

(Approved by A.I.C.T.E., New Delhi & Permanently Affiliated to JNTU GV) Accredited by NAAC with 'A' Grade and Inclusion u/s 2(f) & 12(B) of UGC Act An ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified Institute.

CRITERIA-1

AQAR 2023-24

CIVIL ENGINEERING

Program Outcomes:

At the time of graduation, student will be able to:

- PO1: Apply knowledge of mathematics, science and engineering to Civil engineering problems.
- PO2: Identify, formulate, research literature and solve complex Civil engineering problems.
- PO3: Design various structures or particular system that meets desired specifications and requirements.
- PO4: Design and conduct experiments, interpret and analyse data, synthesize the information to provide conclusion.
- PO5: Select and use appropriate engineering techniques and software tools to analyse Civil engineering problems with understanding of limitations.
- PO6: Assess local and global impact of societal issues on Civil engineering profession.
- PO7: Able to understand the impact of engineering solutions on society and demonstrate the knowledge of, and need for sustainable development.
- PO8: Demonstrate their professional and ethical responsibilities.
- PO9: Able to function as a member or a leader on engineering and science laboratory teams, as well as on multidisciplinary teams.
- PO10: Communicate effectively in both verbal and written forms.
- PO11: Understand engineering and management principles and apply to their work as a member and/ or leader in a team to manage projects.
- PO12: Adapt transform in industry by understanding the need of independent and lifelong learning.



(Approved by A.I.C.T.E., New Delhi & Permanently Affiliated to JNTU GV) Accredited by NAAC with 'A' Grade and Inclusion u/s 2(f) & 12(B) of UGC Act An ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified Institute.

Program Specific Outcomes (PSOs):

At the time of graduation, student will be able to:

- PSO1: Survey, map, plan and mark layouts for buildings and other structures.
- PSO2: Specify, analyse, design, test and assess different structures with quality and safety aspect.
- PSO3: Plan, analyse, and design water resources systems with effectiveness and sustainable environmental considerations.



(Approved by A.I.C.T.E., New Delhi & Permanently Affiliated to JNTU GV) Accredited by NAAC with 'A' Grade and Inclusion u/s 2(f) & 12(B) of UGC Act An ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified Institute.

AQAR 2023-24

ELECTRICAL AND ELCTRONICS ENGINEERING

Program Outcomes (POs) -

A graduate of the Electrical and Electronics Engineering,

- **PO1:** Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- **PO2:** Problem Analysis: Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- PO3: 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.
- **PO4:** 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.
- **PO5:** Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
- **PO6:** 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.
- **PO7:** 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.
- **PO8:** Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- **PO9:** Individual and Team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- **PO10:** 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.
- **PO11:** 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.
- **PO12:** 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.



(Approved by A.I.C.T.E., New Delhi & Permanently Affiliated to JNTU GV) Accredited by NAAC with 'A' Grade and Inclusion u/s 2(f) & 12(B) of UGC Act An ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified Institute.

Program Specific Outcomes (PSOs) -

- **PSO1:** Apply the knowledge of Electrical Engineering, investigate and solve the complex Marine Electrical Engineering problems to meet the specified needs with appropriate considerations for the society.
- **PSO2:** Develop solutions for complex Engineering problems in the broad field of power electronics and drives, power systems, high voltage Engineering and Marine Engineering and control.
- **PSO3:** Analyse, design and integrate Electrical systems in on board ships and apply modern tools and techniques in marine industries and create passion for life-long learning and research in advanced fields.



(Approved by A.I.C.T.E., New Delhi & Permanently Affiliated to JNTU GV) Accredited by NAAC with 'A' Grade and Inclusion u/s 2(f) & 12(B) of UGC Act An ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified Institute.

AQAR 2023-24

ELECTRONICS AND COMMUNICATION ENGINEERING

Program Outcomes (POs)

The program is targeted at developing the following competencies, skills and abilities amongst students:

- PO1: An ability to apply knowledge of Mathematics, Science and Engineering to give the solution for Complex Engineering Problems
- PO2: An ability to analyse and interpret data to design Efficient Algorithms
- PO3: An ability to design a System, Component or Process to meet desired needs within various realistic constraints of socio-economic sustainability
- PO4: An ability to use research-based knowledge and research methods, including design, analysis and interpretation of data and synthesis of the information to provide valid conclusions to complex problems
- PO5: An ability to use the Techniques, Skills and Modern Engineering Tools necessary for engineering practice
- PO6: An ability to apply reasoning informed by the contextual knowledge to assess societal, health, safety and cultural issues and the consequent responsibilities relevant to the professional engineering practice
- PO7: An ability to obtain broad education necessary to understand the impact of engineering solutions in global, economic, environmental, and societal context
- PO8: An ability to understand professional and ethical responsibility while performing the job responsibilities
- PO9: An ability to collaborate with interdisciplinary teams efficiently
- PO10: An ability to communicate effectively to ascertain best results
- PO11: An ability to demonstrate knowledge and understanding of the engineering and management principles to one's own work as a member and leader in a team to manage projects and in multidisciplinary environments
- PO12: An ability to recognition the need for and ability to engage in Continual Learning



