

Rashtreeya Sikshana Samithi Trust
R.V COLLEGE OF ENGINEERING

(Autonomous Institution affiliated to VTU, Belagavi)

R.V. Vidyaniketan Post, Mysuru Road
Bengaluru – 560 059



SCHEME & SYLLABUS

1st to 8th Semesters

B.E-Telecommunication Engineering

(2016 Scheme)

R.V. College of Engineering, Bengaluru- 560059
(Autonomous Institution Affiliated to VTU, Belagavi)
FIRST SEMESTER CREDIT SCHEME FOR PHYSICS CYCLE

(COMMON TO ALL PROGRAMS)								
Sl. No	Course Code	Course Title	BoS	CREDIT ALLOCATION				Total Credits
				Lecture	Tutorial	Practical	SS (EL)	
1	16MA11	Applied Mathematics-I	Maths	3	1	0	1	5
2	16PH12	Engineering Physics (Theory and Practice)	Physics	4	0	1	0	5
3	16CV13	Elements of civil Engineering	CV	4	1	0	0	5
4	16ME14	Computer Aided Engineering Drawing (Theory and Practice)	ME	1	0	2	0	3
5	16EE15	Elements of Electrical Engineering	EE	4	0	0	1	5
6	16HSC16	Constitution of India and Legal Studies for Engineers	HSS	2	0	0	0	2
7	16HSK17*	Kannada*	HSS	1	0	0	0	0
Total No. of Credits								25
No. Of Hrs.				19	04	6	8**	29

*Mandatory Audit course 1 Hr per week

** Non contact hours

R.V. College of Engineering, Bengaluru- 560059
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SECOND SEMESTER CREDIT SCHEME FOR PHYSICS CYCLE

(COMMON TO ALL PROGRAMS)								
Sl. No	Course Code	Course Title	BoS	CREDIT ALLOCATION				Total Credits
				Lecture	Tutorial	Practical	SS (EL)	
1	16MA21	Applied Mathematics-II	Maths	3	1	0	1	5
2	16PH22	Engineering Physics (Theory and Practice)	Physics	4	0	1	0	5
3	16CV23	Elements of civil Engineering	CV	4	1	0	0	5
4	16ME24	Computer Aided Engineering Drawing (Theory and Practice)	ME	1	0	2	0	3
5	16EE25	Elements of Electrical Engineering	EE	4	0	0	1	5
6	16HSC26	Constitution of India and Legal Studies for Engineers	HSS	2	0	0	0	2
7	16HSK27*	Kannada*	HSS	1	0	0	0	0
Total No. of Credits								25
No. Of Hrs.				19	04	6	8**	29

*Mandatory Audit course 1 Hr per week

** Non contact hours

R V COLLEGE OF ENGINEERING, BENGALURU-560 059
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THIRD SEMESTER CREDIT SCHEME								
Sl. No.	Course Code	Course Title	BoS	CREDIT ALLOCATION				
				L	T	P	S	Total Credits
1.	16MA31B	Discrete and Integral Transforms	Maths	3	1	0	0	4
2.	16ET32	Environmental Technology	BT	2	0	0	0	2
3.	16TE33	Analog Electronic Circuits	TE	3	0	1	1	5
4.	16TE34	Digital Electronics Circuits	TE	3	0	1	1	5
5.	16TE35	Network Analysis	TE	3	1	0	1	5
6.	16TE36	Fields and Waves	TE	3	1	0	0	4
7.	16DCS37	Bridge Course C Programming *	CSE	2	0	0	0	0
Total number of Credits								25
Total Number of Hours / Week				17+2*	6	4	12**	29

FOURTH SEMESTER CREDIT SCHEME								
Sl. No.	Course Code	Course Title	BoS	CREDIT ALLOCATION				
				L	T	P	S	Total Credits
1.	16MA41B	Linear Algebra & Probability Theory	Maths	3	1	0	0	4
2.	16EM42B	Engineering Materials	EC	2	0	0	0	2
3.	16TE43	Analog Communication	TE	3	0	1	1	5
4.	16TE44	Signals and Systems	TE	3	1	0	0	4
5.	16TE45	Microprocessor and Microcontrollers	TE	3	0	1	1	5
6.	16TE46	Data Structures Using C++	TE	3	0	0	1	4
7.	16HS47	Professional Practice-II (Team Work and Professional Ethics)	HSS	0	0	1	0	1
8.	16DMA48	Bridge Course Mathematics*	Maths	2	0	0	0	0
Total number of Credits								25
Total Number of Hours / Week				17+2*	4	4	12**	27

