



Asia Pacific Metrology Programme

Report

**EURAMET
May 2018**

**Bucharest
Romania**



**APMP Report to EURAMET
May 2018**

Website: www.apmpweb.org

1. Membership

APMP has 44 member institutes from 26 Full Member economies, with the Public Health Laboratory (PHL), Macao, China, and the Measurement Standards Laboratory (MSL), Brunei Darussalam, joining in June 2017 and March 2018, respectively. APMP Full Member economies are:

Australia, Bangladesh, Brunei Darussalam, Cambodia, China, Chinese Taipei, DPR Korea, Fiji, Hong Kong (China), India, Indonesia, Japan, Korea (Republic of), Macao (China), Malaysia, Mongolia, Nepal, New Zealand, Pakistan, Papua New Guinea, Philippines, Russia, Singapore, Sri Lanka, Thailand, and Vietnam.

APMP now has 11 Associate Member economies, with the Central Organization for Standardization and Quality Control (COSQC), Iraq, and the National Metrology Center of Iran (NMCI), Iran, joining in July and Aug 2017, respectively, and the National Physical Laboratory (NPL), UK, joining in November 2017. APMP's Associate Member economies are:

Egypt, Iran, Iraq, Jordan, Kazakhstan, Kenya, South Africa, Syria, United Arab Emirates, United Kingdom and the United States of America.

2. Highlights of 2017 APMP General Assembly and Related Activities:

The National Physical Laboratory India (NPLI) hosted the 33rd APMP General Assembly (GA) and Related Activities from 24 November to 1 December 2017 in New Delhi, India. Highlights include:

- Dr Thomas Liew (Singapore) and Dr Seungnam Park (Republic of Korea) completed their terms of office on the Executive Committee (EC).
- Dr Jan Herrmann (Australia) and Dr Yon-Kyu Park (Republic of Korea) were elected to the EC.
- The new Lead Technical Committee (TC) Chair of the TC Chairs' Forum commenced his three-year term from GA 2017.
- Three new TC Chairs commenced their terms for three years – TC for Fluid Flow, TC for Length, and TC for Time & Frequency.
- Endorsement of the election of six new TC Chairs (TC for Acoustics, Ultrasound & Vibration, TC for Electricity & Magnetism, TC for Mass & Related Quantities, TC for Photometry & Radiometry, TC for Amount of Substance, and TC for Thermometry) whose terms of office will commence from GA2018.
- Endorsement of the election of new Developing Economies Committee (DEC) Chair whose term of office will commence from GA2018.
- Endorsement of the 2018 APMP Work Plan and Budget

Annex 2 provides updated contact details for APMP.

3. Strategic developments:

TC Initiatives Projects 2018:

The APMP TC Initiatives (TCI) budget is aimed at fostering R&D projects of significance in addressing current needs of industry. Three TCI proposals submitted for 2018 have been approved by the EC and will commence in 2018. The three TCI proposals are:

- Research on the calibration of ionizing chamber and semiconductor detector for mammography
- Research on the flue gas S type Pitot tube and 3D Pitot tube calibration method and inter-comparison under different flow conditions
- Comparison of stopwatch calibration method

The second call has been announced for additional TCI proposals.

Evolution of APMP's Focus Group strategy

APMP has established five Focus Groups (FGs) to increase the impact of measurement to solve issues in sectors of high priority to member economies. The FGs aim to address regional challenges in support of government, industry, innovation, and research. The five FGs are:

- Energy Efficiency – Chair: Ms. Ajchara Charoensook, Thailand
- Food Safety – Chair: Prof Hongmei Li, China
- Medical Metrology – Chair: Dr Sheng-Jui Chen, Chinese Taipei
- Climate Change and Clean Air – Chair: Dr Sangil Lee, Republic of Korea
- Clean Water – Chair: Dr. Ghuftron Zaid, Indonesia

APMP's Food Safety FG Chair participated in the APEC Food Safety Cooperation Forum in May 2017 and presented on the APEC-APMP *Regional Workshop on Measurement and Standards for Grain Food Safety and Free Trade and Metrology Capacity Improvement and Quality Assurance of Measurement Results in Food Safety*. The first meeting of the FG for Clean Water was held on 19-20 September 2017 in Bogor, Indonesia. Attendees discussed the Vision, Missions and membership of the Clean Water FG. A Clean Water Workshop held in conjunction with the meeting was attended by 135 people from academia, testing laboratories, industries and other related institutions.

Review of Global Framework for Mutual Recognition in Scientific Measurement - CIPM MRA

In 2015, the peak international expert body in scientific measurement, the International Committee for Weights and Measures (CIPM), initiated a review into the effectiveness of the CIPM Mutual Recognition Arrangement (CIPM MRA). Following in-depth consultations over 2016, implementation of agreed recommendations is currently underway.

