

**SRI RAMAKRISHNA MISSION VIDYALAYA COLLEGE OF ARTS AND SCIENCE
(AUTONOMOUS), COIMBATORE - 641 020**

Name of the Programme: B.Sc. Electronics and Communication Systems

Year of Revision: 2016-2017

S.No.	Course Title	Course Code	% of Revision
1	Antenna & Wave Propagation	16UEC4C06	22
2	Electronic Circuits	16UEC4C07	20
3	Optical Fiber Communication	16UEC6C12	41
4	Electronic Communication	16UEC4CP5	59
5	PC Hardware Fundamentals	16UCS3NM1	60

No.of Courses offered by the Department (A) 36

No.of Courses revised in BoS (20% Revision) (B) 5

Formula for Syllabus revision: $(B/A)*100$ 13.88%

Department: ELECTRONICS**Name of the Course: Antenna & Wave Propagation (16UEC4C06)**

Existing Content	Revised Content	Mode of revision (Added/Replaced/ Deleted)	% of revision
<p>UNIT II: RADIO WAVE PROPAGATION</p> <p>Radiation of Electromagnetic waves: Fundamentals – Effect of Environment –Propagation in free space-Tropospheric Propagation- Ionospheric propagation- Surface wave-Low frequency Propagation -Extremely low frequency Propagation-Summary of Radio-wave propagation.</p>	<p>UNIT II: RADIO WAVE PROPAGATION</p> <p>Fundamentals of Electromagnetic Waves– Effect of Environment. Propagation of Waves: Ground waves- Sky wave propagation-Space waves-Tropospheric Scatter Propagation- Exterritorial Communications.</p>	Deleted /Added/ and Replaced	11%
<p>UNIT III: ANTENNAS</p> <p>Antennas: Radiation mechanism – Wire radiators: Resonant antennas – Non-resonant antennas - Antenna parameters and definitions: Antenna gain-Antenna resistance-Bandwidth, beam width and polarization- – Ungrounded and Grounded antennas – Dipole arrays .Microwave Antennas: Horn Antennas and Lens antenna. Helical Antenna – loop antenna.</p>	<p>UNIT III: ANTENNAS</p> <p>Basic considerations –Electromagnetic radiation-Wire radiator in space: Current and Voltage Distribution-Resonant antennas, Radiation Patterns and Length calculation- Non-resonant antenna. Terms and Conditions: Antenna gain and effective Radiated Power-Antenna Resistance-Bandwidth, Beam width and Polarization. Types of antenna: Yagi-Uda antenna- Rhombic antenna-Horn antenna-Lens antenna.</p>	Deleted and Added	11%

Total			22%

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Name of the Course: Electronic Circuits (16UEC4C07)

Existing Content	Revised Content	Mode of revision (Added/Replaced/ Deleted)	% of revision
<p>Unit - IV: Feedback Amplifiers</p> <p>Introduction - Basic concept of Feedback - Effect of Negative Feedback - Types of Negative Feedback Configurations - Stability of feedback Amplifiers</p>	<p>Unit - IV: Feedback Amplifiers</p> <p>Introduction - Basic concept of Feedback – Advantages of Negative Feedback: Gain, stability, Increased Bandwidth, Decreased Distortion, Decreased Noise. Type of Feedback Connections: Voltage series feedback – Voltage shunt feedback – Current series feedback-Current shunt feedback -Comparison of feedback connection</p>	Deleted/Added	14%
<p>Unit - V: Oscillators and Waveform Generators</p> <p>Introduction - Classification of Oscillators - Condition for Oscillation (Barkhausen criterion) - Hartley Oscillator - Colpitts Oscillator – RC Oscillator (Phase Shift) - Wien Bridge Oscillator - Crystal Oscillator - Frequency Stability of Oscillator - Multivibrators – Schmitt trigger.</p>	<p>Unit - V: Oscillators and Waveform Generators</p> <p>Introduction - Classification of Oscillators – Nature of sinusoidal oscillation - oscillatory circuit - Frequency of oscillatory circuit - The Barkhausen criterion. Tuned Circuit Oscillator: Tuned base oscillator - Hartley Oscillator - Colpitts Oscillator – RC Oscillator: Phase Shift oscillator - Wien Bridge Oscillator - Crystal Oscillator. Multivibrators – Schmitt trigger.(Transistor only).</p>	Deleted/Added	6%
TOTAL			20%

Signature of HoD

Name of the Course: Optical Fiber Communication (16UEC6C12)

