Introduction

The demand for advanced materials/composites and advanced manufacturing is increasing day by day in the industries. The composite materials are high strength, low weight, good wear and corrosive resistance and being used in automotive, aerospace, marine, biomedical and similar areas. The basic objective of the Faculty development program is to impart the latest and advanced inputs about material's/composites and manufacturing techniques for the faculty, scientist and research scholars of the engineering Institution/University/R&D centers. This program has been designed to provide the knowledge and work experience on processing, materials characterization of advanced materials, composites, and recent trends in metal forming, casting, welding, micro/nano fabrication and finishing.

Objectives of the course

• The course is proposed to generate and impart knowledge on the fabrication of recent advanced materials and composites.

• To provide the knowledge about metallurgical characteristics, design, characterization of materials and composites using XRD, SEM and mechanical & wear Testing.

• To provide the role of fabrication and machining of advanced materials and composites e.g. Friction stir processing/welding, Robotics in welding, Formability of Taylor welded Blanks, Micro/Nano fabrication, micro finishing.

• Recent trends in Industrial management in manufacturing.

Course Contents

• Processing, characterization, micro structural features of advanced engineering materials and metal matrix composites.

• Mechanical properties and tribological characterization of advanced engineering materials and metal matrix composites.

• Engineering applications of advanced engineering materials and metal matrix composites.

• Recent developments in casting, welding, metal forming, & non conventional machining of composites.

Micro/Nano machining.

 Role of Industrial management/quality control in manufacturing

• LAB sessions – practical demonstrations of processing and characterization

Eligibility

Faculty members from AICTE recognized institutes and Research Scholars pursuing Ph.D in the area of mechanical and production engineering background and persons from industries are eligible to the FDP.

Accommodation and Travel

Accommodation for pre-registered delegates can be arranged in campus Guest House or Hostel on payment basis if available. The delegates will have to bear the expenses. TA/DA will not be paid for attending FDP. However working lunch/tea will be provided during the course.

Resource Persons

Faculty members of IITs, NITs, DTU, reputed institutions and industry persons.

APPLICATION FORM

TEQIP-II sponsored Faculty Development Programme

On

Recent Development and Challenges in Materials and Manufacturing Process (25-29 July 2016)

- 1. Name
- 2. Date of Birth

3. Designation

- 4. Institution
- 5. Institution AICTE approved Yes/No
- 6. Address for Correspondence

Mobile

E-mail

- 7. Qualification/Area of research
- 8. Experience(in years) Teaching/Research Industry
- 9. Accommodation Required : Yes/No
- 10.Gender: Male/Female

Declaration

The information provided is true to the best of my Knowledge. If selected, I agree to abide by the rules and regulations of the Course and shall attend the course for the entire duration.

(Signature of Applicant)

Signature of Head of Institution/ Department

Registration

Registration form in the prescribed format approved/sponsored by the competent authority should reach to the Course Coordinator on or before 10th July 2016. There is no Registration fee for participants from AICTE approved institutions. For industry professionals, the fee is Rs 2500/ per person in the form of DD favoring Registrar, DTU, payable at SBI, DCE Branch (Code: 010446) Delhi. List of selected participants will be displayed in University website on 12th July 2016. www.dtu.ac.in

Submission of Registration form to:

Mr. N. Yuvaraj Course Coordinator

Department of Mechanical and Production Engineering, Delhi Technological University, Bawana Road, Delhi 110043. Email: <u>yuvraj@dce.ac.in</u> Mobl: +91-9871536689 For further details visit University Website. <u>www.dtu.ac.in</u>

About DTU

Delhi Technological University (DTU) was established in 1941 as Delhi Polytechnic, and was under the control of the Government of India: later called Delhi College of Engineering was under the Government of National Capital Territory of Delhi since 1963 and affiliated with the University of Delhi since 1952. In July 2009, Delhi College of Engineering was upgraded to a state University and renamed Delhi Technological University. It offers courses such as Bachelor of Technology (B.Tech), Master of Technology (M.Tech), Doctor of Philosophy(Ph.D), Master of Business Administration (M.B.A) and B.Tech (Evening) and contains 14 academic departments with strong emphasis on scientific and technological education and research. DTU consistently rank among top Engineering Institutions of India for the past so many years.

About Mechanical Engineering Department

The Department of Mechanical Engineering is one of the oldest academic departments of this prestigious institution. This department plays an important role by producing Graduates and Post Graduates of high quality, retaining its edge in campus placements in industries of high repute and international competitions on the strength of its innovative product development. Department is equipped with advanced research facilities and flourishing under the guidance of the eminent faculty. TEQIP-II sponsored Faculty Development Programme On

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Chairman Prof. R.S. Mishra, HOD, Mechanical, DTU Principal Coordinator Prof. Vipin Course Coordinator N. Yuvaraj Co-Coordinators Dr. R.C. Singh Dr. M.S. Niranjan

Organized by

Department of Mechanical, Production & Automobile Engineering **Delhi Technological University** Bawana Road, Delhi-110042