Adi Shankara
INSTITUTE OF ENGINEERING AND TECHNOLOGY
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CRITERIA 2- TEACHING- LEARNING AND EVALUATION

2.6. Student Performance and Learning Outcome

POs, PEOs, and PSOs

POs, PEOs, and PSOs

PROGRAM OUTCOMES

BTECH

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-: Identity, formulate, review research literature, and analyze 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 public health and safety, and 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 modeling 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. Lifelong Learning-: Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

PROGRAM OUTCOMES

MBA

PO1 : Apply knowledge of management theories and practices to solve business problems.

PO2 : Foster analytical and critical thinking abilities for data based decision making.

PO3 : Develop value based leadership ability.

PO4 : Understand, analyze and evaluate the global, economical and legal and ethical aspect of business.

PO5 : Demonstrate knowledge and understanding of management principles and apply them to one's own ,as a member and leader in a team.

PROGRAM OUTCOMES

MTECH

PO1 : An ability to independently carry out research/investigation and development work in engineering and allied streams

PO2 : An ability to communicate effectively, write and present technical reports on complex engineering activities by interacting with the engineering fraternity and with society at large.

PO3 : An ability to demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor program

PO4 : An ability to apply stream knowledge to design or develop solutions for real world problems by following the standards

PO5 : An ability to identify, select and apply appropriate techniques, resources and state-of-the-art tools to model, analyze and solve practical engineering problems.

PO6 : An ability to engage in life-long learning for the design and development related to the stream related problems taking into consideration sustainability, societal, ethical and environmental aspects

PO7 : An ability to develop cognitive load management skills related to project management and finance which focus on Entrepreneurship and Industry relevance

PROGRAM EDUCATIONAL OBJECTIVES(PEOs)

APPLIED ELECTRONICS AND INSTRUMENTATION

PEO-1: Graduates will be successfully employed in instrumentation or any other allied industries or take up masters/research programs.

PEO-2: Graduates will be able to exhibit good communication and leadership skills with team spirit to have an effective interaction with the outside world.

PEO-3: Graduates will be professionally competent and socially committed with effective interactive capability to work with interdisciplinary groups.

PROGRAM EDUCATIONAL OBJECTIVES(PEOs)

CIVIL ENGINEERING

PEO-1: To facilitate students to be competent technical professionals

PEO-2. To equip students with strong engineering fundamentals to enable them in producing sustainable solutions to Civil Engineering and multidisciplinary real life problems.

PEO-3. To inculcate communication skills, spirit of teamwork and ethics in solving engineering issues with social commitment.

PROGRAM EDUCATIONAL OBJECTIVES(PEOs)

COMPUTER SCIENCE & ENGINEERING

PEO-1: Graduates will be successfully employed in industry or academia

PEO-2: Graduates shall be able to develop innovative computing solutions

PEO-3: Graduates will demonstrate communication skills, leadership skills, ethical values and commitment to team- work in their respective fields of work.

PROGRAM EDUCATIONAL OBJECTIVES(PEOs)

ELECTRICAL & ELECTRONICS ENGINEERING

PEO 1: Graduates will handle the modern tools and take a diverse career path/research/higher education.

PEO 2: Graduates will excel in a career with managerial and leadership qualities.

PEO 3: Graduates will have skills to work in teams with integrity and ethical values.

PROGRAM EDUCATIONAL OBJECTIVES(PEOs)

ELECTRONICS & COMMUNICATION ENGINEERING

The graduates of the Electronics & Communication Engineering program at ASIET

PEO 1: Will communicate effectively on engineering aspects in multidisciplinary areas and continue the process of lifelong learning

PEO 2: Will be sensitive to the consequences of their work, both ethically and professionally and will have the skills required to advance into leadership positions within their chosen careers.

PEO 3: Will be technically well equipped to pursue careers in the field of electronics, communication and related industries.

PROGRAM EDUCATIONAL OBJECTIVES(PEOs)

INFORMATION TECHNOLOGY

PEO 1: Graduates will be successfully employed in industry or academia

PEO 2: Graduates shall be able to develop innovative computing solutions

PEO 3: Graduates will demonstrate communication skills, leadership skills, ethical values and commitment to team- work in their respective fields of work.

PROGRAM EDUCATIONAL OBJECTIVES(PEOs)

MECHANICAL ENGINEERING

PEO 1: To succeed in a professional career or higher education.

