

DEAR FRIENDS, DEAR COLLEAGUES,

A great start to the November issue, which introduces lots of successful IMEKO events, new Friends and Colleagues, the following sentence by young metrologist Vladyslav Katamai from Ukraine, participating at one of the IMEKO conferences:

"An IMEKO event is not just an event—it is something much more. It is a "place" where you are surrounded by the best people from all over the world—true professionals in their field. They are always open to dialogue, ready to give valuable professional advice, and eager to share something new and interesting."

In the November issue, the first article introduces the University of Science and Technology (UST) of Korea, where theory and practice are brought together under the same roof. Joonyoung Lee of UST is the featured young scientist on page 4 of the series "IMEKO goes to young scientists."

Beginning on page 6, an article titled "Ukrainian Young Metrologists Step onto the European Stage" will detail a unique project in Ukraine, featuring personal experiences from eight participants of the IMEKO conference who were involved in this initiative.

"Demystifying the Science of Measurement in Brazil" by Canal Metrologia (Metrology Canel), from page 10, is about three passionate friends who explain all about metrology in Brazil with heart and soul, and share their story of how and why they created Canal Metrologia.

We have hosted numerous excellent conferences since June, and we bring you the highlights from eight of these events, starting on page 14.

OUTGOING DISTINGUISHED TECHNICAL COMMITTEE CHAIRPERSONS



Prof. Jan Saliga, Chairperson of Technical Committee 4, dedicated to "Measurement of Electrical Quantities".



Prof. Davor Zvizdic, Chairperson of Technical Committee 12, dedicated to "Temperature and Thermal Measurements".



Dr. Ravi Fernandes, Chairperson of Technical Committee 20, dedicated to "Measurement of Energy and Related Quantities".

IMEKO appreciates your exceptional service, dedication, and commitment, and wishes you much success in your future endeavours.

INTRODUCING THE UNIVERSITY OF SCIENCE & TECHNOLOGY (UST), KOREA



UST: Pioneering a New Paradigm in Science and Technology Education

The University of Science and Technology (UST), led by President Dae-Im Kang, is Korea's only graduate university directly integrated with 30 government-funded research institutes.

Since its establishment in 2003, UST has evolved into a vibrant hub of advanced education and research, nurturing creative professionals who shape the future of science and technology.

Unlike traditional universities, UST provides students with direct access to large-scale national research facilities—from supercomputers, satellites, and radio telescopes to nuclear fusion devices, polar icebreakers, and deep-sea exploration vessels.

This field-oriented learning environment allows students to participate in real-world national R&D projects, while pursuing their degrees, ensuring that academic achievements lead to tangible contributions to society.

UST operates under four guiding principles, known as the 4C Core Values: Creativity, Convergence, Collaboration, and Challenge.

These values empower students to push boundaries, foster interdisciplinary cooperation, and address pressing global challenges through bold ideas and innovative solutions.

Unique Educational Features

Research-Driven Learning: All students participate in large-scale, government-funded R&D projects, gaining hands-on experience rarely available elsewhere.

Interdisciplinary Programs: With 44 majors across emerging fields such as artificial intelligence, quantum information, biotechnology, infectious diseases, and environmental science, UST prepares talent aligned with both industrial and societal needs.

World-Class Faculty: Over 1,600 Ph.D.-level faculty members guide and mentor students, creating a near 1:1 faculty-to-student ratio.

Global Network: Partnering with 76 universities and institutions worldwide, UST provides joint research, student exchanges, and overseas training opportunities.

Comprehensive Support: Students receive monthly stipends, research assistantships, insurance coverage, and career development support, ensuring they can focus fully on study and research.

Nurturing Global Leaders

Currently, UST enrolls 1,583 students, of which more than 32% are international students. Certified under Korea's International Education Quality Assurance System (IEQAS), UST is recognized for its excellence in global education.

To date, UST has produced nearly 4,000 graduates, many of whom now serve as leading researchers at national institutes, and faculties at major universities, and innovators in top global industries. Among them, approximately 1,200 are international students from 28 countries.

Alumni achievements include leadership in AI-driven communication systems, sustainable energy research, biotechnology entrepreneurship, and international university leadership — proving UST's impact far beyond Korea's borders.

New Management Goals for the Future

UST's mission is to cultivate the next generation of scientific pioneers capable of addressing complex global challenges.

INTRODUCING THE UNIVERSITY OF SCIENCE & TECHNOLOGY (UST), KOREA

Its vision is to become the world's No.1 national research institute-based university, producing value-creating global researchers.



(In the picture, the headquarters of UST.)

In February 2025, Dr. Dae-Im Kang, former President of IMEKO (2009-2012) and former President of Korea Research Institute of Standards and Science (KRISS, 2011-2014), was inaugurated as the 6th President of the University of Science and Technology (UST).

Upon his inauguration, he unveiled a new management vision: "Fostering Global Talents for Value Creation".

To realize this vision, UST has outlined five key strategic directions:

Promoting student entrepreneurship based on advanced technologies from government-funded research institutes to drive innovation and value creation.

Expanding AI literacy and application training to cultivate sovereign AI experts and interdisciplinary AI convergence specialists.

Systematizing humanities education to nurture value-driven leaders who integrate humanistic insight with scientific excellence.

Enhancing global competency by expanding opportunities for international research collaboration, conferences, and mentoring with world-renowned scholars.

Empowering students with a full-cycle research leadership experience from project planning to commercialization.

KRISS School: The Core of Precision Measurement and Metrology Education

Among UST's member institutes, the Korea Research Institute of Standards and Science (KRISS) serves as a key institution dedicated to establishing and advancing measurement standards that form the foundation of national innovation and industrial competitiveness.

The KRISS School, one of UST's schools, offers specialized graduate programs in Precision Measurement Science and Precision Measurement Engineering. Currently, the school has approximately 70 students enrolled and 80 faculty members, and it has produced over 210 graduates from 15 countries, contributing to the global advancement of precision measurement research and technology.

Graduates of the KRISS School have built distinguished careers at Samsung Electronics, Samsung Electro-Mechanics, LG Innotek, LG Display, and major research organizations.

They contribute significantly to the advancement of national measurement standards, quantum metrology, and cutting-edge precision measurement technologies, strengthening Korea's presence in the global metrology community.

Shaping a Sustainable Future

UST's commitment extends beyond research excellence. The university emphasizes social responsibility and sustainability, ensuring that its graduates are outstanding scientists and responsible leaders who contribute to solving global challenges—from environmental crises to technological inequalities.

By integrating advanced research, interdisciplinary collaboration, and international engagement, UST stands as a model for how higher education can actively contribute to a more sustainable and innovative world.

IMEKO GOES TO YOUNG SCIENTISTS

Opening New Paths with Artificial Intelligence in Precision Measurement

By Joonyoung Lee, University of Science and Technology (UST)-Korea Research Institute of Standards and Science (KRISS) School



Research on thin film thickness and refractive index measurement plays a crucial role in industries such as semiconductors, displays, and batteries. During my time as an integrated M.S.-Ph.D. student at the UST-KRISS School, I undertook

a study entitled “Measurement of Thin Film Thickness and Refractive Index Using Artificial Neural Networks”.

