

Gulf Association for Metrology

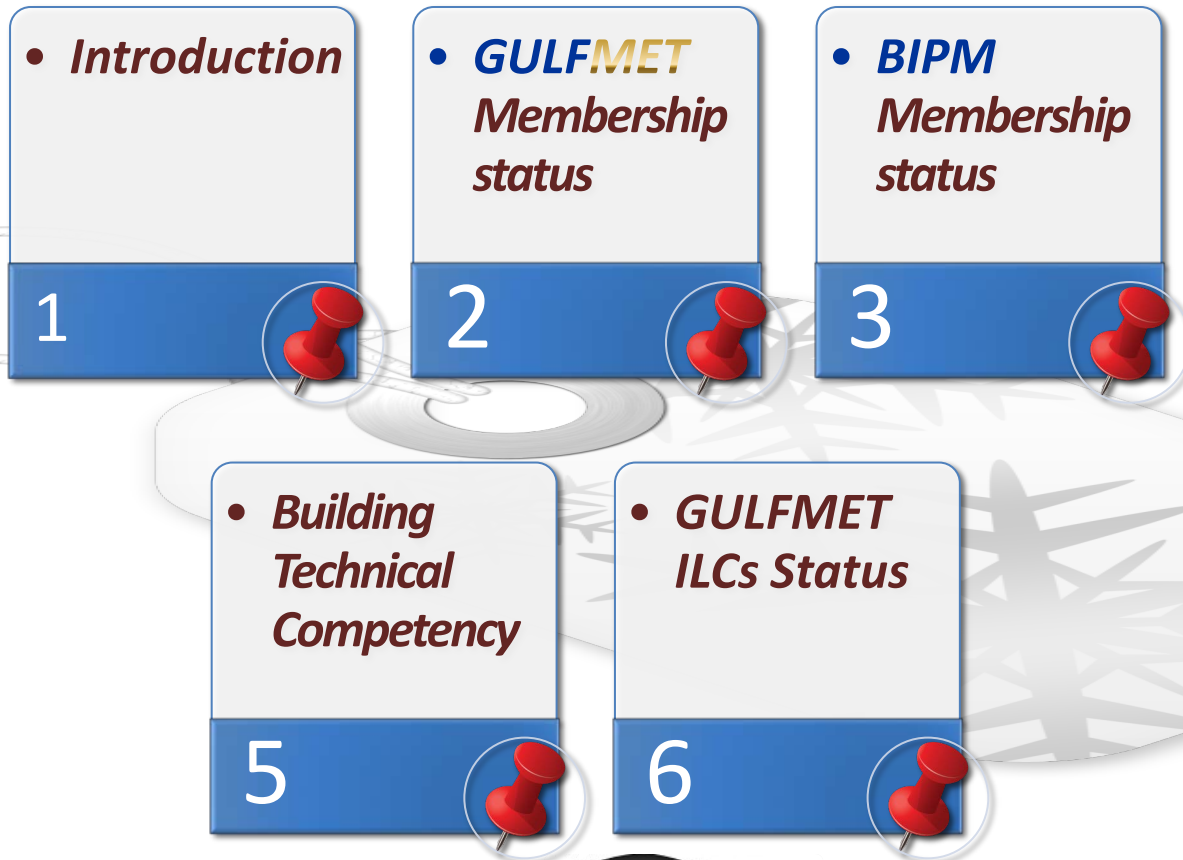
GULFMET

New Regional Metrology Organization

