

## DEAR FRIENDS, DEAR COLLEAGUES,

Times are changing, and so is IMEKO. Though we haven't had any in-person IMEKO event this year, a lot has happened.

In this newsletter, besides IMEKO news, you have the chance to "meet" Professor Paolo Carbone, our new President-Elect.

Professor Francesco Lamonaca, the Editor-in-Chief of the Journal Acta IMEKO, talks about his plans for Acta.

You can find out more about Hottinger Brüel & Kjaer. This company has been giving a very generous and unconditional donation to IMEKO for more than thirty years.

Dr Antje Hebestreit is introducing the new Measurement Journal Food to us.

Mr Aimo Pussa, a longtime member of the Technical Committee 3, is remembered.

IMEKO events, new members, and more is in this newsletter.

## IMEKO ANNOUNCEMENTS

Conferences, Working groups and other news

## FOUR WORKING GROUPS

Since the Technical Committees Workshop in May, four dedicated teams are dedicating time and discussions to designated topics; TC functioning, TC events, Publishing activities, and Technical Board functioning. They are making good progress. On 25th March is the online meeting with their presentations and discussions on their proposals to the Technical Board. Dear working group members, thank you very much for your efforts!

## TWO COUNTRIES TO IMEKO

Two metrology organisations, namely from the United Arab Emirates and Bosnia and Herzegovina applied for membership in IMEKO.

The Presidential Board welcomed both.



## METROLOGY DAY 2022

IMEKO is planning an event for the celebration of World Metrology Day on 20<sup>th</sup> May 2022.

Follow IMEKO on [LinkedIn](#) and [Facebook](#)

The IMEKO TC6 "Digitalization" organises the first international conference on Metrology and digital transformation - the M4Dconf 2022. The conference will be organised as a hybrid event - with a limited number of places for physical attendance in Berlin. Registration will start soon.

The IMEKO M4Dconf 2022 Programm Committee is delighted to announce a **call for proposals for special sessions** within the technical scope of the conference. Special sessions are intended to establish mini-workshops on emerging topics for Digital Transformation in Metrology, where experts in the same field of interest can reach out to each other, exchange ideas, gain knowledge and explore potential cooperation. Papers can soon be submitted to any of the special sessions. Following a peer-review process, accepted submissions will be invited to present at the special session.

The **Call for Special Sessions** is open now and closes on 31<sup>st</sup> January 2022. The Call for Papers will open soon.

To find out more about the conference, the venue and deadlines, visit the conference website: <https://www.m4dconf2022.ptb.de/>

Save the dates in your calendar and subscribe to our newsletter to stay informed. Please, forward this information to interested colleagues and peers. We are very much looking forward to meeting you at the M4Dconf2022 in Berlin and online.

As the topic transformation is highly interdisciplinary and versatile, the International Programme Committee of this conference warmly welcomes all IMEKO TCs to submit Special Session proposals. These Special Sessions can then be organised mostly independently by the proposers and listed as an essential part of the conference programme.

To submit a Special Session proposal, use this webform:  
<https://www.m4dconf2022.ptb.de/call-for-special-sessions>



## Save the Date!

19. – 21. September 2022

Hybrid with physical attendance in Berlin, Germany



Dear colleagues,

I am pleased to address you as the temporary chair of the revitalised IMEKO TC24 Technical Committee; Chemical Measurements.

IMEKO TC24 was founded in 2008. It provides an international forum of effective collaboration in all branches of chemistry. It aims to improve the reliability, comparability, and traceability of chemical measurements addressing industrial, and monitoring laboratory needs for measurements.

Over the last few years, the TC 24 became somewhat less active; meanwhile, the changes in chemical measurements had been significant, requiring to cover a broader spectrum of subjects.

I firmly believe that with the new committee members' help and cooperation with TC-11 (Measurement in Testing, Inspection and Certification) organised hybrid conference will bring TC-24 to the centre of scientific and professional life.

