# INTERNATIONAL MEASUREMENT CONFEDERATION IMEKO BULLETIN

Vol. 31 No. 2 September 2003

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# Dear Reader

We are pleased to present to you IMEKO Bulletin No. 42, the second issue this year. The highlight of the past months was – no doubt – the XVIIth IMEKO World Congress in beautiful Dubrovnik, Croatia. The carefully shaped scientific program of great variety and high level, the diverting social events and the fantastic landscape made the last week of June an unforgettable experience. It was nice to meet friends again and to state that everybody looked just as young and radiating as ever and showed the usual endless interest in and devotion to the activity of IMEKO. The administrative meetings of the Confederation were scheduled so as not to coincide with the technical sessions. In addition to the election of new Officers for the coming three years, proposals for enhancing efficient work to reach a wider audience, were among the items discussed in detail. There are Member Organizations and Technical Committees less active than others – how to make them more interested? What has to be re-structured to achieve the goals originally set?

Where to find the most capable personalities who still have the time and energy to help improving things which more urgently need improvement than others? How to attract young experts of the field who can really contribute to future growth and what should be the aspects and criteria to achieve development? Questions arising steadily, yet most of the answers are missing, or partly there only. It has to be born in mind that IMEKO is facing competition of other international organizations, not even just in bordering areas. This should be an encouraging fact, rather than anything else: a driving force to do the same but better, much better. From time to time joint ventures should be of mutual benefit, without the partners losing their identity. The year 2003 marks the 45th anniversary of the establishment of the International Measurement Confederation (Conference at that time) in 1958. Since then the world has changed around us, the role and significance of IMEKO had to be put on a different base. It could not have been accomplished without the help of all those who felt that they had to do something and continue supporting us. We have results, reflected e.g. in an ever growing number of well attended scientific/technical events with belonging publications, not to mention the journal MEASUREMENT getting more and more widely known and spread. However, we have to go on and never stop. Slowly and naturally leadership will be taken over entirely by the next generation. They will be full of ideas to open up new vistas.

Thank you for your attention – see you again!

Karolina Havrilla
Editor of the Bulletin



# HMD XVII IMEKO World Congress

Dubrovnik, Croatia

June 22-27, 2003

organized by the Croatian Metrology Society



Close to 600 participants – among them distinguished representatives of the international legal metrology institutions and about 500 papers from 48 countries: this is the final balance of the Congress held under the title "Metrology in the 3<sup>rd</sup> Millennium". The Opening Lecture was delivered by **Dr. T.J.Quinn**, former Director of BIPM (Bureau International des Poids et Mesures, Sévres, France) about the Evolving Role of the Metre Convention in International Metrology.

The scientific program of the Congress was built up on the subject matters of the 20 Technical Committees, the sessions began with invited or keynote papers by internationally renowned experts of the area. Members of the TCs held meetings to determine future trends of work and to deal with emerging administrative questions. The posters and the exhibition were well attended for free discussions. There were a number of special events focusing on the new challenges and tasks of metrological institutions and organizations, including the problems of education.

## Message from the Secretary General

Dear Colleagues, Ladies and Gentlemen:

I would like to share with you my joy and good feelings concerning the most successful IMEKO World Congress in Cavtat/Dubrovnik. The great number of participants and participating countries, the high-level presentations and discussions, the presence of so many international organizations and the wonderful landscape made this event really unforgettable.

The organizers under the guidance of **Professor Mladen Borsic**, IMEKO General Council delegate from Croatia **and his wife Neda** did an excellent job with their wonderful hospitality and the smooth running of the Congress.

During the Congress period there were a series of administrative meetings as well. The IMEKO Advisory Board, Technical Board, the MEASUREMENT Editorial Board and the General Council of the Confederation had their usual annual sessions. The election of officers for the next three-year period was an important item on all agendas. All the outgoing and incoming Officers are respected scientists providing a devoted service towards the success of IMEKO.

