



The Unified International Conference on Emerging Technologies of INTPART-UTFORSK Project, IncoME, TEPEN and DAMAS

26-28 November, 2024

On behalf of the United International Conference on Emerging technologies of:

- **INTPART-UTFORSK Project on Cyber-physical Systems** (Professor Maneesh Singh, The Western Norway University of Applied Sciences),
- **IncoME conference** (Professor Jyoti Sinha, University of Manchester),
- **TEPEN Conference** (Professor Andrew Ball, University of Huddersfield, UK and Professor Fulei Chu, Tsinghua University, China)
- **DAMAS Conference** (Professor Carol Featherston, Cardiff University; Professor Huajiang Ouyang, University of Liverpool; and Professor Anish Roy, Loughborough University)

it is our pleasure to invite you to the conference to be held from 26th November to 28th November 2024 at the Malaviya National Institute of Technology (MNIT), Jaipur, India.

Dr. Gunjan Soni

Malaviya National Institute of Technology Jaipur

INTPART-UTFORSK Projects on Cyber-physical Systems

The Research Council of Norway and Norwegian Directorate for Higher Education and Skills funded projects aim to foster collaborative education and research environment among universities and research centres of Norway (Western Norway University of Applied Sciences, OsloMet, NTNU and SINTEF), U.S.A. (NASA Ames Research Centre, SRI International and North Carolina A&T State University) and India (Indian Institute of Technology Kharagpur, Indian Institute of Technology Jodhpur and Malaviya National Institute of Technology) by working together on optimised operation and maintenance of wind turbines.

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The International Conference on Maintenance Engineering (IncoME)

The International Conference on Maintenance Engineering (IncoME) aims to provide a common platform by which professionals, engineers, practitioners, and researchers working in the field of plant maintenance and reliability can share their experiences.

The Efficiency and Performance Engineering Network (TEPEN) Conferences

The Efficiency and Performance Engineering Network (TEPEN) is an international network of world leading researchers in the field of efficiency and performance engineering. It aims to become recognised as the global centre of excellence in efficiency and performance engineering. TEPEN holds an annual conference since 2019, which will be hosted by members from different universities.

International Conference on Damage Assessment of Structures (DAMAS)

International Conference on Damage Assessment of Structures (DAMAS) is one of the most influential conferences in the field of structural damage identification and machine fault diagnosis in the world and is held every two years.

UNIfied 2024

Due to the shared interests, it seems sensible that we should collaborate more closely by organising a single, large, wide-coverage conference. The **Malaviya National Institute of Technology** is delighted to be host this event at the historic and culturally rich city of Jaipur, India.

The combined conference, which we are informally calling "UNIfied 2024" will bring together engineers, scientists and technologists, researchers, developers, and practitioners who work in the area of:

1. Sensors and Measurement Systems
2. Condition Monitoring and Predictive Maintenance
3. Industrial Internet of Things (IIoT)
4. Cyber physical systems (CPS)
5. Artificial Intelligence / Machine Learning in Maintenance and Production Environment
6. Related Government Policies

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The 3-day event will provide the ideal opportunity for researchers, industrialists, and equipment manufacturers/suppliers to meet, share ideas and learn about the latest scientific and technological advances in all of the listed fields, along with the future directions that each of the fields is taking.

In the event there will be themed parallel conference sessions featuring the work of researchers from every corner of the globe, numerous keynote addresses and master classes from world-renowned experts, together with a large exhibition of equipment and service providers. Of course, there will also be a comprehensive entertainment schedule alongside this.

It is the very breadth of the scope and the scale of the event that will make it so interesting and beneficial to those who attend. It will be a conference like no other, and one that definitely should not be missed. The conference organizing committee looks forward to making you welcome in Jaipur, India in November 2024.