The conferences are:

IMEKO TC11 & TC24 Joint Hybrid Conference:

**MEASUREMENT FOR BETTER LIFE**

Dubrovnik, Croatia, Oct 17 - 20, 2022;  
<https://www.imekotc11-2022.com>  
[info@imekotc11-2022.com](mailto:info@imekotc11-2022.com)

IMEKO TC24 & TC11 Joint Hybrid Conference:

**CHEMICAL MEASUREMENTS TOWARDS A SUSTAINABLE FUTURE**

Dubrovnik, Croatia, Oct 17 - 20, 2022  
<https://www.imekotc24-2022.com>  
[info@imekotc24-2022.com](mailto:info@imekotc24-2022.com)

PhD Tatjana Tomić, TC24

## INTRODUCING IMEKO'S NEW PRESIDENT-ELECT, PROFESSOR PAOLO CARBONE

Since the 65<sup>th</sup> General Council session, IMEKO has as new President-Elect, Prof Paolo Carbone. He dedicates nine years of his time to serving IMEKO. During the first three, as Chair of the Technical Board, then as President, and finally as Advisory President.



Congratulations, Professor Carbone, and thank you for taking on this challenge.

*How did you find out about IMEKO, what made you join it, and when did it happen?*

The very first scientific congress I ever attended as a young researcher was the IMEKO World Congress in Torino, Italy, in 1994.

It was a very exciting experience to be connected instantly with so many experts and scientists from all over the world. I already knew I wanted to do this job. This was a wonderful occasion to prove to myself I was in the right place in the research area of instrumentation and measurement and Metrology. Over the years, I kept being involved in IMEKO activities and organised myself a couple of workshops in thematic areas of interest.

*What was particularly important for you in your previous function?*

I was given the possibility to act as VP-Publications for the last several years. In this role, I had to manage and organise activities related to all IMEKO publications. I had to interact with our publishing partner, Elsevier Ltd and collaborated to the extension of our publications now including measurement,

Measurement: Sensors, and Measurement: Food.

In 2012, I was appointed Editor in Chief of ACTA IMEKO, following the revitalisation of this Journal done by Prof. Paul Regtien.

We collaborated for a few years to improve the quality of the service provided by this Journal. When I was appointed Editor-in-Chief of Measurement, at first, Prof. Dusan Agrez and then Prof. Francesco Lamonaca took over the role of EiC of ACTA Imeko. It was very exciting and rewarding to contribute to the expansion of IMEKO activities as VP-publications.

*What is vital for you in being the President-Elect?*

As President-Elect, I bear the great responsibility to contribute to the strategy and technical organisation of all IMEKO activities in the Presidential Board, and I coordinate the IMEKO Technical Board. Both aspects imply attention to detail and some dedicated time.

*Could you say a few words about your daily work?*

I'm a Professor at the University of Perugia, in Italy. I do research in the area of signal processing applied to measurement science. I also teach classes at the Engineering Dept. of my University. My daily activities are thus mainly split between these two duties.

**PROFESSOR FRANCESCO LAMONACA THE NEW EDITOR IN CHIEF OF ACTA IMEKO**

Our online Journal Acta has potential, and everyone is invited to contribute to its growth. Professor Lamonaca tells a bit about himself and about his plans for Acta.



*When did you join Acta? How did you come in contact with IMEKO?*

I was born under the scientific patronage of IMEKO, a paper that was at the basis of my PhD dissertation was published in an IMEKO conference: "16th IMEKO TC4 International Symposium Exploring New Frontiers of Instrumentation and Methods for Electrical and Electronic Measurements - 13th International Workshop on ADC Modelling and Testing, IMEKO TC4 - TC21 Joint Session, September 22 - 24, 2008, Florence".

Participating in that event was an exceptional experience that I will never forget: on that occasion, I have experienced the IMEKO role in disseminating the culture of measurement science and allowing cooperation among scientists from all over the world.

Soon I served as a reviewer for Acta IMEKO. In 2017, the Editor in Chief Prof. Paul Regtien, proposed serving as a copy editor.

*What has happened since you became editor in chief of Acta?*

The first action that I did was to make a swot analysis of the Journal. Acta IMEKO has huge potentialities since it is open access, completely free, thanks to the IMEKO support and the volunteer work of several people. It publishes high-value scientific papers. On the other side, long publication time and low citation indexes have induced Authors to prefer other Journals to disseminate their results. On the basis of this analysis, the goals are: To raise awareness of IMEKO and of the metrological scientific community about Acta IMEKO to attract potential Authors and increase its citation indexes.

I have personally contacted all the TC Chairs as soon I became Editor in Chief, and recently through the IMEKO Secretariat asking their support to Acta IMEKO. From many of them, the answer was positive. I have also contacted the Organisers of the IMEKO World Congress 2021, asking for their support and receiving positive feedback.

The second action is to reduce the publication time. The average publication time is 3 months (note that Acta IMEKO has four issues per year). We are also moving towards the further reduction of the publication time thanks to the pre-publishing policy. We are working together with Dr Dirk Roeske to create this new section on the Acta IMEKO website.

