

Jaihind College of Engineering, Kuran (4084)

Department of Computer Engineering

Course Outcomes

BE (2015 pattern)		
High Performance Computing	410241	CO1: Describe different parallel architectures, inter-connect networks, programming models CO2: Develop an efficient parallel algorithm to solve given problem CO3: Analyze and measure performance of modern parallel computing systems CO4: Build the logic to parallelize the programming task
Artificial Intelligence and Robotics	410242	CO1: Identify and apply suitable Intelligent agents for various AI applications CO2: Design smart system using different informed search / uninformed search or heuristic approaches. CO3: Identify knowledge associated and represent it by ontological engineering to plan a strategy to solve given problem. CO4: Apply the suitable algorithms to solve AI problems
Data Analytics	410243	CO1: Write case studies in Business Analytic and Intelligence using mathematical models CO2: Present a survey on applications for Business Analytic and Intelligence CO3: Provide problem solutions for multi-core or distributed, concurrent/Parallel environments
Elective I Digital Signal Processing	4102449(A)	CO1: Understand the mathematical models and representations of DT Signals and Systems CO2: Apply different transforms like Fourier and Z-Transform from applications point of view. CO3: Understand the design and implementation of DT systems as DT filters with filter structures and different transforms. CO4: Demonstrate the knowledge of signals and systems for design and analysis of systems CO5: Apply knowledge and use the signal transforms for digital processing applications
Elective I Software Architecture and Design	4102449(B)	CO1: Express the analysis and design of an application CO2: Specify functional semantics of an application CO3: Evaluate software architectures CO4: Select and use appropriate architectural styles and software design patterns
Elective I Pervasive and Ubiquitous Computing	4102449(C)	CO1: Design and implement primitive pervasive applications CO2: Analyze and estimate the impact of pervasive computing on future computing applications and society CO3: Develop skill sets to propose solutions for problems related to pervasive computing system CO4: Design a preliminary system to meet desired needs within the constraints of a particular problem space
Elective I Data Mining and Warehousing	4102449(D)	CO1: Apply basic, intermediate and advanced techniques to mine the data CO2: Analyze the output generated by the process of data mining CO3: Explore the hidden patterns in the data CO4: Optimize the mining process by choosing best data mining technique
Elective II Distributed Systems	410245(A)	CO1: Able to learn and apply the concept of remote method invocation and Remote Procedure Calls CO2: Able to analyze the mechanism of peer to peer systems and Distributed File Systems CO3: Demonstrate an understanding of the challenges faced by current and future distributed systems

Elective II Software Testing and Quality Assurance	410245 (B)	<p>CO1: Describe fundamental concepts in software testing such as manual testing, automation testing and software quality assurance.Design and develop project test plan, design test cases, test data, and conduct test operations</p> <p>CO2: Apply recent automation tool for various software testing for testing software</p> <p>CO3: Apply different approaches of quality management, assurance, and quality standard to software system</p> <p>CO4: Apply and analyze effectiveness Software Quality Tools</p>
Elective II Distributed Systems	410245 (C)	<p>CO1: Identify the characteristics of different types of decision-making environments</p> <p>CO2: Use appropriate decision making approaches and tools</p> <p>CO3: Build various dynamic and adaptive models</p> <p>CO4: Develop critical thinking and objective analysis of decision problems</p> <p>CO5: Apply the OR techniques for efficacy</p>
Elective II Mobile Communication	410245 (D)	<p>CO1: Justify the Mobile Network performance parameters and design decisions.</p> <p>CO2: Choose the modulation technique for setting up mobile network.</p> <p>CO3: Formulate GSM/CDMA mobile network layout considering futuristic requirements which conforms to the technology.</p> <p>CO4: Use the 3G/4G technology based network with bandwidth capacity planning.</p> <p>CO5: Percept to the requirements of next generation mobile network and mobile applications</p>
Laboratory Practice I	410246	The presented course is solely intended to enhance the competency by undertaking the laboratory assignments of the core courses.
Laboratory Practice II	410247	The presented course is solely intended to enhance the competency by undertaking the laboratory assignments of the core courses. Enough choice is provided to the learner to choose an elective of one's interest.
Project Work Stage I	410248	<p>CO1: Solve real life problems by applying knowledge.</p> <p>CO2: Analyze alternative approaches, apply and use most appropriate one for feasible solution.</p> <p>CO3: Write precise reports and technical documents in a nutshell.</p> <p>CO4: Participate effectively in multi-disciplinary and heterogeneous teams exhibiting team work, Inter-personal relationships, conflict management and leadership quality.</p>

