भारतीय प्रौद्योगिकी संस्थान
काशी हिन्दू विश्वविद्यालय

IIT INDIAN INSTITUTE OF TECHNOLOGY
BANARAS HINDU UNIVERSITY

DIA-COE IIT BHU
सर्वार्थसाधका: वैज्ञानिका:

One-Day Workshop

on

Structural Ceramics and Ceramic Composites: Recent Advances in Processing, Fabrication and Applications

Organized by

Department of Ceramic Engineering in Association with the InCerS Student Chapter
Indian Institute of Technology (BHU), Varanasi

Sponsored by

DIA-CoE, IIT (BHU) Varanasi

28 Feb 2025

TLC, IIT (BHU)

Convener
Dr. Subrata Panda
Assistant Professor
Dept. of Ceramic Engineering
IIT (BHU)

Co-Convener
Dr. Kundan Kumar
Assistant Professor
Dept. of Ceramic Engineering
IIT (BHU)

Registration Details:

Registration Link: https://rb.gy/tk11iw

- ***No Registration Fee.***
- ***Limited seats are available.***

Contact Details:

pandas.cer@iitbhu.ac.in
+91 8861545884
+91 9561695269

About IIT (BHU)

The Indian Institute of Technology (Banaras Hindu University) owes its existence to Mahamana Pandit Madan Mohan Malviya, Bharat Ratna-the founder of the first residential university of modern India, the Banaras Hindu University. The three of the erstwhile engineering colleges of BHU, namely BENCO, MINMET and TECHNO, were merged to form the Institute of Technology (IT-BHU) in 1968 to provide an integrated educational base. The ITBHU has been admitting students through the JEE conducted by the IIT's since 1972, and has been consistently ranked amongst the top few engineering institutions of the country. IT-BHU became IIT (BHU) on June 29, 2012, by an Act of Parliament. The Institute has maintained high academic standards since its inception. It has turned out luminary engineers and administrators who served the nation with great distinction.

About the Department

The founder of Banaras Hindu University, Bharat Ratna Mahamana Pandit Mandan Mohan Malviya Ji has started courses in Glass and Ceramic Technology as early as 1924 with the noble objective of advancing glass and ceramic technology in India. In the year 1956, the Departments of Glass Technology and Ceramic Technology were merged to form the Department of Silicate Technology. In the year 1968, the Department of Silicate Technology was renamed as the Department of Ceramic Engineering under the Institute of Technology, Banaras Hindu University (IT-BHU). The first-ever department was established in pre-independent India and Asia to develop skilled human resources for various ceramic industries country-wide. Presently, the department offers 4-Year B. Tech (Bachelor of Technology), 5-Year (Integrated Dual Degree) IDD (i.e., Bachelor + Master), 2-Year M. Tech (Masters of Technology), and Ph.D. Programs in the areas of Ceramic/Materials Science and Engineering. The Department of Ceramic Engineering celebrated its Centenary in the year of 2024 by organizing various technical talks, symposia, alumni meetings, and conferences.

About DIA-CoE, IIT (BHU)

The Industry Academia - Centre of Excellence (DIA-CoE) at IIT (BHU) Varanasi will promote indigenous technologies to reduce India's defence imports and make India Atmanirbhar in the defence sector. This Centre of Excellence will provide a strong platform to establish collaboration between the DRDO Scientists and faculty members of IIT-BHU. The initial phase of this centre will focus on accelerating research projects under three verticals – Powder Metallurgy, Electronic and Functional Materials, and High Power Microwave Sources and Devices. It is anticipated that numerous start-up companies and Industries would like to be part of this Centre in its journey towards excellence.

Topics to be Covered

- Introduction to structural ceramics and ceramic composites
- Focus on novel techniques/ methodologies/ applications of structural ceramics
- Advanced and innovative processing techniques such as additive manufacturing, sintering methods, and nanotechnology
- Fundamental properties and behaviors of structural ceramics and composites
- Process-Structure-Property Correlations
- Emerging applications in aerospace, automotive, biomedical, energy, and electronics
- Future Trends and Challenges

Tentative Speakers

1. **Prof. Ashutosh S Gandhi, IIT Bombay**
2. **Prof. Shibayan Roy, IIT Kharagpur**
3. **Dr. Abhoy Kumar, DMRL, DRDO**
4. **Dr. Tarasankar Mahata, PMD, BARC**

Who can attend

This workshop is specifically designed for research scholars, industry personnel, scientists, and faculty members of the institutes/universities/research labs who are keenly working with ceramic powders as a tool for a wide variety of applications.