

19th CCM Meeting

Activity Report of RMO APMP - TCM



Dr. S.S.K.Titus, APMP TCM Chair

NPLI, India

25 – 26 May 2023



TCM Meeting - APMP

- **The 23rd Technical Committee Meeting on Mass related quantities took place during 9 – 11 Nov 22**
- **First and Second day programme was devoted to Technical Presentations on the recent developments on Mass related parameters and the third day country reports and TCM matters**
- **More than 100 participants from about 20 different economies participated in the meeting**
- **About 25 presentations were made by the participants.**

TCM Meeting - Agenda

- **Confirmation of Minutes of 22nd TCM meeting**
- **TCM Chair Report**
- **Matters arising from the 22nd TCM meeting**
- **Mid-year meetings TCC/EC Action and resolution**
- **WG Matters**
- **Discussion of CMC related matters/ Review team**
- **Status comparisons/ on-going and new**
- **TCI Projects**
- **Other business**
- **Closing Remark**



APMP 2022

38th General Assembly and Related Meetings

Participants in the 23rd TCM Meeting

The screenshot displays a grid of 50 video conference windows. Each window shows a participant's video feed, with their name and affiliation visible at the bottom. The participants are arranged in a grid that is approximately 10 columns wide and 5 rows deep. The names and affiliations include:

- Bai Yang
- SSK Titus-NPL-IN
- Min-Seok Kim (KRISS)
- Kalani Mallawaarachchi-MUS...
- Bobir USMANOV-UzNIM-UZ
- Bai Yang
- SSK Titus-NPL-IN
- Min-Seok Kim (KRISS)
- Kalani Mallawaarachchi-MUS...
- Bobir USMANOV-UzNIM-UZ
- Koji OGUSHI (NMIU/AIST)
- Kwang-Cheol Lee(KRISS)
- Jeerasak Pitakarnnop - NIMT...
- Song, Han Wook(KRISS)
- Asma ALHOSANI, EMI-UAE
- Koji OGUSHI (NMIU/AIST)
- Kwang-Cheol Lee(KRISS)
- Jeerasak Pitakarnnop - NIMT...
- Song, Han Wook(KRISS)
- Asma ALHOSANI, EMI-UAE
- MN_Altantsetseg Tserenpil_M...
- Sheng-Jui Chen, CMS/TRI, Chi...
- Mark Clarkson
- NIMT_Chompoonoot Hirunya...
- HATTORI, Koichiro_NMIU/AIST
- MN_Altantsetseg Tserenpil_M...
- Sheng-Jui Chen, CMS/TRI, Chi...
- Mark Clarkson
- NIMT_Chompoonoot Hirunya...
- HATTORI, Koichiro_NMIU/AIST
- Shanika Silva-MUSSD-SL
- Kitty Fen (NMIA)
- Kiveen Suycano-NMLPHI
- Solidmechanic NIMT
- CN - WANG Jian
- Shanika Silva-MUSSD-SL
- Kitty Fen (NMIA)
- Kiveen Suycano-NMLPHI
- Solidmechanic NIMT
- CN - WANG Jian
- MaryNessi(KR)SS(NMLPHI)
- NMIM_Fazrul
- Jessie Yap_NML_Phil
- In-Mook CHOI - KRISS - KR
- Raymond Leung, SCL, HK, Chi...
- MaryNessi(KR)SS(NMLPHI)
- NMIM_Fazrul
- Jessie Yap_NML_Phil
- In-Mook CHOI - KRISS - KR
- Raymond Leung, SCL, HK, Chi...
- TH_Chutimon_NIMT
- NIMT_Rungsiya Sukhon
- Richard Crendal (NMIA)
- TH_Antharika Chewwisate_NIMT
- Yoshiaki Masahiro-NMIU-Jap...
- Sullana Working Group Weigh...
- Yuanchao Yang
- G KIM,KRISS
- Kazuaki FUJITA (NMIU, Japan)
- Nittaya Arksonnarong, NIMT
- Yoshinori TAKEI (NMIU)
- TH_Wirun_L_NIMT
- Nattapon S. NIMT
- Hideaki IZUMI - NMIU, Japan
- ITDI- DOST / Abdrian Gernale
- Hengy Chiu, SCL, Hong Kong, ...
- Shih-Jia Shen
- Redzuan MSL BD
- NIMT pjaporn
- ID_Faizat
- Hiroaki KAJIKAWA (NMIU)
- Junfang ZHU (NMIU/AIST, Jap...
- NISHINO Atsuhiko (NMIU)
- TH-Liik Saingo-NIMT
- ian rizki
- Thang-VMI-VN
- iPhone
- Naoki KURAMOTO (NMIU)
- Thulani Khoza
- Afzalkhon Anva...
- ID_Fahmy
- Kevin Mapson NMIA
- Toshiko Kobata, NMIU, JP
- Mohammad Alghamdi (NMCC)
- apradavi(NIMT)
- Рустам Каримов
- Ziyodullakhuja,...
- Đỗ Đức Nguyễn...
- Brian Justice-E...
- Natsarin Nimit
- iPhone
- Y. H Fung-MSL-NZ
- Prawnapat mana(NIMT)
- ID_Renanta Hayu
- Рустам Каримов
- Marat Yunusov - UzNIM - Uz
- Ziyodullakhuja, UzNIM
- Đỗ Đức Nguyễn - VMI - VN
- Brian Justice-EMI-UAE
- Abdullah AISHa...
- iPhone
- Abdullah Alshamrani
- Razinah (NMIM)
- SamYong Woo
- Kenta Arai (NMIU)
- HAYASHI Toshiy...

