AMRUTVAHINI COLLEGE OF ENGINEERING, SANGAMNER

DEPARTMENT OF ELECTRONICS & COMPUTER ENGINEERING

COURSE OUTCOMES (CO)

TE. 2019 Course

Database Management (310341), TE-Sem-V

After successfully completing the course students will be able to,

Co. No.	Description	Bloom's Taxonomy Level
C301.1	**Understand** the underlying concepts of a database system	2
C301.2	**Design** a database schema for a given problem-domain using data model	6
C301.3	**Formulate,** using SQL/DML/DDL commands, solutions to a wide range of query and update problems	3,6
C301.4	**Implement** transactions, concurrency control, and be able to do Database recovery	3
C301.5	**Understand** various Database Architectures and its applications	2
C301.6	**Understand** distributed database management systems.	2

Advanced Java Programming (310342), TE-Sem-V

After successfully completing the course students will be able to,

Co. No.	Description	Bloom's Taxonomy Level
C302.1	**Design** and **develop** GUI applications using Applets.	6
C302.2	**Apply** relevant AWT/ swing components to handle the given event.	3
C302.3	**Design** and **develop** GUI applications using Abstract Windowing Toolkit (AWT), Swing and Event Handling.	6
C302.4	**Learn** to access database through Java programs, using Java Database Connectivity (JDBC)	2
C302.5	**Invoke** the remote methods in an application using Remote Method Invocation (RMI).	3
C302.6	**Develop** program for client /server communication using Java Networking classes.	6

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COURSE OUTCOMES (CO)

TE. 2019 Course

Data Communication (310343), TE-Sem-V

After successfully completing the course students will be able to,

Co. No.	Description	Bloom's Taxonomy Level
C303.1	**Understand** network communication using the layered **concept**, Open System Interconnect (OSI) and the Internet Model.	2
C303.2	**Types** of transmission media, network devices; and parameters of **evaluation** of performance for each media and device.	5
C303.3	To **explain** the **design** of, and algorithms used in, the physical, data link layers.	2,6
C303.4	working principles of LAN and **understand** concepts behind physical and logical addressing, subnetting and supernetting.	2
C303.5	The functions performed by a Network Management System and to **analyze** connection establishment and congestion control with respect to TCP Protocol.	4
C303.6	The principles and operations & **design** of various application layer protocols like HTTP, SMTP, FTP.	6

Microcontroller & Applications (310344), TE-Sem-V

After successfully completing the course students will be able to,

Co. No.	Description	Bloom's Taxonomy Level
C304.1	**Understand** architecture and features of 8051 microcontroller along with instruction set.	2
C304.2	**Define** software and hardware development tools, **Illustrate** interfacing with different peripherals.	1,2
C304.3	**Design and Develop** interfacing to real world devices using 8051 microcontroller.	6
C304.4	**Describe** architecture of MSP430, their targeted application and features along with instruction set.	1,2
C304.5	**Explain** different GPIO registers, its programming and I/O multiplexing. **Develop** applications by interfacing peripherals with MSP430 microcontroller.	6
C304.6	**Develop** applications based on 8051 and MSP430 microcontroller.	2

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COURSE OUTCOMES (CO)

TE. 2019 Course

Elective –I Block Chain Technology (310345B), TE-Sem-V

After successfully completing the course students will be able to,

Co. No.	Description	Bloom's Taxonomy Level
C305.1	**Understand** the basic concepts and architecture of Blockchain Technology	2
C305.2	**Demonstrate** distributed decentralized system, its applications and regulations	3
C305.3	**Demonstrate** the application of hashing in cryptography	3
C305.4	**Demonstrate** the verification process through Ethereum and consensus in blockchain technology.	3
C305.5	**Illustrate** the concepts of Bitcoin and its process in blockchain technology.	4
C305.6	**Understand** and illustrate Blockchian with allied technologies such as cloud computing, AI, IoT, Robotics	2

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COURSE OUTCOMES (CO)

TE. 2019 Course

Embedded Processors and Applications (310354),TE -Sem-VI

Co. No.	Description	Bloom's Taxonomy Level
C304.1	Demonstrate the ARM architecture and its feature along with instruction set.	1,2,3
C304.2	Understand ARM7 Based Microcontroller LPC 2148 architecture.	1,2,3
C304.3	Interface the advanced peripherals to ARM based microcontroller.	1,2,3,4
C304.4	Demonstrate the ARM cortex M3 architectures and its features.	2,3,4
C304.5	Understand ARM CORTEX M4 based Microcontroller STM32F4xx architecture.	1,2,3,4
C304.6	Design simple applications using ARM and IoT.	6

Software Engineering & Project Management (310352), TE-Sem-V

After successfully completing the course students will be able to,

Co. No.	Description	Bloom's Taxonomy Level
C3O1.1	**Analyze** software requirements and formulate design solution for a software.	4
C3O1.2	**Design** applicable solutions in one or more application domains using software engineering approaches that integrate ethical, social, legal and economic concerns.	6
C3O1.3	**Apply** new software models, techniques and technologies to bring out innovative and novelistic solutions for the growth of the society in all aspects and evolving into their continuous professional development.	3
C3O1.4	**Model** and **design** User interface and component-level.	6
C3O1.5	**Identify** and handle risk management and software configuration management.	2
C3O1.6	**Utilize** knowledge of software testing approaches, approaches to verification and validation.	3

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COURSE OUTCOMES (CO)

TE. 2019 Course

Computer Networks and Security (310353), TE-Sem-VI

After successfully completing the course students will be able to,

Co. No.	Description
C301.1	**Understand** fundamental principles of computer networking
C302.2	**Describe and analyze** the hardware, software, components of a network and their interrelations.
C303.3	**Analyze** the requirements for a given organizational structure and select the most appropriate networking architecture and technologies
C304.4	Have a **basic** knowledge of installing and configuring networking applications.
C305.5	**Specify and identify** deficiencies in existing protocols, and then go onto select new and better protocols.
C306.6	Have a **basic** knowledge of the use of cryptography and network security.

PLC and Automation (310355D), TE- Sem- VI

Co. No.	Description
CO1	**Apply** concepts of PLC, its uses for industrial applications.
CO2	**Demonstrate** Relay logic instructions & PLC ladder programs for industrial applications.
CO3	**Demonstrate** timer, counter arithmetic, comparison functions & PLC ladder programs for industrial applications.
CO4	**Make** use of knowledge of Installation, troubleshooting & maintenance of PLC to provide solution for industrial automation problems.
CO5	**Describe** fundamentals of process control, SCADA & HMI.
CO6	**Select** appropriate interfacing technique & communication protocol to establish communication with field devices, HMI & SCADA.

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COURSE OUTCOMES (CO)

TE. 2019 Course