
MEDEA: “Metrology – Enabling Developing Economies in Asia”

Training Course on Mass Standards

30 August – 1 September 2016 in Jakarta, Indonesia

Register by 31 May 2016

Introduction

Mass is one of the SI base units and mass measurement plays an important role in metrology including legal metrology which is closely related science, technology, transactions and human life. Weights are commonly used in mass measurement and this category of artifact is necessary to maintain a traceability system for mass.

APLMF has been conducting training courses on non-automatic weighing instruments (NAWI) for over 20 years in order to support legal metrology officers from developing economies to implement harmonized verification procedures. In addition, APMP has recently conducted a Workshop on Calibration of Laboratory Scales in September, 2015 in Beijing, PR China.

APLMF and APMP members requested additional support in the form of a training course to explain how to maintain and provide mass standards. As a result, this training course has been planned with a support of the MEDEA project coordinated by PTB in Germany.

Objectives

This training course is designed for the officers, experts and scientists who calibrate and/or verify standard weights in accordance with OIML Recommendation R 111: 2004 “*Weights of classes E_1 , E_2 , F_1 , F_2 , M_1 , M_{1-2} , M_2 , M_{2-3} and M_3* ”. This course targets participants who deal with weights in the middle and lower classes (such as F_2 and M_{1-3} specified in R 111). However, this course will also be useful for participants who wish to establish a primary laboratory dealing with weights in higher classes (E_2 or F_1). All participants are expected to have practical experience in calibrating, comparing and verifying such weights.

This training course is composed of both lectures and practical activities. The lectures include outline of mass standards, treatment of measurement uncertainty, technical requirements based on R 111 and practical procedure for calibrating/verifying standard weights. The practical component will start with demonstrating how to calibrate standard weights based on the reference procedure recommended by R 111 using a precise balance. The participants will then have an opportunity to practice using this procedure.

This course provides participants with the knowledge and skills to:

- understand the role of mass standards for scientific and trade measurements within an economy,
- identify the important requirements for standard weights based on OIML R 111,
- understand proper operating/environmental conditions for calibrating/verifying standard weights,
- identify possible sources of measurement uncertainties, and
- calibrate or verify standard weights in accordance with the procedures specified in OIML R 111.

Organizers:

1. Physikalisch-Technische Bundesanstalt (PTB)
2. Asia-Pacific Legal Metrology Forum (APLMF)

Supporting Organizations:

1. National Metrology Institute of Japan (NMIJ)
2. Directorate of Metrology (DoM), Ministry of Trade, Indonesia

Trainers:

1. Mr. Julian Crane (APLMF secretary/trainer, MBIE, New Zealand)
2. Mr. Masaaki Ueki (primary trainer, NMIJ)
3. Dr. Tsuyoshi Matsumoto (coordinator/trainer, NMIJ)
4. Mr. Tsutomu Horikoshi (assistant trainer, NMIJ)
5. Mr. Nobuhiko Azami (assistant trainer, NMIJ)

Venue and Accommodation:

Borobudur Hotel, Jakarta
Jl. Lapangan Banteng Selatan No.1, Ps. Baru, Sawah Besar
Jakarta – Indonesia
Phone: +62 21 3805555

PTB Support:

Up to two overseas participants from each developing economy in Asia will receive a round-trip flight ticket in economy class, free accommodation, free airport transfer and a daily allowance. Participants from economies classified as developing countries under the OECD Development Co-operation Directorate (ODCD-DAC)¹ are eligible. Only participants from institutions that have participated in the Regional Capability Survey² are eligible.

Flight tickets will be booked by PTB (please contact Ms. Stefanie Scheschinski). The room charge will be paid directly to the hotel by PTB. Participants will receive a daily allowance paid in cash during the training course.

¹ see <http://www.oecd.org/dac/stats/daclist.htm>. Eligible economies in Asia: Bangladesh, Bhutan, Cambodia, Fiji, India, Indonesia, Kazakhstan, Kyrgyzstan, Laos, Malaysia, Mongolia, Myanmar, Nepal, Pakistan, Papua New Guinea; Philippines, Sri Lanka, Thailand, Uzbekistan, Vietnam

² Only economies that submitted the Regional Capability Survey 2016 are eligible to receive funding by the MEDEA project.

