



The Kavery Engineering College

(Approved by AICTE, New Delhi & Affiliated to Anna University)
Mecheri, Mettur Tk. Salem Dt - 636 453.

DEPARTMENT OF INFORMATION TECHNOLOGY

PROGRAMME: B.TECH. INFORMATION TECHNOLOGY

VISION

- ❖ To achieve global standards in quality of education, research and development in the field of Information Technology.

MISSION

- ❖ To produce technologically competent and ethically responsible engineers.
- ❖ To promote research in collaboration with industries and professional societies to make the nation as knowledge –power.
- ❖ To cultivate professional skills for lifelong learning process to produce successful Engineers.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

- ❖ Demonstrate technical competence with analytical and critical thinking to understand and meet the diversified requirements of industry, academia and research.
- ❖ Exhibit technical leadership, team skills and entrepreneurship skills to provide business solutions to real world problems.
- ❖ Work in multi-disciplinary industries with social and environmental responsibility, work ethics and adaptability to address complex engineering and social problems
- ❖ Pursue lifelong learning, use cutting edge technologies and involve in applied research to design optimal solutions.

PROGRAM OUTCOMES (POs)

- ❖ Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- ❖ Problem analysis: Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- ❖ Design/development of solutions: Design solutions for complex engineering problems



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and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

- ❖ Conduct Investigations of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- ❖ Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
- ❖ The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- ❖ Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- ❖ Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- ❖ Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- ❖ Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- ❖ Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- ❖ Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.



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PROGRAM SPECIFIC OUTCOMES (PSOs)

- ❖ Have proficiency in programming skills to design, develop and apply appropriate techniques, to solve complex engineering problems.
- ❖ Have knowledge to build, automate and manage business solutions using cutting edge technologies.
- ❖ Have excitement towards research in applied computer technologies.

COURSE OUTCOMES (COs)

Regulation	2021
Sem	01
Subject Code	HS3151
Subject Name	Professional English - I
Course Outcome	<ul style="list-style-type: none">• To listen and comprehend complex academic texts To read and infer the denotative and connotative meanings of technical texts• To write definitions, descriptions, narrations and essays on various topics• To speak fluently and accurately in formal and informal communicative contexts• To express their opinions effectively in both oral and written medium of communication

Regulation	2021
Sem	01
Subject Code	MA3151



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Subject Name	Matrices And Calculus
Course Outcome	<ul style="list-style-type: none">• Use the matrix algebra methods for solving practical problems. Apply differential calculus tools in solving various application problems.• Able to use differential calculus ideas on several variable functions.• Apply different methods of integration in solving practical problems.• Apply multiple integral ideas in solving areas, volumes and other practical problems.

Regulation	2021
Sem	01
Subject Code	PH3151
Subject Name	Engineering Physics
Course Outcome	<ul style="list-style-type: none">• Understand the importance of mechanics. Express their knowledge in electromagnetic waves.• Demonstrate a strong foundational knowledge in oscillations, optics and lasers.• Understand the importance of quantum physics• Comprehend and apply quantum mechanical principles towards the formation of energy bands.



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Regulation	2021
Sem	01
Subject Code	CY3151
Subject Name	Engineering Chemistry
Course Outcome	<ul style="list-style-type: none">• To infer the quality of water from quality parameter data and propose suitable treatment methodologies to treat water. To identify and apply basic concepts of nanoscience and nanotechnology in designing the synthesis of nanomaterials for engineering and technology applications.• To apply the knowledge of phase rule and composites for material selection requirements.• To recommend suitable fuels for engineering processes and applications.• To recognize different forms of energy resources and apply them for suitable applications in energy sectors.

Regulation	2021
Sem	01
Subject Code	GE3151
Subject Name	Problem Solving And Python Programming
Course Outcome	<ul style="list-style-type: none">• Develop algorithmic solutions to simple computational problems.• Develop and execute simple Python programs.• Write simple Python programs using conditionals and loops for solving problems.• Decompose a Python program into functions.



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Regulation	2021
Sem	01
Subject Code	GE3171
Subject Name	Problem Solving And Python Programming Laboratory
Course Outcome	<ul style="list-style-type: none">• Develop algorithmic solutions to simple computational problems• Develop and execute simple Python programs.• Implement programs in Python using conditionals and loops for solving problems.• Deploy functions to decompose a Python program.• Process compound data using Python data structures.• Utilize Python packages in developing software applications.