Technical Peer Review Approved / Conducted

NMI	Parameter
NIMT, Thailand	Force
KIRSS, Korea	Hardness
NMIJ, Japan	Force, Torque, Mass and Density
SCL, Hong Kong	Mass, density, volume, pressure, force, torque and hardness measurements
NIMT, Thailand	Gravity
NMIM, Malaysia	Pressure, Mass, Density
NIM, China	Mass, Pressure
MASM, Mongolia	Mass

New CMCs Published in the KCDB

NMI	Parameter and Number
SNSU-BSN, Indonesia	One CMC in Torque
NMIJ, Japan	Five new and revised CMCs in pressure
NMIJ, Japan	Two CMCs in gauge pressure for liquid medium
MUSSD, Sri Lanka	The first CMC in Pressure
ITDI, Philippines	One new CMC in Pressure

Status of Comparison

APMP.M.M-S2	Protocol completed
APMP.M.M.K5	Final Report Submitted
APMP.M.D-K4	Final Report Submitted
APMP.M.F.K3.a	Report under preparation
APMP.M.F.K3.b	Report under preparation
APMP.M.P.K4	Measurement completed
APMP.M.P.K7.2	Final Report Prepared
APMP.M.P.K15.	Draft A under preparation
APMP.M.P-S7	Final Report Prepared
APMP.M.H-S5	Final Report Prepared
APMP.M.H-S6	Final Report Prepared

CMC Related Matters

CMC Review Process

❖ Intra-RMO Review Process

Most of the Intra RMO CMCs submitted are assigned for review

❖ Inter-RMO Review Process

Some of the Inter RMO CMCs are assigned and reviewed due to limitations and constraints.

❖ Limitations:

Reviewers availability, to accept, review and post the report

Writer to track and provide with the necessary clarification

Others/ too many CMC entries in one review task

Encourage more reviewer to register

Requirement of comparison

From MUSSD, Sri Lanka

- Comparison need for the pressure range 10 kPa up to 350 kPa (absolute mode, Gas) **CCM. P.K16**
- Comparison need for the pressure range 5 kPa up to 350 kPa (gauge mode, Gas) **CCM.P-K17**
- Comparison need for the pressure range 0 kPa up to 5 kPa (gauge mode, Gas)
- Comparison need for the pressure range -100 kPa up to 0 kPa (gauge mode, Gas)
- Comparison need for the pressure range 350 kPa up to 7 MPa (absolute mode, Gas) **CCM.P-18**

From NPLI

- 1 kg mass standards undertaken by CCM on the dissemination of the kilogram.
- Pneumatic pressure in any range between 0.04 to 4 Mpa.
- Hardness- Brinell, HRC

Initiative for New Comparison

Dr. Lee Shih Mean, A-Star, Singapore proposed a 50 kg mass comparison for which the protocol would be prepared by the second half of 2023 and circulated for potential participants.

Dr. Kajikawa, NMIJ, Japan and Dr. Choi, KRISS, Korea would pilot the APMP link comparison for CCM.P-K16, CCM.P-K17 and CCM.P-K18 once they are completed, involving 3 - 4 NMIs each in the APMP region. It would happen only after a year.

A Key comparison in Pressure has been presented by C. Meyer, NIST, USA and NPLI in the range of 0.4 – 4.0 Mpa. For registration the KCDB.

Other Matters

❖ CMC Task Force

Supporting the DEC initiative for establishing CMCs in mass for the developing economies (JNMI, Jordan; MUSSD, Sri Lanka; NMC, Cambodia; BSTI, BRICM Bangladesh).

❖ Regarding TCI Projects the Following Process was Discussed for Encouraging Participation

- Calls for TCI and FGI Projects
- Eligibility
- Application Forms
- Evaluation
- Duration

Acknowledgment

My Heartfelt Thanks to:

All the TCM colleagues, for giving their valuable time and cooperation.

All the TCM experts and reviewers for their great effort and support in the technical review task.

The APMP Secretariat, NPLI Director and the team for their kind support in enabling me to organize the TCM meeting successfully.

CCM President for the opportunity to present this report

Thank You