)			
73	Operations Research	ME 404(B)			
74	Interactive Computer Graphics	IT 405		Changes in unit IV	10
75	Open Source Systems	IT 406 (A)		No Change	0
76	.Net Technologies	IT 406 (B)		No Change	0
77	Programming With Python	IT 406 (C)		No Change	0
78	Internet Of Things	IT 406 (D)		Newly Introduced	100
79	Term Paper	IT451		No Change	0
80	Web Services Lab	IT 452		No Change	0
81	Open Source Systems Lab	IT 453 (A)	programs on Ajax	some experiments are intro	50
82	.Net Technologies Lab	IT 453 (B)		No Change	0
83	Programming With Python Lab	IT 453 (C)		Newly Introduced	100
84	Internet Of Things Lab	IT 453 (D)		Newly Introduced	100
85	Industrial Engineering & Management	IT 407		No Change	0
86	Distributed & Cloud Computing	IT 408		Newly Introduced	100
87	Parallel Algorithms	IT 409 (A)		Newly Introduced	100
88	Digital Image Processing	IT 409 (B)		changes in UNIT II	10
89	Natural Language Processing	IT 409 (C)		Newly Introduced	100
90	Cyber Security	IT 409 (D)		Newly Introduced	100
91	Machine Learning	IT 410 (A)		Newly Introduced	100
92	Semantic Web	IT 410 (B)		Newly Introduced	100
93	Big Data Analytics	IT 410 (C)		Newly Introduced	100
94	Industry Related Subject	IT 410 (D)		Newly Introduced	100
95	Distributed & Cloud Computing Lab	IT 454		Newly Introduced	100
96	Project Work	IT 455		No Change	0

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A. Srikrishna

**Dr. A. Srikrishna
Prof., & HOD, IT**

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1.1.2 % Changes proof with HOD signature (B.Tech R16 - R18)

S.No	SUBJECT NAME	SUBJECT CODE	CONTENT ADDED/REPLACED	Summary	% OF SYLLABUS CHANGE
1	Mathematics – I (Calculus & Linear Algebra)	IT 111		Major changes in All units	50
2	Engineering Physics	IT 112		Major changes in All units	90
3	Basic Electrical Engineering	IT 113		Major changes in All units	80
4	Introduction To Computing	IT V002		Newly Introduced	100
5	Physics Lab	IT 151		Some experiments are changed	50
6	Basic Electrical Engineering Lab	IT 152		Some new experiments are added	40
7	Engineering Graphics And Designlab	IT 153		No Change	0
8	Mathematics – II	IT 121		Major changes in All units	60
9	Engineering Chemistry	IT 122		Major changes in All units	80
10	Programming For Problem Solving	IT 123		No Change	0
11	English For Communication Skills	IT 124		Some new topics are added	50
12	Environmental Science	MC 002		Minor changes in all units	20
13	English Competency Development Program	IT V001		Newly Introduced	100
14	Spoken English & Etiquette	ITV003		Newly Introduced	100
15	Chemistry Lab	IT161		Some new experiments are added	30
16	Programming For Problem Solving Lab	IT 162		Some new experiments are added	20
17	Workshop Practices Lab	IT 163		Newly Introduced	100
18	English Language Communication Skillslab	IT 164		Major changes in All units	90
19	Mathematics-III	IT 211		Major changes in All units	80
20	Life Sciences For Engineers	IT 212		Newly Introduced	100
21	Digital Electronics	IT 213		Minor changes in unit II	10
22	Discrete Mathematics	IT214		Minor changes in unit II	20
23	Data Structures	IT215		Minor changes in unit II,III and UNIT IV	30
24	Object Oriented Programming	IT216		Minor changes in all units	90
25	Constitution Of India	MC001		Newly Introduced	100
26	Design Thinking And Product Innovation	MC004		Newly Introduced	100
27	Digital Electronics Lab	IT251		Newly Introduced	100
28	Data Structures Lab	IT252		Newly added some experiments Problems related Balanced Trees,Problems related B-Trees	30
29	Object Oriented Programming Lab	IT253		New experiments are added like Static Member, Static Method And Static Block,Method Overloading And Method Overriding etc	90
30	Humanities (Elective-I)	IT221			0
31	Computer Organization	IT222		Minor changes in unit II and UNIT III :Basic Input/ Output,PCI Bus, SCSI Bus	30
32	Operating Systems	IT223		Minor changes in unit II,III and UNIT IV	40
33	Database Management Systems	IT224		Minor changes in unit III	10
34	Formal Languages & Automata Theory	IT225		No change	0
35	Open Elective-I	IT226			0
36	Programming With Python	ITV004		Major changes in UNIT II, UNIT III AND UNIT IV	70
37	Essence Of Indian Traditional Knowledge	MC003		Newly Introduced	100
38	Operating Systems Lab	IT261		Newly Introduced	100
39	Database Management Systems Lab	IT262		New experiments are added	10
40	Computer Networks	IT311		No change	0
41	Design & Analysis Of Algorithms	IT312		No change	0

