

International Measurement Confederation – IMEKO

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Abstract

IMEKO is a non-governmental federation of 36 national Member Organizations, individually concerned with the advancement of measurement technology and instrument engineering. The Member Organizations are scientific / technical societies or committees and consists of the representatives of metrological institutions, higher education, industry and the users of instruments. The fundamental objectives are the promotion of international interchange of scientific and technical information in the field of measurement and instrumentation and the enhancement of international co-operation among scientists and engineers from research and industry. Permanent organs of IMEKO are: General Council, Secretariat, Advisory Board, Technical Board, Drafting Committee, and Credentials and Membership Committee. The activity of IMEKO is basically carried out through the Technical Committees (TC), which organizes symposia, conferences, workshops, and seminars on specific topics at regular intervals; publish proceedings of events, textbooks, glossaries, studies, etc. Numerous TC-s have already organized over 20 international conferences, some having over 300 participants from over 20 countries and producing proceedings of about 500 pages each. A royalty of 5 % of the registration fees helps to reduce the financial burden of MO-s to cover the overall expenses of the Confederation. IMEKO organizes regularly World Congresses; these global events select noble, humanitarian scopes, to demonstrate how the field of metrology can serve the improvement of the quality of life. Primarily the TC-s are determining the main topics. The difference between a TC events and a World Congress is, that while TC events are concentrating on a narrow topic in full depth, the Congresses offer cross-fertilization of different fields and a possibility to the participants to achieve an overall view on the progress as a whole and a vision of further development.

Introduction

IMEKO is a non-governmental federation of 36 national Member Organizations, individually concerned with the advancement of measurement technology and instrument engineering. The Member Organizations are scientific / technical societies or committees from Albania, Australia, Austria, Belgium, Brazil, China, Croatia, Czech Republic, Denmark, Egypt, Finland, France, Germany, Greece, Hungary, Israel, Italy, Japan, Kenya, Korea, Mexico, New Zealand, Poland, Portugal, Romania, Russia, Singapore, Slovakia, Slovenia, Spain, Sweden, Switzerland, The Netherlands, Turkey, United Kingdom, and USA. The membership consists of the representatives of metrological institutions, higher education, industry and the users of instruments.

The fundamental objectives are the promotion of international interchange of scientific and technical information in the field of measurement and instrumentation and the enhancement of international co-operation among scientists and engineers from research and industry.

Permanent organs of IMEKO are: General Council, Secretariat, Advisory Board, Technical Board, Drafting Committee, and Credentials and Membership Committee.

General Council is the supreme governing body. The General Council consists of one or two delegates from each Member Organization and holds yearly Sessions.

Secretariat is the executive body headed by the Secretary General. It carries out the decisions of the GC in accordance with the resolutions passed at Sessions. The seat of the IMEKO Secretariat is in Budapest, Hungary.

Advisory Board formulates proposals on the policy and strategy of IMEKO, chaired by the Immediate Past President.

Technical Board analyses and supports the activity of the Technical Committees, chaired by the President Elect.

Drafting Committee is responsible for the Resolutions and Minutes of GC Sessions. It also confirms the validity of credential letters of GC delegates and examines the applications for membership.

IMEKO Officers. President: Prof. Dr. Manfred Peters, Physikalisch-Technische Bundesanstalt, Germany; Immediate Past President: Dr. Kouzou Iizuka, KUBOTA Corporation, Japan; President Elect: Leo van Biesen, Vrije Universiteit Brussel, Belgium; Secretary General: Tamás Kemény, IMEKO Secretariat, Hungary; Treasurer: Herbert P. Osanna, TU Wien Institut für Fertigungstechnik Abteilung Austauschbau und Messtechnik, Austria; Vice-President in Charge for XVII IMEKO World Congress: Prof. Dr. Mladen Borsic, Faculty of Electrical Engineering and Computing Zagreb and Croatian Metrology Society, Croatia.