The CIPM MRA was established in 1999 under the Metre Treaty as the international framework for mutual recognition between signatories of national measurement standards and calibration certificates. It provides the essential technical basis to help reduce technical barriers to trade in support of wider agreements negotiated for international trade, commerce and regulatory affairs, e.g. government-to-government free trade agreements.



CIPM MRA signatory institutes cover most industrialised nations, including nearly all APEC economies.

APMP is one of the five Regional Metrology Organisations working with the CIPM in addressing the recommendations from this review.

4. Stakeholder Interactions

Contribution to Design World Metrology Day 2019 Poster

APMP called for volunteers to design the World Metrology Day 2019 poster at the General Assembly in November 2017. 5 member institutes showed their intention to work as the volunteer for this important collaborative work with BIPM/OIML, and EC decided to conduct a design competition. All institutes participating in the competition are asked to submit their design by 11 May 2018 and final design will be selected by the ballot cast by the APMP full member economies.

Asia Pacific Economic Cooperation

SCSC I and SRB Forum, February 2017: APMP represented by Dr Toshiyuki Takatsuji and Dr Takehiro Morioka (APMP Chair and Secretary, Japan).

APEC Food Safety Cooperation Forum, May 2017: APMP's Prof Li Hongmei gave a presentation titled "*Metrology Capacity Improvement and Quality Assurance of Measurement Results in Food Safety*".

SOM3 SCSC, August 2017: APMP represented by Dr Toshiyuki Takatsuji and Dr Takehiro Morioka (Japan).

Asia Pacific Laboratory Accreditation Cooperation (APLAC) – Cooperation under APMP-APLAC MoU:

Dr Toshiyuki Takatsuji (Japan), APMP Chair, represented APMP at the APLAC-PAC Joint Annual Meetings in Thailand in June 2017. The APMP-APLAC MoU was renewed for another three years during this meeting. APLAC cooperates with APMP in proficiency testing, and the discussion with regard to extending activities into *physical* measurement fields is ongoing.

Asia Pacific Legal Metrology Forum (APLMF) – Cooperation Under APLMF-APMP MoU:

APMP is continuing to work with PTB (Physikalisch-Technische Bundesanstalt, the German NMI) and APLMF under the joint regional capacity building project, MEDEA (Metrology: Enabling Developing Economies within Asia). The first phase of the project has been completed and a follow-up project (MEDEA 2.0) will start from May 2018 and run for three years. Included are awareness raising measures and promotion of the scientific and legal metrology to stakeholders.

Intra-Africa Metrology System (AFRIMETS):

Dr Thomas Liew (Singapore), EC member, represented APMP at the Annual AFRIMETS Meeting in South Africa in August 2017.

5. APMP Meetings in 2018

APMP Mid-Year Meetings, date to be decided soon.

APMP's 2018 Mid-Year Meetings will be held in July 2017 in Hong Kong, China, hosted by the



Standards and Calibration Laboratory (SCL). As well as meetings of its governance committees, APMP seeks to hold these meetings in a developing member economy in order to use the opportunity of the presence of key regional measurement experts to support the local metrology institute in highlighting the importance of measurement to government decision-makers and industry as well as to conduct capacity building technical workshops in fields relevant to the host economy.

2018 APMP General Assembly and Related Activities

The National Metrology Centre (NMC), Agency for Science, Technology and Research (A*STAR), working with the Singapore Health Sciences Authority (HSA), will host the 34th APMP General Assembly and Related Activities in Singapore from 23 to 30 November 2018.



Annex 1

APMP Full and Associate Members, February 2018

| ECONOMY | MEMBER | METRE CONVENTION MEMBERSHIP STATUS | SIGNATORY TO THE CIPM MRA |
|----------------------------|--|------------------------------------|--|
| Australia | NMIA ARPANSA ANSTO | Member | 1999 |
| Bangladesh | BSTI DRiCM | Associate of the CGPM | 2011 |
| Brunei Darussalam | MSL | | |
| Cambodia | NMC | | |
| China | NIM | Member | 1999 |
| Chinese Taipei | CMS/ITRI INER CHT | Associate of the CGPM | 2002 |
| Egypt | NIS | Member | 2000 |
| Fiji | FNML | | |
| Hong Kong, China | SCL GL | Associate of the CGPM | 2000 |
| India | NPLI BARC | Member | 1999 |
| Indonesia | RCM-LIPI (Formerly KIM-LIPI) PTKMR-BATAN | Member | 2004 |
| Iran (Islamic Republic of) | NMCI | Member | 2016 |
| Iraq | COSQC | Member | 2014 |
| Japan | NMIJ/AIST NICT CERI JEMIC | Member | 1999 |
| Jordan | JNMI | | |
| Kazakhstan | KazInMetr | Member | 2006 |
| Kenya | KEBS | Member | 2002 |
| Korea (Republic of) | KRISS | Member | 1999 |
| DPR of Korea | CIM | | |
| Macao, China | PHL | | |
| Malaysia | NMIM (Formerly SIRIM) Malaysian Nuclear Agency KIMIA | Member | 2001 |
| Mongolia | MASM CGL | Associate of the CGPM | 2013 |
| Nepal | NBSM | | |
| New Zealand | MSL | Member | 1999 |
| Pakistan | NPSL | Member | 2011 |
| Papua New Guinea | NISIT | | |
| Philippines | ITDI | Associate of the CGPM | 2002 |
| Russia | VNIIM | Member | 1999 |
| Singapore | A*STAR HAS | Member | 1999 |
| South Africa | NMISA | Member | 1999 |
| Sri Lanka | MUSSD | Associate of the CGPM | 2007 (excepting the period 1 January 2015 to 16 August 2016) |
| Syria | NSCL | Associate of the CGPM | 2012 |
| Thailand | NIMT DSS TISTR OAP | Member | 1999 |
| United Arab Emirates | DCLD EMI | Member | 2016 |