PEO 2: To analyze real life problems, design mechanical systems which are technically feasible, economically viable and socially relevant

PEO 3: To lead the teams with effective communication and engage in lifelong learning.

PROGRAM EDUCATIONAL OBJECTIVES(PEOs)

ROBOTICS AND AUTOMATION

PEO 1: Graduates will be successfully employed in Robotics, Automation or any other allied industries or take up master/research programs

PEO 2: Graduates will be able to exhibit good communication and leadership skills with team spirit to have an effective interaction with the outside world.

PEO 3: Graduates will be professionally competent and socially committed with effective interactive capability to work with interdisciplinary groups.

PROGRAM SPECIFIC OUTCOMES (PSOs)

APPLIED ELECTRONICS AND INSTRUMENTATION

PSO-1: Measurement and Instrument: Apply concepts of measurement and sensor technology in selection, calibration, signal conditioning and troubleshooting of instrumentation systems and process applications.

PSO-2: Industrial Controllers and Automation: Apply basic engineering principles and knowledge of industrial control systems to design suitable controllers and automate systems for industrial processes.

PROGRAM SPECIFIC OUTCOMES (PSOs)

CIVIL ENGINEERING

PSO-1: To disseminate information and train personnel for the needs of changing b concepts in construction technology.

PSO-2: To facilitate and guide students with quality engineering skills to face challenges of industry and organization.

PROGRAM SPECIFIC OUTCOMES (PSOs)

COMPUTER SCIENCE & ENGINEERING

PSO-1: Proficiency in Core Areas: Students will be able to acquire proficiency in identified thrust areas such as in the fields of Data Mining, image processing and security.

PSO-2: Software Project Management: Students will be able to analyze all aspects of software projects, including cost analysis, legal and ethical aspects; implement with the help of professional tools for software project management.

PROGRAM SPECIFIC OUTCOMES (PSOs)

COMPUTER SCIENCE & ENGINEERING(ARTIFICIAL INTELLIGENCE)

PSO-1: Upon completion of the program, graduates will demonstrate adept proficiency in constructing, deploying, and refining AI models customized for diverse industry domains.

PSO-2: Upon program completion, graduates will demonstrate a profound mastery of advanced AI concepts, including Generative AI and Explainable AI, empowering them to adeptly design products utilizing the latest tools and methodologies.

PROGRAM SPECIFIC OUTCOMES (PSOs)

ELECTRICAL & ELECTRONICS ENGINEERING

PSO-1: Graduates will be able to analyze design and provide engineering solutions in the areas related to Power Electronics, Drives, and Power Systems.

PSO-2: Graduates will be able to apply domain specific knowledge to provide solutions in the areas related to Control & Automation and Electrical system Design

PROGRAM SPECIFIC OUTCOMES (PSOs)

ELECTRONICS & COMMUNICATION ENGINEERING

PSO-1: Identify and solve engineering problems related to analog and digital electronic systems and to design and implement them

PSO-2: Model a real world communication problem and to design and implement a suitable solution/ system for the same.

PSO-3: Solve complex engineering problems on signal processing and to design and simulate a suitable system using advanced tools.

PROGRAM SPECIFIC OUTCOMES (PSOs)

ELECTRONICS & BIOMEDICAL ENGINEERING

PSO-1: Apply the concepts of life sciences, engineering and technology towards the design and development of indigenous medical devices

PSO-2: Demonstrate contemporary healthcare technological knowledge and skills in a multidisciplinary environment with ethics and professionalism.

PROGRAM SPECIFIC OUTCOMES (PSOs)

INFORMATION TECHNOLOGY

PSO-1: Proficiency in Core Areas: Students will be able to acquire proficiency in identified thrust areas such as in the fields of Data Mining, image processing and security.

PSO-2: Software Project Management: Students will be able to analyze all aspects of software projects, including cost analysis, legal and ethical aspects; implement with the help of professional tools for software project management.

PROGRAM SPECIFIC OUTCOMES (PSOs)

MECHANICAL ENGINEERING

PSO-1: To interpret the fundamentals of design,analysis, manufacturing and thermal sciences to solve problems utilizing relevant mechanical engineering tools.

PSO-2: To implement the solutions on product design, development and management with the help of computer aided tools and programming.

PROGRAM SPECIFIC OUTCOMES (PSOs)

ROBOTICS & AUTOMATION

PSO-1: Design and develop highly efficient and cost effective robotic and automation systems using advanced tools and control strategies.

PSO-2: Apply the knowledge of robotics and automation to provide solutions in industrial and societal challenges.

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