42	Web Technologies	IT313		Minor changes in unit IV like JSP	20
43	Software Engineering	IT314		No change	0
44	Professional Elective-I	IT315			0
45	Open Elective-II	IT316			0
46	Design & Analysis Of Algorithms Lab	IT351		No change	0
47	Web Technologies Lab	IT352		Two new programs are added	10
48	SE Lab	IT353		No change	0
49	Compiler Design	IT321		No change	0
50	Data Engineering	IT322		New concepts added in UNIT IV:Data Mining Trends	10
51	Artificial Intelligence	IT323		Major changes in all UNITS	80
52	Cryptography & Network Security	IT324		No change	0
53	Professional Elective-II	IT325			0
54	Open Elective-III	IT326			0
55	Artificial Intelligence Lab	IT361		Newly Introduced	100
56	Data Engineering Lab	IT362		No change	0
57	Term Paper	IT363		No change	0
58	Humanities (Elective-II)	IT411			0
59	Machine Learning	IT412		Newly added UNIT III AND UNIT IV	50
60	Neural Networks	IT413		Newly Introduced	100
61	Professional Elective- III	IT414			0
62	Professional Elective- IV	IT415			0
63	Machine Learning Lab	IT451		Newly Introduced	100
64	Project-I	IT452		Newly Introduced	100
65	Professional Elective V(Moocs)	IT421		Newly Introduced	100
66	Open Elective-IV(Moocs)	IT422		Newly Introduced	100
67	Project-II	IT461		No change	0

OPEN ELECTIVE COURSES

68	Data Structures And Algorithm	ITOL01		Newly Introduced	100
69	Operating Systems	ITOL02		Newly Introduced	100
70	Bigdata Analytics	ITOL03		Newly Introduced	100
71	Web Technologies	ITOL04		Minor changes in UNIT V	20

Professional Elective- III

72	Unix Programming	ITEL01		No change	0
73	Interactive Computer Graphics	ITEL02		New concept added in UNIT IV: Computer animation	10
74	Big Data Analytics	ITEL03		UNIT IV added Understanding Analytics and Big Data,Exploring R,Reading Dataset and Exporting Data from R	20
75	Embedded Systems	ITEL04		No change	0
76	Open Source Systems	ITEL05		II,UNIT III & UNIT IV:PHP	50
77	Digital Image Processing	ITEL06		Minor changes in unit I and unit IV	20
78	Network Programming	ITEL07		No change	0
79	Mobile App Development	ITEL08		No change	0
80	Internet Of Things	ITEL09		Major changes in UNIT II, UNIT III AND UNIT IV	90
81	Object Oriented Analysis And Design	ITEL010		No change	0
82	Distributed Computing	ITEL011		Newly Introduced	100
83	Principles Of Programming Languages	ITEL012		New concepts are added	30
84	Industry Related Subject	ITEL013		requirements	

Professional Elective- IV					
85	Advanced Computer Architecture	ITEL14		Newly Introduced	100
86	Design And Analysis Of Parallel Algorithms	ITEL15		Newly Introduced	100
87	.Net Technologies	ITEL16		Newly Introduced	100
88	Semantic Web	ITEL17			0
89	Wireless Networks	ITEL18		Newly Introduced	100
90	Cloud Computing	ITEL19		Newly Introduced	100
91	Quantum Computing	ITEL20		Newly Introduced	100
92	Natural Language Processing	ITEL21		Major changes in UNIT III & UNIT IV	50
93	Virtual Reality	ITEL22		Newly Introduced	100
94	Cyber Security	ITEL23		Major changes in all units	9000
95	Block Chain Technology	ITEL24		Newly Introduced	100
96	Multicore Technologies	ITEL25		Newly Introduced	100
97	Industry Related Subject	ITEL26		To be decided based on industry requirements	
Humanities Elective Courses (OFFERED BY MANAGEMENT DEPARTMENT)					
98	Introduction To Industrial Management	HSEL 01		Newly Introduced	100
99	Fundamentals Of Management For Engineers	HSEL 02		Newly Introduced	100
100	Economics For Engineers	HSEL 03		Newly Introduced	100
101	Project Management And Entrepreneurship	HSEL 04		Newly Introduced	100
102	Human Resources Behaviour And Organization Behaviour	HSEL 05		Newly Introduced	100

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Prof., & HOD, IT**