MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR (M.P.)

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

Department of Electronics Engineering

CO Attainment for Session January - June 2019

Semester	Subject Name		CO Statement	CO attainment	Target CO attainment	Status
Semester - 4	*140402/*200402 Electronics – II	CO1	**Analyze** the characteristics of an amplifier.	54	60	Not Achieved
		CO2	**Design** the tuned amplifier with the given parameters.	79	60	Achieved
		CO3	**Compare** various power amplifiers.	66	60	Achieved
		CO4	**Design** the multistage amplifiers.	62	60	Achieved
		CO5	**Design** the various electronics circuits using Operational amplifier.	64	60	Achieved
		CO6	**Design** the active filters based on given specifications.	58	60	Not Achieved
	*140403/*200403 Analog Communication	CO1	**Apply** the concept of multiplexing and modulation in communication engineering.	70	60	Achieved
		CO2	**Analyze** the amplitude modulation and angle modulation with their waveforms	60	60	Achieved
		CO3	**Explain** the generation and detection for various modulation techniques**.**	41	60	Not Achieved
		CO4	**Explain** the working of transmitter and receiver	67	60	Achieved
		CO5	**Evaluate** the statistical parameters for general PDF/CDF	62	60	Achieved
		CO6	**Evaluate** the effects of noise on different modulation techniques	76	60	Achieved
	*140404/*200404 Communication Networks	CO1	**Compute** the various parameters of different passive networks.	72	60	Achieved
		CO2	**Design** the symmetrical and asymmetrical attenuators.	71	60	Achieved
		CO3	**Synthesize** the network for a given positive and minimum positive real function.	66	60	Achieved

		CO4	**Design** passive filters for the given specifications.	74	60	Achieved
		CO5	**Analyze** the characteristics of various transmission lines.	74	60	Achieved
		CO6	**Calculate** the impedance and SWR graphically /analytically.	75	60	Achieved
	*140405 Electronics Measurement and Instrumentation	CO1	**Discuss** various performance characteristics of an instrument	75	60	Achieved
		CO2	**Explain** the working principle and applications of various bridges in measurement.	77	60	Achieved
		CO3	**Differentiate** various transducers	58	60	Not Achieved
		CO4	**Analyze** the working principle of various digital instruments and display devices.	62	60	Achieved
		CO5	**Measure** different parameters using various CROs.	81	60	Achieved
		CO6	**Design** the A/D and D/A converter.	28	60	Not Achieved
	*200405 Stochastic Process	CO1	**Analyze** the different probability distribution functions.	79	60	Achieved
		CO2	**Calculate** Statistical averages.	50	60	Not Achieved
		CO3	**Evaluate** transformation of random variables.	64	60	Achieved
		CO4	**Classify** random processes	37	60	Not Achieved
		CO5	**Analyze** the behavior of LTI system with random processes.	48	60	Not Achieved
Semester - 6	BELL/BETL 601 Antenna and Wave Propagation	CO1	**Analyze** the radiation characteristics of dipole antennas of various lengths.	57	60	Not Achieved
		CO2	**Evaluate** various parameters of the antenna.	69	60	Achieved
		CO3	**Design** antenna array for the given radiation characteristics.	58	60	Not Achieved
		CO4	**Analyze** the effect of earth on antenna radiation properties.	33	60	Not Achieved
		CO5	**Analyze** the design parameters, radiation mechanism, and applications of various practical antennas.	77	60	Achieved
		CO6	**Describe** effects of earth and its atmosphere on radio wave propagation.	81	60	Achieved
	BELL/BETL 602	CO1	**Differentiate** between continuous and discrete	54	60	Not Achieved

	Digital Signal Processing		time signal & systems.			
		CO2	**Analysis** of discrete time systems using z-transform.	54	60	Not Achieved
		CO3	**Design** of simple digital filters by placing poles and zeros and their structure implementation.	45	60	Not Achieved
		CO4	**Compute** discrete Fourier transform and its efficient implementation using fast algorithm.	31	60	Not Achieved
		CO5	**Design** of Linear Phase FIR filters.	37	60	Not Achieved
		CO6	**Design** IIR filter to meet specified magnitude/phase response characteristics	30	60	Not Achieved
	BELL/BETL 603 Data Communication	CO1	**Explain** the evolution of computer network and basic concepts of data communication system	43	60	Not Achieved
		CO2	**Describe** the services of the DATA link layer provided in controlling transmission errors and flow of data	42	60	Not Achieved
		CO3	**Analyze** the various techniques to alleviate the problem of medium allocation in broadcast network like ALOHA, CSMA etc.	47	60	Not Achieved
		CO4	**Explain** the principle and protocol for route calculation and be able to perform such calculation in Network layers	50	60	Not Achieved
		CO5	**Explain** the services and features of transport layer of data networks	43	60	Not Achieved
		CO6	**Describe** the skills of synchronization in data communication	30	60	Not Achieved
	BELL/BETL 604 Electronics System Design	CO1	**Design** regulated power supply.	83	60	Achieved
		CO2	**Design** single stage and multi stage amplifier using BJT.	69	60	Achieved
		CO3	**Design** oscillators using BJT.	78	60	Achieved
		CO4	**Design** of the basic Op-Amp Circuits.	76	60	Achieved
		CO5	**Design** digital circuits such as flip slop, registers, and counters.	59	60	Not Achieved
		CO6	**Design** analog to digital converter and digital to analog converter.	52	60	Not Achieved