The third action is to include Acta IMEKO in the citation databases. It is already in Scopus, and we are working to include it in Web of Science, DOAJ, Google Scholar and many more.

The effect of these actions is the increasing number of papers (more than double with respect to the previous 3 years). It is too early to appreciate the variation in the publication indexes, but I am confident they will increase.

*What are the most important plans for the Journal?*

Maintain the high scientific value of the papers, boost the participation of IMEKO TCs in Acta IMEKO, reduce the publication time, increase the journal indexes, include Acta IMEKO in all the citations databases, boost its visibility on research engines (Google, Google Scholar and so on). I know that this means a higher workload and that Acta IMEKO is supported by the voluntary work of IMEKO people.

We are one of the few online open-access journals that publish without any fees. For this reason, I would like to boost the editorial board (including all the TC's chairs, for example) and recognise to all people their efforts for the Journal. I hope that in the next edition we will have some surprises.

*Could you say a few words about yourself?*

I received the M.S. degree in Computer Science Engineering in 2005 and a PhD degree in Computer and System Science in 2010 from the University of Calabria, Italy; doctorate equivalences in Science (2010) and Engineering Science (2011) from the Université Libre de Bruxelles, Belgium.

Now, I am an associate professor of Electronic Measurements at the University of Calabria and Editor in Chief of Acta IMEKO.

I won several competitions as first classified at the national and international level, 2 best paper awards, a poster awards, best reviewer awards.

I am a Senior Member IEEE and member of TC-10 - Waveform Generation, Measurement & Analysis, TC 25 Medical Measurement and TC-37 - Measurements and Networking of the IEEE Society on Instrumentation and Measurement (IM), IEEE, IM, GMEE,

IAHR I act as Officer of Commission A - Electromagnetic Metrology of the Union Radio Scientifique Internationale (International Union of Radio Sciences) - Italian National Committee.

I published, authored and co-authored over 180 papers published in international journals and conference proceedings. I act as a reviewer of international journals and conferences.

I organised and chaired several special sessions in the field of time synchronisation, distributed measurement system IoT based and measurement for health.

I was Special Session Chair of MeMeA 2016 and organised several special sessions in the field on non-invasive monitoring and testing, synchronisation of networking measurement instruments and sensors.

*Is there something you would like to say to the IMEKO Community?*

We are working to boost Acta IMEKO. We need your help! Acta IMEKO is an opportunity for all the scientific community, and as an opportunity, it must be preserved and valorised.



**IMEKO**

- ✓ Open to original contributions related to research in measurement and instrumentation fields
- ✓ Published quarterly
- ✓ Fast peer-review process
- ✓ Indexed in Scopus
- ✓ Open Access (without APCs)

**ACTA IMEKO**  
The IMEKO Online Journal

## AIMO PUSA HAS PASSED AWAY

He was an active member of the Technical Committee TC3, dedicated to the measurement of Force, Mass and Torque.

---

We received the sad news that our colleague and friend Aimo Pusa, born in 1944, passed away on 28<sup>th</sup> October 2021.

Aimo Pusa was a Finnish expert in mass metrology, weighing technology and in particular in force and torque metrology and since 1982, an active member of IMEKO TC3 "Measurement of Force, Mass and Torque" and from 1993 until 2008, the scientific secretary of IMEKO TC3.

In 1993 he organised the IMEKO TC3 Conference in Helsinki; in 1997 he was the chairman of the National Organizing Committee (NOC) of the XIV IMEKO World Congress in Tampere, Finland in 1997 and in 2017 he was part of the IMEKO TC3, TC5 and TC22 conference organising committee held in Helsinki in 2017.

From 1985 - 2009 he was the head of the force and torque laboratory in Lahti Precision Ltd. (DI). From 2010 to 2016, he worked as a Group Manager and Project manager in the centre for Metrology and accreditation - MIKES (NMI). During that time, he was responsible for the relocation of the national force and torque laboratory, including the large mass measurements, from Lahti to Kajaani. Over many years he was the responsible person in force and torque in Finland and an active member of the BIPM Consultative Committee for Mass and Related Quantities Working Group on Force and Torque (CCM-WGFT) and the EURAMET TCM SC Force.



