

Metromest

Digital Metrology Shaping the Future of Industrial Manufacturing

+++ 19 + 20 April 2023
Bilbao / SPAIN

www.metromeet.org

April 19 Abril

08:30 - 09:00

Registration + Coffee

09:00 - 11:30

KEYNOTE

Rethinking Manufacturing Resilience with Digital Transformation in Industrial Metrology

Toni Ventura-Traveset | Datapixel, Spain

11:30 - 12:00

Coffee Break

12:00 - 14:00 TRACK 1 · Metrology Standards for Industry 5.0: MBD, QIF and IDS

12:00 - 12:40 MBD in Action: Schneider Electric Use of MBD for Design and Quality
Narendra Akhadkar & Daniel Campbell | Schneider Electric, France & Capvidia, USA

12:40 - 13:20 The Quality Information Framework (QIF): current status and future directions
Edward Morse | University of North Carolina at Charlotte, USA

13:20 - 14:00 Using IDS framework to exchange metrological data
Oscar Lázaro | Innovalia Association, Spain

14:00 - 15:15

Lunch · Jauregia Restaurant

15:15 - 15:30

OPENING

15:30 - 16:50 TRACK 2 · Metrology and Robotics: From Kinematic Compensation to On-Demand Inspection

15:30 - 16:10 Development of software application for the off-line robot program compensation in 6 DoF (RoboKom)
Brahim Ahmed | Tekniker, Spain

16:10 - 16:50 Autonomous mobile robot for on-demand large-object inspection
Matthias Karl | Carl Zeiss AG, Germany

16:50 - 18:10 TRACK 3 · Digital Metrology Traceability: Digital Transformation of Calibration and Traceability Services

16:50 - 17:30 Redesign of metrological services towards the extension of traceability chain for industrial innovations and applications
Federico Grasso Toro | GRASSO TORO Digital Solutions, Germany

17:30 - 18:10 GEMIMEG-II: Digitalization of calibration processes in metrology
Thomas Engel | Siemens AG, Germany

20:30 - 23:00

Conference Banquet

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Registration

09:00 - 09:40

SPECIAL SESSION

When Metrologists start to talk with Simulation
Gerd Schwaderer | Volume Graphics GmbH, part of Hexagon, Germany

09:40 - 11:40 TRACK 4 · Metrology and Machine Tool: Advances in Machine Tool Verification and Machining Optimization

09:40 - 10:20 Virtual Metrology for Machining Applications
Dimitris Kyritsis | Professor of ICT for Sustainable Manufacturing, Switzerland

10:20 - 11:00 Verification of machining centers with metrological sw and artifacts
Ainhoa Etxabarri | Innovalia Metrology, Spain

11:00 - 11:40 Digital Twin applications for virtual metrology in milling manufacturing processes
Roberto Perez | GF Machining Solutions, Switzerland

11:40 - 12:10

Coffee Break

12:10 - 13:30 TRACK 5 · Metrology and Additive Manufacturing: CT Scanning and Quality Assessment

12:10 - 12:50 Quality assessment of the internal structure of additively manufactured aluminum parts by means of industrial computed tomography scanning
Ibon Holgado | (CFAA)-UPV/EHU, Spain

12:50 - 13:30 Metrological evaluation of 3D printed Poly(Lactic Acid) fixtures by Fused Deposition Modeling (FDM)
Pablo Antunes da Rosa | Boticario Group, Brazil

13:30 - 15:00

Lunch · Jauregia Restaurant

15:00 - 17:40 TRACK 6 · Techniques and Applications for Metrology Innovation

15:00 - 15:40 The importance of metrology support in big structure assembly
Andrea Pellegrino | GEATOP srl, Italy

15:40 - 16:20 Predicting Point-Wise Measurement Accuracy of Scanning Devices using XAI-based Approaches: Towards Metrology 4.0
Serafeim Moustakidis & Eleni Lavasa | CTO / AIDEAS OU, Estonia & Athena RC, Greece

16:20 - 17:00 Object pose estimation for stereo imaging using raycasting
Joe Eastwood | University of Nottingham, UK

17:00 - 17:40 Uncertainty in position measured with MEMS-type. Inertial Measurement Units
James Schipmann Eger | Federal University of Santa Catarina, Brazil

17:40 - 18:00

ROUND TABLE + CLOSING