Thank you for the confidence expressed in my re-election. I am looking forward to continue active work in a friendly atmosphere and good cooperation with all Fellow Officers, Board and Committee members and with all of you interested in our activities. The IMEKO Secretariat with its office in the heart of Budapest always welcomes visitors who would like to have personal contacts.

See you also at the 18th IMEKO World Congress in Rio de Janeiro, May 7-12, 2006!

Dr. Tamás Kemény

# 46<sup>th</sup> IMEKO General Council Session and related meetings

During the Congress week the General Council of the Confederation had a one-day meeting to receive and discuss the reports of the President, the Secretary General and the Treasurer, to elect the new Officers, Board and Standing Committee members for the coming three years based on the recommendation of the Advisory Board and to approve forthcoming TC events and activities, according to the information of the Technical Board. (The two Boards and the Editorial Board of the journal MEASUREMENT had their meetings just before the Congress began.) There was a unanimous appreciation regarding the enthusiastic and valuable contribution of the outgoing Officers.

Two former Presidents, **Professor Olli Aumala** from Finland (1994-1997) and **Dr. Kozo Iizuka** from Japan (1997-2000) became Honorary Members of the Advisory Board.

The Strategic Rolling Plan prepared by the Secretary General for the years 2003-2007 was thoroughly discussed and revised. Three bids were noted with thanks for hosting the World Congress in 2009, on behalf of the Czech, the Egyptian and the French Member Organizations. Final decision will be made next year after listening to detailed presentations.

The 47<sup>th</sup> GC-Session preceded by the annual meetings of the AB and the TB is scheduled to take place in Istanbul, Turkey, May 2004.

## Distinguished Service Awards

It has already become a tradition, that upon the proposals of the Member Organizations, the outgoing President, this time **Professor Manfred Peters** (Germany) is handing out Distinguished Service Awards at the Closing Session of a World Congress.

### Recipients in 2003:

**Dr. Frank Bernhard**, Germany, Chairman of TC12, the Technical Committee on Temperature and Thermal Measurements for several years, until 1999

**Dr. Kozo Iizuka**, Japan, President Elect and Chairman of the IMEKO Technical Board from 1994 to 1997, President of the Confederation from 1997 to 2000 and Past President, Chairman of the Advisory Board from 2000 to 2003

**Professor Franz Mesch**, Germany, distinguished author of several IMEKO papers, delegate of the German Member Organization to the General Council and Chairman of TC1, Technical Committee on Education and Training in Measurement and Instrumentation for many years in the past

**Professor Mario Savino**, Italy, Chairman of TC4 – Electrical Measurements for several years, until 2002

The whole IMEKO community congratulates warmly.

# IMEKO Officers and Standing Committee members 2003-2006

President: Prof. L. Van Biesen, Belgium

Past President and Chairman of the Advisory Board: Prof. M. Peters, Germay President Elect and Chairman of the Technical Board: Dr. H. Ugur, Turkey

Secretary General: Assoc. Prof. Dr. T. Kemény, Hungary

Treasurer: Prof. P.H. Osanna, Austria

Vice President for IMEKO XVIII: Dr. M. Frota, Brazil

#### **StandingCommittees**

Credentials and Membership Committee – Mr. J. D. Tallantire, UK (Chairman)

Dr. Hee Joon Eun, S. Korea Prof. R. Collay, France

Drafting Committee – Prof. T. Pfeifer, Germany (Chariman)

Prof. K.T.V. Grattan, UK Prof. M Borsic, Croatia

**Advisory Board** Prof. M. Peters, Germany (Chairman)

Prof. F. Righini, Italy (Secretary)

Prof. O. Aumala, Finland, HONORARY MEMBER Dr. K. Iizuka, Japan, HONORARY MEMBER

Mr. W.A. Bajek, USA Prof. J. Drnovsek, Slovenia

Prof. T. Ono, Japan

**Technical Board** Dr. H. Ugur, Turkey, (Chairman)

K. Havrilla, Hungary (Secretary) Prof. A.M. da Cruz Serra, Portugal

Mr. A. Pusa, Finland

Dr. D. Röske, Germany, Information Officer

all TC Chairmen ex officio

Editor-in-chief of MEASUREMENT ex officio

Chairman of the MEASUREMENT Editorial Board: Prof. K. T. V. Grattan, UK, Editor-inchief

# Opening speech of the new President of IMEKO for the period 2003-2006

Dear Colleagues, Friends of IMEKO,

It is a great honour for me and – at the same time – a great challenge to preside over the International Measurement Confederation for the next 3 years.

