MET'S Institute of Technology, (P), B.Tech
Bhujbal Knowledge City, Adgaon, Nasik.

Course Outcomes 2nd Sem

Group A:Automation & Robotics / Civil and Environmental Engineering

Subject:Engineering Mathematics- II **Subject Code:BTBS201**

Course Outcomes (COs): The students will be able to learn

CO1	Discuss the need and use of complex variables to find roots ,to separate complex quantities and to establish relation between circular and hyperbolic functions.
CO2	Solve first and higher order differential equations and apply them as a mathematical modelling in electric and mechanical systems.
CO3	Determine Fourier series representation of periodic functions over different intervals.
CO4	Demonstrate the concept of vector differentiation and interpret the physical and geometrical meaning of gradient, divergence & curl in various engineering streams.
CO5	Apply the principles of vector integration to transform line integral to surface integral ,surface to volume integral & vice versa using Green's , Stokes and Gauss divergence theorems.

Subject:Engineering Chemistry **Subject Code:BTBS202**

CO1	Demonstrate knowledge of chemistry in technical fields.
CO2	Bring adaptability to new development in engineering. Chemistry and acquire skills to become a perfect engineer.
CO3	Develop the Importance of water in industrial and domestic usage.
CO4	Identify the concept of chemistry to lay the groundwork for subsequent studies in various engineering fields.
CO5	Examine a fuel and suggest alternative fuel.

Subject:Engineering Mechanics **Subject Code:BTES203**

CO1	Apply fundamental laws of engineering mechanics.
CO2	Apply conditions of static equilibrium to analyze given force system.
CO3	Compute centre of gravity and moment of inertia of plane surfaces.
CO4	Compute the motion characteristics of a body / particle for a rectilinear and curvilinear motion.
CO5	Know and discuss relation between force and motion characteristics.

Subject:Computer Programming in C **Subject Code:BTES204**

CO1	Gain a broad perspective about uses of computers in the engineering industry and C programming.
CO2	Develop the basic concept of algorithm, algorithmic thinking and flow chart.
CO3	Apply the use of C programming language to implement various algorithms and develop the basic concepts and terminology of programming in general.
CO4	Use more advanced features of the C language.
CO5	Identify tasks in which numerical techniques learned are applicable and apply them to write programs and hence use computers effectively to solve the task.

Subject:- Basic Electrical and Electronics Engineering **Subject CodeBTES206**

CO1	Apply basic ideas and principles of electrical engineering.
CO2	Identify protection equipment and energy storage devices.
CO3	Differentiate electrical and electronics domains and explain the operation of diodes and transistors.
CO4	Acquire knowledge of digital electronics
CO5	Design simple combinational and sequential logic circuits

Group B: Computer Science and Design

Subject: Engineering Mathematics-II **Subject Code:BTBS201**

Course Outcomes (COs): The students will be able to learn

CO1	Discuss the need and use of complex variables to find roots ,to separate complex quantities and to establish relation between circular and hyperbolic functions.
CO2	Solve first and higher order differential equations and apply them as a mathematical modelling in electric and mechanical systems.
CO3	Determine Fourier series representation of periodic functions over different intervals.
CO4	Demonstrate the concept of vector differentiation and interpret the physical and geometrical meaning of gradient, divergence & curl in various engineering streams.
CO5	Apply the principles of vector integration to transform line integral to surface integral ,surface to volume integral & vice versa using Green's , Stokes and Gauss divergence theorems.

Subject:Engineering Physics **Subject Code:BTBS202**

CO1	Examine and apply the concept of type of oscillation , Dielectric properties and ultrasonics.
CO2	Explain and compare between interference and polarisation of light , working principle of lasers and fibre optics.
CO3	Interprete applies and demonstrates the principle of motion of charged particles in EF and MF , bainbridge mass spectrograph and GM counter.
CO4	Identify types of crystals and crystal planes using miller indices, Experimental approach.

Subject:Engineering Graphics **Subject Code:BTES203**

CO1	Draw Geometrical figures with drawing standards.
CO2	Draw the view of a given object using principles of orthographic projections.
CO3	Draw the projection of straight lines and planes with their traces.
CO4	Draw the projection views of solid objects.
CO5	Draw isometric view of given component from orthographic views.

Subject: Communication Skill **Subject Code: BTHM204**

CO1	Apply speaking and writing skills in professional as well as social situation
CO2	Overcome Mother Tongue Influence and demonstrate neutral accent while exercising English
CO3	Apply communication skills for Presentation, Group Discussion and Interpersonal Interactions
CO4	Apply grammar correctly during speaking and writing situations especially in context with Presentation, Public Speaking, Report Writing and business correspondence

Subject:Energy and Environment Engineering Subject Code:BTES205

CO1	Identify different conventional and non conventional power plants.
CO2	Understand site selection criteria for renewable and non renewable power plants.
CO3	Choose proper energy conservation techniques for different energy producing systems.
CO4	Explain different forms of air pollution and air pollutants.
CO5	Illustrate the different techniques to avoid air and water pollution.
CO6	Identify various measurement methods for reduction of water pollution.

Subject:Basic Civil and Mechanical Engineering Subject Code:BTES206

CO1	Identify various Civil Engineering materials and choose suitable material among various options.
CO2	Apply principles of surveying to solve engineering problem
CO3	Identify various Civil Engineering structural components and select appropriate structural system among various options
CO4	Explain and define various properties of basic thermodynamics, materials and manufacturing processes.
CO5	Know and discuss the working principle of various power consuming and power developing devices