Holy-wood Academy's Sanjeevan Engineering and Technology Institute, Panhala <u>DEPARTMENT OF ELECTRICAL ENGG</u>.

[DBATU SYLLABUS] THIRD YEAR SEM-05

Subject with Code: - BTEEC501: ELECTRICAL MACHINE-II

Course Outcomes:-

- **1.** To study different methods of speed control of AC and DC motor.
- 2. To study importance and procedure of different performance test on AC and DC motor.
- **3.** To determine different operating characteristics of AC and DC machines.

Subject with Code: - BTEEC502: POWER SYSTEM-II

Course Outcomes:-

- 1. To study different parameters of power system operation and control
- 2. To study load flow and Diff. methods of reactive power control.
- 3. To understand diff. methods of fault analysis and stability study

Subject with Code: - BTEEC503-.MICROPROCESSOR AND MICRO CONTROLLER

Course Outcomes:-

- **4.** To know the architecture of 8085 and 8051.
- **5.** To understand interfacing and interrupt features of 8085 and 8051.
- **6.** To develop program for basic applications.

Subject with Code: - BTHM 504: VALUE EDUCATION, HUMAN RIGHTS AND LEGISLATIVE PROCEDURES

- 1. To understand value of education and self-development
- 2. To develop good values and character
- 3. To know Human right and legislative procedure

Subject with Code: - BTEEE 505: ELECTIVE- IV: 1. ILLUMINATION ENGINEERING

Course Outcomes:-

- **1.** To get the detailed information about modern lamps and their accessories.
- 2. To get detailed insight of indoor and outdoor illumination system components, its controls and design aspect.
- **3.** To know the requirements of energy efficient lighting.
- **4.** To introduce the modern trends in the lighting.

Subject with Code: - BTEEE 505 ELECTIVE- IV: 2. ADVANCES IN RENEWABLE ENERGY SYSTEMS

Course Outcomes:-

- **1.** To know the principle of energy conversion technique from biomass, geothermal & hybrid energy system.
- **2.** To understand effects of air pollution and ecosystems.

Subject with Code: - BTEEOE 506: ELECTIVE-V 2 POWER PLANT ENGINEERING.

Course Outcomes:-

- **1.** To review basic components of power system, energy sources.
- 2. To understand principle of construction and operation of different conventional power plants.

Subject with Code: - BTEEOE 506: ELECTIVE-V. 3. DESIGN AND ANALYSIS OF ALGORITHMS

- **1.** To know fundamental characteristic of an algorithm.
- **2.** To understand strategy of algorithm formation.
- **3.** To develop different algorithm.

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[DBATU SYLLABUS] THIRD YEAR SEM-06

Subject with Code: - BTEEC501: ELECTRICAL MACHINE-II

Course Outcomes:-

- **1.** To understand the behavior of nonlinear control system.
- **2.** To design and analyze PID controller.
- **3.** To understand and analyze state variable technique.
- **4.** To design and analyze suitable control system for engineering application.

Subject with Code: - BTEEC602 PRINCIPLES OF ELECTRICAL MACHINE DESIGN

Course Outcomes:-

- **1.** To understand principles of electric machine design.
- **2.** To design different components of electric machine.
- 3. To design Transformer
- 4. To understand CAD and use it for transformer design

Subject with Code: - BTEEC603 POWER ELECTRONICS

- **1.** To review principle of construction, operation and characteristics of basic semiconductor devices
- **2.** To understand and analyze performance of controlled and uncontrolled converters.
- **3.** To understand and analyze performance of DC to DC converters. Dc to AC converters.
- **4.** To understand and analyze performance of AC voltage controllers.

Subject with Code: - BTEEE604: Elective-VI: 1. INDUSTRIAL AUTOMATION AND CONTROL Course Outcomes:-

- 1. To understand construction and working principle of different industrial measurement systems
- 2. To understand new trends in industrial process control.

Subject with Code: - BTEEE604: Elective-VI: 2. DESIGN OF EXPERIMENTS

Course Outcomes:-

- 1. To understand experimental design principles.
- 2. To understand different experimental design used in industry.
- **3.** To deign computer experiments to use with engineering problems.

Subject with Code: - ELECTIVE-VI: 3. ARTIFICIAL NEURAL NETWORK.

Course Outcomes:-

- **1.** To review basic principles of neuron structure.
- 2. To understand building blocks artificial neural network.
- 3. To understand different networks of ANN
- **4.** To develop different algorithm for learning.
- 5. To study and understand Fuzzy neural networks.

Subject with Code: - BTEEE605 ELECTIVE-VII 1. SWITCH GEAR AND PROTECTION

- **1.** To understand principles of protective relaying.
- **2.** To understand principle of construction, operation and selection of different type of circuit breaker used in power system.
- 3. To understand different protection schemes used in power system operation

Subject with Code: - BTEEE605 ELECTIVE-VII 2. COMPUTER AIDED ANALYSIS AND DESIGN Course Outcomes:-

- **1.** To study different computer aided tools in engineering application.
- **2.** To understand the functionality of different engineering software.
- 3. To apply different software in engineering design.

Subject with Code: - BTEEE605 ELECTIVE-VII 3. MECHATRONICS

Course Outcomes:-

- **1.** To understand concept of Mechatronics.
- **2.** To understand sensor and transducer construction and operation.
- **3.** To understand microprocessor architecture and operation.
- 4. To understand principle of construction and operation of PLC
- **5.** To design a robo for engineering application.

Subject with Code: - **BTEEOE606 ELECTIVE- VIII. 1. RURAL TECHNOLOGY AND COMMUNITY DEVELOPMENT.**

- **1.** To analysis data, information and knowledge.
- **2.** To understand concepts of marketing.
- 3. To identify projects and work for community development
- **4.** To understand and analyze business model.

Subject with Code: - BTEEOE606 ELECTIVE- VIII. 2. PROJECT MANAGEMENT

Course Outcomes:-

- **1.** To understand concepts of project management.
- **2.** To develop a project plan.
- **3.** To understand the project implementation strategy.
- **4.** To analyze post project affects.

Subject with Code: - KNOWLEDGE MANAGEMENT

- **1.** To understand different components knowledge management.
- **2.** To conduct knowledge audit and knowledge management practices in organization.