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Regulation	2021
Sem	01
Subject Code	BS3171
Subject Name	Physics Laboratory
Course Outcome	<ul style="list-style-type: none">• Understand the functioning of various physics laboratory equipment.• Use graphical models to analyze laboratory data.• Use mathematical models as a medium for quantitative reasoning and describing physical reality.• Access, process and analyze scientific information.• Solve problems individually and collaboratively.

Regulation	2021
Sem	01
Subject Code	BS3171
Subject Name	Chemistry Laboratory



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Course Outcome	<ul style="list-style-type: none">• To analyze the quality of water samples with respect to their acidity, alkalinity, hardness and DO.• To determine the amount of metal ions through volumetric and spectroscopic techniques• To analyze and determine the composition of alloys.• To learn simple method of synthesis of nanoparticles• To quantitatively analyze the impurities in solution by electro analytical techniques
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Regulation	2021
Sem	02
Subject Code	HS3251
Subject Name	Professional English - II
Course Outcome	<ul style="list-style-type: none">• To compare and contrast products and ideas in technical texts. To identify cause and effects in events, industrial processes through technical texts• To analyze problems in order to arrive at feasible solutions and communicate them orally and in the written format.• To report events and the processes of technical and industrial nature.• To present their opinions in a planned and logical manner, and draft effective resumes in context of job search.



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Regulation	2021
Sem	02
Subject Code	MA3251
Subject Name	Statistics And Numerical Methods
Course Outcome	<ul style="list-style-type: none">• Apply the concept of testing of hypothesis for small and large samples in real life problems.• Apply the basic concepts of classifications of design of experiments in the field of agriculture.• Appreciate the numerical techniques of interpolation in various intervals and apply the numerical techniques of differentiation and integration for engineering problems.• Understand the knowledge of various techniques and methods for solving first and second order ordinary differential equations.• Solve the partial and ordinary differential equations with initial and boundary conditions by using certain techniques with engineering applications.



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Regulation	2021
Sem	02
Subject Code	PH3256
Subject Name	Physics For Information Science
Course Outcome	<ul style="list-style-type: none">• Gain knowledge on classical and quantum electron theories, and energy band structures.• Acquire knowledge on basics of semiconductor physics and its applications in various devices.• Get knowledge on magnetic properties of materials and their applications in data storage, have the necessary understanding on the functioning of optical materials for optoelectronics understand the basics of quantum structures and their applications and basics of quantum computing

Regulation	2021
Sem	02
Subject Code	BE3251
Subject Name	Basic Electrical And Electronics Engineering
Course Outcome	<ul style="list-style-type: none">• Compute the electric circuit parameters for simple problems• Explain the working principle and applications of electrical machines Analyze the characteristics of analog electronic devices• Explain the basic concepts of digital electronics• Explain the operating principles of measuring instruments



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Regulation	2021
Sem	02
Subject Code	GE3251
Subject Name	Engineering Graphics
Course Outcome	<ul style="list-style-type: none">• Use BIS conventions and specifications for engineering drawing.• Construct the conic curves, involutes and cycloid.• Solve practical problems involving projection of lines.• Draw the orthographic, isometric and perspective projections of simple solids.• Draw the development of simple solids.

Regulation	2021
Sem	02
Subject Code	CS3251
Subject Name	Programming In C



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Course Outcome	<ul style="list-style-type: none">• Demonstrate knowledge on C Programming constructs• Develop simple applications in C using basic constructs• Design and implement applications using arrays and strings C• Develop and implement modular applications in C using functions.• Develop applications in C using structures and pointers.• Design applications using sequential and random access file processing.
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Regulation	2021
Sem	02
Subject Code	GE3271
Subject Name	Engineering Practices Laboratory
Course Outcome	<ul style="list-style-type: none">• Draw pipe line plan; lay and connect various pipe fittings used in common household plumbing work; Saw; plan; make joints in wood materials used in common household wood work.• Wire various electrical joints in common household electrical wire work.• Weld various joints in steel plates using arc welding work; Machine various simple processes like turning, drilling, tapping in parts;• Assemble simple mechanical assembly of common household equipments; Make a tray out of metal sheet using sheet metal work. Solder and test simple electronic circuits; Assemble and test simple electronic components on PCB.



