Asia Pacific
Metrology Programme

APMP Report to APLMF GA
November 2018

Christchurch, NZ
Membership Updates

New Full Members in 2017 and 2018:
• National Nuclear Energy Agency of Indonesia
• Public Health Laboratory, Macao, China
• Measurement Standards Laboratory, Brunei Darussalam

New Associate Members in 2017:
• National Metrology Center of Iran
• Central Organization for Standardization and Quality Control, Iraq
• National Physical Laboratory, UK
Members of APMP

Signatories of CIPM MRA – 19 (9)

- 26 Full Member Economies (44 Institutes)
- 11 Associate Member Economies (12 Institutes)
APMP Organization Chart

General Assembly (GA)

Executive Committee (EC)

Secretariat

Technical Committees (TCs)

Focus Groups (FGs)

Developing Economies’ Committee (DEC)
Governance Updates

The APMP General Assembly and Related Activities 2017 were held in New Delhi, India from 24 November - 1 December 2017.

- Election of 2 Executive Committee members:
  - Dr Jan Herrmann, Australia: 2017-20
  - Dr Yon-Kyu Park, Republic of Korea: 2017-20

- New Lead Technical Committee (TC) Chair:
  Dr Chu-Shik Kang, Republic of Korea, 2017-20

3 new TC Chairs taking office:
- **Fluid Flow**: Dr Takashi Shimada, Japan
- **Length**: Dr Jariya Buajarern, Thailand
- **Time & Frequency**: Prof Aimin Zhang, China
# Executive Committees

<table>
<thead>
<tr>
<th>Name</th>
<th>Lab</th>
<th>Economy</th>
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<tbody>
<tr>
<td>Toshiyuki Takatsuji</td>
<td>NMIJ</td>
<td>Japan</td>
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<tr>
<td>Osman Zakaria</td>
<td>NMIM</td>
<td>Malaysia</td>
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<td>Yu-Ping Lan</td>
<td>CMS, ITRI</td>
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<td>Gao Wei</td>
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<td>Jan Herrmann</td>
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## Technical Committees

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<tr>
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<th>Corr. CC</th>
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<tr>
<td>Lead TC Chair</td>
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<td>Yu Chung Huang</td>
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<td>Murray Early</td>
<td>MSL</td>
<td>New Zealand</td>
<td>CCEM</td>
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<td>Japan</td>
<td>CCM, WGFF</td>
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<td>NIMT</td>
<td>Thailand</td>
<td>CCL</td>
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<td>CCM</td>
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Strategic Activities

**TC Initiatives:** APMP funds R&D projects of significance in addressing current needs of Asia Pacific industry. Proposals approved for 2018:

- **Ionizing Radiation:** Research on the calibration of ionizing chamber and semiconductor detector for mammography
- **Fluid Flow:** Research on the flue gas S type Pitot tube and 3D Pitot tube calibration method and inter-comparison under different flow conditions
- **Time & Frequency:** Comparison of stopwatch calibration methods

**Focus Group Strategy:** Aimed at developing capabilities and increasing impact of measurement in addressing regional challenges across priority sectors:

- **Energy Efficiency:** Chair - Thailand
- **Food Safety:** Chair - China
- **Medical Metrology:** Chair – Chinese Taipei
- **Climate Change and Clean Air:** Chair – Republic of Korea
- **Clean Water:** Chair – Indonesia

APMP FGs seek to engage externally including with APEC forums active in these sectors.
Support for Developing Economies

German Government funded project to develop capability in legal and scientific metrology in the Asia Pacific (MEDEA*)
E.g, training workshops in:
- Support for participation in CIPM MRA
- Strategy and performance management
- Mass measurement
- Electrical measurement
- Training attachments in chemical measurement

*MEDEA – Metrology: Enabling Developing Economies within Asia

Korean “Global Metrology Academy”:
http://gma.kriss.re.kr/jsp/program.jsp
Training courses in:
- Metrology in General
- Flow Measurement and Calibration
- Ionizing Radiation
- Mass and Related Quantities
- Length and Dimensional Measurement
- Thermometry and Humidity

Capacity Building & Knowledge Transfer (CBKT) Programme
- NIMT, Thailand hosted the APMP DEC Leadership Training 2017 in December 2017
- 2016 and 2017 BIPM’s CBKT workshops to assist NMIs’ participation in CIPM MRA.
APMP Guideline for the Use of Routine Calibration Services Provided by NMIs and DIs as Evidence Supporting CMC Claims

- Long time intervals between international comparisons
- No international comparison for some simple calibration services

- Developing NMI
  - wishes to participate in a bilateral comparisons
  - not easy to find the partner

- Developed NMIs
  - Already having to participate as link labs in many ICs on a voluntary basis
  - Little merit
Proposed Solution

- Use existing routine calibration services of other NMIs
  - provided that it will be transparent and impartial

- Developing NMI:
  - No need to find a partner for official bilateral comparison
  - Fast
  - Has to pay the calibration fee

- Developed NMI:
  - No extra load (“routine” calibration service)
Figure 1. Basic flow chart (when the artefact is provided by the Applicant NMI)
APMP General Assembly and related Meetings 2018

Sentosa, Singapore
23-30 November 2018
Thank You

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