

Course Outcome

First Year

S.no.	Subject Name and Code	Course Outcomes
1	Engineering Mathematics (AS-101)	<ol style="list-style-type: none">1) To be able to use the concept of ordinary differentiation upto nth order and will be able to expand the functions of one variable and two variables about any given point .They will also be able to draw the curves of the equations given in Cartesian and polar form.2) To be able to apply the concept of partial differentiation, error and extrema of functions of several variables.3) To be able to determine the transformation of coordinate systems into one another and will enable to evaluate the integrals in an easy manner using beta and gamma functions.4) To be able to apply the concept of vector calculus will enable the students to understand fluid flow in mechanics, to understand heat flow, in potential theory to find the solution of Laplace equation.5) To be able to apply the concept of “rank” in matrix will enable the students to obtain important results regarding linear dependence and also regarding the existence and uniqueness of solutions of the linear system of equations.
2	Engineering Mathematics (AS-201)	<ol style="list-style-type: none">1) To be able to apply the concept of ordinary differential equations and the methods of their solution. The students will also be able to solve problems related to electrical and mechanical systems with the help of differential equations.2) To be able to determine the solution of ordinary differential equations in series form and understand the concept of some special functions.3) To be able to evaluate Laplace transformation and will be able to apply on initial value problems.4) To be able to expand the given function using Fourier series expansion and understand the concept of partial differential equations and their methods of solution.5) To be able to apply the concept of initial and boundary value problems and will be able to find their solutions.
3	Engineering Physics (AS-102)	<ol style="list-style-type: none">1. be able to describe different frame of reference and solve problems based on relativistic mechanics and its applications;2. be able to solve problems on vector calculus, formal methods in electromagnetism, basic laws of electromagnetism, Maxwell's equations and their applications;3. will be able to demonstrate and solve problems based on interference and diffraction;4. will be able to define polarization and explain working principle of LASER and its basic industrial and scientific applications;5. be able to describe the propagation mechanism in an optical fiber and

secure foundation for optical fiber communication systems; further have attained a sound level in 3-d photography.

4	Engineering Physics	(AS-202)	<ol style="list-style-type: none">1. be able to describe wave-particle duality, uncertainty principle, Schrödinger wave equation and solve simple problems;2. be able to describe the phenomenon of superconductivity and nanoscience along with their applications ;3. be able to describe dielectric materials and mark out different magnetic materials effectively ;4. be able to apply the knowledge of semiconductors in basic electronic circuits and in different types of memories used in the hardware of computers;5. be able to describe information storage and quantum computing.
5	Engineering Physics	(AS-102P)	<ol style="list-style-type: none">1. visualize coherent sources and measure wavelength.2. visualize the rotation of plane of vibration of polarized light and also determine the specific rotation of cane sugar solution.3. demonstrate diffraction phenomenon and obtain the wavelength of different spectral lines.4. learn balanced bridge condition calculate specific resistance of given wire;5. learn Biot-Savart Law and also calculate radius of given coil.6. understand black body radiation and verify Stefan's law;7. describe the stream line motion of liquids and determine the coefficient of viscosity of liquid;8. learn the concept of calibration of electrical devices.
6	Engineering Physics	(AS-202P)	<ol style="list-style-type: none">1. locate the nodal point and verify the Newton's formula;2. calculate the numerical aperture of the optical fiber;3. demonstrate the dispersion of light and determine the dispersive power of the prism;4. learn to handle travelling microscope and form thin films and measure the radius of curvature of plano convex lens;5. learn about electrical circuits and calibration of voltmeter;6. calculate the energy band gap of the given semiconductor;7. describe forward and reverse biasing of a p-n junction diode and also draw the characteristic curves;8. learn parallel and perpendicular axis theorem and determine the moment of inertia of flywheel.
7	Computer Programming	(CS-101/CS-101P)	<ol style="list-style-type: none">1) To be able to use the basic concepts of computer components.2) To be able to Design, implement, test, debug, and document programs in3) To be able to use pointers and arrays, perform pointer arithmetic, and use the pre-processor4) To be able to use functions, and functions with parameter passing options5) To be able to use the C pre-processor and its application in program

development.