This work, later published as a lead-author paper in *Metrologia*—the world’s leading journal in measurement science—was recognized as the first study to establish a metrological framework using neural networks. The reviewers praised the research as creative, pioneering, and reliable, acknowledging that Artificial Intelligence could indeed be trusted as a tool in precision metrology.

While machine learning algorithms had previously been applied to thin film analysis, few had undergone rigorous, quantitative validation. What distinguished my work was the comprehensive uncertainty analysis, performed according to international traceability standards under the Bureau International des Poids et Mesures (BIPM). This not only strengthened scientific credibility but also demonstrated how AI can be integrated into the global system of measurement standards.

My Path to Precision Measurement

Looking back, my journey into precision measurement was far from straightforward. As an undergraduate, I initially had no particular interest in metrology.

My path changed when I joined a laboratory focused on superconducting qubits. To control qubits, measurement was indispensable, and through this work, I realized how fundamental precise measurement is to every field of science and technology.

When I decided to pursue graduate studies, I discovered that the laboratory I aspired to join belonged to a national research institute. This meant that the only viable path forward was through the UST, which integrates graduate education directly with Korea’s government-funded research institutes. Thanks to this system, I was able to enter the KRISS laboratory and begin my research career.

Challenges Along the Way

The journey, however, was not without setbacks. In my early semesters, I struggled to adapt. Though I could handle experimental equipment, I lacked a deep theoretical understanding. Furthermore, the lab’s focus on device fabrication was drifting away from my own interests in algorithms and data analysis. After much deliberation, I took a leave of absence—one of the most difficult decisions of my life.

In retrospect, that decision became a turning point. It eventually led me to the Multiscale Length Measurement Laboratory at KRISS, under the guidance of Professor Jonghan Jin, a leading expert in optical measurement. This shift realigned my interests with the right environment and set the stage for my later achievements.

Learning from Mentorship

Professor Jin became more than a supervisor—he became a model of how to approach science. His teaching philosophy was clear: “If you cannot explain something simply, you do not truly understand it.” In his lectures and guidance, he emphasized clarity over jargon, structure over complication. This had a profound impact on me. I learned to refine not only my explanations but also my thought processes and experimental designs.

IMEKO GOES TO YOUNG SCIENTISTS

The positive feedback from reviewers on the readability and structure of my Metrologia paper reflected this influence directly.



(In the picture, Professor Jin and I.)

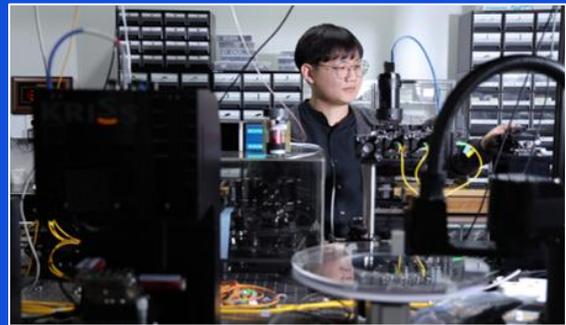
Graduation and New Challenges

In 2024, I proudly earned my Ph.D. in precision measurement from UST. The years at UST-KRISS transformed me into both a measurement scientist and a problem-solver. My research demonstrated that AI could play a credible role in the field of measurement standards, opening new pathways for integrating emerging technologies into traditional sciences.

Currently, I work as a researcher at Meter-Lab Inc., where I conduct research on advanced optical measurement technologies, including spectroscopic interferometry. True to our company's motto, "Trust in measurement", I am dedicated to developing technologies where measurement itself becomes synonymous with trust. Collaborating with exceptional colleagues in the field of optical metrology, I am learning how to enhance measurement accuracy and reproducibility based on spectroscopic interferometry techniques, while meeting the practical demands of industrial applications.

Looking ahead, I aim to develop optical measurement techniques that can accurately determine physical thickness even under non-ideal conditions, such as surface roughness or material non-uniformity. AI will serve as a valuable tool for interpreting such complex measurement data.

In the long term, I hope to build systems capable of precisely measuring new materials with unknown refractive indices and multilayer structures.



(In the picture, I am conducting thin-film measurement experiments at the KRISS lab.)

Envisioning the Future of Measurement Science Together

For me, measurement is the foundation of all science and technology. Without accurate measurement, no technological advancement is possible. Particularly in advanced industries like semiconductors and displays, nanometer-level precision measurement is becoming increasingly critical. I believe AI-empowered spectroscopic interferometry will expand the boundaries of what can be measured, and thus, what can be achieved.

I hope that my journey shows how setbacks can become paths to new opportunities. Beyond AI or thin films, it is a story about persistence, mentorship, and the transformative opportunities that UST has provided.

As I look toward the future, I am determined to continue exploring the convergence of disciplines where AI, physics, and engineering meet to open new paths in science and technology.

IMEKO thanks Joonyoung Lee, UST, and KRISS for collaborating on these two articles for the IMEKO Newsletter.

UKRAINIAN YOUNG METROLOGISTS STEP ONTO THE EUROPEAN STAGE



(In the picture from left, Andrii Vasyliiev, Vladyslav Katamai, Yaroslava Volynska, Volodymyr Myslytskyi, Denys Kepeshchuk, Dmytro Kapitanchuk, Ivan Strilets, Maksym Plaskach.)

In the midst of ongoing challenges, a new generation of Ukrainian metrologists is demonstrating that science and resilience are inextricably linked. What started as a national idea to motivate and connect young professionals has grown into a bridge between Ukraine and the international metrology community.

From a National Idea to a European Platform

The European Competition of the Best Young Metrologists in Ukraine was launched in 2024 under the project "Quality Standards for Increased Trade in the Eastern Partnership Countries", implemented by the Physikalisch-Technische Bundesanstalt (PTB) and funded by Germany's Federal Ministry for Economic Cooperation and Development (BMZ).

Initiated by Moritz Ackermann, PTB Coordinator for metrology cooperation with Ukraine, the competition was designed to give visibility to young specialists and foster an inspiring community.

"We wanted to show that their work matters and that they belong to the international metrology family", said Julia Bliusovych, National Project Coordinator, Ukraine.

The first edition took place in June 2024 in Ivano-Frankivsk, supported by PTB, the Ministry of Economy of Ukraine, and SE "Ivano-FrankivskStandartMetrology."

The second edition followed in June 2025, with participants later attending the IMEKO Joint Conference of TC8, TC11, and TC24 in Torino. The hybrid format of the competition allowed on-site presentations in English and online evaluation by a Selection Committee of European NMI experts, reaching a broad audience through live streaming.

Challenge and Resilience

For young Ukrainian metrologists, professional life today is a statement of resistance under the daily obstacles of the devastating war. Young metrologists demonstrate an overwhelming energy and creativity to shape their future. Reconstruction, renewable energy, and industrial modernization are creating demand for measurement expertise.

