10th National Conference on Advances in Metrology
(AdMet-2026)
(October 29 -30, 2026)
Central Manufacturing Technology Institute
Tumkur Road, Bengaluru, Karnataka – 560022, India

**TECHNICAL SESSIONS - Day 1, 29.10.2026**

| | | Paper ID | Paper Title | Presenter | Organization | Venue |
|---|---|---|---|---|---|---|
| **Technical Session I (Oral Presentation) 15:45 - 16:45 hrs** | A | MET26106 | Establishment of line scale measurement facility using michelson interferometer and evaluation of uncertainty of measurement | YASHPAL SINGH | CSIR-National Physical Laboratory | AEAMT, Executive Class Room, First Floor |
| | | MET26119 | Investigation of low dimensional nanostructured Bi2S3 for highly sensitive and selective NO2 detection at room temperature | E. Vinoth | SRM Institute of Science and Technology | |
| | | MET26131 | Comparative Evaluation of Reference Plane Fitting Methods for Flatness Measurement of a Granite Surface Plate | Suma Umeshappa Guladalli | CMTI, Bengaluru | |
| | | MET26143 | Performance Evaluation and Validation of an Indigenous Portable Surface Roughness Tester: Comparative Assessment with Standard Reference Instruments | Sindhu BS | CMTI, Bengaluru | |
| | | MET26152 | A Knowledge Graph for Traceable Dimensional Measurement: Linking Drawing, GD&T, Standard, Instrument and Result | Sri Venkata Somanatha Sastry Kalaga/Hariprasad Madhavrao Raut | Hexagon Capability Hub India Pvt Ltd | |
| | | MET26155 | Evolution of characterization methodology for Chemical composition and Homogeneity assessment of precursor mixtures in Pack cementation processing | Sakshi Agrawal | CMTI, Bengaluru | |
| | B | MET26101 | Simulation-Driven Parametric Optimization of Tensile Behavior in FFF-Printed PLA Components | Kunal Jangid | National Institute of Technology, Delhi | AEAMT, Video Conference Room, Ground Floor |
| | | MET26102 | A Comprehensive Process Uncertainty Estimation Framework for Metal Fused Filament Fabrication of H13 Tool Steel Using Metal Fused Filament Fabrication | Harish Kumar | National Institute of Technology, Delhi | |
| | | MET26134 | Data-Driven Forecasting of Leap-Second Events Using Physics-Informed Features and a Hybrid Gradient Boosting-Bagging Ensemble | Harupjit Singh | CSIR-National Physical Laboratory | |
| | | MET26148 | Unsupervised Memory-Bank-Based Anomaly Detection for Automated Visual Inspection of Corrugated Stainless Steel Bellows | GUNDREVULA ANANTH SRIVASTHAVA/B KARTHIKEYAN | Indian Institute of Information Technology, Design and Manufacturing, Kurnool | |
| | | MET26153 | Advanced Non-Destructive Testing for Metallurgical Anomalies: A PAUT Feasibility Study on the Detection of Macro-Segregation Defects in Steel Components | Champuri Srinivasa Rao | CMTI, Bengaluru | |
| | C | MET26104 | Performance Evaluation of Environmental Radioactivity Measurements through International Proficiency Testing and QA/QC Implementation | Deepak Kumar | BARC, Mumbai | AEAMT, Seminar Hall, First Floor |
| | | MET26135 | Comparative Performance Evaluation of a Tri-Band and a Dual-Band NavIC Time transfer Receiver at Zero Baseline Common-Clock Configuration | Ruksana | CSIR-National Physical Laboratory | |
| | | MET26137 | Development and Characterization of Thick Copper Micro-Coils on Glass Substrates Using Selective Pulse-Reverse Electroplating | Jyothsna G | CMTI, Bengaluru | |
| | | MET26140 | Purity Analysis of Paracetamol in a Pharmaceutical Tablet Using Quantitative NMR Spectroscopy | Sanjoy Kumar Sheet | CSIR-National Physical Laboratory | |
| | | MET26144 | Development and Validation of a Matrix-Matched LC–MS/MS Method for the Quantification of Preservatives, Including Benzoic Acid and Sorbic Acid, in Tomato Ketchup | Jayant Nirmalkar | CSIR-National Physical Laboratory | |