IMEKO has always meant a lot to me. I had my first scientific presentation here in 1980 on the occasion of a TC1 Colloquium in Budapest and had the opportunity to visit the IMEKO XVII Congress site, Dubrovnik, one year later when I attended the TC7 Symposium on Computer Based Measurement, i.e. the role of microprocessors in novel measurement instrumentation. Needless to say that in the more than 20 years since then a lot of efforts and progress have been made to integrate microelectronics and micromechanics into the nowadays powerful instrumentation. Later I participated in a number of TC1, TC4, TC7 conferences and once in a TC11 event, in 9 successful World Congresses from 1982 on; chaired TC7 for 6 years and represented the Belgian MO in the General Council for 7 years.

IMEKO has many things in common with similar international organizations or institutions, but it is really unique in certain important aspects, like the structure of membership (no individual members) and the scope and objectives of work through Technical Committees. IMEKO operates on an extremely limited financial basis and from that point of view, can be regarded as the leader in efficiency, thanks to the Treasurer, Professor P. Herbert Osanna (Austria) and the IMEKO Secretariat in Hungary.

Our most valuable asset is the high degree of mutual understanding, even friendship among scientists, engineers and researchers who regularly come to our congresses, conferences, symposia and workshops from all over the world. Since the founding in 1958 IMEKO opened doors and paved ways for traveling and visits in the days of the cold war between East and West. Luckily, times have changed in the meantime and although there are still problems to face in the world around us, I am confident that IMEKO can its own way and with its own means contribute to the progress of mankind. Therefore the main theme of the 2006 World Congress: METROLOGY FOR A SUSTAINABLE DEVELOPMENT. We believe that we have a mission to fulfill and hence, extremely interesting tasks ahead of us. The developments lately achieved during the presidency of Dr. Kozo Iizuka (Japan, 1997-2000) and Professor Manfred Peters (Germany, my predecessor) with the essential and enthusiastic support of the Secretary General, Dr. Tamás Kemény and the Executive Secretary, Ms. Karolina Havrilla

have to be continued at the same pace. Dr. Dirk Röske (PTB, Braunschweig/Germany), Information Officer, created and maintains our Website and provided the IMEKO VIP service =  $\underline{V}$ aluable Information  $\underline{P}$ ages for  $\underline{V}$ ery IMEKO  $\underline{P}$ ersons, which is still in an initial phase, but will be made available to the whole community soon, after an evaluation and testing.

I, as the new President, hope to be able to effectively aim at goals like

- the increase of the number of MOs from 35
- a sound financial situation
- high-level and highly up-to-date TC activities
- to continue attracting young scientists and researchers for our work
- to have further good cooperation with the Member Organizations and Technical Committees

Of course, I am looking forward to the full support of the President Elect, Dr. Huseyin Ugur (Turkey), especially in his capacity as Chairman of the Technical Board, of the Chairmen of the Technical Committees and of all Officers, Boards and Committees. Having just closed a great World Congress, we are thinking about the preparation of the forthcoming, 18th one under the guidance of Vice President Dr. Mauricio Frota (Brazil) who welcomes all of us with open heart and an excellent scientific program. Thank you for your confidence. I shall do everything to live up to it.

Prof. Leo Van Biesen

Edited version of the speech at the Closing Session of the Dubrovnik World Congress.