* Mandatory Audit course for lateral entry diploma students

**Non contact hours

FIFTH SEMESTER CREDIT SCHEME								
Sl. No	Course Code	Course Title	BOS	Credit Allocation				
				Lecture	Tutorial	Practical	SS (EL)	Total Credits
1	16HSI51	IPR & Entrepreneurship	HSS	3	0	0	0	3
2	16TE52	Digital Signal Processing	TE	3	0	1	1	5
3	16TE53	Digital Communication	TE	3	0	1	1	5
4	16TE54	Telecom Switching System	TE	3	0	0	0	3
5	16TE55	Microwave Engineering	TE	3	1	0	0	4
6	16TE5AX	Elective A (PE)	TE	3	1	0	0	4
7	16G5BXX	Elective B (OE)	TE	3	0	0	1	4
		Total No. of Credits						28
		No. Of Hrs.		21	4	4	12**	29

**Non contact hours

Programs	Semester	Course Code/ Course Title	Semester	Course Code / Course Title
EC,CS,EE,IS,TE	5	16HSI51 IPR & Entrepreneurship	6	16HEM61 Foundations of Management & Economics
ME,CH,IM,EI,CV,BT,AS	5	16HEM51 Foundations of Management & Economics	6	16HSI61 IPR & Entrepreneurship

Elective A (PE)	Elective Title (PE)	Elective B (OE)	Elective Title (OE)
16TE5A1	Digital Design and Verification using Verilog	16G5BXX	Telecommunication Systems
16TE5A2	Control Systems		
16TE5A3	Video Engineering/ Digital Video Broadcasting		
16TE5A4	Computer Organization and Architecture		

Global B Elective

Global B Elective(GE)	Global B Elective(GE)	Offering Dept (GE)
16G5B01	Bioinformatics	Biotechnology
16G5B02	Fuel Cell Technology	Chemical Engineering
16G5B03	Geoinformatics	Civil Engineering
16G5B04	Graph Theory	Computer Science Engineering
16G5B05	Artificial Neural Networks & Deep Learning	Electronics & Communication Engineering
16G5B06	Hybrid Electric Vehicles	Electrical & Electronics Engineering
16G5B07	Optimization Techniques	Industrial & Management Engineering
16G5B08	Sensors & Applications	Electronics & Instrumentation Engineering
16G5B09	Introduction To Management Information Systems	Information Science Engineering
16G5B10	Industrial Automation	Mechanical Engineering
16G5B11	Telecommunication Systems	Telecommunication Engineering
16G5B12	Computational advanced numerical methods	Maths

SIXTH SEMESTER CREDIT SCHEME								
Sl. No	Course Code	Course Title	BOS	Credit Allocation				
				Lecture	Tutorial	Practical	SS (EL)	Total Credits
1	16HEM61	Foundations of Management & Economics	HSS	2	0	0	0	2
2	16TE62	Computer Communication Networks	TE	4	0	1	0	5
3	16TE63	Information Theory & Coding	TE	3	1	0	0	4
4	16TE64	Radiating Systems	TE	3	0	1	1	5
5	16TE6CX	Elective C (PE)	TE	3	1	0	0	4
6	16TE6DX	Elective D (PE)	TE	3	0	0	1	4
7	16G6XX	Elective E(O E)	TE	3	0	0	0	3
8	16HS68	Professional Practice-III (Employability Skills and Professional Development of Engineers)\$	HSS	1	0	0	0	1
		Total No. of Credits						28
		No. Of Hrs.		22	4	4	8**	30

\$ 3 days (18 Hrs) in 5th semester and 3 days (18 Hrs) in 6th semester **Non contact hours