8	Electrical Engineering 101/EE-101P)	(EE-	<ol style="list-style-type: none">1) To be able to apply the mathematical and physical foundations of electrical engineering and how these are used in electronic devices and systems.2) To be able to apply to critically evaluate alternate assumptions, approaches, procedures, tradeoffs, and results related to engineering problems.3) Ability to identify, formulate, and solve engineering problems.4) To be able to use probability and statistics, including applications to electrical engineering.5) To be able to use advanced mathematics, including differential equations, linear algebra, complex variables, and discrete mathematics.
9	Engineering Chemistry 103/AS103P)	(AS-	<ol style="list-style-type: none">1. To be able to write the mechanism of reactions and solve the numerical problems related to chemical kinetics.2. To be able to determine the configuration of organic molecules and shapes of simple inorganic compounds.3. To be able to define and estimate the hardness and alkalinity of water.4. To be able to describe methods of purification, separation and characterization of compounds.5. To be able to write the structures of various polymers and their applications.
10	Professional Communication (AS-105P)		<p>Practical No-I: The Students will be able to express verbally.</p> <p>Practical No-II: The Students will be a competent second language speaker with high Lexical standards.</p> <p>Practical No-III: The students will be able to demonstrate creative ability to communicate with the help of modern tools in ways that audience will pay attention, believe, and remember.</p> <p>Practical No-IV: The Students will be able to apply theories and principles of interpersonal and technical communication to communicate effectively in written & spoken English.</p> <p>Practical No-V: The students will be able to achieve accuracy in transmission and reception of messages in order to attain their organizational objectives.</p>
11	Introduction to Biosciences (AS-104)		<ol style="list-style-type: none">1) To be able to describe the potential of engineering Living systems.2) To be able to define common features of living system, cellular structure & function3) To be able to describe cellular metabolism, Physiological processes and Metabolic engineering4) To be able to define basics of Cell division, Gene control and expression emphasizing on systems more commonly used in biotechnology.5) To be able to determine the feasibility with genetic engineering, key underlying technology.

12	Engineering Mechanics (ME-201/ME201P)	<ol style="list-style-type: none"> 1 To be able to describe basic concepts of force systems, motion, work and energy. 2. To be able to visualize, formulates, analyze and solve engineering problems. 3. To be able apply scientific principles and apply them to the practice of engineering problems 4. To be able to predict the applications of force and motion while carrying out the design of engineering members. 5. To be able to design and conduct experiments, as well as to analyze and interpret data
13	Electronics Engineering (EC-201/EC-201P)	<ol style="list-style-type: none"> 1.To be able to Identify schematic symbols and understand the working principles of electronic devices e.g. Diode, Zener Diode, LED, BJT, JFET and MOSFET etc. 2. To be able to describe the working principles of electronic circuits e.g. Rectifiers, Clipper, Clamper, Filters, Amplifiers and Operational Amplifiers etc. also understand methods to analyse and characterize these circuits. 3. To be able to estimate the functioning and purposes of Power Supplies, Test and Measuring equipments such as Multimeters, CROs and Function generators etc. 4. To be able to rig up and test small electronics circuits. 5.To be able to estimate Power Supply Performance and Specifications
14	Manufacturing Process (ME-202/ME202P)	<ol style="list-style-type: none"> 1. To be able to apply any of the tasks such as basic operations of carpentry, welding & sheet metal, machine fitting, Foundry and Black smithy Shops, various marking, cutting, striking and measuring tools for the basic operations. 2. To be able to provid the knowledge of job material in various shops 3. To be able to analyse the material on the basis of their properties and thus assigning different weight age to their use for technical purposes;. 4. To be able to learn to use instruments with safety precautions.
15	Energy, Environment and Ecology (CE-201)	<ol style="list-style-type: none"> 1 have the knowledge of atmosphere, ecology and environment. 2 collect the knowledge of Biodiversity and natural resources. 3 Get an overview of different energy resources 4 Have an overview of different energy resources environmental pollutions and current environmental issues. 5 To be able to describe different environmental laws and their protection.
16	Computer Aided Engineering Graphics (CE-202)	<ol style="list-style-type: none"> 1.To be able to prepare 2D/3D drawing on computer. 2. To be able to apply fair knowledge of units, scales and drawing instruments and their application. 3.To be able to prepare drawing : plan, elevation and cross sections. 4. To be able to form basic inputs for developing drawings for various structures from designs.

