SVKM'S
NMIMS
Deemed to be UNIVERSITY

Mukesh Patel School of Technology Management and Engineering

Integrated(UG) MBA Tech (Information Technology)

- **Program Outcomes (POs)**
- **Course Outcomes (COs)**

Program Outcomes (POs):

PO-1: Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization as specified in WK1 to WK4 respectively to develop to the solution of complex engineering problems.

PO-2: Problem Analysis: Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions with consideration for sustainable development. (WK1 to WK4)

PO-3: Design creative solutions for complex engineering problems and design/develop systems/components/processes to meet identified needs with consideration for the public health and safety, whole-life cost, net zero carbon, culture, society and environment as required. (WK5)

PO-4: Conduct investigations of complex engineering problems using research-based knowledge including design of experiments, modelling, analysis & interpretation of data to provide valid conclusions. (WK8).

PO-5: Create, select and apply appropriate techniques, resources and modern engineering & IT tools, including prediction and modelling recognizing their limitations to solve complex engineering problems. (WK2 and WK6)

PO-6: Analyze and evaluate societal and environmental aspects while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal framework, culture and environment. (WK1, WK5, and WK7).

PO-7: Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws. (WK9)

PO-8: Function effectively as an individual, and as a member or leader in diverse/multi-disciplinary teams.

PO-9: Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences

PO-10: Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects and in multidisciplinary environments.

PO-11: Recognize the need for, and have the preparation and ability for independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change

Courses and Course Outcomes (COs):

Web Programming

- **CO-1:** Explain the fundamentals of web programming
- **CO-2:** Design front end of a web application
- **CO-3:** Establish database connectivity between front-end and back-end

Constitution of India

- **CO-1:** Recall the historical evolution of India's democratic values, emphasizing the foundational principles of justice, equality, and liberty as enshrined in the Preamble of the Constitution.
- **CO-2:** Understand the fundamental rights enshrined in the Constitution, their permissible restrictions, and how these rights are balanced with duties, to grasp their application within societal and professional frameworks.
- **CO-3:** Apply the knowledge of the structure of India's polity and the role of the Judiciary in maintaining the basic structure of the Constitution in real-world professional contexts

Probability and Statistics

- **CO-1:** Understand the basic concepts of probability theory and statistics.
- **CO-2:** Solve problems involving random variables, probability distributions and testing of hypothesis, correlation and regression
- **CO-3:** Identify suitable probability distribution and testing techniques to solve problems
- **Co-4:** Apply knowledge of random variables, probability distributions, measures of central tendency, correlation and regression to solve real life problems
- **Co-5:** Analyse data samples using statistical methods

Workshop

- **CO-1:** Identify correct testing instruments and tools for various tasks.
- **CO-2:** Build PCB circuits using through hole and SMD components for small applications.
- **CO-3:** Make use of required electrical components for building domestic wiring circuits.
- **CO-4:** Assemble PC hardware and configure network topology.

Computer Organization and Architecture

- **CO-1:** Discuss the functional blocks of computers and the interconnections
- **CO-2:** Evaluate the memory system
- **CO-3:** Explain the components of the Central Processing Unit
- **CO-4:** Describe Input Output and Parallel Organization

System Administration

- **CO-1:** Demonstrate various System admin tasks
- **CO-2:** Configure various application servers.
- **CO-3:** Secure Linux system

Ethical Hacking

- **CO-1:** Demonstrate hacking in a lab environment.
- **CO-2:** Describe various countermeasures.
- **CO-3:** Describe various professional, ethical and legal issues related to ethical hacking.

English Communication

- **CO-1:** Use their knowledge of vocabulary and grammar to articulate their ideas effectively

- **CO-2:** Demonstrate effective listening and speaking skills in oral communication situations such as speeches, conversations, power-presentations, etc.
- **CO-3:** Apply different reading techniques as needed to read passages effectively

Interpersonal Skills

- **CO-1:** Demonstrate awareness of business networks and communicate appropriately in various contexts
- **CO-2:** Illustrate the knowledge of team dynamics to work productively in teams and participate effectively in contexts such as group discussions
- **CO-3:** Apply persuasive communication strategies to articulate themselves in situations such as personal interviews
- **CO-4:** Create social media plans and employment related documents to showcase their personal brand

DBA

- **CO-1:** Describe the fundamentals of Database Administration
- **CO-2:** Analyze the Network Architecture and implement Database security
- **CO-3:** Design Database backup and recovery procedures, apply performance tuning operations

SQA

- **CO-1:** Classify the various software quality factors
- **CO-2:** Describe and comprehend SQA architecture and its components
- **CO-3:** Identify the different software defects and techniques used for defects removal
- **CO-4:** Evaluate on the basis of Software quality metrics and the standards.