

## INTRODUCTION

Metallurgy is a branch of material science that focus on the physical and chemical behaviour of metallic elements and its alloys. Knowledge of metallurgy is very important for any design and production engineers. Design of any part generally based on Strength, which comes from alloy composition and metallurgical structure. It is not just enough if design engineer select right alloy but also have to specify metallurgical requirements to achieve required properties. Production engineers have to understand the metallurgical requirements and develop process to achieve that. Hence awareness of metallurgy play an important role in today’s engineering world. Keeping this in view, Indian Machine Tool Manufacturers' Association (IMTMA) is organizing a 6 Hrs online programme on “**Metallurgy for non-metallurgist-Ferrous Materials**”.

This course provides important metallurgical knowledge to those who are not metallurgists. You will learn how metals can be made stronger, more corrosion resistant, formable etc. This course will help to choose right metals, alloys and processing solutions best suited for your production goals.

## FOCUS AREAS

- Introduction to engineering metals and alloys
- Roles of various alloying elements
- Introduction to metal atomic structures and its importance
- Classifications of metals and alloys and its phase diagram
- Ferrous metallurgy; 1. Steel 2. Cast Iron
- Heat treatment of ferrous and nonferrous alloys

## KEY TAKE AWAYS

- Understand basics of metallurgy
- Understand metals and alloy classifications
- Understand all ferrous group of alloys and its metallurgy
- Understand metallurgical changes during heat treatment

## FEE PER PARTICIPANT (PER LOGIN)

**Rs. 6000/-**  
+18% GST  
**IMTMA Members/ Micro Companies/ Individuals/  
Educational Institutions / Students/ IMTMA Non  
Members/ Others**

**USD 240/-**  
**Overseas Participants**

**Group Concession : 10% for 3 to 5 and 30% for 6 and more delegates being nominated from the same company**

## FACULTY

This Program will be conducted by **Mr. Ganapathi K N.**

**Mr. Ganapathi K N**, is an Advisor of IMTMA having 16 years of industrial and 16 years of academic/Training experience. He is a post graduate in metal casting science and engineering from UVCE Bengaluru.

Prior to working at IMTMA, Mr. Ganapathi has worked at various capacity in both Ferrous and nonferrous foundries. He has a thorough understanding of all foundry operations and has experience in providing solutions to foundry problems. He has also imparted specialized training in the metal casting domain to more than 300 engineers across manufacturing companies in India. He has also taught metal casting topics to postgraduate engineering students.

### For Registration Contact

**Nishant Singh**  
**Programme Coordinator**  
9823174010  
[nishant@imtma.in](mailto:nishant@imtma.in)

### Contact Address

**INDIAN MACHINE TOOL MANUFACTURERS' ASSOCIATION**  
Plot 249F, Phase IV, Udyog vihar,Sector - 18,  
Gurgaon - 122015  
Tata no- +91-124-6463101  
Tel : 0124 4014101 - 04  
Fax : +91-124-4014108

