RSR RUNGTA COLLEGE OF ENGINEERING & TECHNOLOGY

Rungta Knowledge City
Kohka – Kurud Road, Bhilai (C.G.)-490024
Recognized by AICTE, New Delhi and Affiliated to CSVTU, Bhilai.

Department of Computer Science & Engineering

Course Outcomes

Programme: Bachelor of Technology　　　　**Course Name : Mathematics – III**

Semester: III　　　　**Course Code :B000311(014)**

CO1. Describe the functional elements of the measurement system and its performance characteristics.

CO2. Describe measurement of pressure, strain and temperature.

CO3. Describe flow measurement, vibration measurement and data acquisition system.

CO4. Describe linear and angular measurement devices, measurement of geometrical forms, optical projectors, tool maker microscope and autocollimators.

CO5. Describe interferometer, comparators, screw thread and gear measurement and coordinate measuring machine.

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Department of Computer Science & Engineering

Course Outcomes

Programme: Bachelor of Technology   **Course Name : Data Structures & Algorithms**

Semester: III   **Course Code : B022312(022)**

CO1: Have a comprehensive knowledge of the data structures and algorithms on which file structures and databases are based.

CO2: Understand the importance of data and be able to identify the data requirements for an application.

CO3: Have in depth understanding and practical experience of algorithm design and implementation.

CO4: Have practical experience of developing applications that utilize databases.

CO5: Understand the issues involved in algorithm complexity and performance.

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Department of Computer Science & Engineering

Course Outcomes

Programme: Bachelor of Technology Languages

Course Name : Principles of Programming

Semester: III

Course Code : B022313(022)

CO1:Obtain broad understanding of the role of computer science, fundamental software design concepts and notations.

CO2: Get an overview of various programming language paradigms, processor and software simulation types.

CO3: Understand key concepts in the implementation of common features of programming languages.

CO4: Acquire knowledge of basic concepts about object oriented programming languages.

CO5: Program in object oriented programming language paradigm using various computational methods.

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Department of Computer Science & Engineering
Course Outcomes

Programme: Bachelor of Technology   **Course Name : Digital Electronics**

Semester: III   **Course Code : B022314(022)**

CO1: Apply digital coding concepts to simplify circuit design.

CO2: Analyze the operations of various logic families and different semiconductor memories.

CO3: Design and implement various combinational circuits.

CO4: Outline the concept of latch circuits, flip flops and counters.

CO5: Design and Develop basic digital system using VHDL.

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Department of Computer Science & Engineering

Course Outcomes

Programme: Bachelor of Technology   **Course Name : Operating System**

Semester: III   **Course Code : B022315(022)**

CO1: Identify the role of the operating system in making computers execute data processing jobs.

CO2: Realize managing computers resource complexity during concurrent process execution through os layers.

CO3: Analyze the reasons for resource bottlenecks-concurrency. Deadlock and various synchronization mechanisms available.

CO4: Understand the functioning of operating system Components in memory management techniques, virtual memory management.

CO5: Understand disk organization, file system structure, secondary storage management functions of operating systems.

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Department of Computer Science & Engineering
Course Outcomes

Programme: Bachelor of Technology

Course Name : Discrete Mathematics

Semester: IV

Course Code : B022411(014)

CO1: Able to apply mathematical logic and Boolean algebra in switching circuits & logic circuits.

CO2: Familiar with set theory, relation and functions.

CO3: Familiar with algebraic structures, graph theory and combinatorics.

CO4: Able to solve problems in various fields in computer science, specially networking

CO5: Familiar with Permutation and combination, Principle of Inclusion and Exclusion.

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Department of Computer Science & Engineering

Course Outcomes

Programme: Bachelor of Technology   **Course Name : Computer System Architecture**

Semester: IV   **Course Code : B022412(022)**

CO1: Identify the basic hardware components of a computer system.

CO2:Familiarize themselves with binary and hexadecimal number systems including computer arithmetic.

