

Kalinga University

Technology

Master Of Technology In Computer Science (Multimedia Technology)

PO

S. No.	Program Outcome (PO) Description
1	Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2	Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3	Design/development of solutions: Design solutions for complex engineering problems 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.
4	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.
5	Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6	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.
7	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.
8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9	Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

10	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.
11	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.
12	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.

PSO

S. No.	Program Specific Outcome (PSO) Description
1	Model computational problems by applying mathematical concepts and design solutions using suitable data structures and algorithmic techniques
2	Design and develop solutions by following standard software engineering principles and implement by using suitable programming languages and platforms
3	Develop system solutions involving both hardware and software modules
4	Understand, Analyze and Develop computer programs for efficient design of computer-based systems of varying complexity.
5	Demonstrate basic knowledge of computer applications and apply standard practices in software project development.

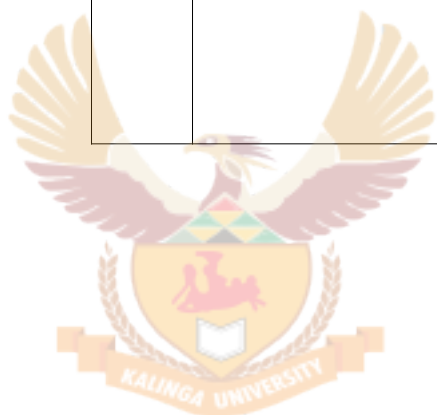
CO

S.No.	Course Code	Course Name	Course Outcome (CO's) - Description
1	MEMT101	Data Structures and Algorithms	CO1: Define basic static and dynamic data structures and relevant standard algorithms for them: stack, queue, dynamically linked lists, trees, graphs, heap, priority queue, hash tables, sorting algorithms, min-max algorithm
			CO2: Demonstrate advantages and disadvantages of specific algorithms and data structures.
			CO3: Select basic data structures and algorithms for autonomous realization of simple programs or program parts.
			CO4: Determine and demonstrate bugs in program, recognize needed basic operations with data structures
			CO5: Formulate new solutions for programming problems or improve existing code using learned algorithms and data structures
			CO6: Evaluate algorithms and data structures in terms of time and memory complexity of basic operations.
2	MEMT102	COMPUTER GRAPHICS	CO1: To list the basic concepts used in computer graphics.
			CO2: To implement various algorithms to scan, convert the basic geometrical primitives, transformations area filling, clipping
			CO3: To describe the importance of viewing and projections
			CO4: To define the fundamentals of animation, virtual reality and its related technologies.
			CO5: To understand a typical graphics pipeline.
			CO6: To understand basic concept of illumination with intuitive color concepts.
3	MEMT103	Multimedia Security	CO1: Understanding various multimedia encoding and compressing technique.
			CO2: Gain knowledge about digital watermarking, digital rights management, encryption and security threats available in real world
			CO3: Gain insights on the art of recognition like face ,voice ,pattern etc.
			CO4: Learning about the ways, process, techniques involved in digital forensics along with various technical terminology associated with it
			CO5: Process of securing various types of applications
4	MEMT104	Fundamentals of creative Multimedia	CO1: Developed understanding of technical aspect of Creative Multimedia Systems.
			CO2: Understand various file formats for audio, video and text media.
			CO3: Develop various Multimedia Systems applicable in real time.
			CO4: Design interactive multimedia software.