# INVITATION

<u>Professor Leo van Biesen</u> (Belgium), President of IMEKO and <u>Professor Carlos Alberto Schneider</u>, President of the Brazilian Society of Metrology extend a cordial welcome to all IMEKO friends and the members of the world's measurement community to attend the

#### **XVIIIth IMEKO World Congress**

from **7 to 12 May, 2006** in one of the most beautiful cities, in **Rio de Janeiro**. Title of the Congress: METROLOGY FOR A SUSTAINABLE DEVELOPMENT

Traditionally invited co-sponsors: Bureau International des Poids et Mesures (BIPM), Organisation Internationale de Metrologie Legale (OIML), the IEEE Instrumentation and Measurement Society and the other four Associations within FIACC, the Five International Associations' Coordinating Committee consisting of IFAC (International Federation of Automatic Control), IFIP (International Federation of Information Processing), IFORS (International Federation of Operational Research Societies) and IMACS (International Association for Mathematics and Computers in Simulation) in addition to IMEKO itself.

Satellite event: 4th Brazilian Congress of Metrology

**Remember** to keep visiting the home-pages www.imeko.org and/or www.metrologia2006.org.br

# **Event calendar**

#### 2003

#### TC4 – Measurement of Electrical Quantities

 $8^{\text{th}}$  Workshop on ADC Modelling and Testing Perugia, Italy September 8-10

Contact: Prof. P. Carbone

University of Perugia

Department of Electronic Engineering and Informatics

Via G. Duranti, 93 06125 Perugia, ITALY Phone: +39 075 5853629 Fax: +39 075 5853654

E-mail: carbone@diei.unipg.it http://www.diei.unipg.it/iwadc2003

#### TC16 - Pressure and Vacuum Measurement

2<sup>nd</sup> Conference on Pressure and Vacuum Measurement Beijing, China September 21-24

Contact: Mr. Zhang Pengcheng

Chinese Society for Measurement

PO Box 1413

Beijing 100013, CHINA

Phone: +86 10 64211631 ext. 2210

Fax: +86 10 64218709

E-mail: Zhangpch@nim.ac.cn www.chinajlnet.com/ImekoTC16

#### TC17 - Measurement in Robotics

ISMCR 2003 -  $13^{\text{th}}$  International Symposium on Measurement and Control in Robot-

ics

Madrid, Spain December 11-12

Contact: Dr. M. Armada

**Automatic Control Department** 

Consejo Superior de Investigaciones Cientificas

Instituto de Automatica Industrial

Ctra de Campo Real, Km. 0,200 La Proveda 28500 Arganda del Rey (Madrid), SPAIN

Phone: +34 91 871 19 00 Fax: +34 91 871 70 50 E-mail: armada@iai.csic.es http://www.iai.csic.es/ismcr03/

#### Co-sponsorships

# 20th Danubia-Adria Symposium on Experimental Methods in Solid Mechanics (TC15)

Győr, Hungary September 24-27

Contact: Dr. L. Borbás

Scientific Society of Mechanical Engineering

PO Box 433

1372 Budapest, HUNGARY Phone: +36 1 463 1869 Fax: +36 1 201 7180

E-mail: borbas@kge.bme.hu http://www.gte.mtesz.hu/das/

#### 2<sup>nd</sup> International Conference on Metrology

Eilat, Israel
November 4-6

Contact: Dr. I. Kuselman

Head of Materials Lab

The National Physical Laboratory of Israel

Givat Ram

Jerusalem 91904, ISRAEL Phone: +972 2 6536534 Fax: +972 2 6520797

E-mail: kuselman@netvision.net.il www.isas.co.il/metrology2003

# APMF'2003 – The Asia-Pacific Symposium on Measurement of Mass, Force and Torque (TC3)

Shanghai, China November 3-6

Contact: Dr. Zhang Yue

Mechanical Metrology Division National Institute of Metrology 18, Bei San Huan Dong Lu Beijing 100013, CHINA Phone: +86 10 64218631 Fax: +86 10 64218628 E-mail: zhangy@nim.ac.cn