International cooperation and EU integration open doors for learning and innovation. Many young specialists are exploring digital metrology, data-driven calibration, and measurement solutions for the green transition. With support from PTB, IMEKO, and EURAMET, they gain training, mentorship, and international recognition.

At IMEKO 2025

In September 2025, eight Ukrainian participants presented their research at the IMEKO Joint Conference in Torino. Their studies ranged from calibration of steam sterilizers and gas meters to femtosecond laser resonance and optical base enhancement of the national length standard. A special session, "Young Metrologists from Ukraine", moderated by Moritz Ackermann, showcased their professionalism and passion, clear proof that Ukrainian metrology's future is bright, even in difficult times.

Co-authored and managed by Moritz Ackermann, Head of the sub-section "Institutional Partnerships", coordinating the cooperation of PTB with Ukraine since 2018, and Julia Bliusovych, who has been acting as PTB's national coordinator in Ukraine since 2018.

UKRAINIAN YOUNG METROLOGISTS STEP ONTO THE EUROPEAN STAGE

Introducing the Young Metrologists from Ukraine

Yaroslava Volynska,
SE "UKRMETRTESTSTANDARD"

I am Deputy Director for Scientific Activities in Kyiv, Ukraine. I



embarked on my journey in metrology in 2013 after earning a master's degree in Precision Mechanics Devices and Systems from Kyiv Polytechnic Institute. My area of

expertise is liquid flow metrology, particularly in the calibration, verification, and conformity assessment of measurement instruments. Since 2019, I have been responsible for safeguarding the National Primary Standard of Ukraine for volume, mass, and volumetric and mass flow of water. My research is focused on enhancing the accuracy and long-term reliability of this standard, as well as establishing traceability pathways within this field of metrology.

The IMEKO TC8-TC11-TC24 Joint Conference increased my awareness of global processes, new solutions, and research developments in metrology. It allowed me to meet experts from various metrology institutions worldwide.

Dmytro Kapitanchuk
SE "UKRMETRTESTSTANDARD"



I studied at Igor Sikorsky Kyiv Polytechnic Institute and earned a master's in metrology and information measurement technology. I have been working as a Junior Research

Fellow since 2019. I am engaged in verifying and calibrating gas meters and installations, developing test equipment, and assessing the conformity of measuring instruments.

My interests in metrology include the improvement of verification and calibration at low gas consumption, uncertainty budget, and its reduction.

The high level of organization of the conference and the insightful presentations of its participants left me with a very positive impression. It was an honour to present the results of my own work to these experts, which proved to be a valuable professional achievement and a stimulus for further development. The visit to INRiM was especially enriching, and it allowed me to observe highly skilled specialists at work, explore state-of-the-art scientific equipment, and acquire valuable skills.

Vladyslav Katamai
SE "Ivano-Frankivskstandartmetrology"



I hold a master's degree in Metrology and Information Measurement Technology from the Ivano-Frankivsk National Technical University of Oil and Gas.

Since 2023, I have worked as a Metrology Engineer (Category II). My professional activities include verification and calibration of gas meters and calibration installations, as well as participation in the development of new testing and calibration systems. I am also involved in scientific work, preparing research articles, and taking part in scientific conferences. My main interests in metrology include improving verification methods and developing a test installation for gas meter verification under pressure conditions.

IMEKO event is not just an event—it is something much more. It is a place where you are surrounded by the best people from all over the world—true professionals in their field. They are always open to dialogue, ready to give valuable professional advice, and eager to share something new and interesting.

UKRAINIAN YOUNG METROLOGISTS STEP ONTO THE EUROPEAN STAGE

For me, it was the best and most fascinating event I have ever taken part in.

Denys Kepeshchuk

SE "Ivano-FrankivskStandartMetrology"



I verify and calibrate gas meters of various types and calibration standards nationwide. I really enjoyed participating in the IMEKO conference, and the experience and impressions will remain with me for the

rest of my life. Especially, I was pleasantly surprised by the numerous presentations on various topics. Thank you for giving young engineers the opportunity to participate in major events.

Volodymyr Myslytskyi

SE "Ivano-FrankivskStandartMetrology"

I have been working as a Metrology Engineer since January 2021, verifying and calibrating measuring instruments in mass and temperature measurements. In addition, as a Quality Manager, I am responsible for the laboratory's compliance with the ISO/IEC 17025 requirements. Currently, I am studying the possibility of expanding our laboratory's accreditation scope to include the calibration



of climatic chambers for relative humidity. What interests me most – both in metrology and life – is broadening my horizons, learning new things, and sharing them with colleagues.

I attended my first international conference this year, the IMEKO Joint Conference in Turin, Italy. The organization of the conference, the topics of the presentations, and the discussions during the event left a very positive impression on me – no less than the beauty and cuisine of Italy itself.

Maksym Plaskach

JSC "Ukrtransgaz"

I've been working at JSC Ukrtransgaz for more than 14 years. I began my career in industrial automation and have spent the last six years



in metrology, specifically focusing on gas measurement systems. My master's degree is in Oil and Gas Transport and Storage. My primary interest lies in measurement accuracy,

digital solutions in gas metering, and all aspects that contribute to improving technical processes. I enjoy participating in events where I can share my experience and learn something new. I truly enjoyed everything about this conference, the high level of organization, the communication with colleagues from different countries, the venue, and the overall atmosphere. It was my first conference where I gave a presentation, and I'm really glad it was with IMEKO. In my opinion, Italy is the perfect place to get acquainted with the world of scientific metrology.

Ivan Strilets

NSC "Institute of Metrology"



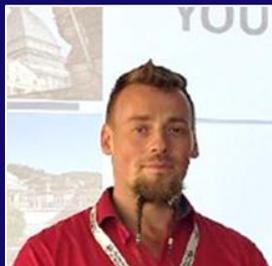
I work as an Engineer. I hold a master's degree with honours from the Kharkiv National University of Radio Electronics. My professional work focuses on time and frequency standards, calibration, and

verification of measuring instruments, as well as research in optical and interferometric measurement techniques. I am particularly interested in improving the accuracy of optical measurements and developing methods for enhancing the national length standard.

The IMEKO event was a valuable experience that broadened my understanding of global metrology trends.

UKRAINIAN YOUNG METROLOGISTS STEP ONTO THE EUROPEAN STAGE

Andrii Vasyliiev
NSC "Institute of Metrology"



I work as an Engineer at the NSC "Institute of Metrology" in the Department of the National Primary Standard of the Unit of Length (meter). My professional activity is related to the metrological assurance of length measurements, the study of the stability and accuracy of laser radiation sources, and the development and improvement of **laser ranging** methods.

In parallel, I am pursuing my PhD studies and working as a junior researcher at the NSC "Kharkiv Institute of Physics and Technology", where I am engaged in the development and optimization of titanium-sapphire terawatt laser systems and research in the field of **laser-driven particle acceleration** in dielectric structures.