Important Dates

Abstract acceptance notification. Two weeks after submission

- 4/08/2024: Early registration deadline
- 7/09/2024: Full paper submission deadline.
- 6/10/2024: Paper acceptance notification
- 22/11/2024: Registration deadline
- 26-28/11/2024: Conference

Scope

The conference covers a broad area with multi-disciplinary interests in the fields of plant maintenance, asset management, reliability, condition monitoring, artificial intelligence and related areas, ranging from fundamental research to real-world applications. The conference welcomes the submission of papers in the nature of original research, technical review and tutorial from the following, but not limited to, cyber physical systems applications in following areas:

1. Artificial Intelligence / Machine Learning
2. Asset Management
3. Biomedical Damage Detection and Analysis
4. Condition Monitoring and Machine Health Monitoring
5. Condition-based and Predictive Maintenance
6. Damage Assessment & Health Management
7. Electrical Vehicle Energy Management
8. Health, Safety & Carbon Neutralization with CPS
9. Industrial Internet of Things (IIoT)
10. Life Cycle Cost Optimisation
11. Machine Lube Oil Analysis & Monitoring
12. Maintenance Auditing
13. Maintenance Organisation

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- 14. Maintenance Performance Measurement
- 15. Manufacturing Process Monitoring
- 16. Mobile Technology
- 17. Non-Destructive Testing with CPS
- 18. Plant Outage
- 19. Prognostics and Health Management
- 20. Reliability, Availability, Maintainability & Safety
- 21. Sensors, Instrumentation and Measurement Systems
- 22. Signal and Image Processing Methods in CPS
- 23. Structural Integrity
- 24. Vibro-acoustics Monitoring

Contact Us

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Dean, Malaviya National Institute of Technology Jaipur, India

Conference Chair

Prof. Maneesh Singh

Western Norway University of Applied Sciences, Bergen, Norway

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Conference Co-chairs:

Dr. Gunjan Soni

Malaviya National Institute of Technology, Jaipur, India

Prof. Jyoti Sinha

University of Manchester, U.K.

Prof. Andrew Ball

University of Huddersfield, U.K.

Prof. Huajiang Ouyang

University of Liverpool, U.K.

Prof. Anish Roy

Loughborough University, U.K.

International Advisory Committee

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International Sponsors

The Prognostics and Health Management Society (PHM)

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Registration fees

- Indian research scholars – Rs. 4000/-
- International research scholars - \$200
- Indian academicians – Rs. 7000/-
- International academicians - \$350
- Industry participants from India– Rs. 10000/-
- Industry participants from outside India – \$500

About MNIT Jaipur

The Institute was jointly established in 1963 as Malaviya Regional Engineering College Jaipur by the Government of India and the Government of Rajasthan. Subsequently, on 26 June, 2002, the college was given the status of National Institute of Technology. On 15 August 2007, it was recognized as the Institute of National Importance through an Act of Parliament. The Institute is fully funded by the Ministry of Education (Shiksha Mantralaya), Government of India. The Institute lies in the heart of the pink city, imaginatively laid out with a picturesque landscape of 317 acres. It presents a spectacle of harmony in modern architecture and natural beauty. The campus is located in close proximity of Jaipur airport, railway station, major hospitals, and shopping malls. It consists of academic and administrative buildings, hostels, and on-campus accommodation for faculty and staff. The campus provides all essential amenities for community living like staff club, primary health center (dispensary), bank, post office, shopping complex, gymnasium, playing fields, guest houses, and canteen.

About Jaipur

Jaipur, the capital of Rajasthan, is a beautiful and historical city that attracts tourists worldwide. It is popularly known as the Pink City because of the exclusive pink stones used for building the monuments. Jaipur's bazaars are famous for their embroidered leather shoes, blue pottery, jewellery, clothes, and exotic wares. Western Rajasthan forms a convenient circuit in the heart of the Thar desert, which has shaped its history, lifestyle, and architecture. The city's major tourist attractions include Jantar Mantar, Amber Fort, Moti Doongari and Lakshmi Narayan Temple, City Palace, Albert Hall (Museum), Hawa Mahal, Jaigarh Fort, Sisodia Rani Garden.

http://online.mnit.ac.in/About_Jaipur/