CO3: Familiarize themselves with functional units of the processor such as the register file and arithmetic logical unit.

CO4: Understand basic functionality of systems: parallel, pipelined, superscalar and RISC/CISC architectures.

CO5: Represent system design in appropriate formats; addressing modes, an instruction set as per the system configuration requirements.

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Department of Computer Science & Engineering

Course Outcomes

Programme: Bachelor of Technology

Course Name : Database Management Systems

Semester: IV

Course Code : B022413(022)

CO1: Be familiar with basic concepts of RDBMS, Relational data model & be able to write relational algebra expressions for queries.

CO2: Be familiar with basic database storage structures and access techniques: file and page organizations, indexing methods including B-tree and hashing.

CO3: Explain solidification phenomenon of pure metal, alloys and interpret phase diagrams.

CO4: Explain how microstructure and mechanical properties of carbon and alloy steels are controlled by various heat treatment/surface treatment processes.

CO5: Compare characteristics of various ferrous, non ferrous and composite materials

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Department of Computer Science & Engineering
Course Outcomes

Programme: Bachelor of Technology   **Course Name : Object Oriented Programming (with Java)**

Semester: IV   **Course Code : B022414(022)**

CO1: Apply Java in developing Object Oriented code.

CO2: Apply the knowledge of Multi-threading and Streams in developing Java applications.

CO3: Design and implement applications using GUI and Networking in Java.

CO4: Apply the knowledge of Collections and Generics for building Java applications.

CO5: Design and develop Java based applications for solutions to real world problems.

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Department of Computer Science & Engineering

Course Outcomes

Programme: Bachelor of Technology   **Course Name : Design & Analysis of Algorithms**

Semester: IV   **Course Code : B022415(022)**

CO1: Calculate the Time complexity of Insertion sort, Heap sort, Bubble sort, Linear and Binary search algorithms.

CO2: Apply the algorithms and design techniques to solve problems related to divide and conquer and Greedy Algorithms.

CO3: Analyze Dynamic programming problems including Matrix chain multiplication, Longest Common subsequence and Knapsack Problem.

CO4: Understand the implementation of Backtracking and Recursive Backtracking Methods.

CO5: Understand the basic concepts of NP-Hard, NP-Complete and Branch and Bound methods.

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Department of Computer Science & Engineering
Course Outcomes

Programme: Bachelor of Technology   **Course Name : Microprocessors & Interfaces**

Semester: V   **Course Code : C022511(022)**

CO1: Apply basic concepts of digital fundamentals to Microprocessor based personal computer systems.

CO2: Identify a detailed software & hardware structure of the Microprocessors.

CO3: Design, write and test assembly language programs of moderate complexity.

CO4: Illustrate how the different peripherals are interfaced with Microprocessor.

CO5: Apply concepts of microprocessor for developing systems to solve real world problems.

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Department of Computer Science & Engineering

Course Outcomes

Programme: Bachelor of Technology   **Course Name : Computer Networks**

Semester: V   **Course Code : C022512(022)**

CO1: On completion of this unit the student should be able to :

CO2: Understand the basic structure of an abstract layered Network protocol model for any Networking environment.

CO3: Identify and apply basic theorems and formulae for the information-theoretic basis of communication and the performance of TCP/IP network protocols.

CO4: Acquire reflective practice necessary to support a career in Computer Networking at advanced professional level.

CO5: Understand different protocols, software, and network architectures, their topologies, protocols in any networking application domains.

CO6: Solve plane stress and plain strain problems

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Department of Computer Science & Engineering

Course Outcomes

Programme: Bachelor of Technology

Course Name : Formal Languages and Automata Theory

Semester: V

Course Code : C022513(022)

CO1: Design finite automata to accept a set of strings of a language.

CO2: Determine whether the given language is regular or not.

CO3: Design context free grammars to generate strings of context free language.

CO4: Design push down automata and the equivalent context free grammars and Design Turing machine.

CO5: Distinguish between computability and non-computability, Decidability and undecidability.