# MERA-2003 – Specialized Exhibition on Measurement Engineering, Control and Automation

Moscow, Russia November 3-6

Contact: Ms. Sabine Foessl, Project Manager

M.S.I. Vertriebs GmbH 1040 Wien, AUSTRIA Phone: +43 1 402 89 54 15 Fax: +43 1 402 89 54 54

E-mail: mera@msi-fairs.com

www.msi-fairs.com

#### 2004

#### TC1 - Education and Training in Measurement and Instrumentation

Symposium on Modern Education in Measurement and Metrology Bratislava, Slovakia September 13-14

Contact: Dr. M. Halaj

Slovak University of Technology Faculty of Mechanical Engineering

Nam. Slobody 17

81231 Bratislava, SLOVAKIA Phone: +421 2 572 94 562 Fax: +421 2 524 95 315

E-mail: halaj@kam.vm.stuba.sk

#### TC2 - Photonics

16<sup>th</sup> Symposium on Photonics in Measurement Frankfurt am Main, Germany *June 23-24* 

Contact: VDI-Kompetenzfeld Optische Technologien

Photonics 2004 Graf-Recke-Str. 84

40239 Düsseldorf, GERMANY

Phone: +49 211 62 14 226 Fax: +49 211 62 14 161 E-mail: kfot@vdi.de

#### TC4 - Measurement of Electrical Quantities

13<sup>th</sup> Symposium on Measurements for Research and Industrial Applications 9<sup>th</sup> Workshop on ADC Modeling and Testing Athens, Greece

Athens, Greece October 4-6

Contact: Prof. E. Kayafas

National Technical University of Athens School of Electrical and Computer Engineering

Zographou Compus 15773 Athens, GREECE Phone: +30 210 772 2544 Fax: +30 210 772 2538 E-mail: kayafas@cs.ntua.gr

#### TC7 - Measurement Science

10<sup>th</sup> Symposium on Advances of Measurement Science St. Petersburg, Russia *June* 30 – *July* 2

Contact: Prof. S.V. Muravyov

Department of Computer-aided Measurement Systems and Metrology

Tomsk Polytechnic University

Pr. Lenina, 30

Tomsk 634050, RUSSIA Phone: +7 3822 417527 Fax: +7 3822 420449

E-mail: muravyov@camsam.tpu.ru

#### TC9 - Flow Measurement

FLOMEKO 2004 –  $12^{th}$  Conference on Flow Measurement Beijing, China

September 14-17

Contact: Mrs. Zhao Ruojiang

Chinese Society for Measurement

PO Box 1413

Beijing 100013, CHINA Phone: +86 10 8425 3162 Fax: +86 10 6421 8709 E-mail: csm@A-1.net.cn

#### TC12 – Temperature and Thermal Measurements

TEMPMEKO 2004 - 9th Symposium on Temperature and Thermal Measurements in Industry and Science Cavtat-Dubrovnik, Croatia *June 22-25* 

Contact: Prof. D. Zvizdic

University of Zagreb

Faculty of Mechanical Engineering and Naval Architecture

Ivana Lucica, 5

10000 Zagreb, CROATIA Phone: +385 1 616 83 33 Fax: +385 1 611 87 14

E-mail: davor.zvizdic@fsb.hr

#### TC14 - Measurement of Geometrical Quantities

8<sup>th</sup> International Symposium on Measurement and Quality Control Erlangen, Germany

Contact: Prof. A. Weckenmann

University Erlangen-Nürnberg

Quality Management and Manufacturing Technology

Nägelsbachstrasse 25

91052 Erlangen, GERMANY Phone: +49 9131 8526520 Fax: +49 9131 856524

E-mail: weckenmann@qfm.uni-erlangen.de

#### TC17 – Measurement in Robotics

ISMCR 2004 – 14th International Symposium on Measurement and Control in Robotics Houston/Texas, USA September