My scientific interests include optical measurement metrology, laser ranging, realization and dissemination of the unit of length, laser frequency stabilization, optical system calibration, and the development of high-precision photonic instrumentation for fundamental and applied research.

IMEKO has become a source of inspiration and valuable knowledge for me. I was delighted to meet a large number of specialists from different fields and found it very useful and fascinating to observe the diverse areas of photonics research conducted at INRiM. I am grateful for the opportunity to exchange ideas with experts worldwide and to see how our collective efforts advance the science of precision measurements.

IMEKO TC23 8th Foods

On 22–24 September 2025, in Ljubljana, Slovenia, the IMEKO conference "Food Safety and Metrology for a Sustainable Future" also welcomed two young Ukrainian Metrologists, who had the same opportunity as their colleagues visiting the conference in Torino.

Olena Shcherbakova
SE "UKRMETRTESTSTANDARD"



I work in Kyiv, in a laboratory that manufactures certified reference materials. By participating in the **IMEKOFOODS** Conference in Ljubljana, I wanted to share my knowledge

and gain new experience from the works heard and seen, presented by the conference participants. Most of the work was devoted to environmental problems. I presented the method of additives during the study of grain moisture. I saw how warmly we were greeted by representatives from different countries. We talked about the experiments we had conducted with each other and exchanged addresses. I want to thank the organizers and all those involved in this conference. You have done a tremendous job.

Dmytro Chupis
SE "UKRMETRTESTSTANDARD"



I serve as the Head of the Physical and Chemical Measurements Laboratory, where I handle high-precision measurements, verification, calibration, and conformity assessment

in accordance with technical regulations for physical and chemical measurements, as well as agricultural and medical analyzers. This includes the development of measurement methods and interlaboratory comparisons. I took part in creating the national standard of the kinematic viscosity unit of Ukraine, and I am its scientific keeper. I represent my institute in the European Metrology Network for Safe and Sustainable Food. At the conference, I met in person my colleagues, with whom I had previously communicated only by email or Zoom. It was a valuable experience for me.

CANAL METROLOGIA (METROLOGY CHANNEL): DEMYSTIFYING THE SCIENCE OF MEASUREMENT IN BRAZIL



(In the picture, the team of Canal Metrologia, from left: Cresivando Fernandes, Júlio César de Farias Gonçalo, and the writer Marlon J Martins.)

Introduction: The Passion Driving Precision

In the scenario of scientific, technological, and economic development, metrology is the invisible foundation that ensures reliability in our daily lives. However, despite its critical importance, access to clear, direct information on the topic in the digital environment is still scarce. The Canal Metrologia (Metrology Channel) was conceived to fill this gap and ignite curiosity about the Science of Measurement. What began as a convergence of individual passions for technical knowledge has today become a benchmark platform in Brazil, dedicated to transforming complex concepts into accessible content for professionals, students, and enthusiasts. This is the story of how the shared vision of three enthusiasts (Cresivando, Julio, and the writer) gave life to a project that celebrates precision and vocation.

1. The Genesis of an Idea: Why We Started

Every relevant initiative is born from an inspiration and a desire to go further. For Canal Metrologia, the initial spark came from the dedication of one of its co-founders, Cresivando Fernandes, in Alagoas. His passion for the Science of Measurement was forged during his achievement as a Gold Medalist in the National Skills Competition organized in Brazil.

Also known as Olimpíada do Conhecimento, in the Dimensional Metrology area. During the intense training for the event, Cresivando identified a critical gap: the scarcity of quality material on complex topics such as Measurement Uncertainty available on the internet. Driven by this discovery, he began producing and sharing videos, starting with general metrology and addressing the more complex topics where the lack of material was critical, initiating what would become the Canal Metrologia on YouTube in 2016.

In parallel, in São Paulo, my passion for the podcast format, which I have followed as an enthusiast since 2011, led me to produce an episode dedicated to metrology. This single episode was the connection point between our trajectories. The union was immediate in 2017 and forged by a mutual understanding: there was a real need to create a consistent and multimedia space dedicated to metrology.

Cresivando suggested the name “Canal Metrologia” and maintained the visual identity that charmed me: a yellow ruler on a blue background, whose scale formed the word Metrologia. Together, we consolidated the partnership and transformed the idea into a robust platform that, over the years, expanded its reach to cover a website, articles, podcasts, and videos.

We invited Júlio César de Farias Gonçalo to join our mission shortly after the platform's creation. Júlio, who has complementary expertise and is also from Alagoas, and a friend of Cresivando, joined the team to contribute to the project, thus establishing an efficient and focused content structure.

2. Foundations and Structure: Sustaining the Channel

Our team's complementary experiences and backgrounds sustain the credibility and longevity of Canal Metrologia.

CANAL METROLOGIA (METROLOGY CHANNEL): DEMYSTIFYING THE SCIENCE OF MEASUREMENT IN BRAZIL

This synergy ensures that the content is theoretically correct, applicable, and relevant to the market.

My Background and Technical Credibility (Marlon J Martins)

With over 19 years of experience dedicated to the science of measurement, my technical and professional background serves as the pillar of excellence for the Channel. I currently work as a Technical Manager at Laftec's Group (Laftec - Calibration and Maintenance of Measuring and Testing Instruments). I am an authorized CGCRE signatory (General Coordination for Accreditation), a position that imposes the highest standard in metrological confirmation processes and quality management. My specialization is broad and deep, covering:

- Calibration and measurement in various quantities (Dimensional, Pressure, Temperature, Force, Torque).
- Quality management based on rigorous standards such as ABNT NBR ISO IEC 17025 and 9001.
- Development of customized technical solutions for crucial sectors such as the Automotive, Pharmaceutical, and Petrochemical industries.

With a background that combines Metrology, Physics, and Mathematics with vast practical experience, I tirelessly seek to contribute to raising the standard of measurements in Brazil. In the Channel, my passion for the format led me to take the lead in producing podcasts, using this medium to unfold in-depth and didactic conversations about the science that guarantees reliability.

The Complementarity of the Team

The effectiveness of Canal Metrologia lies in the structure we created, where we use our expertise to optimize content production.



(In the picture, Cresivando Fernandes is celebrating his gold medal victory.)

Cresivando Fernandes - Content Focus: Videos

Visionary and creator of the initial idea, he is a Gold Medalist in the National Skills Competition organized within Brazil (also known as "Olimpiada do Conhecimento", in the Dimensional Metrology area). He works as an Operations Technician with experience in the energy and biotechnology industries (Petrobras, Vibra Energia, GranBio). He has a degree in Mechatronics Engineering and leads the visual content (YouTube, since 2016).



(In the picture, Júlio César de Farias Gonçalves, team member, also a gold medalist of the National Skill Competition.)

