Shivaji University, Kolhapur Revised Syllabus Structure of Final Year Engineering (BE) (w. e. f. July 2016) Electronics and Telecommunication Engineering Course Scheme of Teaching and Examination

Competer VII

B.E. (Electronics and Telecommunication Engineering) PROJECT. WORK

			semes	ici-vi		Contractor in the second	and the second second			
Sr.		T	eachin (H	g Sch [rs.)	eme	Exami	nation	Schen	ne (Ma	arks)
No.	Subject	L	Т	Р	Total	Theory	TW	POE	OE	Total
1	Satellite	3	1		4	100	25			125
2	Embedded System	4		2	6	100	25	50		175
3	Computer Communication Networks	4		2	6	100	25		25	150
4	RF & Microwave	4	-	2	6	100	25			125
5	Elective-I	3	1		4	100	25			125
5	Industrial Training						25*			25
0	Desiret Dhese I		the second	2	2	- 3	25		50	75
	Project Pliase-1	18	2	08	28	500	175	50	75	800

* Assessment will be carried out with Project Phase - I By Internal Guide.

			Seme	Ster-v	111	and the first state of	and a state of the			
0		Teac	hing S	cheme	e(Hrs.)	Exami	ination	Schen	ne(Ma	rks)
Sr. No.	Subject	L	Т	Р	Total	Theory	TW	POE	OE	Total
1	Video Engineering	4		2	6	100	25	50		175
2	Wireless Mobile Communication	4		2	6	100	25			125
3	Digital Image Processing	4		2	6	100	25		50	175
4	Elective-II	3	1		4	100	25			125
5	Project Phase – II			4	4		100		100	200
		15	01	10	26	400	200	50	150	800

Semester-VIII

BE Part-I (Elective-I)	BE Part-II (Elective-II)
1. Robotics	1. Mechatronics
2. Speech processing	2. Artificial Neural Network
3. MEMS	3. Remote Sensing & GPS
4. Radar & Navigation Aids	4. Operating System



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	Control in One-Dimensional Apertures, Cirularly Symmetric Illumations, Some Example Antennas, Of The Reflector, Array Antennas, Rectangular Planner Array, Linear Array	
ш	Radar Equation- Radar Equation, Important Networks Definition, Incremental Modeling Of Noise Sources, Incremental Modeling Of Noisy Networks, Practical Modeling Of Noisy Sources and Networks	06
IV	Radar Signals and Networks- Real Radar Signals, Complex Radar Signals, Analytic Radar Signals, Frequency and Bandwidth Of Signals, Transmission Of Signals through Networks, Matched Filter For Nonwhite and white Noise, Ambiguity Function, Examples Of Uncertainty Functions.	06
v	Radar Resolution- Range Resolution, Doppler Frequency Resolution, Simultaneous Range and Doppler Resolution, Resolution and RMS Uncertainty, Overall Radar and Angle Resolution.	05
VI	Frequency Measurement and Tracking- Definition Of Optimum Frequency Measurement, Optimum Filter For Doppler Measurement, Some Practical Considerations, Practical Noncoherent Implementation For Doppler, Optimum Coherent Doppler Measurement	05

Reference Books:

1	"Radar Principles" By Peyton Z., Peebles, Jr. Wiley India
2	Introduction of Radar system By Skolnik (McGraw Hill)

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(B.E. (Electronics and Telecommunication) Part- I 6. Subject : Project w.e.f July 2016

Practical :2 hr s / week

TW: 25 Marks

OE:50 Marks

a) The project is to be carried out in two semester of B.E (Electronics and Tele communications) Part-I and Part-II. The practical batch size for project will be of 15 students. The project batch will be preferably divided into groups each consisting of not more than 3 students. In semester one, group will select a project with the approval of guide and submit the

synopsis of project in the month of August. The group is expected to complete detail system design, layout etc. in semester one, as a part of the term work in the form of joint report. In addition all students of project groups will deliver the seminar on the proposed project only.

Hardcopy of project diary should be maintained GroupWise, where report of every week activity should be maintained. , which should be presented at the time of examination. The format of project diary is attached with syllabus.

b)Guide of the project batch should take presentation and report of industrial training to which students should go after end of the third year. They should consider marks of the same in termwork of project phase-I. and give marks our of 25

Shivaji University, Kolhapur B.E. (Electronics and Telecommunication) Part- II (w. e. f. July 2016) 1.Subject: Video Engineering

Teaching Scheme	Examination Scheme
Lectures : 4 hrs / week	Theory: 100 Marks
Practical: 2 hrs / week	TW: 25 Marks POE: 50 Marks

Cours	e Objectives: The course aims to:
1	Study basics of TV system.
2	Study color TV transmission and reception.
3	Study concept of digital TV system.
4	Study concept of high definition TV.
5	Study advanced TV systems like LCD, plasma, LED, CCTV, etc.
6	Study digital video systems like video conferencing and video phone.

Cours	e Outcomes: Upon successful completion of this course, the student will be able to:
1	Describe picture and sound transmission and reception.
2	Explain color composite video signal.
3	Describe principle of digital TV system.
4	Explain high definition television system.
5	Describe advanced TV system like LCD, plasma, LED, CCTV, etc.
6	Elaborate concept of video conferencing and videophone.

Unit No	Contents	No. of Hours
I	Fundamentals of television system Picture and sound transmission and reception ,aspect ratio, horizontal and vertical resolution, video bandwidth and interlaced scanning, composite video, signal, H & V sync details, CCIR-B standards, VSB transmission and channel bandwidth	09

	interrupt handlers - device drivers- device independent I/O software Secondary-storage structure - Disk structure - Disk scheduling - Disk Management - Swap-space management - Disk reliability - Stable storage implementation File concept File support- Access methods- Allocation methods- Directory systems- File Protection		
vī	Advanced Operating Systems Distributed OS, Multiprocessor OS, Mobile OS, RTOS, Multimedia OS Case Study : Linux, Windows, Android	06	

Text Books:

1	Silberschatz, Galvin & Gagne," Operating System Concepts", VII th Wiley 2010.
2	William Stallings ,"Operating System: Internals & Design Principles', Pearson ISBN 9789332518803
3	Andrew S.Tanenbaum "Modern Operating Systems " III Edition 2009 Pearson
Ref	erence Books
Ref	erence Books Flynn /McHoes," Operating Ststems" Cengage Learning (India Edition)
Ref	erence Books Flynn /McHoes," Operating Ststems" Cengage Learning (India Edition) Naresh Chauhan ,"Principles of Operating Systems" Oxford
Ref	erence Books Flynn /McHoes," Operating Ststems" Cengage Learning (India Edition) Naresh Chauhan ,"Principles of Operating Systems" Oxford Haldar & Arvind ," Operating Systems "II edition Pearson ISBN 9789332500303

Note: Minimum 8 tutorials based on above syllabus covering all units.

Instruction to paper setter : 100 % theory

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(B.E. (Electronics and Telecommunication) Part- II 5.Subject : Project w.e.f July 2015

Practical : 8 hrs / week

TW : 100 Marks OE: 100 Marks

The project group of semester one will continue the project work in semester two and complete the project in all respect (assembly, testing, fabrication, tabulation, test results etc). Hardcopy of project diary should be maintained GroupWise, where report of every week activity should be maintained, which should be presented at the time of examination The project work along with project report should be submitted as part of Semester two on or before the last day of the semester -II.