Contact: Dr. Z. S. Taqvi

International Space Station

Communications and Tracking Subsystem

Houston/Texas, USA Phone: +1 281 244 4436 Fax: +1 281 244 4374

E-mail: Zafar.S.Taqvi@Boeing.Com

#### TC18 - Measurement of Human Functions

#### TC8 – Traceability in Metrology

#### TC11 – Metrological Infrastructures

 $2^{nd}$  Symposium on Measurement, Analysis and Modeling of Human Functions and  $1^{st}$  Mediterranean Conference on Measurement

Genova, Italy

June 14-16

Contact: Dr. P.G. Morasso

University of Genova

Department of Informatics, Systems, Telecommunications

Via Opera Pia, 13

16145 Genova, ITALY Phone: +39 010 3532749 Fax: +39 010 3532154

E-mail: morasso@dist.unige.it www.dist.unige.it/ishf\_mcm\_2004

#### Co-sponsorships:

# X International Congress on Experimental Mechanics

Costa Mesa, California/USA June 6-10

Contact: Dr. T.W. Proulx, Executive Director

Society for Experimental Mechanics, Inc. – SEM

7 School Street

Bethel, Connecticut 06801, USA

Phone: +1 203 790 6373 Fax: +1 203 790 4472

E-mail: director@sem1.com

www.sem.org

#### 21st Danubia-Adria Symposium on Experimental Methods in Solid Mechanics

(TC15)

Brijuni/Pula, Croatia September 29-October 2

Contact: Studio HRG d.o.o.

Hrvatske bratske zajednice 4 10000 Zagreb, CROATIA Phone: +385 1 6183 141 Fax: +385 1 6110 452

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E-mail: sinisa.hrg@zg.hinet.hr

http://www.studiohrg.hr/21danubia-adria

#### 2005

#### TC3 - Measurement of Force, Mass and Torque

19<sup>th</sup> Conference on Force, Mass and Torque Measurement Cairo, Egypt *February 19-23* 

Contact: Prof. A.A. El-Sayed

National Institute for Standards

Force Department

PO Box 136

Giza 12211, EGYPT

Phone/Fax: +20 2 382 9446

E-mail: AhmedAli@nlab.nis.sci.eg

www.imeko.org/tc3

# TC14 – Measurement of Geometrical Quantities

8<sup>th</sup> International Symposium on Laser Metrology Merida, Mexico

Contact: Dr. R.R. Vera

Centro de Investigaciones en Optica A.C.

Loma del Bosque No. 115 Col. Lomas des Campestre

Apdo. Postal 1-948

C.P. 37150 Leon, GTO, MEXICO

Phone: +52 Fax: +52

E-mail: rarove@cio.mx

# News in brief

The **proceedings** of IMEKO XVII are available on CD ROM from the Croatian Metrology Society
Berislaviceva 8 10000 Zagreb Croatia
Please contact Professor Mladen Borsic by e-mail:
mladen.borsic@hmd.tel.hr

Phone: +385 1 48 72 485 Fax: +385 1 48 72 487

After our traditionally successful presence at the 11<sup>th</sup> **SENSOR&Test Congress and Exhibition** in May in Nürnberg (in total 778 exhibitors and 12481 visitors were recorded) IMEKO also has a booth at **ISA EXPO 2003** (automation + control conference, training and exhibition) to be held again in Houston/Texas, from October 21 to 23 www.isa.org/isaexpo2003

(ISA - The Instrumentation, Systems and Automation Society is the US Member Organization of IMEKO.)

The **President of IMEKO**, Professor Leo Van Biesen (Belgium) was invited by The Society for Advancement of Metrologists, our Member Organization in South Africa, to attend the Test and Measurement Conference in Johannesburg, between August 25 and 27, 2003. These conferences are held annually under the auspices of the National Laboratory Association (NLA), CSIR, the National Metrology Laboratory of South Africa (CSIR-NML) and the Metrology Instrumentation Group (MIG). Professor Van Biesen greeted the audience on behalf of the Confederation and delivered a lecture on the past history, present activities and future plans of IMEKO.