Department of Computer Science & Engineering

Course Outcomes

Programme: Bachelor of Technology   **Course Name : Data Analytics with Python**

Semester: V   **Course Code : C022514(022)**

CO1: Use various data structures available in Python.

CO2: Apply the concepts of Data Analysis.

CO3: Apply the use of Numpy Library for performing various data processing activities.

CO4: Apply the use of Pandas library for data handling activities.

CO5: Apply the use of Matplotlib for data visualization activities.

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Department of Computer Science & Engineering

Course Outcomes

Programme: Bachelor of Technology   **Course Name : Multimedia & Virtual Reality**

Semester: V   **Course Code :C022534(022)**

CO1: Know the fundamental video, audio, image, text processing techniques.

CO2: Acquire the basic skill of designing video compression, audio compression, image compression, text compression.

CO3: Know the basic techniques in designing video transmission systems: error control and rate control.

CO4: Know the technologies related to virtual reality and application of virtual reality systems.

CO5: Get familiar with VRML programming.

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Department of Computer Science & Engineering

Course Outcomes

Programme: Bachelor of Technology

Course Name : Compiler Design

Semester: VI

Course Code : C022611(022)

CO1: Explain the concepts of Compilers and roles of the lexical analyzer.

C02: Apply the concepts of different Parsing techniques and implement the knowledge to the Yacc tool.

CO3: Develop syntax directed translation schemes.

CO4: Develop syntax directed translation schemes.

CO5: Use the new code optimization techniques to improve the performance of a program in terms of speed & space and develop algorithms to generate code for a target machine.

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Department of Computer Science & Engineering

Course Outcomes

Programme: Bachelor of Technology Management

Course Name :Software Engineering & Project

Semester: VI

Course Code : C022612(022)

CO1: To understand and conceptualize the process of Software Development Life Cycle (SDLC) models.

CO2: Apply use of knowledge of Software Life Cycle to implement the projects successfully in the corporate world.

CO3: Identify the Inputs, Tools and techniques to get the required Project deliverables and Product deliverables using 10 Knowledge areas of Project Management.

CO4: To familiarize with Project Management framework and To

CO5: Implement Project Management Processes to successfully complete projects in the IT industry.

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Department of Computer Science & Engineering

Course Outcomes

Programme: Bachelor of Technology

Semester: VI

Course Name : Artificial Intelligence & Expert Systems

Course Code : C022613(022)

CO1: Understand the basic principles of AI towards problem solving and perception.

CO2: Understand the basic principles of Knowledge representation and inference.

CO3: Acquire basic proficiency in a traditional AI language including an ability to write simple to intermediate programs and an ability to understand code written in that language.

CO4: Experiment with a machine-learning model for simulation of intelligent systems in NLP systems and Planning Problems.

CO5: Investigate applications of AI techniques in intelligent agents, expert systems, artificial neural Networks

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Department of Computer Science & Engineering

Course Outcomes

Programme: Bachelor of Technology   **Course Name :** Web Technologies

Semester: VI   **Course Code :** C022631(022)

CO1: To design web sites utilizing multiple tools and techniques

CO2: To demonstrate the ability to create dynamic pages that are easy to navigate and easy to update

CO3: To utilize entry - level system analysis and design principles to solve business problems.

CO4: To demonstrate the ability to apply testing, debugging, and troubleshooting skills.

CO5: To exhibit the ability to design and implement an internet database.

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Department of Computer Science & Engineering

Course Outcomes

Programme: Bachelor of Technology   **Course Name :** Cloud Computing

Semester: VI   **Course Code :** C000620(022)

CO1: Explain the core concepts of the cloud computing paradigm: how and why this paradigm shift came about,.

CO2: The characteristics, advantages and challenges brought about by the various models and services in cloud computing.

CO3: Apply the fundamental concepts in datacenters to understand the tradeoffs in power, efficiency and cost.

