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Mr. Suresh Menon, DTS, India

### Supporting members:

Mr. Siba Padarabinda Behera,

SME, KIIT (Operator)

Mr. Praveen Gagrai, SME, KIIT

### Submission of extended Abstract:

Prospective researchers of contributory papers are requested to submit their extended abstract limited to a maximum of 2 pages in email given below.

Abstract Submission mail id [guwi.2023@kiit.ac.in](mailto:guwi.2023@kiit.ac.in)

Important Dates	
Extended Abstract submission ends	03-03-2023
Notification of acceptance/ registration starts	01-03-2023
Registration ends	05-03-2023
<b>No spot registration allowed.</b>	

### Registration Details:

The registration fee details are as follows:

Category	Fee
National laboratory, Industry, Academia	₹ 3,000/-
Students	₹ 1,000/-

### Registration form: <https://forms.gle/ESxSrfJCgfk1Kv3A>

Payment towards registration fees should be made through on-line transfer.

Beneficiary's Name: KIIT SCHOOL OF MECHANICAL ENGINEERING

Beneficiary's Account No.: **1849010225359** IFSC code: **PUNB0184920**

Bank Address: KIIT UNIVERSITY CAMPUS, KHURDA, BHUBANESWAR 751024

### Notes:

- Please register on or before 05.03.2023.
- Participants interested for accommodation have to pay extra amount.
- Transaction slip must be sent to [guwi2023@gmail.com](mailto:guwi2023@gmail.com) after registration.
- A certificate of participation will be given to all participants.

Dr. S. K. Jha, MIDHANI, Hyderabad, India

Mr. S. Gowrisankar, BHEL WRI & LABS, India

Dr. Monojit Dutta, TATA Steel, India

Prof. J K Krishnamoorthy, PSG, India

Mr. Subrata Mohanty, NALCO, India

Prof. Sushil K. Mishra, IIT Bombay, India

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Dr. Jyoti Shankar Jha, Alleima Pvt. Ltd, India

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KALINGA INSTITUTE OF INDUSTRIAL TECHNOLOGY (KIIT)

Deemed to be University U/S 3 of UGC Act, 1956



9<sup>th</sup> Gleeble User Workshop India

**GUWI**  
2023

March 16-18, 2023

**NATIONAL WORKSHOP ON PHYSICAL SIMULATION OF  
THERMAL-MECHANICAL PROCESSING OF MATERIALS**



Organized by:

School of Mechanical Engineering, KIIT Deemed University  
Bhubaneswar-24, Odisha, India

In association with  
Central research facility

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Visit us: <http://event.kiit.ac.in/GUWI2023/>

## Aim & Scope:

In the current global climate, strict product performance criteria have led to an unprecedented focus on novel alloy compositions and technical advances that promote efficiency, affordability, and environmental friendliness. The process and microstructural designs of next generation alloys become the top priority for research and development, opening up a number of new application areas in industries like aerospace, automotive, line pipes, and earthquake resistant constructions etc. The design and development of high performance alloys heavily rely on the thermo-mechanical processing and treatment of the alloy. As a result, physical process simulation emerges as a crucial tool for improving microstructural comprehension and making helpful predictions about the resulting process-structure property correlations. The simulated physical behavior of materials processing entails exact laboratory replication of the thermal and/or mechanical processes that the material is really exposed to during full-scale production operations or end use. Gleeble produced by Dynamic Systems Inc., USA has demonstrated to be excellent equipment for investigating the thermo-mechanical processing of metals and alloys in a laboratory setting. The Gleeble User Forum of India (GUFI) organizes Gleeble User Workshop India (GUWI) regularly to provide a single platform for academia, R & D organizations, and industrial enterprises to exchange new results/findings and update the present knowledge/understanding in the field of thermo-mechanical processing and simulation. The forum decided to hold the GUWI 2023, after almost 3 years, in the Kalinga Institute of Industrial Technology, Bhubaneswar, as they are the proud owners of the most recent GLEEBLE 3800 in India, with the latest Gleeble Touch Control (GTC) as the venue for the workshop. The main objective of this workshop is to showcase the capabilities of Gleeble TMPS to the research community, practitioners and manufacturers whose works are in the field of understanding and solving real-world materials and processing problems. Another objective is to bring national and international experts, industries, academia, research scholars, users and students on a common platform for sharing, learning and updating the most recent developments in the field of thermo-mechanical processing of metals and alloys which will enhance our capabilities in collaborating and consulting with other organizations, national laboratory and R & D establishments.