Júlio César - Articles

Industrial professional with an Associate Degree in Industrial Production, a Technical Degree in Electroelectronics, and Industrial

CANAL METROLOGIA (METROLOGY CHANNEL): DEMYSTIFYING THE SCIENCE OF MEASUREMENT IN BRAZIL

Instrumentation and Industrial Automation. Gold Medalist in the National Skills Competition organized within Brazil (also known as Olimpíada do Conhecimento) (2010), in the Instrumentation and Process Control modality. He brings experience as a Technical Instructor at SENAI (Brazil's National Service for Industrial Training) and in critical operations at Petrobras and Braskem, focusing on articles on operational efficiency and innovation.



(In the picture, Marlon J Martins.)

Marlon J Martins - Podcasts

I have a strong technical and scientific knowledge foundation, with degrees in Mathematics, specializations in Physics and Metrology/Quality, and technical training in Electronics and Metrology. I work as a postgraduate instructor and consultant, applying theoretical concepts to practical challenges in both educational and industrial settings. In addition to teaching and consulting, I lead the production of educational podcasts, where I transform complex standards and technical content into accessible and engaging audio formats. My ability to integrate knowledge from mathematics, physics, engineering, and quality systems reflects my interdisciplinary approach and my commitment to clear and effective science communication.

This division of labor ensures that Canal Metrologia is a diversified source of knowledge, reaching different audiences through articles, podcasts, and videos.

It is all concentrated on our website, YouTube, and multiple podcast platforms (like Spotify, Apple Podcasts, Amazon Music, etc).

3. The Purpose and Ambition: What We Want to Achieve

Canal Metrologia is more than just a website; it is a movement dedicated to the dissemination of knowledge. Our purpose is clear and unequivocal: to discuss and share, simply and directly, what is happening around the Science of Measurement.

The Mission and Impact

Canal Metrologia arose from the need to disseminate technical measurement concepts, explain the importance of international standards ABNT NBR (ISO/IEC 17025), and show how accuracy impacts various sectors (from daily life to industry). With this, we built an accessible space for students, professionals, and the curious. Open to acting as a benchmark platform in Brazil, our primary intention is:

- **Sparking curiosity:** Making more people (from the experienced professional to the layperson) interested in the importance of correct measurement;
- **Contributing to Scientific Knowledge:** Offering a little something in the search for knowledge, making complex technical concepts accessible;
- **Promoting a Metrological Culture:** Actively contributing to Brazil's raising its measurement standard, positively impacting the national production chain.

Content and Topics Covered

Our range of topics is vast, making the concepts of measurement science accessible, from the history of the metric system to advanced topics such as traceability and new calibration technologies:

CANAL METROLOGIA (METROLOGY CHANNEL): DEMYSTIFYING THE SCIENCE OF MEASUREMENT IN BRAZIL

- **Videos:** Cresivando provides explanatory videos about the history of measurements, classic procedures that defined the meter, and modern approaches to the redefinition of the International System of Units (SI);
- **Podcasts:** I produce monthly programs on current topics, technological trends, news in professional training, and interviews with experts in the field;
- **Articles:** Júlio publishes didactic articles that include practical examples and explanations about metrological traceability, parallax errors, visits to technical fairs, and experiences in laboratories.

During the pandemic period, Canal Metrologia demonstrated its relevance by rapidly adapting to the digital format and promoting various "*lives*" with professionals in the sector. Two events stood out as the "*Super Lives*", exceeding 5 hours in duration each. The first had seven guests, the best metrology specialists in the country. The second, focused on "Metrology for Health", featured the participation of five guests, metrologists directly involved in vaccine and biosafety issues, to share vital knowledge with the audience.

Historical Highlights: The Channel actively seeks to explain the context and evolution of metrology, with content that includes:

- Detailed explanations of how the meter was defined based on the measurements carried out by Delambre and Méchain in 18th-century France;
- Discussion about the motivations and challenges faced in the international standardization of measurement units, including the impacts of the French Revolution and the role of science in social organization;
- Analysis of redefinitions of SI units and celebrating significant events such as National Metrologist Day and World Metrology Day in Brazil.

The Relevance of Shared Metrology

The work we carry out is a way of valuing and disseminating a science that is fundamental for scientific, technological, and economic development. Metrology is what enables the reliability, safety, efficiency, and innovation of the products and services we use daily. The constant use of the **#metrologia** hashtag in our communications serves as a reminder of this crucial importance. For the founders, Canal Metrologia is the expression of our passion and vocation, seeking to make a tangible difference in how the Science of Measurement is understood and applied.

Conclusion: Reliability in Focus

Canal Metrologia is the materialization of a commitment to excellence, education, and the democratization of knowledge. Led by a team that combines vast practical experience and solid technical training, the Channel will continue to be a reliable and accessible source of content, fulfilling its mission to demystify the Science of Measurement. With the dream of taking our content beyond national borders, the Channel's future ambition is to expand into other languages, such as Spanish and English. We are eager to expand our contribution and interact with the global metrology community represented by IMEKO.

Canal Metrologia & Content Platforms:



Website: [Canal Metrologia](#)
 YouTube: [Canal Metrologia](#)
 Podcast: [Canal Metrologia](#)

Team LinkedIn Profiles:
[Marlon Martins](#),
[Cresivando Fernandes](#)
[Júlio César de Farias Gonçalves](#)

Written by Marlon J Martins.

PHOTOMET 2025, SHAPING THE FUTURE OF PHOTONIC METROLOGY
 IMEKO TC2 INTERNATIONAL SYMPOSIUM ON MODERN PHOTONIC METROLOGY



PhotoMet 2025 took place in Italy's iconic Motor Valley, between 1-3 September 2025, in Modena, Italy, an internationally recognized hub of technological excellence and innovation, providing a unique backdrop for exploring the intersection of cutting-edge metrology and real-world industrial applications. The event brought together researchers, engineers, and industry professionals to explore the latest advancements in metrology and their impact across various domains, including automotive, healthcare, manufacturing, and environmental monitoring.

The conference program featured plenary sessions by leading experts, technical tracks, and special thematic sessions. Topics included innovations in photonic metrology, advancements in optical sensing, and the integration of optics in next-generation industrial applications.

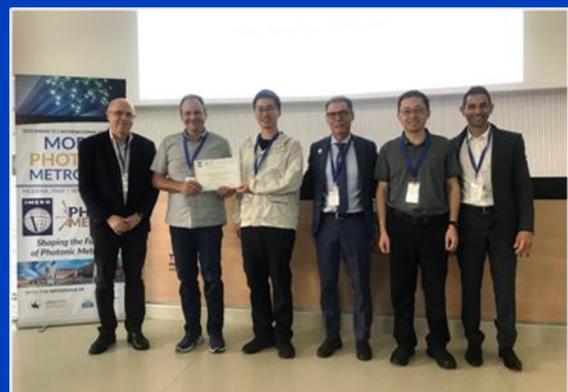
The three-day event attracted more than 50 participants, with technical sessions focusing on key current topics in the field of measurements applied to photonics.

The program included an engaging round-table discussion, entitled "Optical Metrology: Wide-Scale Potential and Future Trends".

It featured experts from the industrial sector representing major automotive companies of the Motor Valley. PhotoMet 2025 concluded with a technical visit to Ferrari S.p.A.

