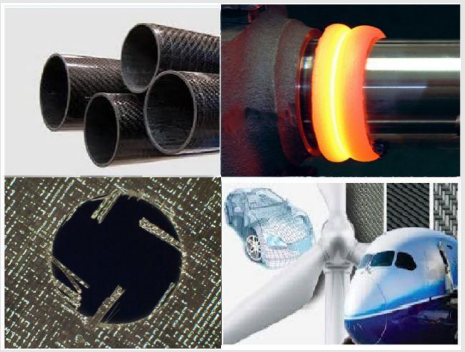
QIP Short Term Course on

Manufacturability of Advanced Composite Materials & Alloys MACMA-2017

8th – 13th May, 2017



Coordinator(s)

Dr. Kamal Pal
Associate Professor
Department of Production Engineering

&

Dr. Arun Kumar Rout
Associate Professor
Department of Production Engineering

Veer Surendra Sai University of Technology,
Odisha -768018
www.vssut.ac.in

ELIGIBILITY

The course is open for all teachers of degree level technical/engineering colleges/institutions approved by AICTE. No course fee is charged for participants sponsored by AICTE approved institutions. However, a caution money deposit of Rs.1000/- has to be deposited by the selected participants, which will be returned at the end of the course. Few seats will be available for participants from other government teachers, private organizations and engineers from industry are also eligible, provided they meet their TA and DA. A course fee of Rs. 3000/- will be charged to these participants, this will be entitle them in the course and receive the course material. The payment has to be made through DD, drawn on any Nationalized Bank and in favor of Co-ordinator QIP STC on "MACMA", payable at Burla.

FINANCIAL ASSISTANCE

Limited number of participants from the AICTE recognized institutions will be eligible for III AC to and fro railway fare (via shortest route from the place of work). Only the candidates attending the full course will be eligible for TA and DA.

VENUE

The course will be arranged in the Golden Jubilee Seminar Hall of VSSUT, Burla.

BOARDING & LODGING

Boarding and lodging facilities will be provided for the limited candidates from AICTE approved institutions in the institute guest house based on availability. However, lodging facility in students hostel can be arranged for others subject to availability on payment basis.

IMPORTANT DATES

The last date for receipt of duly filled applications is **8th April, 2017**. Intimation of selection of candidature will be communicated through e-mail by **12th April, 2017**.

Note: Interested candidates may send an advance copy of the completed application by fax/email to avoid procedural/postal delay.

SPONSHORSHIP

(a) For applicants from AICTE approved institutions

Prof./Dr./Mr./Ms. _____ is an employee of our institute and his/her application is hereby sponsored. The applicant will be permitted to attend the short-term course **"Manufacturability of Advanced Composite Materials & Alloys (MACMA)"** at VSSUT, Burla to be held from 8th - 13th MAY, 2017, if selected.

Date: Signature of sponsoring authority

Office Seal: Designation

(b) For applicants from other Government and Private organizations

DD NO: Date:

Bank: Amount:

Signature of the Applicant

The duly completed application should be mailed to

Dr. Kamal Pal / Dr. Arun Kumar Rout
Coordinator, QIP STC on "MACMA"
Department of Production Engineering
Veer Surendra Sai University Of Technology Odisha,
P.O:- Engineering College, Burla, Sambalpur–768018,
Odisha, India
Mob. 9776831637 / 9439301549
Fax:-0663-2430204
E-mail: macma.vssut@gmail.com

ABOUT THE UNIVERSITY & DEPARTMENT

Veer Surendra Sai University of Technology(VSSUT), Odisha formerly known as University College of Engineering, (UCE) Burla was upgraded to a non-affiliating Unitary State University which came into force from 1st day of July 2009 by Odisha Act 9 of 2009. VSSUT is located at the foothill of famous Hirakud Dam ,longest in Asia. Burla is known as Intellectual Capital of Odisha with VSSUT, VSS Medical College, Sambalpur University, MCL, WESCO, IIM Sambalpur. It is located 12 km away from Sambalpur railway station and 3 km away from Hirakud railway station. VSSUT, Odisha has carved a niche for itself among the best technical institutes in India and is a dream institute for many budding engineers. The University offers B.Tech., M.Tech., Dual Degree, M.Sc, MCA and PhDs. The university is surrounded by a large number of Government, public and private industrial sectors such as OHPC, Hindalco, NALCO, NTPC, OPTCL, Vedanta Aluminium Ltd and Bhusan Steel Plant. The institute has an excellent placement record with a number of top ranking companies visiting the campus every year. The climate in May is hot with occasional wind storms.

Production engineering (PE) has emerged as an independent discipline catering to the global need. Thus, the department was started in the year 1996 to promote academic excellence in the fields of Manufacturing & Processing technologies.

SPEAKERS

The series of lectures will be delivered by the faculty members of VSSUT, Burla and eminent speakers invited from NITs, IITs and other premier institutions of India.

OBJECTIVE

The course is designed for industry persons, postgraduate-level students and researchers in Production, Mechanical, Metallurgy and Manufacturing sectors. The prime objective of the course is to provide basic knowledge and in-hand experience on advanced alloys and composites. Advanced fabrication techniques and friction welding processes are used to manufacture of a wide range of engineering composite materials. Therefore, there is a need to understand the formability, machinability and weldability of various composite materials and alloys to take challenges with the ever increasing demands in defense, automobile, and aviation sectors. The characterization and testing of advanced composite components such as nanocomposites has also to be well known to take manufacturing based strategies to compete with global market. This has been made possible by undertaking rigorous research on experiments of the process to evaluate optimum processing conditions. Therefore knowledge on manufacturability, experimental, modeling and simulation of advanced hybrid composites is highly required to predict mechanical properties of composite structures.

COURSE CONTENTS

- Advanced Composites and alloys: Nanocomposites
- Fabrication techniques of Composites
- Characterisation and testing of fabricated Composites
- Formability of Composites and alloys
- Machinability of Composites: Micro-machining
- Weldability of Composite Materials: Friction stir welding
- Non-conventional energy for machining and welding
- Micromechanics of Composite materials
- Modelling and simulation of Composite structures
- Composite materials in practice

COURSE MATERIALS

The hard copy / soft copy of the course materials based on the lectures delivered by the eminent speakers shall be supplied to the participants.

Veer Surendra Sai University of Technology, Odisha
Burla-768018
QIP Short Term Course on
MACMA-2017
8th – 13th MAY, 2017
Application Form

1. Name (Block letter):

2. Designation:

3. Organization:

4. Date of Birth:

5. Address for communication:

Pin Code: Mobile:

E-mail:

6. Academic Qualification (Please tick)

(a) B.Tech. (b) M.Tech. (c) Ph.D.

7. Specialization:

8. Experience (in years):

(a) Teaching (b) Industrial (c) Research

9. Amount of TA requirement as per entitlement mentioned in the brochure (only for AICTE approved colleges) Rs**.:**

Please register for the course entitled "**Manufacturability of Advanced Composite Materials & Alloys**" to be held at VSSUT, Burla during 8th -13th MAY, 2017.

Place:
Date:

Signature of the applicant