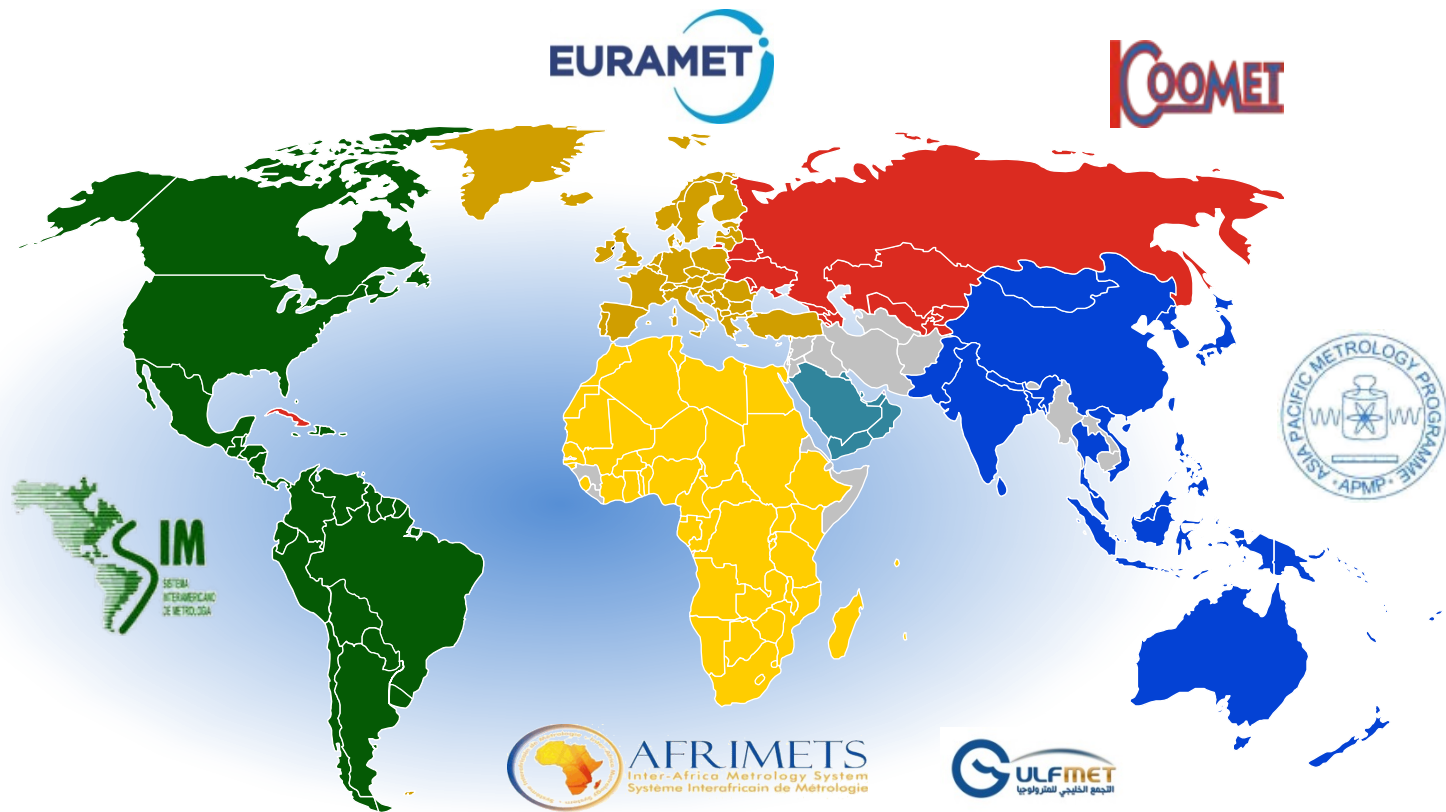
11th CCAUV Meeting
BIPM, Paris
20-22 September 2017