CO4: Identify resource management fundamentals, i.e. resource abstraction, sharing and sandboxing and outline their role in managing infrastructure in cloud computing.

CO5: Analyze various cloud programming models and apply them to solve problems on the cloud.

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Department of Computer Science & Engineering

Course Outcomes

Programme: Bachelor of Technology   **Course Name :**Machine Learning

Semester: VII   **Course Code :**D022711(022)

CO1: Remember the basic concepts of Machine Learning.

CO2: Able to perform Data Analysis in Machine Learning.

CO3:Remember the Machine Learning algorithms.

C04: Able to perform Machine Learning model diagnosis and tuning.

CO5:Apply the concept of Artificial Neural Networks.

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Department of Computer Science & Engineering

Course Outcomes

Programme: Bachelor of Technology

Semester: VII

Course Name : Data Mining and Warehousing

Course Code : D022712(022)

CO1: Design a data warehouse for an organization

CO2: Develop skills to write queries using DMQL

CO3: Extract knowledge using data mining techniques.

CO4.Adapt to new data mining tools.

CO5. Explore recent trends in data mining such as web mining, spatial-temporal mining.

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Department of Computer Science & Engineering

Course Outcomes

Programme: Bachelor of Technology   **Course Name :** Internet and Web Technology

Semester: VII   **Course Code :** D022713(022)

CO1: Understand, analyze and apply the role of languages like HTML, DHTML, CSS, XML, Javascript, and web

CO2: Analyze a web page and identify its elements and attributes.

CO3:Create XML documents and XML Schema

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Department of Computer Science & Engineering

Course Outcomes

Programme: Bachelor of Technology   **Course Name :** Cyber Security

Semester: VII   **Course Code :** D022732(022)

CO1: Students will be able to acknowledge about the cybercrime, cyber criminal, and intellectual property rights.

CO2: Encouraging Open Standards.

CO3: Protection and resilience of Critical Information Infrastructure.

CO4: To enable effective prevention, investigation and prosecution of cybercrime and enhancement of law enforcement capabilities through appropriate legislative intervention.

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Department of Computer Science & Engineering

Course Outcomes

Programme: Bachelor of Technology   **Course Name :**Software Technology

Semester: VII   **Course Code :**D000708(022)

CO1: Know the fundamental video, audio, image, text processing techniques

CO2: Acquire the basic skill of designing video compression, audio compression, image compression, text compression.

CO3: Know the basic techniques in designing video transmission systems: error control and rate control.

CO4: Know the technologies related to virtual reality and application of virtual reality systems.

CO5: Get familiar with VRML programming.

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Department of Computer Science & Engineering

Course Outcomes

Programme: Bachelor of Technology **Course Name :** Cyber Law & Intellectual Property

Semester: VIII **Course Code :**D022811(022)

CO1:Understand the cyber security threat landscape.

CO2: Understand Cyber crimes and cyber laws.

CO3: Understand various privacy and security concerns on online Social media, its legal aspects and best practices.

CO4: Understand the importance and applications of IPR and its regulations.

CO5. Understand the application process of the patent file and other related aspects such as search, registration and grant.

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Department of Computer Science & Engineering

Course Outcomes

Programme: Bachelor of Technology   **Course Name : Soft computing Techniques**

Semester: VIII   **Course Code : D022803(022)**

CO1: Identify and describe soft computing techniques and their roles in building intelligent machines.

CO2: Describe artificial neural networks and applications.

CO3: Describe Fuzzy Systems and Applications.

CO4: Describe neuro fuzzy systems and applications.

CO5: Discuss applications of soft computing to real life problems.

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Department of Computer Science & Engineering

Course Outcomes

Programme: Bachelor of Technology   **Course Name : Management Concepts & Technique**

Semester: VIII   **Course Code : D000823(076)**

CO1: To develop skill of project planning and management amongst students.

CO2: To understand the significance of human resource and its proper utilization for the growth of organization.

CO3: Students will learn to minimize the project cost by using effective management techniques.