17 **Concepts in Information Technology** (NC-01)

- 1 To be able to use the basic concepts of computer components.
- 2 To be able to Design SDLC and perform number system conversions
- 3 To be able to use concept of internet and web technologies.
- 4 To be able to use concepts of operating system.
- 5 To be able to use the applications of IT.

18 **Information Technology Lab NC-02)** (

- 1 To be able use the basic concepts of MS Word
- 2 To be able to use the basic operations of MS excel
- 3 To be able to use concept of MS Powerpoint.

Second Year

19 **Mathematics-III(EAS 301)**

1. To be able to use the concept of ordinary differential equation as well as partial differential equation which are useful to all branches of engineering.
2. To be able to use concept of “rank” in matrix will enable the students to obtain important results regarding linear dependence, and also regarding the existence and uniqueness of solutions of the linear system of equations.
3. To be able to use concept of vector calculus will enable the students to understand fluid flow in mechanics
4. To be able to determine Fourier series, Special functions, Fourier Transforms and other functions in higher mathematics.
5. To be able to define potential theory to find the solution of Laplace equation.

20 **Digital Logic Design (ECS-301)**

- 1 To be able to design different Digital Circuits based on the available instruction set,
- 2 To be able to apply the knowledge gained for their project work.
- 3 To be able to apply the principles of Boolean algebra to manipulate and minimize logic expressions.
- 4 To be able to use K-maps to minimize and optimize two-level logic functions up to 5 variables.
- 5 To be able to define the operation of latches, flip-flops, counters, registers, and register transfers.

21 **Data Structures Using C (ECS-302/ECS-352)**

- 1 To be able to use basic data structures such as arrays, lists, trees, stacks, queues, binary search trees, and hash tables;
- 2 To be able to incorporate data structures into the applications;
- 3 To be able to implement various searching and sorting algorithms;
- 4 To be able to apply fundamental algorithmic problems including Tree traversals
- 5 To be able to evaluate Graph traversals, and shortest paths.

22	IT Infrastructure and its Management (ECS-304)	<ol style="list-style-type: none"> 1 To be able to identify the key principles and concepts of IT Service Management, 2 To be able to identify the activities and roles involved with the Service Life cycle, 3 To be able to identify the factors that affect the effectiveness of Service Lifecycle, 4 To be able to define the issues involved in security management, IT ethics and be more aware about the latest IT trends. 5 To be able to manage IT in business.
23	Human Values & Professional Ethics (EHU-111)	<ol style="list-style-type: none"> 1. Students will be able to set humanistic goals and actualize them by understanding complementarity between 'Values ' and 'Skills'. 2. Students will be able to develop Self – control by correctly appraising the needs of the Self (I) and body and live in harmony at all the four levels of living. 3. Students will be able to contribute in developing undivided society universal human order in the society by achieving comprehensive human goal . 4. Students will be able to develop mutually enriching interaction with nature by understanding the inter- connectedness and self-recyclability among all the four orders of nature. 5. Students will be able to develop ethical human conduct and imply personal values and ethics in their professional roles and responsibilities.
24	Industrial Sociology (EHU-401)	<ol style="list-style-type: none"> 1. Students will be able to apply the concept of society in industry and industrial concept in society. 2. Students will be able to apply historical events and cultural changes to the industrialization process and its productive systems. Students will also be able to understand the impacts of industrialization upon society. 3. Students will able to evaluate the Indian position in the global economy after knowing Industrial policies of India 4. Students will be aware with complex problems of industrial sector and will be able to handle those problems like –industrial grievances, strike and lockouts etc.
25	Introduction to Soft Computing (EOE-041)	<ol style="list-style-type: none"> 1. Recognize the feasibility of applying a soft computing methodology for a particular problem 2. Apply fuzzy logic and reasoning to handle uncertainty and solve engineering problems 3. Apply genetic algorithms to combinatorial optimization problems 4. Apply neural networks to pattern classification and regression problems and compare solutions by various soft computing approaches for a given problem.
26	Computer Organization (ECS-401/ECS-453)	<ol style="list-style-type: none"> 1 To be able to describe computer architecture and organization, computer arithmetic, Memory and CPU design ; 2 To be able to describe I/O system and interconnection structures of