All papers presented at PhotoMet 2025 were of outstanding scientific quality. Among these excellent contributions, the Best Paper Award was given for the work "Dual Comb Ranging: Methodologies, Systems and Applications", by Guan hao Wu, Liheng Shi, Tsinghua University.

PhotoMet 2025 successfully achieved its objectives, providing an excellent platform for exchanging knowledge and experiences in photonic metrology. The scientific quality of the contributions and the active participation of both academic and industrial representatives confirmed the strong relevance of the topics addressed. The event demonstrated a high level of scientific excellence, setting a solid foundation for future IMEKO TC2 events in photonic metrology.



*(In the picture from the left, Armando Albertazzi, Maik Rosenberger, Liheng Shi, Luigi Rovati, Guan hao Wu, Stefano Cattini.)
 Written by Luigi Rovati, TC2 Chairperson.*

M4DConf25 - THE 2nd INTERNATIONAL CONFERENCE ON METROLOGY AND DIGITAL TRANSFORMATION



(Attendees enjoying a break at the very well-attended M4D conference, Benevento, Italy at the Complesso Sant'Agostino.)

The IMEKO TC6 International Conference on Metrology and Digital Transformation (M4DConf) represents an international meeting place of the world of research in the field of metrology for digital transformation. The conference took place between 3-5 September in Benevento, Italy.

The M4DConf involves national and international institutions and academia in their discussions on state-of-the-art issues that require a joint approach by experts of metrology, measurement, instrumentation, and industrial testing.

This year, the program was designed to raise the interest of a wide group of researchers, operators, and decision-makers from the fields of metrology and digital transformation by presenting the most innovative solutions in this field from a scientific and technological point of view. In addition to regular papers, many initiatives and opportunities, such as special sessions, exhibits, tutorials, demos, student contests, journal papers, and others, made M4DConf 2025 a vibrant event to meet with people in instrumentation, measurement, and digital transformation.



(In the picture from left to right, Dr. Ioan Tudosa, Prof. Frank Härtig, and Dr. Sascha Eichstädt.)

With 9 Special Sessions and 72 accepted papers from 265 authors coming from 36 countries of 5 continents, this TC6 event clearly demonstrated the international interest in the topic of digitalization. Three internationally renowned keynote speakers, Prof. Frank Härtig, Dr. Sundeep Bhandari, and Prof. Luca Mari, complemented the scientific program with their digital transformation and metrology expertise.

Hosted by the University of Sannio in the beautiful city of Benevento, in the heart of Italy, the on-site attendees enjoyed the Complesso Sant'Agostino, an Augustinian convent dating back to the 13th century. In addition, the conference enabled online attendance in all sessions and panel discussions for participants who could not attend in person.

Over the last few years, TC6 has been able to establish a network of organizations supporting the M4DConf. This year, several national metrology institutes, industry associations, and international organizations in quality infrastructure acted as patrons of the event.

M4DConf25 - THE 2nd INTERNATIONAL CONFERENCE ON METROLOGY AND DIGITAL TRANSFORMATION



The Italian Istituto Nazionale di Ricerca Metrologica INRIM, as well as the association Gruppo Utenti Function Point Italia GUFPI-ISMA, sponsored the M4DConf 2025.

Digital transformation in metrology is a topic of growing complexity. Scientific exchange for identifying common challenges and sharing experiences is the prerequisite for the harmonisation of technological developments. Recent developments on digital certificates, sensor network metrology, and digital tools for processes and infrastructures were presented in several presentations. The presented papers combined developments in semantics, the Internet of Things (IoT), IT infrastructures, machine learning, and several other topics. The discussions during the coffee and lunch breaks in the conference venue picked up where the sessions had to end due to a tight schedule.

Existing collaborations and networks were strengthened, and several new ones were established.

Therefore, clearly, the M4DConf 2025 will last longer than the three days we had in Italy.



Written by Sascha Eichstädt, TC6 Chairperson.

TEST AND MEASUREMENT CONFERENCE 2025 WITH TC7 & TC13



(In the picture from left, Elisabeth Costa Monteiro, João A. Sousa, Steve Sidney, and John Wilson.)

On the 45th anniversary of the Test & Measurement International Conference & Workshop and the 150th anniversary of the Metre Convention and the creation of the BIPM, the National Laboratory Association (NLA) of South Africa joined forces with the International Measurement Confederation (IMEKO), through two of its Technical Committees, TC7 (Measurement Science) and TC13 (Measurements in Biology and Medicine), to celebrate 45 years of solving measurement challenges and bringing the measurement community together.

This partnership aimed to address new challenges in measurement within a multi-, inter-, and transdisciplinary forum, thereby promoting scientific debate across various segments within the wide range of applicability in measurement and instrumentation.

The Chairpersons of these Technical Committees, João A. Sousa, TC7, and Elisabeth Costa Monteiro, TC13, also Vice Chairperson of TC7 and IMEKO Vice President for Development, served as invited speakers at the event, which took place in Pretoria, South Africa, between 15-17 September.

Thanks to John Wilson (NLA Chairman) and Steve Sidney (NLA Executive Director), and with the support of the National Metrology Institute of South Africa (NMISA), the conference was a great success, attracting approximately 300 attendees from various countries. The following plenary sessions were delivered during the conference:

- On 15 September, "150 Years of the Evolution of Metrology in Health: An Overview from the Metre Convention (1875) to Today (2025)", by Elisabeth Costa Monteiro;
- On 16 September, "Measurement Uncertainty Evaluation: The Limits of the GUM and Alternative Methods", by João A. Sousa;
- On 17 September, "International Measurement Confederation (IMEKO): Historical Background and Future Prospects", by Elisabeth Costa Monteiro.

This conference, hosted in South Africa, contributes to the purpose of promoting metrology and IMEKO globally, extending its reach beyond Europe. This endeavour laid the groundwork for future collaborations with various organisations that participated in the event, representing different fields of science.



Written by João A. Sousa, TC7 Chairperson.

THE 2025 IMEKO TC8-TC11-TC24 JOINT CONFERENCE IN TORINO, ITALY



Between 14-17 September, the city of Torino (Italy) hosted the 2025 IMEKO TC8-TC11-TC24 Joint Conference. The conference was organised by INRiM (National Metrology Institute of Italy) and Politecnico di Torino (one of Italy's most important technical universities). The IMEKO TC8 "Traceability in Metrology", TC11 "Measurement in Testing, Inspection and Certification", and TC24 "Chemical Measurements" were supported in the organisation by EUROLAB and ASSOTIC (the Italian Association of Conformity Assessment Bodies). The conference received the patronage of Accredia and Eurachem, which actively supported the event's promotion and contributed to its scientific program.