| | | | |
|--------------------------|------|--------|------|
| United Kingdom | NPL | Member | 1999 |
| United States of America | NIST | Member | 1999 |



| | | | |
|---------|-----|-----------------------|------|
| Vietnam | VMI | Associate of the CGPM | 2004 |
|---------|-----|-----------------------|------|

Associate Members of APMP



Annex 2

APMP Personnel and Contact information

Website: www.apmpweb.org

APMP Secretariat

| NAME | ADDRESS | EMAIL |
|---------------------|---|-----------------------------|
| Dr Takehiro Morioka | National Metrology Institute of Japan AIST Tsukuba Central 3 1-1-1 Umezono, Tsukuba, Ibaraki 305-8563 Japan | APMP-secretariat@aist.go.jp |

APMP Executive Committee

| NAME | ORGANISATION | EMAIL |
|-----------------------------------|---|---------------------------------|
| Dr Toshiyuki Takatsuji (Chair) | National Metrology Institute of Japan | toshiyuki.takatsuji@aist.go.jp |
| Dr Osman Zakaria | National Metrology Institute of Malaysia | osman@sirim.my |
| Dr Yu-Ping Lan | Center for Measurement Standards / ITRI, Chinese Taipei | yu-pinglan@itri.org.tw |
| Ms Gao Wei (Treasurer) | National Institute of Metrology, China | gaowei@nim.ac.cn |
| Dr Jan Herrmann | National Measurement Institute, Australia | jan.herrmann@measurement.gov.au |
| Dr Yon-Kyu Park | Korea Research Institute of Standards and Science, South Korea | ykpark@kriss.re.kr |



APMP Technical Committee (TC) Chairs

| TC | CHAIR | EMAIL |
|-------------------------------------|---|--|
| Lead TC Chair | Dr Chu-Shik Kang, KRISS, South Korea | cskang@kriss.re.kr |
| Acoustics, Ultrasound and Vibration | Mr Yu Chung Huang, CMS/ITRI, Chinese Taipei | joyhuang@itri.org.tw |
| Electricity and Magnetism | Dr Murray Early, MSL, New Zealand | murray.early@callaghaninnovation.govt.nz |
| Fluid Flow | Dr Takashi Shimada, NMIJ, Japan | t-shimada@aist.go.jp |
| Length | Dr Jariya Buajarern, NIMT, Thailand | jariya@nimt.or.th |
| Mass and Related Quantities | Dr Shih Mean Lee, NMC-A*STAR, Singapore | lee_shih_mean@nmc.a-star-edu.sg |
| Materials Metrology | Dr Victoria Coleman, NMIA, Australia | victoria.coleman@measurement.gov.au |
| Photometry and Radiation | Dr Tatsuya Zama, NMIJ/AIST, Japan | Zama-t@aist.go.jp |
| Amount of Substance | Prof Ma Liandi, NIM, China | mald@nim.ac.cn |
| Quality Systems | Dr Isao Kishimoto, NMIJ/AIST, Japan | Isao-kishimoto@aist.go.jp |
| Ionising Radiation | Dr Jinjie Wu, NIM, China | wujj@nim.ac.cn |
| Thermometry | Dr Li Wang, NMC-A*STAR, Singapore | wang_li@nmc.a-star.edu.sg |
| Time and Frequency | Prof Aimin Zhang, NIM, China | zhangam@nim.ac.cn |

Developing Economies' Committee (DEC) Chair

| CHAIR | ADDRESS | EMAIL |
|------------------------------|--|----------------|
| Professor Prayoon Shiwattana | National Institute of Metrology (Thailand) 3/4-5 Moo 3, Klong 5, Klong Luang, Pathumthanee 12120 Thailand | iro@nimt.or.th |