SAMET is our newest, 35th MO, admitted in November 2002.

The **Secretary General**, Assoc. Prof. Dr. Tamás Kemény will be one of the invited speakers at the Opening Session of the Second International Conference on Metrology – Trends and Applications in Calibration and Testing Laboratories organized by the Israeli Member Organization of IMEKO, the Israeli Metrological Society for The National Conference of Standard Laboratories (NCSL International) and The Cooperation on International Traceability in Analytical Chemistry (CITAC) in Eilat by the Red Sea, from November 4-6, 2003. Dr. Kemény's paper, **co-authored by the President**, bears the title: Non-governmental Cooperation in Measurement and Instrumentation.

**MÉTROLOGIE 2003** – the 11th International Metrology Congress staged bi-annually by the French Member Organization, the Collége Français de Métrologie in cooperation with the Bureau National de Métrologie takes place in Toulon, October 20-23, this year with the scientific support of the Instituto Portugues da Qualidade.

**Professor Tilo Pfeifer**, long-term German IMEKO delegate and Chairman of the Technical Committee on Photonics (one of the oldest TCs of the Confederation, exisiting since 1962) has received the title of **Honorary Doctor** of Zaragoza University in Spain, for his scientific merits in the field of manufacturing technology and quality measurement.and for his untiring activities to further the cooperation between his own University, the RWTH Aachen and Zaragoza University concerning the development of new study plans in industrial engineering and the exchange of students within the framework of the Sokrates program. Professor Pfeifer's participation in different European research projects for the advancement of methods and instruments of quality control and co-ordinate measurement was especially emphasized in the reasoning. This is only the fifth time in the 500 year history of the University that an engineer becomes Honorary Doctor.

For Professor Pfeifer this is the third such academic honour: he is Honorary Doctor of the University Santa Catarina in Florianopolis, Brazil (since 1989) and Honorary Professor at the Tsinghua University in Beijing, China (since 1995).



IMEKO has been asked and consented to endorse the **2004 SEM X International Congress on Experimental and Applied Mechanics** and concurrent symposia scheduled for June 7-10 in Costa Mesa, California, USA, organized by the Society for Experimental Mechanics, Inc. and addressing future experimental mechanics challenges, with special focus on extreme environments.

The program includes the following topics:

- 1. Damage mechanics, structural integrity and health monitoring
- 2. Experiments in bioengineering
- 3. Applications of optical methods
- 4. Experimental and applied mechanics

#### Concurrent Symposia:

- 1. 5th International Symposium on MEMS and Nanotechnology
- 1st International Symposium on Optical Methodologies and Metrologies for Microelectronics and Photonics

Only electronic submissions are being accepted. Abstract due date: October 17, 2003

For details please contact: Ms. Katherine Ramsay

Society for Experimental Mechanics, Inc.

7 School Street Bethel, CT 06801 USA Phone: +1 203 790 6373 Fax: 790 4472

E-mail: meetings@sem1.com

http://www.sem.org

#### ISA SHOW South America 2003 with the

3<sup>rd</sup> International Congress on Automation, Systems and Instrumentation will be at the Expo Center Norte, Sao Paulo – SP, Brazil November 18 through 20 There will be Brazilian and foreign papers presented, open discussions, short courses, tutorials, workshops, round tables, exhibitors' and student day.

www.isashow.com.br

#### From foreign sources...

#### INTERKAMA – International Trade Fair

Instrumentation, Control Systems, Automation and IT Solutions – engineering, maintenance, services

No. 1 for Automation in Process Industries worldwide

this time in Hannover, April 19-24, 2004

in parallel to the HANNOVER FAIR.

By the decision in July about the integration into the Hannover Fair, INTERKAMA hopes to make a successful new start into the future with added benefits through the complete array of industrial automation technology at a single venue.

In 2004 there will also be presentations of process and production automation technology, to be followed from 2005 on by yearly alternating keynote themes.

