

# 1ST IEEE INTERNATIONAL CONFERENCE ON INSTRUMENTATION ( INSTCon 2026 )

IEEE  
INSTRUMENTATION &  
MEASUREMENT SOCIETY  
ROURKELA CHAPTER



ROURKELA SUBSECTION



IEEE  
KOLKATA SECTION



IEEE IMS ROURKELA CHAPTER

Conference Record No. 69741

Date: July 24 - 25, 2026

Place: NIT Rourkela, Odisha, INDIA

## Important Dates

Paper Submission Open:

December 15, 2025

Paper Submission Close:

March 31, 2026

Notification of Acceptance:

May 15, 2026

Camera Ready Submission:

May 31, 2026

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NATIONAL INSTITUTE OF TECHNOLOGY  
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**The First International Conference on Instrumentation (INSTCon 2026)** aims to bring together researchers, industry practitioners, and innovators from around the world to advance the frontiers of measurement, sensing, control, and automation for a sustainable future. With rapid advancements in smart sensing, intelligent control, and data-driven decision-making, the conference provides a vibrant platform to exchange ideas, showcase cutting-edge developments, and explore solutions that bridge science, engineering, and societal needs.

Technically sponsored by the IEEE Instrumentation & Measurement Society - Rourkela Chapter, IEEE Rourkela Subsection, IEEE Kolkata Section and IEEE WiE Kolkata Section - Rourkela Subsection Joint Affinity Group aims to will foster collaboration across domains such as precision agriculture, healthcare diagnostics, industrial automation, environmental monitoring, and renewable energy systems. By integrating innovations in AI/ML, quantum devices, cyber-physical security, and sustainable hardware design, the event will not only be a showcase of technical excellence but a call to action-uniting academia, industry, and policy stakeholders to drive the adoption of intelligent instrumentation as a cornerstone of global sustainability initiatives.

## TOPICS FOR INSTCon 2026 INCLUDE

### Track 1:

#### Smart Sensors and Intelligent Instrumentation

Smart Sensors, Sensor Fusion, Optical Sensors, AI/ML for Intelligent Measurements, Sensor Design, etc.

### Track 2:

#### Sustainable IoT and Communication Technologies

Wireless, RFID, IoT-Enabled Instrumentation, Smart Agriculture, Cyber-Physical Security, etc.

### Track 3:

#### Advances in Intelligent Control, Robotics, and Mechatronics

Intelligent Control, Adaptive Systems, Cyber-Physical Systems, Robotics, Industrial Automation, etc.

### Track 4:

#### Innovations in Microelectronics, Circuits, and Devices

Quantum Sensors, Emerging Devices, MEMS, NEMS, Electronics for Biomedical Devices, etc.

### Track 5:

#### Sustainable Technologies for Electrical Systems

Smart Grids, Renewable Energy, Electric Vehicle, Sustainable Hardware-Software Co-Design, etc.

### Track 6:

#### Applied Signal and Image Processing

Diagnostics and Personalized Healthcare, AI/ML, Explainable AI, Multimodal Fusion, Feature Extraction, etc.

### Track 7:

#### Instrumentation for Defense and Space Applications

Space Instrumentation, Payload Systems, Remote Sensing, Satellite Communication, GNC, etc.

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Venue: **National Institute of Technology**  
Rourkela, Odisha

Website: <https://instcon2026.nitrkl.ac.in/>  
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\*\*All accepted and presented papers will be sent to IEEE Xplore for publishing with ISBN No. However, IEEE reserves the right to exclude a submission from distribution after the conference, including exclusion from IEEE Xplore, if submission does not meet IEEE standards for scope and/or quality. The conference is participatory.

Atleast one author of each accepted paper will have to register to present the paper at the conference. The papers which are not presented at the conference, will not be included in the proceedings."

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