Elective C (PE)	Elective Title	Elective D (PE)	Elective Title	Elective E (OE)	Elective Title
16TE6C1	CMOS Circuit Design	16TE6D1	Microwave Integrated Circuits	16G6BXX	Mobile Network System and standards
16TE6C2	ARM Processor	16TE6D2	Digital Signal Processor Architecture		
16TE6C3	Multimedia Communication	16TE6D3	Cryptography and Network Security		
16TE6C4	Operating Systems	16TE6D4	JAVA		

Global Elective

Global Elective(GE)	Global Elective(GE)	Offering Dept (GE)
16GE6E01	Bioinspired Engineering	Biotechnology
16GE6E02	Green Technology	Chemical Engineering
16GE6E03	Solid Waste Management	Civil Engineering
16GE6E04	Introduction To Web Programming	Computer Science Engineering
16GE6E05	Automotive Electronics	Electronics & Communication Engineering
16GE6E06	Industrial Electronics	Electrical & Electronics Engineering
16GE6E07	Project Management	Industrial & Management Engineering
16GE6E08	Virtual Instrumentation	Electronics & Instrumentation Engineering
16GE6E09	Introduction To Mobile Application Development	Information Science Engineering
16GE6E10	Automotive Engineering	Mechanical Engineering
16GE6E11	Mobile Network System And Standards	Telecommunication Engineering
16GE6E12	Partial Differential Equations	Maths

SEVENTH SEMESTER CREDIT SCHEME								
Sl. No	Course Code	Course Title	BOS	Credit Allocation			SS (EL)	Total Credits
				Lecture	Tutorial	Practical		
1	16TE71	Wireless And Mobile Communication	TE	4	0	1	0	5
2	16TE72	Optical Fiber Communication	TE	4	0	1	0	5
3	16TE73	Minor Project	TE	3	0	0	0	3
4	16TE7FX	Elective F (PE)	TE	4	0	0	0	4
5	16TE7GX	Elective G(PE)	TE	4	0	0	0	4
6	16GH7XX	Elective H (OE)	TE	3	0	0	0	3
		Total No. of Credits						24
		No. Of Hrs.		22	0	4	0	26

* EI, EE, CV, EC, ME – 6 hrs. / week Minor Project.

Elective F (PE)	Elective Title	Elective G(PE)	Elective Title	Elective H (OE)	Elective Title
16TE7F1	ASIC Design	16TE7G1	Cellular Mobile Network	16GH7XX	Space Technology and Applications
16TE7F2	Digital Image Processing	16TE7G2	DSP Applications		
16TE7F3	Satellite Communication	16TE7G3	Adhoc Networks		
16TE7F4	Real Time Embedded systems	16TE7G4	IoT		

**Global Electives offered
VII SEMESTER**

Sl no	Course	Course Code	Offering Dept.
1.	Nanotechnology	16G7H01	Biotechnology
2.	Industrial Safety and Risk Management	16G7H02	Chemical Engineering
3.	Intelligent Transportation Systems	16G7H03	Civil Engineering
4.	Intelligent Systems	16G7H04	Computer Science Engineering
5.	Image Processing & Machine Learning	16G7H05	Electronics & Communication Engineering
6.	Design Of Renewable Energy Systems	16G7H06	Electrical & Electronics Engineering
7.	Systems Engineering	16G7H07	Industrial & Management Engineering
8.	MEMS and Applications	16G7H08	Electronics & Instrumentation Engineering
9.	Introduction to Internet of Things	16G7H09	Information Science Engineering
10.	Industry 4.0 – Smart Manufacturing For The Future	16G7H10	Mechanical Engineering
11.	Space Technology And Applications	16G7H11	Telecommunication Engineering

EIGHTH SEMESTER CREDIT SCHEME

Sl. No	Course Code	Course Title	BOS	Credit Allocation			SS (EL)	Total Credits
				Lecture	Tutorial	Practical		
1	16TEP81	Major Project	TE	0	0	16	0	16
2	16TES82	Technical Seminar	TE	0	0	2	0	2
3	16HSS83	Innovation and Social Skills	HSS	0	0	2	0	2
		Total No. of Credits					0	
		No. Of Hrs.		0	0	40	0	20