5	MENT105A	Computer Modeling and Animation	CO1: To define the fundamentals of animation, computer modeling and its related technologies.
			CO2: To understand a typical graphics pipeline
			CO3: To design an application with the principles of computer modeling and animation
6	MENT105B	Virtual Reality	CO1: Demonstrate an understanding of techniques, processes, technologies and equipment used in immersive virtual reality
			CO2: Exploit the characteristics of materials and processes in an individual and conceptually developed way
			CO3: Show critical awareness of historical and theoretical contexts relevant to immersive virtual reality
			CO4: Apply critical, analytical and self-reflective practice
			CO5: Identify and develop personal topics for individual research in immersive virtual reality.
7	MENT201	Object Oriented Software Engineering	CO1: Extract an Object Model and Dynamic Model of system functionality and performance from the requirements.
			CO2: Design and implement structured, robust, maintainable object-oriented systems across multiple platforms and appropriate programming languages from the specifications developed.
			CO3: Develop teamwork and management skills to divide tasks and effectively develop projects in large software teams
			CO4: Produce industry standard documentation from requirements, analysis, and design through testing and verification.
8	MENT202	Knowledge Management	CO1: Explain the key theories and models that inform knowledge management.
			CO2: Critically apply theory to organizations in order to identify and justify effective knowledge management strategies and activities.
			CO3: Apply theory related to creative organizations.
			CO4: Access and evaluate current literature and research findings relating to knowledge management.
			CO5: Communicate clearly and effectively incorporating varying formats and technologies.
9	MENT203	Electronic Commerce	CO1: Recognize the impact of Information and Communication technologies, especially of the internet in business operations
			CO2: Recognize the fundamental principles of E-Commerce
			CO3: Distinguish the role of Management in the context of e-Commerce
			CO4: Explain the added value, risks and barriers in the adoption of e-Commerce.
			CO5: Examine applications of E-Commerce in relation to the applied strategic

10	MEMT204	Digital Audio and Computer music	CO1: Discuss about digital audio and different phases of audio processing
			CO2: Understanding of electronic music and MIDI.
			CO3: Can understand signal and its issues.
			CO4: Produce electronic music with proper signal concepts.
			CO5: Have basic knowledge about frequencies and audio technologies.
11	MEMT205A	Artificial Intelligence Planning	CO1: Understand different planning problems
			CO2: Have the basic know how to design and implement AI planning systems.
			CO3: Know how to use AI planning technology for projects in different application domains.
			CO4: Have the ability to make use of AI planning literature
12	MEMT205B	Cloud Computing	CO1: Define Cloud Computing and memorize the different Cloud service and deployment models.
			CO2: Describe importance of virtualization along with their technologies
			CO3: Use and Examine different cloud computing services .
			CO4: Analyze the components of open stack & Google Cloud platform and understand Mobile Cloud Computing
			CO5: Describe the key components of Amazon web Service
			CO6: Design & develop backup strategies for cloud data based on features.
13	MEMT301	Web Design Technology	CO1: Will be familiar with client server architecture and able to develop a web application usingjava technologies
			CO2: Will gain the skills and project-based experience needed for entry into web application and development careers.
14	MEMT302	Communication & Research Methodology	CO1: Overall communication improvement which results in high quality communication
			CO2: Improved report writing skill to make your reports more attractive.
			CO3: Get awareness on the various aspects of research.
15	MEMT303A	Multimedia Programming	CO4: Improved data and result representation.
			CO1: Understand the characteristics of different media; understand the representations of different multimedia data; understand different data formats; be able to take into considerations in
			CO2: Understand the characteristics of human's visual system; understand the characteristics of human's audio system; be able to take into considerations in multimedia techniques design and implementation
			CO3: Understand different compression principles & techniques & standards
			CO4: Be able to design and develop multimedia systems according to the requirements of multimedia applications

			CO5: Program multimedia data and be able to design and implement media applications.
16	MENT303B	GUI Design and Windows Programming	CO1: "Explain the capabilities of both humans and computers from the viewpoint of human information processing"
			CO2: Describe typical human–computer interaction models and styles, as well as various historic HCI paradigms
			CO3: Apply an interactive design process and universal design principles to designing systems
			CO4: Describe and use design principles, standards and guidelines
			CO5: Analyze and identify user models, user support, socio-organizational issues, and stakeholder requirements of a systems.
			CO6: Discuss tasks and dialogs of relevant systems based on task analysis and dialog design.
			CO7: Analyze and discuss designing and programming issues in groupware, ubiquitous computing, virtual reality, multimedia, and Word Wide Web-related environments.



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