The activity of IMEKO is basically carried out through the Technical Committees (TC), which organizes symposia, conferences, workshops, and seminars on specific topics at regular intervals; publish proceedings of events, textbooks, glossaries, studies, etc. TC-s are traditionally numbered by the sequence they have been set up:

- TC 1 Education and training in measurement and instrumentation
- TC 2 Photonics
- TC 3 Measurement of force, mass and torque
- TC 4 Measurement of electrical quantities
- TC 5 Hardness measurement
- TC 7 Measurement science
- TC 8 Traceability in metrology
- TC 9 Flow measurement
- TC 10 Technical diagnostics
- TC 11 Metrological infrastructure
- TC 12 Temperature and thermal measurements
- TC 13 Measurement in biology and medicine
- TC 14 Measurement of geometrical quantities
- TC 15 Experimental Mechanics
- TC 16 Pressure and vacuum measurement
- TC 17 Measurement in robotics
- TC 18 Measurement in Human Functions
- TC 19 Environmental Measurement
- TC 20 Measurement Techniques for the Construction Industry

Numerous TC-s have already organized over 20 international conferences, some having over 300 participants from over 20 countries and producing proceedings of about 500 pages each. A royalty of 5 % of the registration fees helps to reduce the financial burden of MO-s to cover the overall expenses of the Confederation.

IMEKO organizes regularly World Congresses; these global events select noble, humanitarian scopes, to demonstrate how the field of metrology can serve the improvement of the quality of life. Primarily the TC-s are determining the main topics. The difference between a TC events and a World Congress is, that while TC events are concentrating on a narrow topic in full depth, the Congresses offer cross-fertilization of different fields and a possibility to the participants to achieve an overall view on the progress as a whole and a vision of further development. The last two congresses were:

IMEKO XV Osaka, June 13-18, 1999; *Measurement to Improve the Quality of Life in the 21st Century; Measurement Helps to Coordinate Nature with Human Activities*

IMEKO XVI Vienna, September 25-28, 2000; *Measurement supports science, improves technology, protects environment and provides employment now and in future*

The next IMEKO XVII World Congress will be in Dubrovnik, Croatia, 22–27 June 2003. The concept of the Steering Committee, is to organize different events during the Congress: carefully selected papers, invited lectures, round table discussions, seminars, exhibition, and meetings of the regional and international metrology organizations. So, the Congress will be the forum for the dissemination of the knowledge in the field of metrology, for better international professional co-operation, for lobbying for metrology, and for improving the confidence and making the friendship between metrologists.

The *International Programme Committee* (IPC) is chaired by Terry Quinn, the director of the Bureau International des Poids et Mesures (Paris, France). The members of the IPC are: Dieter Barschdorff (Germany); Mladen Borsic (Croatia); Franklin Chester (USA); Rolland Collay (France); Janko Drnovšek (Slovenia); M. Numan Durakbasa (Austria); Christian Eugène (Belgium); Alessandro Freddi (Italy); Mauricio Nogueira Frota (Brasil); Karim Hariri (Germany); Konrad Herrmann (Germany); Kouzou Iizuka (Japan); Koji Ito (Japan); Tamás Kemény (Hungary); Jean-Claude Legras (France); Liviu Masalar (Belgium); George Mattingly (USA); Laszlo Monostori (Hungary); Roman Z. Morawski (Poland); Ed Nemeroff, (USA); T. Ono (Japan); Akira Ooiwa (Japan); Herbert P. Osanna (Austria); Giovanni Pacini (Italy); Manfred Peters (Germany); Tilo Pfeifer (Germany); Jay Raja (USA); M. J. Reader-Harris (United Kingdom); Paul P. L. Regtien (Netherlands); Francesco Righini (Italy); Mario Savino (Italy); Amritlal Sawla (Germany); Eberhard Seiler (Germany); Scot E. Smith (USA); Susumu Tachi (Japan); Leo van Biesen (Belgium); A. Weckenmann (Germany) and Michael Yates (United Kingdom).

IMEKO XVIII World Congress will take place in Rio de Janeiro in the year 2006.

Croatian Metrology Society (HMD)

HMD is hosting the IMEKO XVII World Congress in the year 2003. HMD is non-profit making, non-governmental organisation having about 300 individual members and about 50 associate laboratories and companies (Croatian testing and calibration laboratories; laboratories in Croatian Telecommunication, Croatian Electricity Utility, Croatian Civil Engineering Institute, ... etc).