Aimo Pusa was a strategic thinker as well as innovative and creative. As such, he contributed much to the development of Force Metrology in Finland and abroad. He shared his knowledge, expertise and skills with colleagues at the international meeting and in cooperation. Aimo was a good friend to many of us worldwide and a great colleague. He was sincere, earnest and loyal. By his death, all the people who knew him will miss a genuinely warm and wonderful individual. It would be great for the family members to get the memories and keep memories and stories alive of Aimo, and we hope you will share your memories of Aimo to email: [a.pusa.in.memorias@gmail.com](mailto:a.pusa.in.memorias@gmail.com)

*Written by Andy Knott, Petri Koponen, Rolf Kümme and Amritlal Sawla*

## INTRODUCING HOTTINGER & KJAER

"Hottinger Brüel & Kjaer" (HBK) is a well-known company in Metrology and in IMEKO. Perhaps less known is the fact that since the seventies, IMEKO is receiving HBK's support.

There is a new name in the world of calibration equipment manufacturers. It is "Hottinger Brüel & Kjaer" (HBK) originating from two well-known companies, the German company "Hottinger Baldwin Messtechnik" (HBM) founded in 1950, and the Danish company "Brüel & Kjaer" (B&K) founded in 1942. The two companies were joining forces in 2019 to work seamlessly as one to provide exceptional calibration system solutions for a very wide range of quantities.

In the history of both companies, the task of setting standards has always played a major role, as all measurements in industry, for quantities like force, torque and pressure on the HBM side, as well as vibration, acoustics and sound level on the B&K side, have finally to be traced back.

Understanding this, the ties with IMEKO have always been very close. HBM started relation with IMEKO with its participation in the VIII World Congress in Moscow in 1979, driven by its former R&D Manager Manfred Kreuzer. B&K joint IMEKO at about the same time on the initiative of General Manager Per Brüel, while over the years Torben Licht and many others were the driving persons. Today HBK regularly participates in IMEKO events, of course to all the World Congresses and quite some Technical Committee events such as TC3, TC4, TC16, TC22, to name only some.

In 1977 HBM opened the first calibration laboratory throughout Germany in the framework of DKD ("Deutscher Kalibrierdienst"), while in 1991, the DPLA (Danish Prietary Laboratory on Acoustics) -based on a cooperation of the Technical University of Denmark and B&K - was founded. Besides always being pioneers in technology, the two companies were also first in establishing overseas relations. In 1980, B&K was the first western electronics company to set up a service centre in China. HBM has had a liaison office in Shanghai since 1991; in 1997, it founded its Suzhou load cell factory as one of the first wholly foreign-owned enterprises. HBK is now looking forward to its participation in the IMEKO TC3|TC5|TC16|TC22 Conference in Dubrovnik, Croatia 2022 and especially the IMEKO XXIV World Congress in Hamburg, Germany 2024.

*Written by Dr.-Ing. André Schäfer (andre.schaefer@hbkworld.com),  
HBK Darmstadt, Germany*







CALIBRATION SYSTEMS

## Providing calibration systems for the entire measurement world

- Reference calibration systems for force
- Reference calibration systems for torque
- Reference calibration systems for high pressure
- Vibration transducer calibration systems
- Microphone and Sound level meter calibration systems

[www.hbm.com/2315/precision-amplifiers-and-calibration-instruments](http://www.hbm.com/2315/precision-amplifiers-and-calibration-instruments)

[www.hbm.com/sensors](http://www.hbm.com/sensors)

[www.bksv.com/calibration-systems](http://www.bksv.com/calibration-systems)



**DR ANTJE HEBESTREIT, EDITOR IN CHIEF OF THE NEW MEASUREMENT JOURNAL**

The latest launch in the IMEKO portfolio of journals is Measurement: Food, edited by Antje Hebestreit (Leibniz Institute for Prevention Research and Epidemiology, Germany) and published since early 2021.



Measurement Food brings together experts in nutrition, health, agriculture, food chemistry and engineering from academics, industry, governments, ministries and non-governmental organisations. The

Journal welcomes contributions from across those fields.

