



CHINESE SOCIETY
FOR MEASUREMENT



CHANGCHENG INSTITUTE OF
METROLOGY & MEASUREMENT



HANGZHOU, CHINA

March 23-27, 2026



The IMEKO TC3, TC5, TC16, TC20 and TC22 Joint Conference 2026 & the 3rd International Conference on Dynamic Measurement

(25th TC3, 15th TC5, 7th TC16, 5th TC20 and 6th TC22 Conference)



- TC3: Measurement of Force, Mass, Torque and Gravity
- TC5: Hardness Measurement
- TC16: Pressure and Vacuum Measurement
- TC20: Measurements of Energy and Related Quantities
- TC22: Vibration Measurement
- DYNAMIC: Calibration, Sensor and Instrument, Application

IMEKO (International Measurement Confederation) is a non-governmental federation of 42 Member Organizations individually concerned with the advancement of measurement technology. This conference is supported by IMEKO TC3, TC5, TC16, TC20 and TC22, organized by the *Chinese Society for Measurement (CSM)* and *Changcheng Institute of Metrology and Measurement (CIMM)*, co-organized by the *National Institute of Metrology (NIM)*, *National Institute of Measurement and Testing Technology (NIMTT)*, *Beihang University (BUAA)*, *China Jiliang University (CJLU)* and *Zhejiang Institute of Quality Sciences (ZQS)*.

This international conference aims to convene experts from both the industrial and academic domains, addressing a diverse range of topics from the fields of “Measurement of Force, Mass, Torque, and Gravity” (IMEKO TC3), “Hardness Measurement” (IMEKO TC5), “Pressure and Vacuum Measurement” (IMEKO TC16), “Measurements of Energy and Related Quantities” (IMEKO TC20) and “Vibration Measurement” (IMEKO TC22). The conference also promotes in-depth discussions on dynamic measurement-related themes and integrates these into the 3rd International Conference on Dynamic Measurement. A broad spectrum of topics and critical metrological challenges will be explored throughout the conference, including (but not limited to) metrology digitalization and quantum measurement.

IMPORTANT DATES

- **30 July 2025**
Extended Abstract Submissions Open
- **15 December 2025**
30-November-2025 30-October-2025
Deadline for Extended Abstract Submission
- **30 December 2025**
30-November-2025
Notification of Abstract Acceptance
- **15 February 2026**
15-January-2026
Full Paper Submission Deadline
- **15 March 2026**
15-February-2026
Final Paper Submission Deadline

CALL FOR PAPERS

Submit the extended abstract and full paper through the conference website

<https://conferences.imeko.org/event/14/>

and select the conference track and contribution type according to the Topics. Ensure you use the correct template.

Download: [Extended Abstract Template and Full Paper Template](#)

All papers will be peer-reviewed (at least two reviewers per paper). Accepted papers will be published in the subsequent proceedings at the IMEKO website in open access form. Selected papers will be recommended for further publication in journals (Measurement, Acta IMEKO, Measurement: Sensors, Measurement: Energy, etc.) as extended versions (substantively expanded, refined, or otherwise revised manuscripts).



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NIMTT



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TOPIC

➤ General Topics

General metrology, Industrial metrology, Measurement uncertainty, Written standards, Traceability, Quality system and metrology, Terminology, International cooperation, Dynamic measurements, Metrology Digitalization, Standard Reference Data, Education.

➤ TC3 Topics

- **Mass:** Mass standards and balances, New concepts in mass metrology, Redefinition of the mass unit, Density metrology for mass standards, Weighing instruments and load cells
- **Force:** Force standards, Force metrology, Force transducers, Force measurement in applications, Material testing machines
- **Torque:** Torque standards, Torque metrology, Torque transducers, Multicomponent torque measurement, Torque measurement in applications
- **Gravity:** Measurements of Gravity and Free-fall Accelerations, Absolute and Relative Gravimeters, Gravity Measurement in Geodesy and Geophysics
- **Dynamic measurements:** Dynamic measurement of mass, Dynamic force and torque measurement

➤ TC5 Topics

- Hardness measurement, Rockwell hardness scale, Brinell hardness scale, Vickers hardness scale, Leeb hardness scale, Shore hardness, IRHD, Instrumented indentation test, Hardness reference blocks, Hardness indenters, Hardness comparisons, New definitions for hardness scales, Traceability

➤ TC16 Topics

- Quantum realizations of pascal, Dynamic pressure measurements, Pressure standards, Vacuum standards, Mass spectrometry and primary leaks, Pressure and vacuum sensors, Recent, novel, and new advances in pressure and vacuum technology

➤ TC20 Topics

- Measurement of gaseous, liquid and solid fuels and fuel blends, including hydrogen, ammonia, SAF, marine fuel, biofuel, coal, biomass, metal powder, waste, etc.
- Diagnosis and monitoring of combustion devices, systems and processes, including IC engines, aero engines, gas turbines, blast furnaces, fluidized beds, incinerators, etc.
- Metrology and measurement of gaseous, particulate, other pollutant emissions and combustion products from all combustion devices, systems and processes
- Metrology and measurement of renewable energy sources, including solar energy materials, on-shore and off-shore wind turbines, hydropower and tidal wave systems, geothermal energy devices, etc.
- Monitoring and standard of fuel cells, batteries, energy storage materials, networked energy storage devices, energy harvesting devices and systems
- Metrology and measurement in CCUS, including flow metering, leakage detection, monitoring of storage sites
- Measurement and standards for power transmission, smart grids, gas distribution grids, energy networks, smart energy metering
- Measurement of energy efficiency of electrical machines, industrial plants, buildings, industrial and residential areas, smart cities

➤ TC22 Topics

- Precision measurement, Vibration sensors, Vibration measuring devices, Single and multi-axial vibration, Shock, Instrumentation for vibration measurement, Signal processing methods, Calibration, Calibration systems, Vibration calibration with digital sensors, Uncertainty of measurement, Written standards and regulations, Metrological aspects of applications, Dynamics of interacting systems, Dynamics of acceleration related quantities, Scientific and technical issues of intercomparisons, Promotion of technical cooperation



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TOPIC

➤ Dynamic Topics

- **Dynamic Calibration:** Dynamic calibration theory, Dynamic traceability method, Dynamic calibration device, Uncertainty evaluation
- **Dynamic Measurement:** Laser measurements, Digital measurement (Field, Digital Twin, Artificial Intelligence and so on), Laser measurement, Vision measurement, Other non-contact methods
- **Sensor Technology:** Optical fiber sensor, Quantum sensor, Intelligent sensor, Sensor network
- **Application of Dynamic Measurement:** Aeronautics and Astronautics, Manufacturing industry, Traffic, Robot, Disaster, Other fields

- Supported by

IMEKO TC3, TC5, TC16, TC20 and TC22

- Organized by



- Co - organized by



VENUE

Hangzhou is celebrated for its breathtaking natural landscapes, most notably the legendary West Lake. As a former imperial capital steeped in cultural grandeur, it boasts venerable temples, time-honored tea ceremonies, and a legacy of classical Chinese artistry.

In recent years, Hangzhou has blossomed into a beacon of innovation and technological advancement, spearheading China's digital evolution with trailblazing enterprises such as Alibaba, DeepSeek and a host of other visionary high-tech pioneers.

The conference will take place in the [Hangzhou International Conference Center](#), a magnificent venue situated along the scenic banks of the Qiantang River. Adorned primarily in a radiant golden hue, the building boasts an elegant spherical structure that evokes the image of a resplendent sun rising on the horizon, symbolizing brilliance and vitality.



More information:

<https://conferences.imeko.org/event/14/>

Contact us:

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