International membership. HMD is the member of NCSL International, the corresponding member of EUROMET (European Collaboration in Measurement Standards) and stakeholder member of ILAC (International Laboratory Accreditation Co-operation).

Structure of the HMD. General Assembly elects: President, Management Board, Supervisory Board, and Editorial Board of the Metrology Bulletin.

In February 2002 HMD had two full-time employed engineers – metrologists.

Funding. The income of the Society comes from: membership fees, fulfilment of business contracts, subsidies from development funds and other foundations as well as extra income and gifts.

Expenditures of the Society are: administrative costs, costs of the completion of business operations and tasks performed according to the annual plan as well as costs of the Society development and awards. Profits from the Society activities shall be used exclusively for the improvement of the Society business operations.

Symposia

18th Metrology Symposium was organised in the year 2001 by HMD. The co-organisers were: EUROMET – European Collaboration in Measurement Standards, ÖVE – Österreichische Gesellschaft für Mess- und Automatisierungstechnik, Austria, MATE – Scientific Society for Measurement, Automation and Informatics, Hungary, Collège Métrologie, France and SDPMT, Slovenian Society for Process Control and Measurements, Slovenia. The *Symposium Digest 18th Metrology Symposium* (in English) has 49 papers from 16 countries.

12th IMEKO TC 4 International Symposium Electrical Measurements and Instrumentation will take place in Zagreb, Croatia, 25–27 September 2002. It is expected about 150 papers from 40 countries.

XVII IMEKO World Congress *Metrology in the 3rd Millennium* will be hold in Dubrovnik and Cavtat, Croatia, 23–27 June 2003. It is expected about 1000 papers from 50 countries.

Seminars “Metrology School”. HMD organises seminars and workshops, many of them international:

Metrological Infrastructure in Modern Industrial Countries, co-operation with Physikalisch-Technische Bundesanstalt – PTB, Germany; in the year 1995.

European Co-operation in Accreditation, co-operation with European Accreditation of Laboratories – EAL; 1996.

Calibration – A Part of Quality Assurance System; 1996.

Expression of Measurement Uncertainty; CE Marking; European Collaboration in Metrology, co-operation with European Co-operation in Measurement Standards – EUROMET; 1997.

Infrastructure of Metrology – From Law to Quality Assurance; Legal Metrology, co-operation with Organisation Internationale de Métrologie Légale – OIML and Physikalisch-Technische Bundesanstalt – PTB, Germany; 1998.

Technical Requirements for Electrical Products on the European Market, co-operation with Slovenian Institute for Quality – SIQ; *Quality Manual – the Prerequisite for Accreditation; Internal Audits in Laboratories*; 1999.

Validation Methods; Lighting Science, co-operation with Université Catholique de Louvain and LABORELEC, Belgium; *Fundamentals of Mass Metrology*; 2000.
ISO/IEC 17025:2000 – What is new in the accreditation of laboratories; Validation of Analytical Methods; 2001.

Publications. “Metrology Bulletin” is the official bulletin of HMD; published quarterly during 18 years; 93 volumes (about 3 800 pages A5).

The books: *Croatian Engineering Association, International Standardisation Manual, Metrological Infrastructure of the Industrial State, Vocabulary of Fundamental Terms in Metrology*. Proceedings of the seminars.

Technical Committees. Terminology Committee. Mass Measurement Committee.

References

1. IMEKO – International Measurement Confederation; *Constitution and By-Laws*
2. Tamás Kemény: *IMEKO and international co-operation in the field of measurement and instrumentation*; HMD 18th Metrology Symposium, October 8-10, 2001, Cavtat, Croatia
3. HMD: *Constitution*.

WEB sites

IMEKO: www.imeko.org

HMD: www.hmd.hr

IMEKO TC 4 International Symposium: www.imeko.org or www.hmd.hr/12imeko-tc4

IMEKO XVII World Congress: www.imeko.org or www.hmd.hr/imeko