#### **Chief Patron**

Prof. Pramod Kumar Jain Director, IIT(BHU), Varanasi

**Patrons** 

Prof. B. K. Srivastava, Chairman, QIP Cell

#### Chairman

Prof. A.P. Harsha

Head, Department of Mechanical Engineering, IIT (BHU) Varanasi

#### **Course Coordinator**

Dr. Rakesh Kumar Gautam

**Course Co-Coordinators** 

Dr.U.S. Rao, Dr. P. K.Roy

Organized by Department of Mechanical Engineering.

#### **About the City**

The holy city of Varanasi is known as the city of temples and learning. It is a place of great historical and cultural importance. This religious capital of India is situated on the bank of the holy river Ganges and is famous for temples of Lord Shiva, Buddha (at Sarnath) and Sankat Mochan etc. Varanasi is the premiere most place of oriental learning also. Simultaneously it is keeping pace with modern advanced knowledge. The city is reputed for silk fabrics, perfumes, artistic brass and copper wares and a variety of handicrafts. This vibrant city with multiple dimensions of knowledge and liberation has a magnetic attraction for people all over the world.



#### Who can attend?

Faculty members of University / Engineering colleges approved by AICTE working in the departments of Mechanical Engineering/ Metallurgical, Materials science, Ceramic Engineering, Physics, Chemistry / Mathematics and other allied departments related to the mentioned area are eligible to attend the course.

#### **Registration Process**

## **Sponsored Participants (from AICTE approved institutions)**

By Email – Scanned copy of the filled in application form duly endorsed by the forwarding authority to be mailed at <a href="mailto:rkg.mec@itbhu.ac.in">rkg.mec@itbhu.ac.in</a> by December 15, 2019. Application format is given in this brochure.

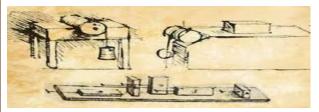
The participants have to send a demand draft for Rs. 2000/- drawn on any nationalized bank in favor of "Registrar, IIT (BHU), Varanasi" to the course coordinators by **December 15**, **2019** as a caution deposit for confirmation of their participation. The caution money will be returned only if the participant joins the course and attends the full course.

#### **Course Content**

- Introduction of various Engineering Materials and their applications
- Importance of processing of materials
- Various processing technique of materials and their advancements
- Different types of materials characterization
- Introduction of materials tribology
- Importance of tribological aspects for different materials and their advancements
- Mechanism of materials tribology under the different applications.









#### Contact:

#### Dr. Rakesh Kumar Gautam

Department of Mechanical Engineering Indian Institute of Technology (BHU) Varanasi-221005

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Email: rkg.mec@itbhu.ac.in

Organized by **Department of Mechanical Engineering IIT (BHU), Varanasi** 

#### **OIP Short Term Course on**

Recent Advances in Materials Processing and Materials Tribology

**January 06-10, 2020** 

#### **Introduction and objectives of the course**

In the present scenario materials processing and its characterization is one of growing field. It is generally observed that due to lack of proper technique of materials processing one could not get much attention to his research and requiredcitations. Similarly, due to lack of proper justification of characterization, one's research could not get so much recognition as it shouldbe. Present time tribological behavior of components is one of the important subject of study for several day to day applications of materials. The proper study and characterization of wear and friction is still not taken as serious as it is required for any material. The basic objective of this STC is to familiarize the participants with the recent in materials developments and their characterization. This STC will also help the participants to interact with experts of the field and to explore the possibilities of research in materials processing and their proper characterization.

#### Route to Varanasi

The city of Varanasi is well connected by road, rail and air toall the important places of India. Regular flights are there from Varanasi to Delhi, Mumbai, Chennai, Bangalore, Hyderabad, Kolkata, Khajuraho, Ahmedabad, Dehradun and Lucknow. The Banaras Hindu University campus is only 10 km from Varanasi railway station, 20 km from Pt. Deen Dayal Upadhyay railway station and 35 km from the airport.

#### **About Department of Mechanical Engineering**

The Department of Mechanical Engineering came into existence in 1919 under the leadership of Professor Charles A. King, the first Head of the Department and Principal of the erstwhile Benaras Engineering College (BENCO). It is the largest academic department of IIT (BHU) offering regular undergraduate, postgraduate and doctoral degree programs in all major specializations. It has contributed a lot to the national growth by grooming stalwarts in the technology in the last 100 years of its existence.



#### **Course Speakers**

Faculty members from the Department of Mechanical Engineering, Metallurgical Engineering, Ceramic Engineering, School of Materials Science and Technology and other Departments of IIT (BHU) Varanasi will be teaching the course. Subject experts from IITs, NITs, Other reputed Institutes, Research Organizations and Industrieswill be invited for delivering the special lectures.

# Financial Assistance and Accommodationto Participants from AICTE approved Institutions

Limited number of Participants (30) from AICTE approved engineering institutions will be eligible for to and fro railway fare via shortest route in III AC class and free lodging and boarding in the Institute guest house/hostels during course period. Candidates attending the course in full only will be eligible for TA. For all other participants no TA will be paid by IIT (BHU) Varanasi.

#### **Course Material**

Hard/Soft copies of the lecture notes/presentations will be made available to participants at the end of lecture/presentation.

#### **Important Dates**

Course duration	January.06-10,2020
Last date of registration (Extended)	December 15, 2019
Intimation of selection by email	December 20, 2019

Website: www.iitbhu.ac.in

## Indian Institute of Technology (BHU), Varanasi Department of Mechanical Engineering

#### **Registration Form**

## **Recent Advances in Materials Processing and Materials Tribology**

### January 06-10, 2020

1. Name					
1. Name					
5. Address for corresponde					
•					
	Phone/Mobile				
	cation				
8. Category of participant					
Sponsored participant f	From AICTE approved institutions	Yes	No		
9. IIT (BHU) accommodation		Yes	No		
10. Payment details	-				
4 Amount (Rs.)					
11 * Bank A/c no & Branch	n Name	&			
Please register me for the course on Recent Advances in Materials Processing and Materials Tribology to be					
held at Department of Mechanical Engineering, IIT (BHU) Varanasi.					
Date					
Place		Signature of the Participant			
	SPONSORSHIP				
Prof./Dr./Mr./Ms./Mrs./is an employee of our institute					
and his/her application is hereby sponsored. The applicant will be permitted to attend the short-term					
course "Recent Advances in Materials Processing and Materials Tribology" at IIT (BHU) Varanasi during					
<b>January 06-10, 2020</b> , if selected.					
Date:	Signature of Sponsoring Authori	ty			
Designation:					
Official Seal:					
(*Required for Online payment of TA/DA)					