Enver Sadıkođlu



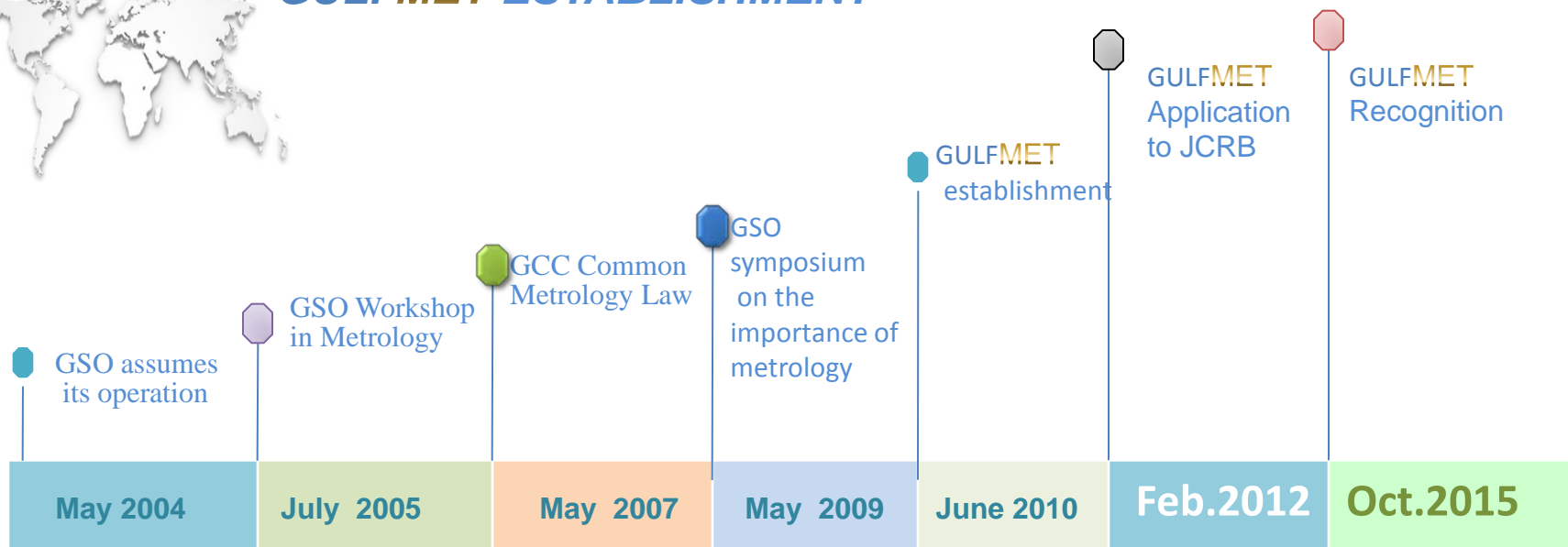


Regional Metrology Organizations



Introduction


GULFMET ESTABLISHMENT



↘ Decision CIPM/104-38

October 2015

The CIPM granted provisional acceptance of GULFMET as a Regional Metrology Organization (RMO) in accordance with the procedures of the JCRB and within the meaning of the CIPM MRA.

 [Meeting report]

About **GULFMET**

GULFMET aims

- To enhance the metrological infrastructure and activities within the member states
- To ensure the technical capabilities of national metrology institutes and designated institutes participating in the GULFMET as an RMO
- To enhance cooperation with the International Organization BIPM, OIML, and relevant international and regional organizations



GULFMET commitment



GULFMET focuses in its efforts on:

- strengthen the technical capacity and raise the efficiency of its Technical Committees (TCs).
- support member states to fulfill the CIPM MRA requirements by providing proper consultation.
- capacity building by providing proper training for member states.
- develop partnership with other RMOs, NMIs and international organizations.



GULFMET Members:



- *United Arab Emirates*
- *Kingdom of Bahrain*
- *Kingdom of Saudi Arabia*
- *Sultanate of Oman*
- *State of Qatar*
- *State of Kuwait*
- *Republic of Yemen*



GULFMET Associate Members:

- *UME :- Turkey*
- *KRISS :- Korea*
- *NIS :- Egypt*
- *SCL :- Hong Kong*
- *IMBiH :- Bosnia and Herzegovina*