	BELL/BETL 605 Industrial Electronics	CO1	**Analyze** the characteristics of different power semiconductor devices.	37	60	Not Achieved
		CO2	**Design** phase controlled rectifier circuits.	40	60	Not Achieved
		CO3	**Design** inverter and chopper circuits.	26	60	Not Achieved
		CO4	**Analyze** different cyclo converters & AC voltage controllers with their applications.	26	60	Not Achieved
		CO5	**Express** the principle of different types of recordings.	25	60	Not Achieved
		CO6	**Characterize** the concept of microphones and speakers.	31	60	Not Achieved
Semester - 8	BELL/BETL 801 Fiber optics & optical communication	CO1	**Learn** the basic elements of optical fiber transmission link, fiber modes configurations and fabrication techniques.	85	60	Not Achieved
		CO2	**Classify** various optical sources, fiber splicing techniques, optical connectors with their principles	81	65	Achieved
		CO3	**Analyze** different optical receivers and their noise performances	41	65	Not Achieved
		CO4	**Calculate** the channel impairments like losses and dispersion	61	65	Achieved
		CO5	**Discuss** Coherent optical transmission system, the installation and performance verification of digital optical fiber link	43	65	Not Achieved
		CO6	**Discriminate** between different amplifiers and learn variety of networking aspects, FDDI, SONET, WDM	31	65	Not Achieved
	BELL/BETL 802 Satellite Communication	CO1	**Explain** basic concepts and terminologies of satellite communication	64	65	Achieved
		CO2	**Calculate** the link power budget.	48	65	Not Achieved
		CO3	**Analyze** the different multiple Access schemes for Satellite communication.	46	65	Not Achieved
		CO4	**Classify** different Propagation effects in satellite	67	65	Achieved
		CO5	**Solve** problems related to channel coding techniques.	40	65	Not Achieved
		CO6	**Distinguish** different satellite system	83	65	Achieved

	BELL/BETL 803 TV and RADAR Engg.	CO1	**Explain** the various components of the composite video signal, TV camera tube, and picture tube.	55	65	Not Achieved
		CO2	**Characterize** various types of monochrome and color television systems.	86	60	Achieved
		CO3	**Analyze** basic factors required for successful transmission and reception of TV signals.	77	60	Achieved
		CO4	**Explain** the advanced topics in digital television and High definition television.	94	60	Achieved
		CO5	**Evaluate** the various performance factors related to the RADAR.	76	60	Achieved
		CO6	**Explain** target detection and tracking using radar systems.	82	60	Achieved
	BELL/BETL 804 Neural Network and Fuzzy systems	CO1	**Explain** the basic concepts of neural networks	71	60	Achieved
		CO2	**Analyze** the concept of human neural structure & ANN.	66	65	Achieved
		CO3	**Analyze** the various feed forward/ feedback neural networks.	60	65	Achieved
		CO4	**Examine** different learning methodologies.	57	65	Not Achieved
		CO5	**Explain** the concept of fuzziness involved in various systems and fuzzy set theory. .	54	65	Not Achieved
		CO6	**Analyze** the application of fuzzy logic control to real time systems.	60	65	Achieved

Semester	Subject Name	CO attainment (TARGET NOT ACHIEVED)	Action Taken
IV	*140402/*200402 Electronics – II	CO1, CO6	• Additional Classes which will focused on specific CO • More tutorials • Solutions of previous year question papers • Additional classes by expert • Take care of CO distribution during question paper setting • Better attainment of these CO can be achieved by improving their weightage in question paper • In house workshop for CO revision and question paper setting
	*140403/*200403 Analog Communication	CO3	
	*140405 Electronics Measurement and Instrumentation	CO3, CO6	
	*200405 Stochastic Process	CO2, CO4, CO5	
VI	BELL/BETL 601 Antenna and Wave Propagation	CO1, CO3, CO4	
	BELL/BETL 602 Digital Signal Processing	All CO	
	BELL/BETL 603 Data Communication	All CO	
	BELL/BETL 604 Electronics System Design	CO5, CO6	
	BELL/BETL 605 Industrial Electronics	All CO	
VIII	BELL/BETL 801 Fiber optics & optical communication	CO1, CO3, CO5, CO6	
	BELL/BETL 802 Satellite Communication	CO2, CO3, CO5	
	BELL/BETL 803 TV and RADAR Engg.	CO1	
	BELL/BETL 804 Neural Network and Fuzzy systems	CO4, CO5	