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Regulation	2021
Sem	02
Subject Code	CS3271
Subject Name	Programming In C Laboratory
Course Outcome	<ul style="list-style-type: none">• Demonstrate knowledge on C programming constructs.• Develop programs in C using basic constructs.• Develop programs in C using arrays.• Develop applications in C using strings, pointers, functions.• Develop applications in C using structures.• Develop applications in C using file processing.

Regulation	2021
Sem	02
Subject Code	GE3272
Subject Name	Communication Laboratory
Course Outcome	<ul style="list-style-type: none">• Speak effectively in group discussions held in formal/semi formal contexts.• Write emails and effective job applications.

Regulation	2021
Sem	03
Subject Code	MA3354
Subject Name	Discrete Mathematics



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Course Outcome	<ul style="list-style-type: none">• Have knowledge of the concepts needed to test the logic of a program.• Have an understanding in identifying structures on many levels.• Be aware of a class of functions which transform a finite set into another finite set which relates to input and output functions in computer science.• Be aware of the counting principles.• Be exposed to concepts and properties of algebraic structures such as groups, rings and fields.
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Regulation	2021
Sem	03
Subject Code	CS3352
Subject Name	Foundations Of Data Science
Course Outcome	<ul style="list-style-type: none">• Define the data science process• Understand different types of data description for data science process• Gain knowledge on relationships between data• Use the Python Libraries for Data Wrangling• Apply visualization Libraries in Python to interpret and explore data



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Regulation	2021
Sem	03
Subject Code	CD3291
Subject Name	Data Structures And Algorithms
Course Outcome	<ul style="list-style-type: none">• Explain abstract data types• Design, implement, and analyze linear data structures, such as lists, queues, and stacks, according to the needs of different applications• Design, implement, and analyze efficient tree structures to meet requirements such as searching, indexing, and sorting• Model problems as graph problems and implement efficient graph algorithms to solve them



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Regulation	2021
Sem	03
Subject Code	CS3391
Subject Name	Object Oriented Programming
Course Outcome	<ul style="list-style-type: none">• Apply the concepts of classes and objects to solve simple problems.• Develop programs using inheritance, packages and interfaces• Make use of exception handling mechanisms and multithreaded model to solve real world problems• Build Java applications with I/O packages, string classes, Collections and generics concepts• Integrate the concepts of event handling and JavaFX components and controls for developing GUI based applications

Regulation	2021
Sem	03
Subject Code	CS3311
Subject Name	Data Structures Laboratory
Course Outcome	<ul style="list-style-type: none">• Implement linear data structure algorithms.• Implement applications using Stacks and Linked lists• Implement Binary Search tree and AVL tree operations.• Implement graph algorithms.• Analyze the various searching and sorting algorithms.



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Regulation	2021
Sem	03
Subject Code	CS3381
Subject Name	Object Oriented Programming Laboratory
Course Outcome	<ul style="list-style-type: none">• Design and develop java programs using object oriented programming concepts• Develop simple applications using object oriented concepts such as package, exceptions• Implement multithreading, and generics concepts• Create GUIs and event driven programming applications for real world problems• Implement and deploy web applications using Java

Regulation	2021
Sem	03
Subject Code	CS3361
Subject Name	Data Science Laboratory
Course Outcome	<ul style="list-style-type: none">• Make use of the python libraries for data science• Make use of the basic Statistical and Probability measures for data science.• Perform descriptive analytics on the benchmark data sets.• Perform correlation and regression analytics on standard data sets• Present and interpret data using visualization packages in Python.



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Regulation	2021
Sem	03
Subject Code	GE3361
Subject Name	Professional Development
Course Outcome	<ul style="list-style-type: none">• Use MS Word to create quality documents, by structuring and organizing content for their day to day technical and academic requirements Use MS EXCEL to perform data operations and analytics, record, retrieve data as per requirements and visualize data for ease of understanding• Use MS PowerPoint to create high quality academic presentations by including common tables, charts, graphs, interlinking other elements, and using media objects.