

SRI VENKATESWARA UNIVERSITY COLLEGE OF ENGINEERING: TIRUPATI – 517 502

Department of Electronics and Communication Engineering-Scheme of Instruction- (CBCS) effective from the Academic Year 2018-19

M.Tech (PG) (Electronics and Communication Engineering)

Specialization: Signal Processing

I Semester

Course Code	Course Title	Scheme of Instruction (Hours/Week)				No. of Credits	Scheme of Evaluation		
		Lecture	Tutorial	Practical	Total		Sessional Marks	Semester End Examination Marks	Total
Program core									
SPPC 01	Advanced Digital Signal Processing	3			3	3	40	60	100
SPPC 02	Digital Image Video Processing	3			3	3	40	60	100
Program Elective- I (Any one of the following)		3			3	3	40	60	100
SPPE 11	DSP Architecture								
SPPE 12	Computer Vision								
SPPE 13	Artificial Intelligence								
Program Elective- II (Any one of the following)		3			3	3	40	60	100
SPPE 21	Joint time frequency analysis and multiresolution analysis(JTFA and MRA)								
SPPE 22	Voice and Data Networks								
SPPE 23	Audio Video Coding & Compression								
Program Practicals									
SPCP 01	Advanced Digital Signal Processing Lab			4	4	2	40	60	100
SPCP 02	Digital Image Video Processing Lab			4	4	2	40	60	100
Mandatory course									
PGMC 01	Research Methodology and IPR	2			2	2	40	60	100
Audit Course – I (Any one of the following)		2			2				
PGPA11	English and Research Paper Writing								
PGPA12	Disaster Management								
PGPA13	Sanskrit for Technical Knowledge								
PGPA14	Value Education								
Total		16	-	8	24	18	280	420	700

II Semester

Course Code	Course Title	Scheme of Instruction (Hours/Week)				No. of Credits	Scheme of Evaluation		
		Lecture	Tutorial	Practical	Total		Sessional Marks	Semester End Examination Marks	Total
Program core									
SPPC 03	Pattern Recognition and Machine Learning	3			3	3	40	60	100
SPPC 04	Detection and Estimation Theory	3			3	3	40	60	100
Program Elective- III (Any one of the following)		3			3	3	40	60	100
SPPE 31	Advanced Computer Architecture								
SPPE 32	IOT and Applications								
SPPE 33	Digital Design and Verification								
Program Elective- IV (Any one of the following)		3			3	3	40	60	100
SPPE 41	Multispectral Signal Analysis								
SPPE 42	Audio Processing								
SPPE 43	Biomedical Signal Processing								
Program practicals									
SPCP 03	Pattern Recognition and Machine Learning Lab			4	4	2	40	60	100
SPCP 04	Detection and Estimation Theory Lab			4	4	2	40	60	100
Program Audit Course – II (Any one of the following)		2			2				
PGPA21	Constitution of India								
PGPA22	Pedagogy Studies								
PGPA23	Stress Management by Yoga								
PGPA24	Personality Development through Life Enlightenment Skills								
SPMP 01	Mini Project with seminar			4	4	2	100		100
Total		14		12	26	18	340	360	700

III Semester

Course Code	Course Title	Scheme of Instruction (Hours/Week)				No. of Credits	Scheme of Evaluation		
		Lecture	Tutorial	Practical	Total		Sessional Marks	Semester End Examination Marks	Total
Program Elective- V (Any one of the following)		3			3	3	40	60	100
SPPE 51	Remote Sensing								
SPPE 52	Optimization Techniques								
SPPE 53	Modelling and Simulation Techniques								
Open Elective- I (Any one of the following)		3			3	3	40	60	100
PGOE 11	Business Analytics								
PGOE 12	Industrial Safety								
PGOE 13	Operation Research								
PGOE 14	Cost Management of Engineering Projects								
PGOE 15	Composite Materials								
PGOE 16	Waste to Energy								
SPPD 01	Dissertation Phase-I			20	20	10	40	60	100
Total		6		20	26	16	120	180	300

IV Semester

Course Code	Course Title	Scheme of Instruction (Hours/Week)				No. of Credits	Scheme of Evaluation		
		Lecture	Tutorial	Practical	Total		Sessional Marks	Semester End Examination Marks	Total
SPPD 02	Dissertation Phase- II			32	32	16	40	60	100
Total				32	32	16	40	60	100