The eastern belt of India is emerging as a major manufacturing hub for sectors ranging from mines, minerals, automotive and petrochemicals. Keeping this in vision, Kalinga Institute of Industrial Technology, Bhubaneswar, has set up a state-of-art thermo-mechanical physical simulator since Nov 2021 in their Central Research Facility (CRF) and have graciously accepted to host this interesting workshop along with Gleeble User Forum of India

## Scope of GUWI 2023:

GUWI 2023 will have expert talk, presentation on 16<sup>th</sup> and 17<sup>th</sup> March and a hands-on workshop on 17<sup>th</sup> & 18<sup>th</sup> March, 2023 for current and new users.

The industry participants are also invited to submit short case studies on their R&D activities that will be of immense benefit to the researchers in the field. Participants from academia, R&D organizations and industries are invited to submit extended abstracts (max.2 pages) on the following themes.

## Themes:

- Rolling and forging simulation
- Continuous casting
- HAZ simulation
- Large deformation processing
- Powder sintering and dissimilar metal joining
- Novel issues in phase transformation
- Recrystallization kinetics
- Mathematical modeling and simulation
- New applications and innovations in Gleeble use



## About KIIT

Kalinga Institute of Industrial Technology (KIIT) is a deemed to be university located at Bhubaneswar, Odisha, India. KIIT is a unique among its peer institutions in having nineteen school co-located on one contiguous campus offering more than 200 programs including UG/PG studies in the disciplines including engineering, management, medicine and law. KIIT has been awarded Tier-1 status by NBA (AICTE), accredited with Grade 'A++' by NAAC (UGC), ranked 20th among the Indian universities ranked by NIRF, Govt. of India, ranked 601-800 in Times Higher Education World University Ranking and it is an Institute of Eminence and has been accredited by IET, U.K. Its sister institution, Kalinga Institute of Social Science (KISS) has the distinction of being the largest and first tribal University of the world. KIIT & KISS have been founded by eminent education and social activist Prof. (Dr.) Achyuta Samanta.. Recently, KISS has been selected to host the 19<sup>th</sup> International Congress of Anthropological and Ethnological Sciences (ICAES) in 2023. Detailed information about KIIT and KISS University can be obtained from: <http://www.kiit.ac.in>, <http://www.kiss.ac.in/>

## About School of Mechanical Engineering, KIIT

The School of Mechanical Engineering, KIIT possesses highly qualified and experienced faculty members from various IITs, NITs and other reputed institutions. The current consultancy and research & development areas of the school include jet and spray impingement heat transfer, droplet and spray combustion, computational fluid dynamics, mechanical systems design & optimization, biomass and biofuels (synthesis, analysis and optimization), vibration and machine condition monitoring, meta machining, metal matrix/polymer matrix composites (fabrication and characterization), metal forming. We have to our credit a good number of publications in reputed SCI/Scopus indexed journals, patents and projects funded by bodies like AICTE, DST, DRDO, Institution of Engineers (IE), Govt. of India.

**Bhubaneswar "Temple City of India":** With the architectural legacy of the Kalinga dynasty, Bhubaneswar boasts up with hundreds of temples including Lingaraj, Mukteswar, Raja Rani, Brahmeswar, Vital, etc. dating from 6<sup>th</sup>-13<sup>th</sup> century AD. Apart from remarkably sculptured temples, the Jain caves of Khandagiri and Udayagiri, Nandankanan zoological park, the peace pagoda 'Dhau' on the bank of the river Daya attract visitors from all over the world. Besides, Puri, Konark along with capital city of Bhubaneswar form the three vertices of Golden Triangle of Orissa tourism circuit



## How to reach us:



Campus-8, School of Mechanical Engineering, KIIT, Bhubaneswar, Odisha. PIN: 751024

## **Nearest railway station and Airport**

Bhubaneswar railway station: 12.5 km from KIIT.

Biju Patnaik International Airport, Bhubaneswar: 12.9 km from KIIT.

City bus service popularly known as 'Mo Bus' and App based cabs are frequently available from Airport & Railway Station

## Sponsoring Partners:

