TRAINING & PLACEMENT BROCHURE

INDIAN INSTITUTE OF TECHNOLOGY (BHU), Varanasi

DEPARTMENT OF CERAMIC ENGINEERING

2022-23

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DIRECTOR'S MESSAGE

Greetings from Indian Institute of Varanasi and a hearty welcome to the Land of Shiva! We are proud to be the first to pioneer degree level engineering education in undivided India almost a century ago in 1919 and by none other than our revered Bharat Ratna Mahamana Pt. Madan Mohan Malviya Ji. The present day institute was created after the merger of three erstwhile colleges – Banaras Engineering College, College of Mining and Metallurgy and College of Technology.

In this age of liberalization, privatization and globalization, there is an ever increasing industry requirement for Professionals who have high employability index and required competencies with an inquisitive mind set for innovations. Our collective and continuous commitments to create vibrant and technology savvy environment where excellence is the credential. Our students imbibe all personality traits, values of the cultural city of Kashi and diversity of the BHU campus within which this Institute exists. Academic curricula not only provide them strength in their own area, but also from open electives in multiple disciplines. This uniqueness helps our students in successfully carrying out their responsibilities as a member of cross–functional team in any organization. Our excellent placement record over years speaks about the value of our students to their employers. I am confident that our students will prove their mettle and will contribute immensely towards growth and success of your organization. Looking into great achievements of the alumni of this Institute, I am sure that you and your organization is going to have a wonderful experience of intern and full-time hiring at this Institute and this relationship will go beyond for having other kind of engagements as well for mutual benefits. I extend my deep appreciation for our industry partners who have recognized the depth of our rich and diverse talent pool and accorded valuable opportunities. I am looking forward to your visit to this campus soon.

- Prof. P K Jain

MESSAGE FROM TPC INCHARGE

It gives us immense pleasure to extend to 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 stand to gain immensely from this symbiotic relationship. Our Institute holds the pride of place being pioneers in the field of engineering and technical education in the country and has a glorious heritage. We have been continuously ranked among the elite by our peers and 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). At IIT (BHU) Varanasi, we take 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 mindsets and to create positive attitudes in our students. Our students get a lot of industrial exposure by their frequent industrial visits. Besides, our undergraduate students undergo an eight-week training in their summer vacations in reputed industries/institutions/organizations (in India as well as abroad), as part of their academic requirements. More details of the Training & Placement Office with regards to placement policy and conduct and visiting organizations can be had from our website. Please feel free to contact the Training & Placement Office should you require any further information/clarification. Looking forward to a mutually beneficial relationship and with regards.

-Prof. Anil Kumar Agrawal

ABOUT US

The founder of Banaras Hindu University, Pandit Madan Mohan Malviyaji instituted a course in Ceramic Technology as early as 1924 with the noble objective of advancing glass and ceramic technology in India. In the Year 1956, Department of Glass Technology and Department of Ceramic Technology were merged to form the Department of Silicate Technology, offering a four year degree course by injecting into its curriculum balanced engineering and scientific contents. In the year 1968 the Department was renamed as Department of Ceramic Engineering. Presently this department is unique in the country which offers B.Tech. M.Tech. and Ph.D. Programmes in the areas of Ceramic Engineering and Technology. The Department has so far produced more than 1000 graduates, 100 postgraduates and 30 PhDs. The Department is pursuing active research in the emerging areas of glass, glass ceramics, refractories, electronic ceramic, cement and pottery & porcelain. Research papers are being published in reputed national and international journals regularly. Considering the important role that the department of Ceramic Engineering has played, the University Grants Commission has granted funds under ‘Special Assistance and COSIST’ Programmes. Many R& D projects have been sponsored by AICTE, DST, CSIR and UGC. The Department celebrated its Platinum Jubilee during 1999 for 75 years of Ceramic education and organized a ‘National Seminar on Challenges of 21st century.

ACADEMIC PROGRAMMES

The department offers the following academic programmes:

- **Bachelor of Technology (4-year course) –**
  Admission made through the Joint Entrance Examination (JEE) conducted jointly by the IITs.
- **Integrated Dual Degree (5-year B.Tech + M.Tech in Ceramics Engineering) –**
  Admission made through the Joint Entrance Examination (JEE) conducted jointly by the IITs.
- **Master of Technology (2-year course) –**
  Admission made on the basis of GATE score.
- **Ph.D. programme –**
  GATE/NETscores/Sponsorship by the employer followed by interviews.

VISION

To attain global recognition in research and training students for meeting the challenging needs of ceramics & allied industries and society.

MISSION

Providing high-quality undergraduate and postgraduate education in tune with changing needs of the industry. Generating knowledge and developing technology through quality research in frontier areas of ceramic and interdisciplinary fields. Fostering industry-academia relationship for mutual benefit and growth through short-term courses, workshops, and exchange visits.

OBJECTIVE

To provide fundamental technical knowledge and skills in the areas of traditional ceramics such as glass, pottery, porcelain, whitewares, cement, refractories and furnace technology. To provide skills and practical experience to fulfill their professional duties and responsibilities in teamwork, ethics, and technical leadership. To develop strong interaction with industries through collaborative research, student training, consultancy, and work on multidisciplinary and real-life industrial problems. To make students be in a position to practice professionally in various positions in industry or government sector. To mold students to become future engineers, scientists, researchers, and innovators and to contribute to society.

SPECIALIZATIONS

Glass and Glass Ceramics

Work is in progress for the development of special colored glasses, infrared filter glasses suitable for night vision and high density radiation shield glasses. Stains for sheet glasses with copper and silver and heat resistant coating on glasses are being developed. Studies on different micronutrient glasses have been carried out for their suitable application in agriculture for different soil conditions.

Refractories

Sintering and micro-structural studies of refractory oxides like Al2O3, ZrO2, MgO, Cr2O3 etc. are carried out to attain the maximum sintered densities and desirable microstructure so that optimum refractory properties are obtained in the end product.

Electrical and Electronic Ceramics

Valence compensated solid solution systems of the type A1-xAx'B1-xB'xO3 show interesting electrical and dielectric properties. Valence compensated perovskites are formed by substituting the cations at A and B site with heterovalent cations in equivalent amounts to maintain electrical charge neutrality and to reduce the electrical strains in the crystal structure.

Cement and Advanced Building Materials

Portland cement concrete lands itself to a variety of innovative designs as a result of its many desirable properties. Concrete inherently is brittle and weak in tension. Several methods have been developed to impart ductile behavior. Broadly these can be grouped as mechanical and chemical methods.

Bio-glass and Ceramics

During the last two decades ceramic materials have become widely used in many medical applications, hip prosthesis, cardiac valves and dental implants. Hydroxyapatite (Hap) seems to be the most appropriate ceramic material for artificial teeth or bones due to excellent biocompatibility and bioactivity.

CENTRALIZED MAJOR RESEARCH & TESTING FACILITIES

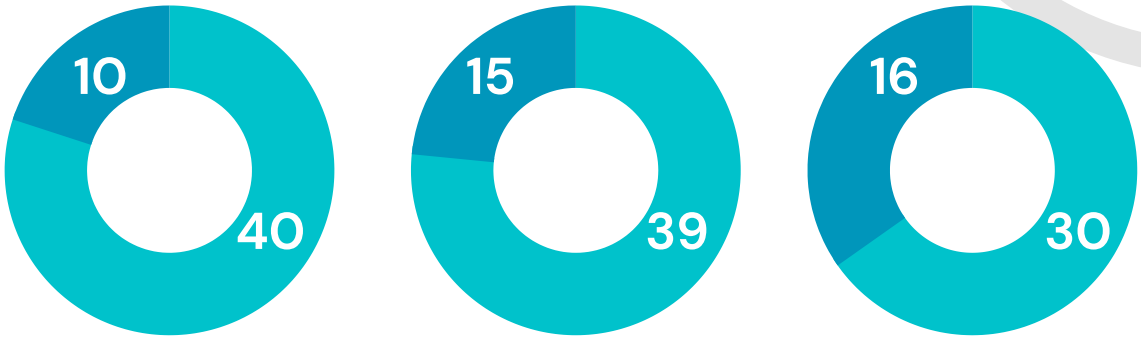
Simultaneous DTA/TGA STA 409	Nietzsche, Germany
DTA/TGA/DSC	Labsys SETARAM, France
Sputter Coating Unit Hummer 6.2	LADD Research, USA
Surface Tension / Contact Angle Measurement DSA-1	Kruss Gmbh, Germany
FTIR Spectrometer	Varian 1000, USA
UV-visible Spectrophotometer	SL-164, Elico, India
Reflection Microscope	MPS-30 Leica, Germany
Reflection/ Polarizing Transmission Microscope	Zeiss, Germany
Universal Testing Machine	AGS-D Series, Shimadzu,
Micro Hardness Tester	HMV-2000, Shimadzu,
Grinding & Polishing	Buehler, USA
Vibro Energy Mill	Retsch, Germany
ISOMET Low Speed Saw	Buehler, USA
Centrifugal Ball Mill	Retsch, Germany
X-Ray Diffractometer	Rich Seifert, Germany

