



(Congress of Metallurgical - Materials Engineers and Technologists)

{An Half-Yearly News Letter from Metallurgical and Materials Engineering, MGIT, Hyderabad}



(January 2021-June 2021)

Foreword by the Head of the Department

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In view of the retention in pandemic across the world second time due to the contagious corona virus, all the activities of the Department have been taken up through hybrid mode. The course work has been conducted through offline for some duration, later turned out to be online. The faculty members have been encouraged to undertake virtual courses NPTEL and Coursera through online mode. The Department has organized Faculty Development Programs, Conferences and STTPs through online mode. This Hal-Yearly News Letter would critically bring out the activities taken up by the Department during the Semester viz., Organization of National Level Technical Symposia, Invited Lectures, Faculty contributions, Students' Academic, Cocurricular, Extracurricular achievements, and Department-Industry-Academia interaction, Faculty Members' interaction with outside world, and their Technical Publications in reputed Journals of National and International repute, which have the strongest accordance with the Vision and Mission of the Department, Educational Objectives, Outcomes and Specific Outcomes of Metallurgical and Materials Engineering Programme. Looking forward to your valuable and encouraging feedback in order to facilitate bringing out better and more effective issues in the days to come.....

VISION

The Department inspires and motivates its students to acquire knowledge to develop and serve their discipline with great zeal. It transforms the students into disciplined and talented citizens of impeccable character, fused with hands-on practical training to make them employable. readily Great importance is given to develop social, cultural and environmental consciousness.

MISSION

The Mission of the Department is to strive towards development and dissemination of knowledge in the field of Metallurgical and Materials Engineering. It aims at pinnacle reaching the of technical excellence with continuous quality improvement. It is destined to train manpower with a capacity to take-up policy formulation and decision making responsibilities.

| PO1 | Engineering knowledge : Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems |
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| PO2 | 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 |
| 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 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 |
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| 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 |
| PSO1 | Through understanding of concepts in Metallurgical and Materials |
| | Engineering and acquiring skills for the individual development and to |
| | meet the industrial requirements |
| PSO2 | Able to Extend the Metallurgical and Materials Engineering knowledge |
| | to multiple domains for the development of new products and systems |

Program Educational Objectives (PEOs)

I. In pursuit of Excellence in Metallurgical and Materials Engineering

In line with the Mission of our Institute and Department, Educational Objective of our Programme is to prepare quality Metallurgical and Materials Engineering Professionals through a well-balanced instruction programme coupled with exposure to National laboratories and Industries and by providing opportunities for personality development. Thus, the overall objective is to meet the professional requirements of the ever-growing demand for metals and materials.

II. Fulfilling the long term Needs of the students – the primary Stakeholders

Providing a platform to the undergraduate students to interact with scientists and engineers of national and international repute by deputing them to industrial and R&D centers of excellence for carrying out their Project work; organizing Visits and Tours and conducting national and international technical conferences; recommending the students to pursue higher education in National and International reputed Universities.

III. Outreaching the prospective Employers

In order to meet the requirements of the employers, the Programme imparts leadership qualities, effective communication skills, positive approach and ability to work in teams among the students. The Programme also encourages the students to develop professional ethics and continuous learning through participation in appropriate training activities, short courses, and conferences.

IV. Creating Environment for Independent and Continuous Learning

Creating environment for independent and continuous Learning by arranging for expert lectures, encouraging students to deliver short talks, and to write independent assignments for each and every subject and, also, by deputing students to national and international conferences.