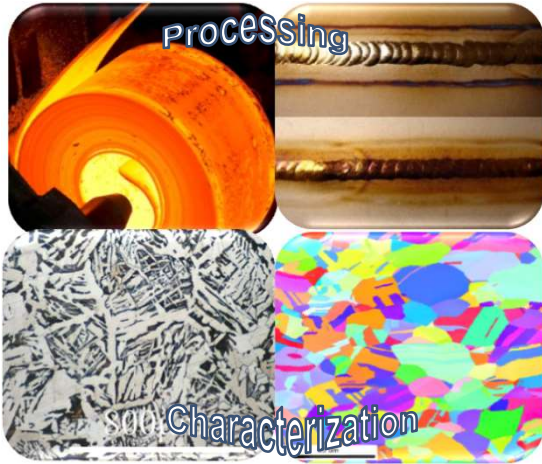


QIP Short Term Course on  
**PROCESSING & CHARACTERIZATION  
OF MATERIALS (PCM)**

24<sup>th</sup> – 29<sup>th</sup> April, 2017



**Coordinator(s)**

**Dr. Debadutta Mishra**

Professor & Head  
Department of Production Engineering

&

**Mr. A Lava Kumar**

Assistant Professor  
Department of Metallurgy & Materials 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 "PCM", 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 **24<sup>th</sup> March, 2017**. Intimation of selection of candidature will be communicated through e-mail by **27<sup>th</sup> March, 2017**.  
**Note:** Interested candidates may send an advance copy of the completed application by fax/email to avoid procedural/postal delay.

**SPONSORSHIP**

**(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 "**Processing & Characterization of Materials (PCM)**" at VSSUT, Burla to be held from 24<sup>th</sup> -29<sup>th</sup> April, 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

**Prof. Debadutta Mishra**

Coordinator, QIP STC on "PCM"  
Department of Production Engineering  
Veer Surendra Sai University Of Technology Odisha,  
P.O:- Engineering College, Burla, Sambalpur-768018,  
Odisha, India  
Mob. 9439207001/7077110110  
Fax:-0663-2430204  
E-mail: pcm.vssut@gmail.com

## ABOUT THE UNIVERSITY & DEPARTMENTS

Veer Surendra Sai University of Technology (VSSUT) Odisha was formed by Odisha Act 9 of 2009 by upgrading University College of Engineering (UCE), Burla to a non-affiliating Unitary State University which came into force from 1st day of July 2009.



The University has fourteen departments covering all the major engineering, science and humanities disciplines, offering B. Tech., B.Arch., M. Tech., M.Sc. and Ph.D. programs. VSSUT is located at the foothill of Hirakud Dam – World's longest dam. Burla is known as Intellectual Capital of Odisha with VSSUT, Sambalpur University, VSSUT is surrounded by metal and power industries and is referred as Odisha's "Growth Corridor". VSSUT campus is about 10 kms from Sambalpur railway station.

**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.

**Metallurgy & Materials Engineering (MME)** at VSSUT Burla, established in 2013, is a unique initiative in the present science and technology education and research scenario of India. This Department is devoted to the design, creation and fundamental understanding of materials that are capable of enhancing the human experience.

## 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 to provide postgraduate-level students and researchers in Production, Mechanical and Materials Sciences, with basic knowledge of the capabilities and limitations of Manufacturing Techniques & its characterization, to familiarize them with the technical advances that have taken over the years. Casting and welding processes are integral to manufacturing of a wide range of industrial components. With the ever increasing demands in process, defense, automobile, and aviation sectors, there is a need to understand and develop better manufacturing technologies. These processes are becoming more challenging with the development of new materials and applications. This has been made possible by undertaking rigorous research and developmental activities to investigate both processing conditions and physical phenomena. Therefore, a knowledge of characterizing techniques to investigate microstructures and defects is essential to relate them to processing conditions.

## COURSE CONTENTS

- Principles of liquid metal processing - casting and welding
- Powder metallurgy technologies
- Processing of advanced alloys: Aluminum, Magnesium, Titanium and super alloys.
- Defects: quantification and characterization
- Mechanical characterization of materials
- Non-destructive testing
- Optical Microscopy: Insights
- Scanning Electron Microscopy & its Application
- X-ray Diffraction -Texture
- Transmission Electron Microscopy& its Application
- Advanced Manufacturing Techniques
- Advanced Microscopic Techniques

## COURSE MATERIALS

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

**Veer Surendra Sai University of Technology, Odisha  
Burla-768018**

**QIP Short Term Course on  
PROCESSING & CHARACTERIZATION OF MATERIALS  
24<sup>th</sup> – 29<sup>th</sup> April, 2017  
[Application Form](#)**

**Name (Block letter):**

**Designation:**

**Organization:**

**Date of Birth:**

**Address for communication:**

Pin Code:

Mobile:

E-mail:

**Academic Qualification (Please tick)**

(a) B.Tech.

(b) M.Tech.

(c) Ph.D.

**Specialization:**

**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 me for the course entitled "**Processing & Characterization of Materials**" to be held at VSSUT, Burla during 24<sup>th</sup> -29<sup>th</sup> April, 2017.

Place:

Date:

**Signature of the applicant**