Since its foundation in 1963, the Codex Alimentarius requires standards for safe, sufficient and nutritious food, ensuring good health and wellbeing for all and in accordance is devoted to providing a much-needed space for innovative and cutting-edge research, but also studies of confirmatory nature, introducing metrological principles and improving methods and measures for diet, with sustainable and responsible management of natural resources. These aims are also at the core of the 2030 Agenda for Sustainable Development and of the current Horizon Europe funding programme: Horizon Europe is the name of the European Union's Research and Innovation Programme (2021 to 2027). Transformation to more sustainable food systems allowing for healthy, diversified and balanced diets for all humans worldwide requires drastic changes in how we produce, process, transport, retail, consume and dispose of food. A major constraint allowing those changes and strategies is the dependency of consumers and authorities on reliable data based on valid assessment methods: Studies are needed to integrate metrological concepts into the measurement process, improving quality assurance in, e.g. food authenticity traceability and food crops monitoring, as

well as food processing, packaging, and storage. On the other side, considering the individual or populations, surveillance studies monitoring food choice and diet, and epidemiological studies examining diet in relation to health also rely on the strength of the assessment methods. Particularly biomarkers of nutritional status have been discussed as a more proximal measure of nutrient status. Hence, studies identifying biomarkers of nutritional status and full metabolic profiles aiming to complete them with the genetic makeup of individuals are compulsory as they are less error-prone compared to self-reported intakes.

*Written by Dr Antje Hebestreit*

*(Dr Antje Hebestreit is head of the Unit Lifestyle-Related Disorders at the Leibniz Institute for Prevention Research and Epidemiology - BIPS in Bremen, Germany. She served as a nutritional epidemiologist and coordinator of the German branch of the largest pan-European intervention study on diet and lifestyle-related disorders in children ([www.ideficsstudy.eu](http://www.ideficsstudy.eu); 2006-2012) and coordinated internationally the dietary assessment of the subsequent cohort study (I.Family, 2012-2017; <https://www.ifamilystudy.eu>).*

*In 2021, she qualified as a professor (venia legendi) for Public Health at the University Bremen, Germany.) Dr Hebestreit lived multiple years in Tanzania to conduct nutritional epidemiology research.*

*Over the years, her work has focused on developing and validating dietary assessment instruments in EU population-based studies. She used the data to develop dietary patterns associated with health consequences, with a strong interest in underlying mechanisms and innovations in risk factor research.)*

# Measurement, Sensor Systems and Applications Conference

**MeSSAC 2022**

24-26 AUGUST 2022  
JINAN, CHINA

Sensor Systems and Applications is a new international conference organised by the journals Measurement and Measurement: Sensors.

The overall aim of the conference is to bring together scientists and researchers in the wide area of instrumentation and measurement to present topical work across all scientific domains in the field, including hardware and software issues that underpin measurement and Metrology today.

The scope of the conference will cover all subjects related to advances in measurement procedures and techniques, measurement systems and fundamentals, as well as sensor-related applications and development in all scientific and technological domains.

Submissions are invited on all aspects of the theory, research, development, manufacturing and applications of the science, engineering and technology of the highly interdisciplinary field that comprises sensors and sensor systems today.

## **MeSSAC 2022: Measurement, Sensor Systems and Applications Conference**

24-26 August 2022 Jinan, China

Abstract submission deadline: 11<sup>th</sup> March 2022.

Website:

<https://www.elsevier.com/events/conferences/measurement-sensor-systems-and-applications-conference>

Email: m.morley@elsevier.com

## **NEW TECHNICAL COMMITTEE MEMBERS**

IMEKO would like to welcome the following new members to our Technical Committees and wishes them a lot of success:

Ivana Ljevaković-Musladin; Croatia  
Carmen Garcia Isquerdo; Spain  
Maria-Jose Martin; Spain  
Dr Tohru Nakano; Japan  
Prof. Slawenko Stojadinow; Serbia  
Mary Ness I. Salazar; Philippines  
Ruiz González Salustiano; Spain  
Hideaki Nozato; Japan  
Kittiya Shearman; Thailand  
Carmen M<sup>a</sup> Sánchez Blaya; Spain  
Dr Christabel Tan; UK  
Donatella Albanese; Italy  
Aime Lay Ekuakille; Italy  
Prof Hongmei Lin; China  
Alexandra Alexic; Serbia  
Prof Guido Sassi; Italy

Leila Es Sebar; Italy  
Patience Ngelinkoto, D.R.Congo  
Emma Angelini; Italy  
Leonardo Iannucci; Italy  
Raquel Quendera; Portugal  
Sandra Babic; Croatia  
Ana Cop; Croatia  
Luca Lombardo; Italy  
Süleyman Z. Can; Turkey  
Jovan Atanasovski; Republic of North Macedonia  
Sabrina Grassini; Italy  
Carlos Costa; Portugal  
Dan Song; China  
Jesse Pillay; South Africa  
Vladimir Bujanja; New Zealand  
Terrill L. Frantz; USA