

Program Completion Report

6-Day Short Course on

Advanced Materials and Processing

Jan 8 th to 13th, 2019

SPONSORED BY: TEQIP

Course Conveners

Dr. Jayaprakash Murugesan Assistant Professor Metallurgy Engineering and Materials Science	Dr. Hemant Borkar Assistant Professor Metallurgy Engineering and Materials Science
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Discipline of Metallurgy Engineering and Materials Science INDIAN INSTITUTE OF TECHNOLOGY INDORE

A 6-day TEQIP sponsored short course on “Advanced materials and processing” was successfully organized by Discipline of Metallurgy Engineering and Materials Science at IIT Indore. The course conducted on 8th-13th January witnessed the participation of 31 participants including faculty members and students of TEQIP institutions, non –TEQIP institutions and host institute (IIT Indore). The course provided the participants an opportunity to learn useful and relevant information about advanced materials and processing, including light metals, composites , high entropy alloys, advanced joining techniques, forming techniques, advanced surface modification techniques etc. The lectures were delivered by expert faculty members of IIT Indore. The course covered various topics related to the topic ranging from aluminum alloys to composites development, recent advancements in surface engineering, materials characterization, recent trends materials joining and forming. In addition to lectures, practical sessions were also conducted.

The course facilitated the learning on advanced materials development, processing of advanced materials, advances in joining and advances in surface science and engineering through lectures and practical sessions conducted by five expert faculty members from IIT Indore. Participants had the opportunity to learn experimental aspects and practical illustrations through laboratory sessions.

Participants were engaged in the lectures and lab sessions with great enthusiasm. The participants included people who travelled from different institutions. Certificates were issued to the participants on the last day after successful completion of the course.

Keeping in view the focus of TEQIP to improve technical quality education, the course imparted useful knowledge to the participants so that they can promote research activities and studies related to the topic in their respective institutions. The participants with diverse background of materials science and mechanical engineering were able to assimilate the interdisciplinary knowledge through this course. The course introduced the participants with wide research scope of the interdisciplinary areas of advanced materials and processing. The students who attended

the course can effectively utilize the knowledge they gained through this course for their higher studies and future engineering career. The course illustrated the industrial relevance of the topic which will motivate the students to pursue a career in the related fields either in industries or in research and development.

The lectures and practical sessions for the course were conducted by Dr. H. Borkar, Dr. A. Ghosh, Dr. S. Samal, Dr. S. S. Hosmani, and Dr. J. Murugesan from Discipline of Metallurgy Engineering and Materials Science. The conveners and the organizing members express their sincere thanks to TEQIP for providing the financial support for the course.

Few photographs taken during the course are shown below.



Class room lecture



Lab session – welding lab



Lab session – Metal forming Lab



Certificate distribution

Group photograph of 6-day TEQIP sponsored short course on “Advanced materials and processing”