SRI VENKATESWARA UNIVERSITY COLLEGE OF ENGINEERING: TIRUPATI – 517 502

Department of Electronics and Communication Engineering-Scheme of Instruction- (CBCS) effective from the Academic Year 2018-19

M.Tech (PG) (Electronics and Communication Engineering)

Specialization: Communication Systems-I Semester

Course Code	Course Title	Scheme of Instruction (Hours/Week)				No. of Credits	Scheme of Evaluation		
		Lecture	Tutorial	Practical	Total		Sessional Marks	Semester End Examination Marks	Total
Program core									
CSPC 01	Advanced Digital Signal Processing (Common to Signal Processing SPPE01)	3			3	3	40	60	100
CSPC 02	Wireless and Mobile Communication	3			3	3	40	60	100
Program Elective- I (Any one of the following)		3			3	3	40	60	100
CSPE 11	DSP Architecture(Common to Signal Processing SPPE11)								
CSPE 12	Optical Networks								
CSPE 13	Statistical Information Processing								
Program Elective- II (Any one of the following)		3			3	3	40	60	100
CSPE 21	Cognitive Radio								
CSPE 22	Voice and Data Networks (Common to Signal Processing SPPE22)								
CSPE 23	Wireless sensor Networks								
Program Practicals									
CSCP 01	Advanced Digital Signal Processing Lab (Common to Signal Processing SPCP01)			4	4	2	40	60	100
CSCP 02	Wireless and Mobile Communication Lab			4	4	2	40	60	100
Mandatory course									
PGMC 01	Research Methodology and IPR	2			2	2	40	60	100
Audit Course – I (Any one of the following)		2			2	-	100		100
PGPA11	English and Research Paper Writing								
PGPA12	Disaster Management								
PGPA13	Sanskrit for Technical Knowledge								
PGPA14	Value Education								
Total		16		8	24	18	380	420	800

II Semester

Course Code	Course Title	Scheme of Instruction (Hours/Week)				No. of Credits	Scheme of Evaluation		
		Lecture	Tutorial	Practical	Total		Sessional Marks	Semester End Examination Marks	Total
Program Core									
CSPC 03	Antennas and Radiating Systems	3			3	3	40	60	100
CSPC 04	Advanced Communication Networks	3			3	3	40	60	100
Program Elective- III (Any one of the following)		3			3	3	40	60	100
CSPE 31	Satellite Communication								
CSPE 32	IOT and Applications (Common to Signal Processing SPPE32)								
CSPE 33	RF and Microwave Circuit Design								
Program Elective- IV (Any one of the following)		3			3	3	40	60	100
CSPE 41	Markov chain and Queuing System								
CSPE 42	Pattern recognition and Machine Learning (Common to Signal Processing SPPC03)								
CSPE 43	Programmable networks- SDN,NFV								
Program Practicals									
CSCP 03	Antennas and Radiating Systems Lab			4	4	2	40	60	100
CSCP 04	Advanced Communication Networks Lab			4	4	2	40	60	100
Audit Course – II(Any one of the following)		2			2	-	100		100
PGPA21	Constitution of India								
PGPA22	Pedagogy Studies								
PGPA23	Stress Management by Yoga								
PGPA24	Personality Development through Life Enlightenment Skills								
CSMP 01	Mini Project with seminar			4	4	2	100		100
Total		14	-	12	26	18	440	360	800

III Semester

Course Code	Course Title	Scheme of Instruction (Hours/Week)				No. of Credits	Scheme of Evaluation		
		Lecture	Tutorial	Practical	Total		Sessional Marks	Semester End Examination Marks	Total
Program Elective- V (Any one of the following)		3			3	3	40	60	100
CSPE 51	Remote Sensing (Common to Signal Processing SPPE51)								
CSPE 52	High Performance Networks								
CSPE 53	MIMO Systems								
Open Elective (Any one of the following)		3			3	3	40	60	100
PGOE 11	Business Analytics								
PGOE 12	Industrial Safety								
PGOE 13	Operation Research								
PGOE 14	Cost Management of Engineering Projects								
PGOE 15	Composite Materials								
PGOE 16	Waste to Energy								
CSPD 01	Dissertation Phase-I			20	20	10	100		100
Total		6		20	26	16	180	120	300

IV Semester

Course Code	Course Title	Scheme of Instruction (Hours/Week)				No. of Credits	Scheme of Evaluation		
		Lecture	Tutorial	Practical	Total		Sessional Marks	Semester End Examination Marks	Total
CSPD 02	Dissertation Phase- II			32	32	16	40	60	100
Total				32	32	16	40	60	100