



भारतीय
प्रौद्योगिकी
संस्थान
काशी हिन्दू विश्वविद्यालय



INDIAN
INSTITUTE OF
TECHNOLOGY
BANARAS HINDU UNIVERSITY

INFORMATION BROCHURE (2019-2020)



M.Tech - Extractive Metallurgy

About us:

The aim of M.Tech in Extractive Technology Program is to imbibe concepts and develop skills related to Metallurgical Engineering and have a broad based fundamental knowledge of both science and engineering with analytical and innovative skills.

The extractive technology program focuses on making graduates organizational ready through courses which enhance their technical prowess in Metallurgy, Practical Knowledge, Investigative Approach, Analytical Thinking and Problem Solving skills.

The program structure is aimed at equipping students with broad base of fundamental knowledge so that they can cater to diverse sectors and contribute to the success of organization.

Faculty Profile:



Dr. Sunil Mohan (Ph.D. IIT Roorkee)

Professor

Areas of Interest

Alloy Development, Composites, Tribology, Transport Processes



Dr. Kamalesh Kumar Singh (Ph.D. Ranchi University)

Professor

Areas of Interest

Extractive Metallurgy, Recycling of e-waste, Aluminium dross etc.; Sp. interest in Entrepreneurship



Dr. Om Prakash Sinha (Ph.D. IIT BHU)

Professor

Areas of Interest

DRI Technologies, Plasma Melting, Nitrogen Stainless Steels, Solid waste Utilization



Dr. Indrajit Chakraborty(Ph.D. IIT Kharagpur)

Professor

Area of Interest:

Foundry Metallurgy, Wear of metals, Metal-matrix composites



Dr. Chhail Kumar Behera (Ph.D. IIT-BHU)

Associate Professor

Areas of Interest

Thermodynamic measurements of multicomponent systems, Lead-free solder alloys, Corrosion and oxidation of Metals and alloys



Dr. Randhir Singh (Ph.D. Imperial College London)

Assistant Professor

Areas of Interest

Extractive/Electro-Metallurgy, Fuel cells and batteries, hydrogen production

Lab Facilities:

- Extractive Metallurgy, E&C Lab
- Chemical Metallurgy Laboratory
- Transport Phenomena Laboratory
- Industrial Metallurgy Laboratory
- Welding and Foundry Laboratory

Course Structure:

The main objective of Extractive Metallurgy specialization is to transfer knowledge to young engineers and induce a systematic approach in them to analyze situations, evaluating ores to determine the recoverability of metals from them, design processes to recover them efficiently, improving extraction and manufacturing processes and understanding recycling strategies.

The course curriculum is rooted in developing a scientific mind along with a focus on innovation and commercial awareness in the metallurgists. Our Extractive Metallurgy Specialization emphasizes on the below diverse disciplines of Metallurgy:

- Alloy Steels Production Technology
- Raw material preparation for iron making
- Alternative methods of Iron making
- Advances in Production of Non-Ferrous Metals
- Hydrometallurgy
- Metallurgical Thermodynamics and Kinetics
- Transport Processes
- Physical Chemistry of Metallurgical Processes
- Materials Characterization
- Computational Methods for Metallurgy
- Plasma Technologies for Metallurgical Applications

Current Areas of Research:

- Thermodynamic measurements of multicomponent systems
- Alloy Development
- DRI Technology
- Plasma Technology
- Nitrogen Bearing Stainless Steels
- Metallurgical Solid waste Utilization
- Electro-Metallurgy
- Fuel cells and batteries
- Hydrogen production
- Composites for Wear Applications and Tribology
- Recycling of electronic waste and aluminium dross
- Pyrometallurgy of sulphide minerals
- Preparation of molycarbides
- Lead-free solder alloys



Message from Prof. Incharge:

It gives me immense pleasure to extend you a most cordial invitation to participate in the Campus Recruitment Programme of the Indian Institute of Technology (BHU), Varanasi. With an increasing thrust being placed on Institute-Industry Interaction, it is my sincere belief that your esteemed organization and IIT (BHU) Varanasi will stand to gain immensely from this symbiotic relationship.

Our Institute holds the pride of place being pioneer in the field of engineering and technical education in this country and has a glorious heritage. We have been continuously ranked amongst the elite by all peers and stakeholders. Our constant pursuit of excellence has made our institute a focal point in technical education for students and faculty members alike. Admissions to the institute take place through the reputed Joint Entrance Examination (JEE) and Graduate Aptitude Test in Engineering(GATE).

At this institute, we take utmost care to groom our students according to the needs of the industry. We seek to open frontiers of knowledge and reveal new horizons of change to broaden mindset and to create positive attitude in our students. Our students receive industrial exposure by their frequent industrial visits. Besides, our undergraduate students undergo an eight-week training during summer vacation in reputed industries/institutions/organizations (in India as well as abroad) as part of their academic requirements.



We would be most delighted to host you for campus recruitment and beyond. I am looking forward to a mutually beneficial relationship,

Professor Anil Kumar Agrawal
Training & Placement Officer, IIT (BHU) Varanasi

Past Recruiters:



Placement Team:

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