B.Tech Mechanical Engineering (AKU Syllabus) SEMESTER- VIII

SUSTAINABLE DEVELOPMENT Credit : 4
Detail Syllabus will be provided later on.....

MANAGEMENT INFORMATION SYSTEM Credit : 3
1. Strategic View of Management Information System : Introduction to MIS : Concept, definition, role, Impact etc., E-business Enterprise : Introduction, E-business, E-commerce, E-communication, e-collaboration, **Strategic Management of Business :** Corporate Planning, Strategic Planning, Development of Business Strategies, Types of Strategies, Short-Range Planning, MIS : Business Planning, Information Security Challenges in E-enterprises.
2. Basics of Management Information Systems : Decision Making : Concepts, Process, behavioural concepts, Organisational Decision Making, MIS and Decision Making Concepts,
Information : Concepts, Classification, Methods of Collection, Value, Knowledge.
Systems : Concepts, Control, Types, handling Complexity, Classes, General Model of MIS, Implementation Problems, MIS and System Concept.
System Analysis & Design : Introduction, Need, System Development Model, Structured System Analysis & Design, Computer System Design, MIS and System Analysis.
Development of MIS : Long Range Plans, Class of Information, Information Requirement, Implementation of MIS, Quality in the MIS, Organisation for development of the MIS, MIS : Development Process Model
Business Process Re-Engineering : Business Process, Process Model, Value Stream Model, Relevance of IT, MIS and BPR.
3. Applications of Management Information System to E-Business.
4. Application of MIS : Application in Manufacturing Sector. Applications in Service Sector, Decision Support Systems, Enterprise Management Systems.
5. Case Studies : Tata Home Finance Ltd. and Engineering Product Limited

MECHANICAL SYSTEM DESIGN Credit : 5
Design and IC Engine parts
1. Cylinder, trunk position, connecting rod, crank shaft, value gear. **Lecture : 15**
2. Design of centrifugal pump. **Lecture : 06**
3. Design of fly wheel. **Lecture : 02**
4. Design of hydraulic press. **Lecture : 02**
5. Bearing types, selection, design of journal, ball and roller bearing. **Lecture : 05**
6. Design of gears (spar and helical) & gear boxes. **Lecture : 07**
7. Chain drive and brackets. **Lecture : 05**

Elective-III