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|---|---|---|---|---|---|---|
| **Technical Session II (Oral Presentation) 17:00 - 18:00 hrs** | A | MET26112 | Mid-Spatial Frequency Error Characterization in Diamond-Turned Optical Surfaces: A Comparative Signal Processing Study | K Manjunath | CMTI, Bengaluru | AEAMT, Executive Class Room, First Floor |
| | | MET26122 | Prediction of Surface Roughness in Cryogenic Turning of Austenitic 316 Stainless Steel Using Artificial Neural Network | Naveen Raja Ramesh Rajaram | College of Engineering Guindy, Anna University, Chennai | |
| | | MET26128 | Effect of Reference Corner Selection on Granite Surface Plate Flatness Measurement | Kiran Kumar M D | CMTI, Bengaluru | |
| | | MET26141 | Automation of Solid Density Setup Primary Standard | Shashank Ranjan Chaurasia | CSIR-National Physical Laboratory | |
| | | MET26156 | Experimental Investigation of the Influence of Engine Valve Surface Roughness on Internal Combustion Engine Performance Using Dynamometer Testing | Sandeep Kumar | CSIR-NPL, New Delhi | |
| | | MET26162 | From Design Intent to Measurement Result: Enabling the Digital Thread in Dimensional Metrology Using QIF | Suresh Kumar Yaramshetti | Hexagon Capability Hub India Pvt Ltd | |
| | B | MET26103 | Accuracy Analysis of Net Radiation Quantification Using Site-Specific Meteorological Parameters | Deepak Kumar | BARC, Mumbai | AEAMT, Video Conference Room, Ground Floor |
| | | MET26111 | GAMMA RAY SPECTROMETRY – CURRENT APPLICATIONS AND RECENT DEVELOPMENT | Dr Sunil Kumar Sahoo | Bhabha Atomic Research Centre | |
| | | MET26120 | Design and Development of an Universal RTD Temparature Measurement System | Vishnu Vaibhav S | CMTI, Bengaluru | |
| | | MET26132 | Atomic Clocks Health Parameter Analysis for correlation with its Performance and degradation | Mahavir Prasad Olaniya | CSIR-National Physical Laboratory | |
| | | MET26160 | A Newton's Ring Interferometric Technique for Precision Force Measurement | Surya Kumar Gautam | CSIR-National Physical Laboratory | |
| | C | MET26109 | Statistical Analysis of Rainfall Trend at Kudankulam Site | Jayasudha Prabhu | BARC | AEAMT, Seminar Hall, First Floor |
| | | MET26110 | Vibration Impact Assessment Criteria for Transit Train-Induced Ground and Building Vibrations | Rajesh P | CSIR-National Physical Laboratory | |
| | | MET26113 | Met-chemical synergy: Machine learning framework to forecast PM2.5 level | Rubiya Banoo | CSIR-National Physical Laboratory | |
| | | MET26145 | A Lumped Thermal Resistance Network Analysis for a Temperature Bath | Kuldeep Awasthi | CSIR-National Physical Laboratory | |
| | | MET26147 | Measurement uncertainty and comparison of microphone calibration using Actuator response and Insert Voltage Method | Shailesh Mohine | CSIR-National Physical Laboratory | |

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**TECHNICAL SESSIONS - Day 2, 30.10.2026**

| | | Paper ID | Paper Title | Presenter | Organization | Venue |
|---|---|---|---|---|---|---|
| **Technical Session III (Oral Presentation) 14:00 - 15:00 hrs** | A | MET26116 | A Metrological Framework for Calibration and Traceability of Electrical Moisture Meters for Indian Food Grains | *Dilip Dhondiram Shivagan/Gaurav Gupta* | CSIR-National Physical Laboratory | AEAMT, Executive Class Room, First Floor |
| | | MET26129 | Laser Speckle Pattern Imaging for Non-Contact Measurement of Small Forces Using a Cantilever Beam as a Force Transducer | Kamal Tewari | CSIR-National Physical Laboratory | |
| | | MET26149 | Electro less Deposition of Copper pillar on Bare Silicon Substrates: Mechanisms, Processing, and Characterization | Varshini K M | CMTI, Bengaluru | |
| | | MET26154 | STUDY ON DESIGN AND DEVLOPMENT OF A PRIMARY STANDARD FOR AIR VELOCITY IN INDIA USING WIND TUNNEL AND LASER DOPPLER ANEMOMETRY | Anshul Varshney | CSIR-National Physical Laboratory | |
| | | MET26159 | Optical Setup for the Second Generation Cesium fountain Clock at CSIR-NPL | Manoj Das | CSIR-National Physical Laboratory | |
| | | MET26163 | Precision Signal Conditioning circuit and Characterization of a Piezoresistive based MEMS Pressure Sensors for Metrology Applications | Kusuma N | CMTI, Bengaluru | |
| | B | MET26108 | Defending Metrological Integrity: Hybrid Deep Machine Learning Feature Selection for Lightweight Intrusion Detection in Smart Grid Cyber-Physical Systems | Ashish Ranjan | CSIR-National Physical Laboratory | AEAMT, Video Conference Room, Ground Floor |
| | | MET26124 | Design of a High-Performance Single-Feed Microwave Interrogation Cavity for Next-Generation Cesium Fountain Clocks | Vijesh K R | CSIR-National Physical Laboratory | |
| | | MET26130 | Precise Time Transfer over Long Distances through Underground Telecommunication Fibres | Dr. Subhasis Panja | CSIR-National Physical Laboratory | |
| | | MET26138 | From Soil to Standard: Development of an Indigenous matrix-matched Certified Reference Materials (CRMs) for trace element determination | Murshid Khan | CSIR-Indian Institute of Toxicology Research, Lucknow | |
| | | MET26107 | Measurement as Economic Infrastructure: A Traceability-Driven Framework Linking Uncertainty to Value Creation and Decision Risk | Srijith Bangaru Thirumalairaj | CSIR-National Physical Laboratory | |
| | C | MET26123 | Long-Term Trends in UTC–UTC(k): A Comparative Study across Ten National Metrology Institutes | Anjali Bisht | AcSIR, CSIR-National Physical Laboratory | AEAMT, Seminar Hall, First Floor |
| | | MET26125 | Comparative Analysis of High-Voltage DC Divider Designs: A Case Study | Nidhi Dua | CSIR-National Physical Laboratory | |
| | | MET26127 | Implementation of Inductive Transduction for Differential Pressure Sensing Applications | Prakash Devadiga | CMTI, Bengaluru | |
| | | MET26146 | Measurement of Method detection limit – Applications in Analytical Techniques for Quantitative Estimation | Ankur Chauhan | Bhabha Atomic Research Center | |
| | | MET26151 | Small Force Measurement by Photoelastic Low-Force Sensor using Fibre Specklegram Technique | Kamal Tewari | CSIR-National Physical Laboratory | |