Machine Learning	410250	CO1: Distinguish different learning based applications CO2: Apply different preprocessing methods to prepare training data set for machine learning. CO3: Design and implement supervised and unsupervised machine learning algorithm. CO4: Implement different learning models CO5: Learn Meta classifiers and deep learning concepts
Information and Cyber Security	410251	CO1: Gauge the security protections and limitations provided by today's technology. CO2: Identify information security and cyber security threats. CO3: Analyze threats in order to protect or defend it in cyberspace from cyber-attacks. CO4: Build appropriate security solutions against cyber-attacks.
Elective III Advanced Digital Signal Processing	410252 (A)	CO1: Understand and apply different transforms for the design of DT/Digital systems CO2: Explore the knowledge of adaptive filtering and Multi-rate DSP CO3: Design DT systems in the field/area of adaptive filtering, spectral estimation and multi-rate DSP CO4: Explore use of DCT and WT in speech and image processing CO5: Develop algorithms in the field of speech , image processing and other DSP applications
Elective III Compilers	410252 (B)	CO1: Design and implement a lexical analyzer and a syntax analyzer CO2: Specify appropriate translations to generate intermediate code for the given programming language construct CO3: Compare and contrast different storage management schemes CO4: Identify sources for code optimization
Elective III Embedded and Real Time Operating Systems	410252 (C)	CO1: Recognize and classify embedded and real-time systems CO2: Explain communication bus protocols used for embedded and real-time systems CO3: Classify and exemplify scheduling algorithms CO4: Apply software development process to a given RTOS application CO5: Design a given RTOS based application
Elective III Soft Computing and Optimization Algorithms	410252 (D)	CO1: Apply soft computing methodologies, including artificial neural networks, fuzzy sets, fuzzy logic, fuzzy inference systems and genetic algorithms CO2: Design and development of certain scientific and commercial application using computational neural network models, fuzzy models, fuzzy clustering applications and genetic algorithms in specified applications.
Elective IV Software Defined Networks	410253 (A)	CO1: Interpret the need of Software Defined Networking solutions. CO2: Analyze different methodologies for sustainable Software Defined Networking solutions. CO3: Select best practices for design, deploy and troubleshoot of next generation networks. CO4: Develop programmability of network elements. CO5: Demonstrate virtualization and SDN Controllers using OpenFlow protocol
Elective IV Human Computer Interface	410253 (B)	CO1: Evaluate the basics of human and computational abilities and limitations. CO2: Inculcate basic theory, tools and techniques in HCI. CO3: Apply the fundamental aspects of designing and evaluating interfaces. CO4: Apply appropriate HCI techniques to design systems that are usable by people
Elective IV Cloud Computing	410253 (C)	CO1: To install cloud computing environments. CO2: To develop any one type of cloud CO3: To explore future trends of cloud computing

Laboratory Practice III	410254	The presented course is solely intended to enhance the competency by undertaking the laboratory assignments of the core courses.
Laboratory Practice IV	410255	The presented course is solely intended to enhance the competency by undertaking the laboratory assignments of the elective courses. Enough choice is provided to the learner to choose an elective of one's interest
Project Work Stage II	410256	<p>CO1: Show evidence of independent investigation</p> <p>CO2: Critically analyze the results and their interpretation.</p> <p>CO3: Report and present the original results in an orderly way and placing the open questions in the right perspective.</p> <p>CO4: Link techniques and results from literature as well as actual research and future research lines with the research.</p> <p>CO5: Appreciate practical implications and constraints of the specialist subject</p>