Presentation from each economy:

At least **one participant** from each economy is required to provide a **brief presentation** about the metrological control system on calibration and/or verification of standard weights in their economy. A guide on what to include in your presentation are shown below:

- Who are you and what is your role in your economy?
- Explain about your organization and department.
- Describe your professional experience in the area of calibration/verification of measuring instruments/measurement standards.
- Outline the metrological control system including legal metrology used to control standard weights and weighing instruments in your economy.
- Outline the organizations responsible of metrological social infrastructure in your economy.
- What is the current situation in your economy about the compliance to the international standards such as OIML R 111 and R 76?
- Describe any problems or issues you have in order to implement the metrological control system.

Registration:

Please complete the attached **Nomination Form** and send it to stefanie.scheschinski@ptb.de by **31 May 2016**.

Contact Persons:

APLMF Secretariat

Ms. Alli Smith

Trading Standards, Ministry of Business, Innovation & Employment (MBIE)

PO Box 1473, Wellington 6140, New Zealand

Tel: 0064-4-4601367

E-mail: secretariat@aplmf.org

PTB Contact Person:

Ms. Stefanie Scheschinski (**Registration, Flights, Hotel Reservations**)

Bundesallee 100, 38116 Braunschweig, Germany

Tel: +49 531 592 8218

E-mail: stefanie.scheschinski@ptb.de

Contact person for the training course (Host in Indonesia)

Mr. Muhamad Rinto

Directorate of Metrology, Ministry of Trade

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Currency:

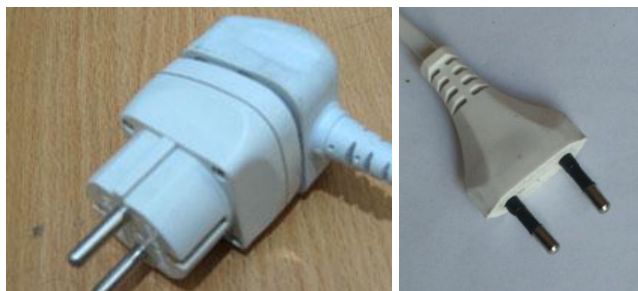
The local currency is Rupiah. The notes include Rp 100,000, Rp 50,000, Rp 20,000, Rp 10,000, Rp 5,000, Rp 2,000, Rp 1,000, Rp 500, Rp 200, and Rp 100. Major credit cards (VISA, MASTER CARD, etc) are accepted in restaurants, and big stores.

Climate:

The average temperature in Jakarta is about 24°C– 32°C in August.

Electricity Supply:

Voltage in Indonesia is 220-240 volts AC. The power plugs are of 2 (two) pins as shown on the photos below.

**Local Time:**

GMT +7

Visa Assistance:

If you need assistance to obtain a visa to enter Indonesia, please contact the host in Indonesia.

Venue and Accommodation:

Borobudur Hotel, Jakarta
Jl. Lapangan Banteng Selatan No.1, Ps. Baru, Sawah Besar,
Jakarta – Indonesia
Phone: +62 21 3805555

For sponsored participants, the hotel will be booked and paid directly by PTB.

Access Information :

Borobudur Hotel Jakarta is at Jl. Lapangan Banteng Selatan No.1, Ps. Baru, Sawah Besar, Jakarta – Indonesia. Borobudur Hotel Jakarta is about 35 kilometers/ 67 minutes by taxi from Soekarno-Hatta International Airport, Jakarta.

Visa Policy:

There are 3 (three) schemes of visa system in Indonesia.

1. Visa Exemption Facility

The visa exemption valid only for 30 days, non-extendable or convertible into another kind of stay permit. Foreigners from 169 countries can enter and exit Indonesian Territory through 29 Immigration Checkpoints in airports. If the 30 days of Visit Visa Exemption facility feels insufficient, visitor still can apply for

Visa on Arrival (given for 30 days and extendable for another 30 days) or Visit Visa.

The visa exemption facility can be used for tourism, family visit, social visit, art and cultural, government duty, to deliver a speech or attend a seminar, international exhibition, meetings with head office or representative office in Indonesia, or transit.