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|---|---|---|---|---|---|---|
| **Technical Session IV (Oral Presentation) 15:15 - 16:15 hrs** | A | MET26126 | Development and Mechanical Characterization of a MEMS-Cantilever with integrated Micro-tip for surface roughness measurement | Vikas G N | CMTI, Bengaluru | AEAMT, Executive Class Room, First Floor |
| | | MET26133 | Indian Standard Time: A Decade of Strengthening National Timekeeping Infrastructure and the Legal Framework for its Mandatory Adoption | Dr Ashish Agarwal | CSIR-National Physical Laboratory | |
| | | MET26157 | A Comprehensive Review of Terahertz Imaging and Tomography: Principles, Techniques, Applications, and Future Directions | Nitin Paliwal | CSIR-National Physical Laboratory | |
| | | MET26158 | Terahertz Digital Holography for High-Resolution Amplitude and Phase Imaging Using Fourier Reconstruction Techniques | kuldeep kumar | CSIR-National Physical Laboratory | |
| | | MET26164 | Technical Challenges and Evaluation Process Methodology for Producing Hardness Certified Reference Materials (CRMs) in Compliance with ISO 17034:2016 | Champuri Srinivasa Rao | CMTI, Bengaluru | |
| | B | MET26115 | Analytical and Numerical Investigation of a Rydberg - EIT Ladder System for RF Electric-Field Metrology | Chethan Y R | CSIR-National Physical Laboratory | AEAMT, Video Conference Room, Ground Floor |
| | | MET26118 | A comparative analysis of two atmospheric temperature sensors | B Preetha | BARC | |
| | | MET26121 | Seasonal Dynamics and Source Characterization of Particulate Fractions PM1.0, PM2.5, PM10 and Trace Metals (Pb, Ni, Hg) for Environmental Metrology | J.S.Dubey | BARC | |
| | | MET26136 | Development of Testing Facility for Digital and Mercury-based Clinical Thermometers | Komal Bapna | CSIR-National Physical Laboratory | |
| | | MET26139 | In-Situ Determination of Diverter Error in a Primary Water Flow Calibration Facility using a Position-Encoded Pneumatic Actuator | Dr. Vinayak Sudalai | CSIR-National Physical Laboratory | |
| | C | MET26105 | Extreme Value Modelling of Annual Daily Maximum Rainfall at BARC Vizag Using Multiple Estimation Techniques | VEDESH K VARAKHEDKAR | BARC | AEAMT, Seminar Hall, First Floor |
| | | MET26114 | Assessment of Inhalation Dose due to Radon Release from a Disposal Trench in a Monazite Processing Facility | Parthasarathi Prusty | BARC | |
| | | MET26117 | Acoustical Evaluation of Sustainable Materials for Noise Control Applications | Chitra Gautam | CSIR-National Physical Laboratory | |
| | | MET26150 | Electrolytic Conductivity Measurement of Ultra-Pure Water for Strategic Sectors: Metrology and Applications | Satish | CSIR-National Physical Laboratory | |
| | | MET26161 | Characterizing the Performance and Stability of an NTP Server with Synchronized UTC(NPLI) | Preeti Kandpal | CSIR-National Physical Laboratory | |