			<p>computer,</p> <p>3 To be able to identify high performance architecture design,</p> <p>4 To be able to develop independent learning skills and be able to learn more about different computer architectures and hardware.</p> <p>5 To identify high performance architecture design</p>
27	Database Management Systems (ECS-402/ECS-452)		<p>1 To be able to describe the basic concepts and appreciate the applications of database systems;</p> <p>2 To be able to apply the basics of SQL and construct queries using SQL;</p> <p>3 To be able to apply commercial relational database system (Oracle) by writing SQL using the system; be familiar with the relational database theory,</p> <p>4 To be able to write relational algebra and expressions for queries; master sound design principles for logical design of databases, including the E-R method and normalization approach;</p> <p>5 To be able to define database storage structures and access techniques</p>
28	Industrial Psychology (EHU-301)		<p>1 To be able to describe the basic concepts and understand the important topic areas within the field of industrial psychology.</p> <p>2 Student can explain and evaluate the theories, research, and practices within the field of industrial psychology</p> <p>3 To be able to demonstrate how the theories and research in industrial-organizational psychology can be applied to help solve real-world problems.</p> <p>4 Students can discuss the complex issues facing industrial psychology today</p> <p>5 To be able to discuss the issues affect workers, organizations, and society.</p>
29	Software Engineering (EIT-402/EIT-451)		<p>1 To be able to describe the expectations, pressures and problems faced in developing software and the need for processes, tools, techniques and approaches;</p> <p>2 To be able to outline the underlying processes of software engineering and critically assess relevant approaches;</p> <p>3 To be able to analyse, design, test and maintain software systems</p> <p>4 To be able to define the various software configuration management schemes.</p> <p>5 To be able to Identify risks during software development.</p>
30	Introduction to Web Technology (EIT-401/EIT-553)		<p>To be able to plan, design, create, and implement a web site;</p> <p>2 To be able to use the concept of xml, css and DHTML</p> <p>3 To be able to develop a static and dynamic websites.</p> <p>4 To be able to establish the database connectivity over a website.</p>
31	Requirement and Estimation Technique (NC-04)		<p>1. To be able a student should be able to describe the expectations, pressures and problems faced in developing software and the need for processes, tools, techniques and approaches.</p> <p>2. To be able to define the underlying processes of software engineering and models.</p>

3. To be able to determine critically assess relevant approaches analyse, design, test and maintain software systems and document these actions correctly.

- 32 **Object Oriented Analysis and Design (NC-03)**
- 1 Design GUI prototypes for software applications.
 - 2 Design databases to support the software applications and will document them using UML class diagrams.
 - 3 Design UML robustness diagrams from the GUI prototypes.
 - 4 Develop UML sequence diagrams from robustness diagrams.
 - 5 Develop UML implementation class diagrams from the sequence diagrams.

- 33 **Object Oriented System (ECS-305/ECS-354)**
- 1 To be able to apply knowledge of object-oriented system design and programming techniques, describe the different phases in object-oriented software development;
 - 2 To be able to develop simple models that can be used for implementation of applications, using the concepts of object-orientation;
 - 3 To be able to describe the model using the Unified Modelling Language and implement classes that, when possible, can be reused in similar contexts.
 - 4 To be able to develop a desktop application in java.
 - 5 To be able to establish the database connectivity using the programming language.