OTHER TESTING FACILITIES

INDFUR High Temp. Horizontal Electrical Furnace
Electro Heat TM" High Temp. Controlled atmosphere cum Vacuum Tubular furnace
Hummer SC-6 Sputter Coater
NETSZ Simultaneous Thermal Analyser (up to 1550˚C)
Universal Testing Machine Transmission cum Reflecting Optical Microscopes,
V-I Test Set Up UV-visible Spectrophotometer
L.C.R. Meter
Environmental Chamber
Pilot Plant for Pottery and Glassware
Annealing-cum-decorating Lehr
Scanning Electron Microscope (SEM)
Microwave Sintering Furnace
Pin on disk friction and testing
Millipore distillation Plant.
Rockwell & Brinal hardness tester

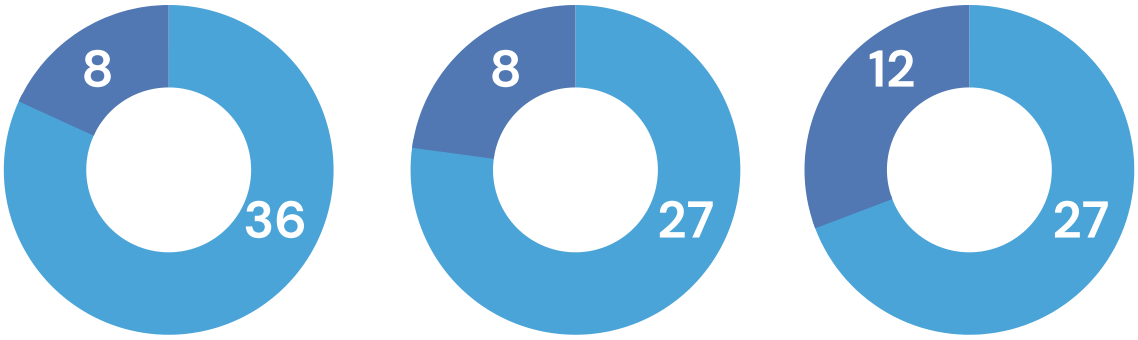
PLACEMENT STATISTICS

Registered Students



B-tech IDD

Offers Accepted



B-tech IDD

Compensation

Mean CTC	Rs. 24.11 LPA
Highest CTC	Rs. 40.18 LPA
% increment	68.71%

ALUMNI

Deepak P. Ahuja
Batch of 1985
Former Chief Financial officer, Tesla

Bimlendra Jha
Batch of 1990
Former CEO/Managing Director, Ambuja Cements Ltd.

Dr K. Muraleedharan
Batch of 1983
Former Director, Central Glass & Ceramic Research institute

Dharamveer Singh Chouhan
Batch of 2012
Co-founder and CEO, Zostel

Nandita Sinha
Batch of 2003
CEO, Myntra

Amit Walia
Batch of 1995
CEO at Informatica

...and many more

TOP RECRUITERS

Core

SAINT-GOBAIN

JSW Steel

Ambuja Cement

सेल SAIL

CERA

IMERYS

KLA Tencor

Piramal Glass

Dalmia OCL

SOMANY

TATA STEEL

Software

Rakuten

Goldman Sachs

CISCO

ThoughtSpot

NUTANIX

Standard Chartered

zomato

OLA

OYO

alphonso
The TV Data Company

Chargebee

udaan


meesho


komprise


SWIGGY


amazon


LimeChat


SAFE
SECURITY


AMERICAN
EXPRESS


unacademy


RingCentral


AXIS BANK


Deutsche Bank


PARK+


e-Emphasys


SOCIETE
GENERALE


INNOPLEXUS®


Walmart

Management Consulting and Product

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Important Links

Institute Website – www.iitbhu.ac.in
Department Website – www.iitbhu.ac.in/dept/cer
Training and Placement Website – www.placement.iitbhu.ac.in
Training and Placement Email id – tpo@iitbhu.ac.in