(Approved by A.I.C.T.E., New Delhi & Permanently Affiliated to JNTU GV) Accredited by NAAC with 'A' Grade and Inclusion u/s 2(f) & 12(B) of UGC Act An ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified Institute.

Program Specific Outcomes (PSO's)

- PSO 1. Problem Solving Skills: Ability to design and develop computing tools with moderate complexity in the areas pertaining to database, data analytics, networking, web and app design, IoT and information security with integration.
- PSO 2. Professional Skills: Ability to apply standard practices and methods in software project management and software development using suitable programming environments to deliver quality product to the industry



(Approved by A.I.C.T.E., New Delhi & Permanently Affiliated to JNTU GV) Accredited by NAAC with 'A' Grade and Inclusion u/s 2(f) & 12(B) of UGC Act An ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified Institute.

AQAR 2023-24

COMPUTER SCIENCE ENGINEERING

PROGRAM OUTCOMES (POs)

- **Engineering knowledge**: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- **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.
- **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.
- 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.
- **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.
- 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.
- 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.
- **Ethics**: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- **Individual and team work**: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- 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.
- **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.
- **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.



(Approved by A.I.C.T.E., New Delhi & Permanently Affiliated to JNTU GV) Accredited by NAAC with 'A' Grade and Inclusion u/s 2(f) & 12(B) of UGC Act An ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified Institute.

PROGRAM SPECIFIC OUTCOMES (PSOs)

- **PSO1:** Apply mathematical and scientific skills in numerous areas of Computer Science and Engineering to design and develop software-based systems.
- **PSO2:** Acquaint module knowledge on emerging trends of the modern era in Computer Science and Engineering
- **PSO3:** Promote novel applications that meet the needs of entrepreneur, environmental and social issues.



(Approved by A.I.C.T.E., New Delhi & Permanently Affiliated to JNTU GV) Accredited by NAAC with 'A' Grade and Inclusion u/s 2(f) & 12(B) of UGC Act An ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified Institute.

AQAR 2023-24

COMPUTER SCIENCE(AI&ML) -DATA SCIENCE

PROGRAM OUTCOMES (POs)

- **Engineering knowledge**: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- **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.
- **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.
- 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.
- **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.
- 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.
- 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.
- **Ethics**: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- **Individual and team work**: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- 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.
- **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.
- **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.



(Approved by A.I.C.T.E., New Delhi & Permanently Affiliated to JNTU GV) Accredited by NAAC with 'A' Grade and Inclusion u/s 2(f) & 12(B) of UGC Act An ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified Institute.

PROGRAM SPECIFIC OUTCOMES (PSOs)

- **PSO1:** Apply mathematical and scientific skills in numerous areas of Computer Science and Engineering to design and develop software-based systems.
- **PSO2:** Acquaint module knowledge on emerging trends of the modern era in Computer Science and Engineering
- **PSO3:** Promote novel applications that meet the needs of entrepreneur, environmental and social issues.



(Approved by A.I.C.T.E., New Delhi & Permanently Affiliated to JNTU GV) Accredited by NAAC with 'A' Grade and Inclusion u/s 2(f) & 12(B) of UGC Act An ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified Institute.

AOAR 2023-24

MASTER OF BUSINEES ADMINISTRATION

PROGRAM OUTCOMES (MBA)

- **PO1.** Demonstrate the knowledge of management science to solve complex corporate problemsusing limited resources
- **PO2.** Research literature and identify and analyze management research problems.
- **PO3.** Identify business opportunities, design and implement innovations in work space.
- **PO4.** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to management practice.
- **PO5.** Apply ethical principles for making judicious managerial decisions.
- **PO6.** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- **PO7.** Communicate effectively with various stakeholders
- **PO8.** Engage in independent and life-long learning.

IQAC Chairman-Principal

PRINCIPAL
Dadi Institute of
Engineering & Technology
Autonomous
Anakapatte - 531 002.