* *NMI of China (NIM) is invited to join GULFMET as an associate member*

BIPM Membership status

Bureau
International des
Poids et
Mesures



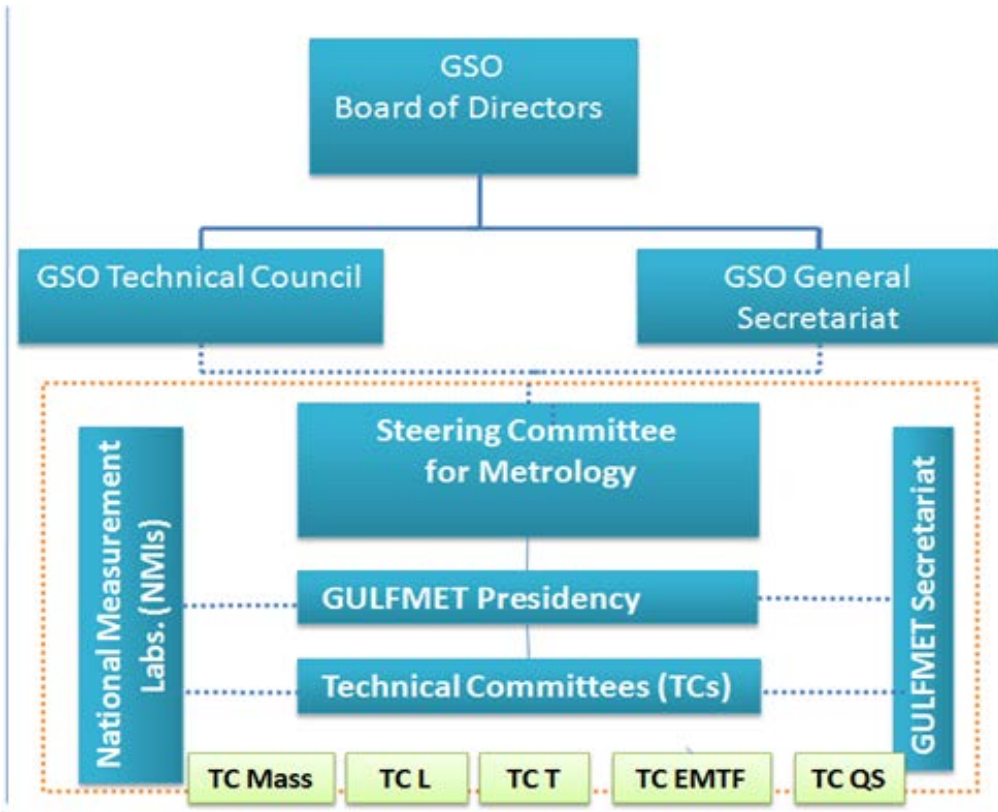
- *United Arab Emirates* (Member)
- *Kingdom of Bahrain* (not yet)
- *Kingdom of Saudi Arabia* (Member)
- *Sultanate of Oman* (Associate member)
- *State of Qatar* (Associate member)
- *State of Kuwait* (in process)
- *Republic of Yemen* (Associate member)



GULFMET STRUCTURE

GULFMET Structure :

GULFMET Organization Structure has been prepared and approved, it specifies responsibilities, authorities, organization chart, procedures and processes, and Technical committees



New TCs

TC PR

TC Ch



GULFMET TCs Status



GULFMET TCs	Chairperson	Institution	Address	E-mail
Electricity and Magnetism	Mr. John Bartholomew	Emirate metrology Institute	P.O. Box 853 Abu Dhabi, UAE	Jon.Bartholomew@qcc.abudhabi.ae
Length	Dr. Ahmed Dahlan	Emirate metrology Institute	P.O. Box 853 Abu Dhabi, UAE	a.dahlan@qcc.abudhabi.ae
Mass and Related Quantities	Dr. Christos Mitsas	Emirate metrology Institute	P.O. Box 853 Abu Dhabi, UAE	c.mitsas@qcc.abudhabi.ae
Thermometry	Dr. Miltiadis Anagnostou	Emirate metrology Institute	P.O. Box 853 Abu Dhabi, UAE	miltiadis.anagnostou@qcc.abudhabi.ae
Time and Frequency	Mr. John Bartholomew	Emirate Metrology Institute	P.O. Box 853 Abu Dhabi, UAE	Jon.Bartholomew@qcc.abudhabi.ae
Quality	Mr. Mohammed Al Mulla	Emirate Metrology Institute	P.O. Box 853 Abu Dhabi, UAE	mohamed.almulla@qcc.abudhabi.ae