Third Year

- 34 **Engineering & Managerial Economics (EHU-501)**
- 1 Describe Economy in general & economics in particular & the role of an Engineering, science & technology in an economy.
 - 2 Determine the demand of a product & thereby designing the engineering process according to that demand.
 - 3 Describe the understand demand forecasting & how the concept of Cost is helpful for an engineer before designing the production process
 - 4 Determine the price of a product under various market conditions. Which is helpful in analyzing the price of product in future by comparing competitor price
 - 5 Describe how the National Income is assessed & what is the use of assessing N.I. The understanding of inflation & business cycle is helpful for better understanding of the economy & business world.

- 35 **Operating System (ECS-501/EIT-551)**
- 1 To be able to define the types of operating systems and differences among them
 - 2 To be able to define processes, threads, and the differences between the two.
 - 3 To be able to describe interrupts, synchronization, waiting, and atomic behavior
 - 4 To be able to explain virtual memory, paging, and memory allocation
 - 5 To be able to Caching principles and quantitative estimation of cache

			behavior
			6 Paging performance and page replacement and Files and storage of persistent information
			7 Types of files and file access and Input, output, and types of I/O devices
36	Design and Analysis of Algorithms (ECS-502/EIT-552)		<p>1 To be able to analyse correctness and the running time of the basic algorithms for those classic problems in various domains and</p> <p>2 To be able to apply the algorithms and design techniques to advanced data structures;</p> <p>3 To be able to analyse the complexities of various problems in different domains.</p> <p>4 To be able to demonstrate how the algorithms are used in different problem domains ;</p> <p>5 To be able to design efficient algorithms using standard algorithm design techniques; demonstrate a number of standard algorithms for problems in fundamental areas in computer science and engineering such as sorting, searching, and problems involving graphs.</p>
37	E-Commerce (EIT-501)		<p>1 To be able to understand the basic concepts of e-commerce and their different elements.</p> <p>2 To be able to summarize the main reasons for adoption of e-commerce and e-business and barriers that may restrict adoption.</p> <p>3 To be able to use resources to define the extent of adoption of the internet as a communications medium for consumers and businesses.</p> <p>4 To be able to Outline the business challenges of introducing e-business and e-commerce to an organization.</p>
38	Software Project Management (EIT-601/EIT-652)		<p>1 define and highlight importance of software project management,</p> <p>2 describe the software project management activities and train software project managers and other individuals involved in software project planning and tracking and oversight in the implementation of the software project management process as described in SECC's SPIG Handbook.</p> <p>3 Develop a project management plan (PMP).</p> <p>4 Track project execution through collecting artifacts and metrics according to procedures described in PMP.</p> <p>5 Revise PMP.</p>
39	Software Testing (EIT-062)		<p>1 To be able to apply various test processes and continuous quality improvement</p> <p>2 To be able to define the types of errors and fault models</p> <p>3 To be able to use methods of test generation from requirements</p> <p>4 To be able to use UML) .</p> <p>5 To be able to Test generation from FSM models</p>
40	Computer Graphics (ECS-504/EIT-554)		<p>1. To be able to describe the general software architecture of programs that use 3D computer graphics.</p> <p>2. To be able to discuss hardware system architecture for computer</p>