The IMEKO TC8-TC11-TC24 Joint Conference has been constantly growing in recent years, attracting an increasing interest from academics and professionals working in the field of instrumentation and measurement. This year, the scientific program featured 3 keynote presentations and 13 technical oral sessions over three days, and an insightful poster session. The event was attended by almost 100 participants from 27 different countries

from Europe, Asia, Africa, and South America. The topics addressed during the session were extensive: Certified Reference Materials, Digitalisation in Traceability, Digital Twins, Quality Management and Conformity Assessment in Testing, Inspection, and Certification, TIC Sector, Chemical and Biochemical Sensors, Gas Analysis, and Chemical Metrology. The plenary lectures were given by renowned international experts:

- Vito Fericola (INRiM Board of Directors and ACCREDIA Vice-President, Italy) presented on "Measuring and Adapting Quality Infrastructure in a Changing World";
- Eugenia Eftimie Totu (Eurachem Chair, National University of Science and Technology, POLITEHNICA Bucharest, Romania) addressed "Next-Generation of Chemical Sensors for Health: Precision Detection of Inorganic Ions in Periodontal Diagnostics Under Eurachem Guidelines";
- Claudia Koch (Head of Section 'Digitalization of Quality Infrastructure', Bundesanstalt für Materialforschung und -Prüfung (BAM), Germany) presented "Towards a Digital Ecosystem for Quality Infrastructure: DCC, Digital Reference Material Documents and Beyond".

The technical program included six special sessions:

- "Gas Analysis for Sustainable Energy and Climate Change Mitigation";
- "Innovative Networks of Testing and Calibration Laboratories";
- "Traceability for Laboratory Medicine";

THE 2025 IMEKO TC8 - TC11 - TC24 JOINT CONFERENCE TORINO ITALY

- "New Eurachem Guidance on Validation of Measurement Procedures that Include Sampling";
- "Chemical-Physical Measurements in Heritage Science"; and
- "Young Metrologists from Ukraine" (more about this initiative in a separate article).

An enjoyable social program complemented the scientific program. On Sunday, the 14th, the conference participants gathered at the Pinacoteca Agnelli for an *aperitivo* with a panoramic view from the 'Pista 500' (the historic FIAT test track located on the rooftop of the Lingotto building). On Monday, 15th, a city tour was organised to explore the historical city centre of Torino and visit the 'Royal Palace', the ancient residence of the Savoy family. Finally, on Tuesday, the 16th, the conference dinner was held in Pollenzo, a small village in the Roero region, famous for its wines, cheese, and gastronomic excellences.

Overall, the event has been a great occasion for networking, discovering the latest trends in different metrological fields, and disseminating inspiring technical and scientific results. The General Chairs of the conference, Leonardo Iannucci (IMEKO TC24 Scientific Secretary, from Politecnico di Torino) and Michela Segà (IMEKO TC8 Chairperson, from INRiM) express their satisfaction with the achieved result and gratefully acknowledge the support received during the last year by the three TCs, by the reviewers, and by the sponsors (the companies LorisQ and Ecoserch).

The three TCs are already working on organizing their next joint conference in 2026, and all details will be revealed in the upcoming weeks.



Written by Leonardo Iannucci, TC24 Scientific Secretary.

ICME 2025: INTERNATIONAL CONFERENCE ON MEASUREMENTS OF ENERGY



(In the picture, Hôtel Dupanloup.)

During three hot days of June, 23-25, the old episcopal palace of Orléans, France, hosted the International Conference on Measurements of Energy, ICME 2025, organised by IMEKO TC20.

Orléans, located on the Loire River, is the capital of the Loiret department and of the Centre-Val de Loire region.

The conference took place in the "Hôtel Dupanloup", formerly the episcopal palace in the heart of the old town. Home of the bishops until the 20th century, it now serves as the "Centre International Universitaire pour la Recherche" (International University Centre for Research).

Fifty participants from nine countries presented their latest works related to energy metrology. While the topics extended a wide range, from basic metrology to novel energy carriers and measurements of fundamental combustion properties, the conference provided an excellent platform for engineers and researchers (including PhD students) to exchange knowledge and initiate collaborations. The Mayor welcomed participants in the ancient town hall to enjoy a welcome drink and history.

*Organised and written by Zeynep Serinyel
TC20 Scientific Secretary,*



(In the picture, the old town hall.)

The next conference

In the series, ICME 2026, the International Conference on Measurement of Energy, 7-9 October 2026, Sohra, Meghalaya, India, is the next event.

The IMEKO TC20 ICME 2026 conference will focus on a broad spectrum of topics related to measurement, characterization, and diagnostics in the energy sector.

The program will begin with plenary talks delivered by eminent experts, researchers, and industry professionals. Following these and the technical paper presentations, complementing the technical sessions, a poster presentation segment will be held to showcase emerging ideas, preliminary studies, and student-led research. This will offer an interactive platform for one-on-one discussions between presenters and participants, especially young researchers.

As part of the event, there will be dedicated exhibition stalls hosted by various renowned companies and industries working in the domain of energy systems, instrumentation, measurement technologies, and automation. Finally, a laboratory visit will be organized, allowing participants to explore cutting-edge facilities and instrumentation related to energy measurement.

METROARCHAEO 2025

Following the positive experience of the past conferences held in Benevento (2015), Turin (2016), Lecce (2017), Cassino (2018), Florence (2019), Trento (virtual, 2020), Milan (2021), Cosenza (2022), Rome (2023), Malta (2024), the eleventh edition of the Conference on Metrology for Archaeology and Cultural Heritage - MetroArchaeo 2025 has been organized in Bergamo, Italy.

Known for its cultural vibrancy, Bergamo is a Lombard city divided into two parts: the Città Alta (Upper Town), a medieval historic center perched on a hill and protected by the Venetian Walls (a UNESCO World Heritage Site), and the Città Bassa (Lower Town), rather modern and developed. Its artistic and historical richness made it a perfect framework for this conference.

MetroArchaeo 2025, organized by Bergamo University and led by Professor Maria Grazia D'Urso, has been conceived again as a meeting place aimed at promoting interdisciplinary work between researchers from different scientific fields, and showcasing and sharing the latest innovations in the field of measurements applied to cultural heritage. MetroArchaeo2025 also provided an opportunity for cross-sector exchange between researchers and professionals from public institutions, such as museums, galleries, libraries, archives, as well as small and medium-sized enterprises.

Bergamo University, with its Department of Ingegneria e Scienze Applicate, has been the headquarters of MetroArchaeo 2025, hosting the conference in the Former Monastery of Sant'Agostino. It is a remarkable medieval complex located on the northern slopes of the Upper Town. Founded in the 13th century by the Augustinian order, it features a vast cloister, a monumental church, and elegant Gothic structures.

Over the centuries, the complex has served various roles, ranging from a religious center to a cultural and educational hub. Today, it houses part of the University of Bergamo and hosts exhibitions, conferences, and cultural events, making it one of the city's most vibrant historical monuments and a perfect venue for this conference.

The great novelty of this edition is that the conference was born under the supervision of IMEKO TC26 - Metrology for Cultural Heritage.