Existing Content	Revised Content	Mode of revision (Added/Replaced/ Deleted)	% of revision
<p>Unit-IV</p> <p>Communication Systems: Local network Long- distance network-Telephone network- Data networks. Design and optical fiber cable system: Fiber versus cable-ATM versus fast Ethernet-Multiplexing-Channel and cable capacity - Cable routing-Installation technique-Storage and handling.</p>	<p>Unit-IV</p> <p>Communication Systems: Introduction- Transmitter for fiber optic communications- High performance Transmitter circuits- Laser Transmitter-Transmitter design- Fiber optic receiver- High performance receiver-Design of fiber optic receiver- Repeaters-Fiber based modems: Transreceiver.</p>	Deleted and Added	21%
<p>Unit-V</p> <p>Optoelectronic test technique: Production testing- Installation testing-In-Service field testing-Production test kits-Power meters-Fiber optic tracers-Power and Attenuation measuring test set-Other field testers- Optical domain reflectometer-Optical fault locator- Band width measuring test sets.</p>	<p>Unit-V</p> <p>Measurements: Introduction- Numerical Aperture- Fiber attenuation- Scattering loss- Dispersion loss- Refractive Index- Cut-off wavelength- Bending loss- Mode field diameter.</p>	Deleted and Added	20%
Total			41%

Signature of HoD

Name of the Course: Core Practical: Electronic Communication (16UEC4P05)

S. No.	Existing Content	Modified Content	Mode of revision (Added/Replaced/ Deleted)	% of revision
1	AM generation	AM Generation and Detection	Deleted and Added	59 %
2	FM generation	FM Generation and Detection		
3	RF amplifier	RF Amplifier		
4	First IF amplifier	Study of Yagi-Uda Antenna		
5	Second IF amplifier	Pulse Amplitude Modulation		
6	AM detector	Pulse Width Modulation		
7	Study of FM receiver	Pulse Position Modulation		
8	FM demodulator	FSK Generation and Detection		
9	HF oscillator	ASK Generation and Detection		
10	Study of Yagi-Uda antenna	PSK Generation and Detection		
11	Pulse Amplitude Modulation	Frequency Division Multiplexing and DeMultiplexing		
12	Pulse Width Modulation	Time Division Multiplexing and DeMultiplexing		
13	Pulse Position Modulation	Generation of PCM and Detection		
14	FSK Generation	Generation of Delta Modulation and Detection		
15	FSK Demodulation	Phase modulation		
16	ASK Generation	Study of Fiber Optical analog Link		
17	ASK Detection	Study of Propagation loss in Optical Fiber		
18	PSK Generation	Study of bending loss in Optical Fiber		

19	PSK Detection	Measurement of Numerical Aperture		
20	Audio power Amplifier using IC TBA810	Characteristics of Fiber Optic digital Communication Link		
21	Power audio amplifier using IC			
22	Sync separator			

Program: B.Sc. Computer Science

Course Title: NME-2: PC Hardware and Fundamentals **Subject Code:** 4NME2

Year: II **Semester:** IV

Credits: 2Hrs./Week: 2

Educational Objective:

1. Understand the basic of computer systems.
2. Study the I/O devices of computer systems.
3. Understand the concept of floppy disk and hard disk devices.

Course Learning Outcomes:

1. Acquire the Knowledge of personal computer.
2. Ability to assemble the PC.
3. Acquire the Knowledge of PC installation and troubleshooting.

Unit - I

Evolution of PC – Specifications – PC System – I/O ports – Mother Board – BIOS-Bus Stand – SMPS – PC Memory Organization – Memory Package - Hard Disk Drive Sub-Assemblies – Hard Disk Controller.

Unit – II

I/O Devices: Key Board – Mouse – Scanner – Digitizer – Digital Camera – VGA Monitors – Display Controller – Display Adaptors - CD-Rom Disk & Drive – Sound Blaster – Video on the PC – Dot Matrix Printer – Plotter – Printer controller – Laser printer – Inkjet Printer.

Unit - III


Computer Installation & Maintenance – Room Preparation - Power supply – PC Installation – Post-Troubleshooting of Mother Board, Keyboard, Floppy/Hard Disk Devices & Printers – Diagnostic Software's – Data Security.

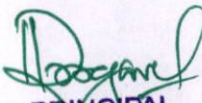
Book for Study:

1. D. Balasubramanian – Computer Installation and Service – Tata McGraw Hill.

Book for Reference:

Peter Norton – Inside the PC – Prentice Hall of India


Chairman
Board of Studies


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