		<p>graphics. This includes, but is not limited to: graphics pipeline, frame buffers, and graphic accelerators/co-processors.</p> <p>3. To be able to design and implement model and viewing transformations and an interactive render loop with a 3D graphics API.</p> <p>4. To be able to be able to design and implement models of surfaces, lights, sounds, and textures (with texture transformations) using a 3D graphics API.</p> <p>5. To be able to discuss the application of computer graphics concepts in the development of computer games, information visualization, and business applications.</p>
41	Graph Theory (ECS-505)	<p>1 able to define the basic concepts, terminologies and properties of graphs;</p> <p>2 understand and apply some of the classical theorems of graph theory</p> <p>3 apply the knowledge of graph to solve the real life problem.</p>
42	Industrial Management (EHU-601)	<p>1 To be able to to define how to perform the Management Functions; compare selected Theories of Management;</p> <p>2 To be able to perform the functions in the Marketing Mix; and assess ethical issues in Business situations.</p> <p>3 To be able to apply management skills and concepts to specific situations; plan and implement a project;</p> <p>4 To be able to analyse and develop a human relations strategy; demonstrate the ability to communicate effectively;</p> <p>5 To be able to explain and apply the basic concepts of an Industrial Economy; introduce and adapt technical expertise to a given process or product.</p>
43	Computer Network (ECS-601/EIT-651)	<p>1) To be able to describe communication protocols and layered network architectures;</p> <p>2) To be able to explain conventional computer system interfacing standards and peer to peer data link communication protocols;</p> <p>3) To be able to design basic network systems using routing methods and analyse data communication technology.</p> <p>4) To be able to describe the operation of a packet based sliding window protocol, Encryption and Decryption methods.</p> <p>5) To be able to describe the operation of application layer using SMTP, TELNET, DNS, FTP etc.</p>
44	ERP System (EIT602)	<p>1) To be able to memorize the structure of an ERP system</p> <p>2) To be able to apply the process chains in materials management, production, controlling and sales are implemented in an ERP system</p> <p>3) be able to plan the implementation and customisation of an ERP system using the appropriate modelling methods, that are Entity Relationship Modelling (ERM) and Event-Driven Process Chains (EPC</p> <p>4) To be able to determine and customisation of an ERP system.</p>
45	Information Security and Cyber Laws	<p>1 To be able to explain different security standards;</p> <p>2 To be able to develop an acceptable use security policy;</p>

(EIT-505)

- 3 To be able to develop an electronic communication security policy;
- 4 To be able to identify the major components of a disaster recovery plan;
- 5 To be able to explain the steps in designing a security policy and the security trust models.

46 **Operating System Lab (Linux) NC-06**

- 1) To be able to gain in depth knowledge about the components of the operating system
- 2) To be able to apply knowledge of different types of operating systems
- 3) To be able define functions performed by the modern operating systems

47 **Front End Design Tools & Web Technologies(NC-05)**

- 1.To be able to plan, design, create, and implement a web site;
- 2 To be able to use the concept of various design tools for website.
- 3 To be able to work effectively in a team to develop a project.
- 4 To be able to make websites establish the database connectivity over a website.

Final Year

48 **Entrepreneurship Development (EOE-071)**

- 1 To be able to build on personal as well as external resources with a view to successfully launching and subsequently managing their enterprises.
- 2 To be able to define what entrepreneurship is, consider how everyone has the potential to be entrepreneurial, and to explore the constituents of the entrepreneurial process
- 3 To be able to identify steps required to research the potential for an innovative idea for the development of an existing enterprise, a new venture or a social change opportunity
- 4 To be able to Examine the key resources required to exploit an innovative idea or opportunity to develop an existing business, launch a new venture, or initiate a social enterprise
- 5 Identify the key steps required for exploiting an innovative idea or opportunity to develop an existing business, launch a new venture, or initiate a social enterprise.

49 **Distributed Systems (ECS-701/ECS-851)**

- 1 To be able to explain what a distributed system is, why one would design a system as a distributed system,
- 2 To be able to describe the desired properties of such systems are; list the principles underlying the functioning of distributed systems,
- 3 To be able to describe the problems and challenges associated with these principles,
- 4 To be able to evaluate the effectiveness and shortcomings of their solutions;
- 5 To be able to recognise how the principles are applied in contemporary distributed systems, explain how they affect the software design, and able to identify features and design decisions that may cause problems.

