

**QIP Short Term Course  
On  
“Recent Advances in Casting and Welding”**

Name (block letter) .....  
Designation & pay scale .....  
Organization .....  
Address for communication.....  
Pin code ..... Ph. No. ....  
E-mail .....  
Highest Academic Qualification: .....  
Specialization: .....  
Experience (in years):  
(a) Teaching .....  
(b) Industrial .....  
Accommodation required: Yes/ No  
Amount of TA required as per entitlement mentioned in the brochure (only for AICTE approved college teachers): .....  
Please register me for the “QIP short term course on “Casting & Welding: Fundamentals and Recent Advances” held at IIT (BHU) Varanasi.

**Place:**

**Date:** **Signature of the applicant**

**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 “QIP short term course on “Recent Advances in Casting and Welding” at IIT (BHU) Varanasi, during 23-29 March, 2017, if selected.

Date: Signature of Sponsoring Authority

Designation:

Official Seal:

For applicants from the Industries, R & D laboratories and other organization:

DD No. Date:

Bank:

Amount: Signature of the Applicant

**Registration Procedure**

The registration fee/caution money is to be paid in form of Bank Draft in favor of 'Registrar, IIT (BHU), Varanasi' payable at Varanasi, (Branch Code: 11445). Registration fee along with completed application form (in brochure) is to be sent to 'The Coordinator, QIP Short-term course on “Recent Advances in Casting and Welding”, Department of Mechanical Engineering, IIT (BHU) Varanasi, 221005, U.P., India'. Also, send a scanned copy of the application form and draft through email: [sptewari.mec@itbhu.ac.in](mailto:sptewari.mec@itbhu.ac.in)

**How to reach**

The city of Varanasi is well connected by road, rail and air with all the important cities of India. Regular flights are there from Varanasi to Delhi, Mumbai, Chennai, Hyderabad, Bangalore, Kolkata, Khajuraho and Lucknow. The IIT (BHU) campus is about 10 Km from Varanasi Cantt and 20 Km from Mughalsarai railway station and 35 Km from the Babatpur (Varanasi) airport.

**About Varanasi**

The holy city Varanasi is the oldest living city in the world which is also known as the capital of the spiritualistic world. The city has a great historical and cultural importance. This religious and cultural capital of India is situated at 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 and simultaneously keeping pace with modern advanced knowledge. This vibrant city with multiple dimensions of knowledge and liberation has a magnetic attraction for people all over the world.

**QIP Short Term Course  
On  
“Recent Advances in Casting and Welding”**

**March 23-29, 2017**



**Organized by**

Department of Mechanical Engineering  
Indian Institute of Technology (BHU)  
Varanasi - 221 005, Uttar Pradesh

**Coordinator:**

**Prof. S.P.Tewari**  
Department of Mechanical Engineering  
Indian Institute of Technology (BHU)  
Varanasi - 221 005, Uttar Pradesh  
Mob.No:9721683806  
E.Mail:sptewari.mec@itbhu.ac.in

## INTRODUCTION

Casting and welding constitute a significant area of manufacturing. They cover wide range of applications e.g. automobiles, defence, ship building, industrial components and aviation sectors etc. Recent advances in technological front have paved the way to enhance productivity and quality. Research and developmental in both areas- Casting and Welding is beneficial for the society. The short term course deals with the fundamentals and the advancement in the field of casting and welding.

## BROAD OBJECTIVES

To familiarize the delegates with the concept of

1. Solidification of metal and alloy in case of casting and welding processes.
2. Welding metallurgy
3. Understanding of basic causes and remedies of casting and welding defects.
4. Method for characterizing the micro-structural features.
5. Destructive and non-destructive testing techniques for casting and welding.
6. Recent advances in casting and welding

## COURSE CONTENTS

1. Solidification mechanism of casting.
2. Mechanism of weld metal solidification.
3. Metallurgy of fusion welds.
4. Material Characterization.
5. Casting and welding defects and their remedies along with testing techniques.
6. Recent advances in casting
7. Recent advances in Welding

## WHO MAY BENEFIT

The course will attract Faculty, Researchers, Engineers, Scientists and Students working in materials processing, manufacturing related areas, Research Organizations and Industries. Participants are expected from all over India, which would provide an excellent opportunity for them to interact with one another in their area of specialization.

## Who should attend?

Faculty members of University/ Engineering colleges recognized by AICTE working in the departments of Mechanical Engineering / Production Engg. / Manufacturing Engg./ Material Science/ Metallurgy are eligible to attend the course.

Interested participants are requested to send their filled registration form at the earliest. This will help us in making necessary arrangements. Selected candidates will be informed by e-mail.

Participants	Travel allowance and accommodation Registration fee	Registration fee
Teachers from AICTE approved engineering colleges	* III – AC to & fro fare by the shortest railway route, free boarding and lodging at guest house	Free** (Rs.2000/ caution money)
Scientists/Engineers from Industries and R & D laboratories	No TA reimbursement. Boarding and lodging at guest house on payment basis	Rs.8000/- ***

\*Candidates attending the course in full will be eligible for TA. For all other participants no TA will be paid by IIT (BHU), Varanasi.

\*\* The caution money is for confirmation of participation and will be returned back only if the participant attends the course.

\*\*\* The course fee includes hospitality and study material

## COURSE SPEAKERS

Subject experts will be from IITs, NITs, Other reputed Institutes, Research Organizations and Industries.

## ACCOMMODATION

Efforts will be made to accommodate in the institute guest house on twin sharing basis on receipt of request from the participants. Please note that no family accommodation is available.

**Coordinator**

**Prof. S.P.Tewari**

**Mechanical Engineering Department**

**IIT(BHU),Varanasi-221001**