Following countries have Visa Exemption Facility, such as:

- | | | |
|----------------------|-----------------------|----------------------|
| 1. Bangladesh | 11. Kazakhstan | 21. Papua New Guinea |
| 2. Bhutan | 12. Republic of Korea | 22. Peru |
| 3. Brunei Darussalam | 13. Kyrgyzstan | 23. Philippines |
| 4. Cambodia | 14. Laos | 24. Saudi Arabia |
| 5. China | 15. Macao | 25. Singapore |
| 6. East Timor | (SAR of China) | 26. Sri Lanka |
| 7. Fiji | 16. Malaysia | 27. Taiwan |
| 8. Hong Kong | 17. Mongolia | 28. Thailand |
| (SAR of China) | 18. Myanmar | 29. Uzbekistan |
| 9. India | 19. Nepal | 30. Vietnam |
| 10. Japan, | 20. New Zealand | |

Visitors with visa exemption facility will be able to proceed directly to the immigration clearance counter after deplaning. Passport must be valid for a minimum of 6 (six) months from the date of arrival. Onward or return tickets must be shown on arrival.

2. Visit Visa on Arrival (VOA)

Foreigners can apply this visa upon arrival in Indonesia, if the nationality included on visa on arrival countries list. A holder of VOA is given 30 days stay and can be extended in Immigration Office for 1 (one) time, to have another 30 days stay.

VOA for Asian countries/region list:

- | | | |
|-----------|---------------------|-----------------|
| 1. China | 5. Oman | 9. South Korea |
| 2. India | 6. Papua New Guinea | 10. Taiwan |
| 3. Japan | 7. Qatar | 11. Timor Leste |
| 4. Kuwait | 8. Saudi Arabia | |

Visitors from countries with VOA facility will have to go to a special counter to have their passports stamped with the on-arrival visa before going to the immigration clearance desk. Visa purchasing takes 15-30 minutes per applicant, depending on the number of persons applying. Payment counters, a bank counter, and a money changer have been set up to process payments. Passport must be valid for a minimum of 6 (six) months from the date of arrival. Payment must be made on arrival. An onward or return trip ticket must be shown on arrival.

3. Visit Visa

Citizens of other countries not on visa exemption or visa on arrival facility will be required to apply for a visa overseas (in their home country) before entering Indonesia. Foreigners can apply visit visa in Indonesian Embassy or Consulates, or the guarantor could apply to the Directorate General of Immigration in Jakarta, Indonesia

Training Course on Mass Standards
30 August – 1 September, 2016 in Jakarta, Indonesia

Tuesday, 30 August Venue: Borobudur Hotel Jakarta		
Time	Details	Presenter
08:30 – 09:00	Registration	Host
09:00 – 09:40	Opening ceremony with welcome address from the host economy, APLMF Secretariat and the trainers Group photo taking	APLMF and Host
09:40 – 10:00	Introduction	Trainers
10:00 – 10:45	Overview of the course Economy reports	Trainers and trainees
10:45 – 11:15	Coffee Break	
11:15 – 12:30	Economy reports continue	Trainers and trainees
12:30 – 14:00	Lunch break	
14:00 – 15:00	Lecture from New Zealand (TBA)	Mr. Julian Crane
15:00 – 15:30	Coffee break	
15:30 – 17:00	Traceability in scientific / legal metrology	Dr. Matsumoto
18:00 – 20:00	Welcome dinner	Host
Wednesday, 31 August Venue: Borobudur Hotel Jakarta		
Time	Details	Presenter
09:00 – 10:30	Outline of standard weights – Technical requirements based on R 111	Trainer (TBA)
10:30 – 11:00	Coffee Break	
11:00 – 12:30	Method of calibration	Trainer (TBA)
12:30 – 14:00	Lunch	
14:00 – 15:30	Lecture on measurement uncertainty	Trainer (TBA)
15:30 – 16:00	Coffee Break	
16:00 – 17:00	Preparation for calibration test	All trainers
Thursday, 1 September Venue: Borobudur Hotel Jakarta		
Time	Details	Presenter
09:00 – 10:30	Practical training for calibration in groups	All trainers
10:30 – 11:00	Coffee Break	
11:00 – 12:30	Practical training for calibration in groups	All trainers
12:30 – 14:00	Lunch	
14:00 – 15:00	Presentation on the calibration results in groups	Trainers and trainees
15:00 – 15:30	Summary discussion	Dr. Matsumoto
15:30 – 16:00	Coffee Break	
16:00 – 16:30	Closing ceremony	All participants