50	Data Mining and Data Warehousing (ECS-075)	<p>1 To be able to identify the key processes of data mining, data warehousing and knowledge discovery process;</p> <p>2 To be able to describe the basic principles and algorithms used in practical data mining and understand their strengths and weaknesses;</p> <p>3 To be able to apply data mining techniques to solve problems in other disciplines in a mathematical way;</p> <p>4 To be able to apply data mining methodologies with information systems</p> <p>5 To be able to generate results which can be immediately used for decision making in well-defined business problems.</p>
51	Non-Conventional Energy Resources (EOE-081)	<p>1 To be able to define the various non-conventional energy resources;</p> <p>2 To be able to use solar energy to produce electricity;</p> <p>3 To be able to utilize wind energy for human usage;</p> <p>4 To be able to describe and compare the operation principle and environmental impacts of a coal-fired power plant with a nuclear power plant;</p> <p>5 To be able to identify the different sources of renewable energy and innovative technologies in harnessing energy from these renewable sources.</p>
52	Artificial Intelligence 752) (ECS-801/EIT-	<p>1 To be able to identify problems that are amenable to solution by AI methods, and which AI methods may be suited to solving a given problem;</p> <p>2 To be able to formalise a given problem in the language/framework of different AI methods;</p> <p>3 To be able to describe basic AI algorithms (e.g., standard search algorithms or resolution);</p> <p>4 To be able to design and carry out an empirical evaluation of different algorithms on a problem formalisation</p> <p>5 To be able to state the conclusions that the evaluation supports.</p>
53	Cryptography and Network Security (EIT-701/EIT-751)	<p>1 To be able to identify common network security vulnerabilities/attacks; explain the foundations of Cryptography and network security;</p> <p>2 To be able to evaluate the risks and threats to networked computers;</p> <p>3 To be able to demonstrate detailed knowledge of the role of encryption to protect data;</p> <p>4 To be able to analyse security issues arising from the use of certain types of technologies;</p> <p>5 To be able to identify the appropriate procedures required to secure networks; identify the appropriate procedures required for system security testing and procedures of Backup and Recovery.</p>
54	Multimedia Systems (EIT-082)	<p>1 To be able to describe different realisations of multimedia tools and the way in which they are used</p> <p>2 To be able to analyse the structure of the tools in the light of low-level constraints imposed by the adoption of various QoS schemes (i.e. bottom up approach)</p> <p>3 To be able to analyse the effects of scale and use on both presentation and lower level requirements (i.e. top down approach)</p> <p>4 To be able to plan experiments to test user perception of multimedia tools.</p>

			5 To be able to apply to various data compression
55	Mobile Computing	(ECS-087)	<p>1 To be able to define the characteristics and limitations of mobile hardware devices including their user-interface modalities</p> <p>2 To be able to develop applications that are mobile-device specific and demonstrate current practice in mobile computing contexts.</p> <p>3 To be able to explore the strengths and limitations of different types of mobile/wireless networks.</p> <p>4 To be able to analyze the performance of different handoff, roaming, and location update algorithms for cellular networks.</p> <p>5 To be able to describe the basic issues and problems in current trends of mobile computing.</p>
56	Discrete Structures	(EIT-071)	<p>To be able to determine problems involving sets, functions, relations, graphs and trees, Boolean algebra;</p> <p>2) To be able to calculate number of possible outcomes of elementary combinatorial processes such as permutations and combinations,</p> <p>3) To be able to use mathematical notations and common concepts in discrete mathematics</p> <p>4) To be able to apply implementation of groups in coding theory,</p> <p>5) To be able to determine mathematical as well as graphical problems</p>
57	Cloud Computing	(NC-07)	<p>1. Large data processing in the cloud.</p> <p>2. Virtualization techniques and Security.</p> <p>3. Resource and Power Management in the cloud.</p> <p>4. Monitoring and SLA Assurance.</p> <p>5. Semantic Cloud and SaaS.</p>
58	Distributed Database	(NC-08)	<p>1) To be able to define the basic concepts of distributed databases and distributed computing environment as well as deferent architecture models.</p> <p>2) To be able to define the basic concept of fragmentation, replication in distributed databases.</p> <p>3) To be able to define the concept of query processing and optimization for performance improvement in distributed computing environment.</p> <p>4) To be able to define the concept of parallel and concurrent transaction processing in distributed computing environment.</p> <p>5) To be able to define the various commit protocols and recovery techniques in distributed computing environment.</p>
59	Technology Lecture TI-013		<p>1) To make the students aware about the latest trends in IT.</p> <p>2) To facilitate them solving complex engineering problems.</p> <p>3) To able the students to apply the combined knowledge of all the subjects taught up till now.</p> <p>4) To enable the students to make new research using basic concepts of IT.</p> <p>5) To encourage the students for pursuing higher studies.</p>