The basic exhibition program and subject matter of INTERKAMA remains unchanged and the INTERKAMA Forum will be continued as well.

Learn more on the ideas: www.INTERKAMA.com

OPTO 2004 / IRS 2004 / M 2004 – the abbreviations are for three events from May 25 to 27 next year in the Nürnberg Exhibition Centre, Germany:

- 1. 6th International Congress on Optical Technology, Sensors and Measurement
- 2. 8th International Congress on Infrared Sensors and Systems
- 3. International Congress on Microtechnology, Mechatronics and Materials

Organizer: AMA Service GmbH Details: www.sensorfairs.de

International Conference on VIBRATION MEASUREMENTS BY LASER TECHNIQUES Advances and Applications & Short Course – for the 6<sup>th</sup> time since 1994 by the Italian Association for Vibration Measurements by Laser Techniques (A.I.VE.LA.) under the guidance of Professor E.P. Tomasini from the Universitá Politecnica delle Marche, Mechanical Department in Ancona.

Date: June 21-25, 2004 See: http://www.aivela.org

# Member Organizations of IMEKO and their delegates to the General Council

#### Albania

National Directorate of Metrology and Calibration The Director RR. "Sami frasheri", No. 33 Tirana

#### Australia

Metrology Society of Australia Ms. Marian Haire c/o National Standards Commission PO Box 282 North Ryde, NSW 1670

#### Austria

ÖVE Österreichische Gesellschaft für Mess- und Automatisierungstechnik Prof. P. H. Osanna 1010 Wien 1 Eschenbachgasse 9

## Belgium

Belgian Measurement Confederation BEMEKO c/o IBRA/BIRA Prof. Ch. Eugene rue Ravenstein 3 1000 Brussels

#### Brazil

Brazilian Society of Metrology Dr. Mauricio Nogueira Frota Av. Nilo Pecanha, 50, Grupo 2517 22453-900 Rio de Janeiro, RJ

#### People's Republic of China

Chinese Society for Measurement Mrs. Zhao Roujiang P.O.B. 1413 Beijing 100013

#### Croatia

KoREMA – Croatian Society for Communication, Computing, Electronics, Measurement and Control Prof. M. Borsic c/o Croatian Metrology Society Berislaviceva 8 10000 Zagreb

#### **Czech Republic**

Association of Scientific-Technical Societies IMEKO Committee Dr. M. Sedlácek c/o Czech Technical University Faculty of Electrical Engineering Technická 2 16627 Prague 6

## **Egypt**

Egyiptian Organization for Standardization and Quality Control Dr. Mahmoud Eisa, President 16, Tadreeb El-Motadarrebeen St. El-Ameriya, Cairo

#### **Finland**

Finnnish Society of Automation Mr. A. Pusa Asemapäällikönkatu 12B 00520 Helsinki

#### France

College Français de Metrologie Prof. R. Collay 1, rue Gaston Boissier 75015 Paris

### Germany

VDI/VDE Gesellschaft Mess- und Automatisierungstechnik Prof. T. Pfeifer P.O.Box101139 40002 Düsseldorf

#### Greece

Hellenic Institute of Metrology Dr. F. Strehle Director of Mechanical Measurements Industrial Area of Thessaloniki Block 18, Building 41 57022 Sindos, Thessaloniki

#### Hungary

Scientific Society for Measurement, Automation and Informatics Mr. Z. Zelenka 1055 Budapest Kossuth L. tér 6–8

#### Israel

The Israeli Metrological Society Dr. A. Lepek, Chairman P.O. Box 9769 Jerusalem 91091

#### Italy

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# Pictures of a Congress



Dr. Terry Quinn, delivering his opening lecture (BIPM)



The Outgoing Officers at the Opening Session





Prof M. Borsic, Vice President of IMEKO and organizer of the Congress thanks Dr. K. Iizuka, Chairman of the Advisory Board and Prof. M. Peters, President for their invaluable assistance in preparations



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#### Remark:

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