Original and inspiring welcome ceremony

The conference kicked off with an original and inspiring welcome ceremony, which, after the greetings of the local Authorities and the Institution Chairs, marked the start of the work sessions, followed by the first two plenary sessions. The first keynote was delivered by Lt. Col. Giuseppe Marsaglia of Comando Carabinieri Tutela del Patrimonio Culturale, who spoke about the efforts made by police forces to protect cultural heritage through the use of aerospace technologies and Artificial Intelligence. This was followed by Dr. Mario Reduzzi of a local institution, the Consorzio di Bonifica della Media Pianura Bergamasca, which provided the public with an exciting description of the multi-millennial history of Bergamo irrigation, from the oldest testimonies to the present.

Next, Dr. Eduard Angelats of the Centre Tecnològic de Telecomunicacions de Catalunya - CERCA, Spain, spoke of how the use of multisensor and multiplatform remote sensing imagery has expanded archaeological research, presenting the case study of the Roman city of Pollentia.

Finally, Grazia Tucci of the Department of Civil and Environmental Engineering at the University of Florence, Italy, delighted the audience by describing how digital twins of cultural heritage can redefine the relationship between art and innovation in the contemporary context.

METROARCHAEO 2025

All the talks have represented the multidisciplinary nature of the congress and demonstrated how the measurement approach is widely used and valid across different disciplines.



(In the picture from left, Eduard Angelats, Maria Grazia D'Urso, Paola Fervo.)

Technical Sessions

Even in this edition, there has been a significant request for Special Sessions over the General Session, in which metrological issues have been widely discussed. The level of engagement and enthusiasm in these sessions has been really impressive, sometimes obliging the speakers to extend the discussions during the breaks.

During the congress, lunch breaks featured poster presentations, ensuring vast opportunities for discussions and networking.

Social Events

Considering the special nature of the congress, the Local Committee made an additional effort for the social events by preceding the Welcome Party with a concert. All participants greatly appreciated this special initiative: the musical event "Incanto con Donizetti" was a delightful concert featuring the most famous arias by Gaetano Donizetti, the renowned composer born in Bergamo.

The gala dinner was held at the historical restaurant "La Marianna", renowned worldwide for inventing the famous ice cream flavor "La Stracciatella".



(In the picture from left, Gabriele Nani, Clara Bertella, and Livio Scarpellini.)

Awards

As usual, the conference included the presentation of awards for the best works. It should be emphasized that, apart from the best poster, which the attendees voted for, the others were selected by the organizing committee after an exhaustive and complicated selection process. This process was particularly challenging due to the large number of articles to be examined and the complexity of the many disciplines that inspired the papers. The choice has been driven by the idea to award papers with a robust metrological background. Four awards were presented and in two cases, Best Poster and Best Paper Presented by a Young Researcher, with ex aequo:

1a) Award for the Best Poster category won by the paper titled "Medieval church bell sound generation for vibroacoustic landscape studies", authored by Marco Casazza (University of Salerno) and Fabrizio Barone (University of Salerno);

1b) Award for the Best Paper category won by the paper titled "ERT survey at the Roman Bath in Sagalassos (Turkey)" authored by

METROARCHAEO 2025

Lara De Giorgi (ISPC-CNR), Dora Francesca Barbolla (ISPC-CNR), and Giovanni Leucci (ISPC-CNR);



(In the picture from left, Fabio Leccese, Natalia Pingaro, and Maria Grazia D'Urso.)

2a) Award for the Best Paper Presented by a Young Researcher category won by the paper titled "Experimental investigation of a masonry arch subjected to an asymmetric concentrated vertical load and validation via static and kinematic limit analysis" authored by Mario Fagone (University of Florence), Tommaso Rotunno (University of Florence), Natalia Pingaro (Politecnico di Milano), and Gabriele Milani (Politecnico di Milano);

2b) Award for the Best Paper Presented by a Young Researcher category won by the paper titled "Exploring the application of explainable neural networks for the petrographic classification of ceramic samples from the Levant" authored by Sara Capriotti, Alessio Devoto, Donatella Genovese, Silvano Mignardi, Simone Scardapane, and Laura Medeghini (all from the Sapienza University of Rome);

3) Best Paper Presented by a Woman won by Sakura Sanada (Tokyo Metropolitan University, Graduate School of Humanities) for the paper titled "Colourant pigments used for pottery decoration in Northeastern Africa during the Neolithic period: An analysis using Raman spectroscopy and Microscopy";

4) Best Conference Paper won by the paper titled "Multi-technical non-invasive analysis to prevent deterioration in varnish-coated oil-paintings" authored by Alice Dal Fovo,

Laura Maestro-Guijarro, Paula Maria Carmona-Quiroga, Raffaella Fontana, Francesca Rosi Martina Alunni Cardinali, Aldo Romani, Lucia Comez, Cristiano Riminesi, Magdalena Iwanicka, Piotr Targowski, Magdalena Kowalska, Aggelos Philippidis, Paraskevi Pouli, Marta Castillejo, and Mohamed Oujja.

Metrics

More than 128 participants from 13 countries, 22 sessions, 147 presentations, subdivided between 95 orals and 52 posters.

Concluding remarks

As Honorary Chair, beyond the numbers, which surely fix the success of the conference, many things pleased me:

- 1) The well-attended opening and closing sessions;
- 2) The strong participation of young people, demonstrating their keen interest in the topics discussed;
- 3) Classrooms—some of them very spacious—filled during several sessions;
- 4) Positive feedback on all aspects of the organization, including venues, catering, social events, and invited speakers.

We would also like to take this opportunity to express our gratitude to our sponsors, DEWESoft, CODEVINTEC, and Società Chimica Italiana, as well as to IMEKO, for providing a global platform that enables researchers and metrology professionals to collaborate on solutions benefiting society, particularly in the cultural heritage sector.

Satisfied with the work accomplished and mindful of the efforts required to organize this event, we now pass the baton to the colleagues of the Bari University. We extend our best wishes for an even more successful edition, one that will further enhance opportunities for cultural exchange among researchers and foster dialogue between the diverse approaches and disciplines they represent.

Written by Fabio Leccese, TC26 Chairperson.

OVERVIEW OF FUTURE IMEKO CONFERENCES, 2025-2026

- TC4 Measurement of Electrical Quantities, XVI Semetro - IMEKO TC 4 Workshop Special Session at XVI Semetro, 1-4 December 2025, Centro Cultural e de Expositoes Ruth Cardoso in Maceio - Alagoas, Brazil. [Website](#)
- TC3 Measurement of Force, Mass, Torque, and Gravity; TC5 Hardness Measurement; TC16 Pressure and Vacuum Measurement; and TC22 Vibration Measurement, joint conference 23-27 March 2026, Hangzhou, China. [Website](#)
- TC9 Flow Measurement FLOMEKO2026, 17-20 May 2026, Nara, Japan. [Website](#)
- TC20 Measurements of Energy and Related Quantities, ICME 2026, International Conference on Measurement of Energy, 7-9 October 2026, Sohra, Meghalaya, India.
- XXV IMEKO World Congress, "Metrology for Humanity", 30 August-03 September 2027, Rimini, Italy. [Website](#)