Interlaboratory Comparisons registered on KCDB



Refine your search	Result of the search																																																								
<p>↓ METROLOGY AREA</p> <ul style="list-style-type: none"> Electricity and Magnetism (5) Mass (1) Time and Frequency (1) <p>↓ TYPE</p> <ul style="list-style-type: none"> Supplementary comparisons (6) Key comparisons (1) <p>↓ STATUS</p> <ul style="list-style-type: none"> In progress (3) Protocol complete (2) Planned (1) Report in progress, Draft A (1) <p>↓ ORGANISATIONS</p> <ul style="list-style-type: none"> GULFMET (7) 	<p>Your query 'gulfmnet' produced 7 results New search</p> <table border="1"> <tr> <td>GULFMET.EM.BIPM-K11</td> <td>DC voltage, Zener diode 2017</td> </tr> <tr> <td>Comparison type, Field</td> <td>Key comparison in Electricity and Magnetism, DC Voltage and Current</td> </tr> <tr> <td>Parameter(s)</td> <td>DC Voltage</td> </tr> <tr> <td>Status</td> <td>Planned</td> </tr> <tr> <td>GULFMET.M.M- S1</td> <td>Mass standards 2014 - 2015</td> </tr> <tr> <td>Comparison type, Field</td> <td>Supplementary comparison in Mass, Mass Standards</td> </tr> <tr> <td>Parameter(s)</td> <td>Density and magnetic susceptibility of the mass standards are determined</td> </tr> <tr> <td>Status</td> <td>Report in progress, Draft A</td> </tr> <tr> <td>GULFMET.EM- S1</td> <td>Resistance at 100 ohm 2016 - 2017</td> </tr> <tr> <td>Comparison type, Field</td> <td>Supplementary comparison in Electricity and Magnetism, Resistance</td> </tr> <tr> <td>Parameter(s)</td> <td>DC Resistance</td> </tr> <tr> <td>Status</td> <td>In progress</td> </tr> <tr> <td>GULFMET.EM.RF- S1</td> <td>Correction factor for electric field measurements 2016 - 2017</td> </tr> <tr> <td>Comparison type, Field</td> <td>Supplementary comparison in Electricity and Magnetism, Radio frequencies</td> </tr> <tr> <td>Parameter(s)</td> <td>Frequencies: 100 Hz, 1 kHz, 10 MHz, 100 MHz, 1 GHz, 9 GHz and 18 GHz</td> </tr> <tr> <td>Status</td> <td>Indicated field level: 30 V/m In progress</td> </tr> <tr> <td>GULFMET.EM- S3</td> <td>AC/DC voltage transfer standards 2017</td> </tr> <tr> <td>Comparison type, Field</td> <td>Supplementary comparison in Electricity and Magnetism, AC Voltage, Current, Power, and AC/DC Transfer</td> </tr> <tr> <td>Parameter(s)</td> <td>Frequency: 10 Hz, 55 Hz, 1 kHz, 20 kHz, 100 kHz, 1 MHz</td> </tr> <tr> <td>Status</td> <td>Protocol complete</td> </tr> <tr> <td>GULFMET.EM- S2</td> <td>AC Power at 50/60 Hz 2017</td> </tr> <tr> <td>Comparison type, Field</td> <td>Supplementary comparison in Electricity and Magnetism, AC Voltage, Current, Power, and AC/DC Transfer</td> </tr> <tr> <td>Parameter(s)</td> <td>Power Factor: 1, 0.8 i/c, 0.5 i/c, 0.25 i/c, 0.01 i/c (where i/c indicates inductive or capacitive)</td> </tr> <tr> <td>Status</td> <td>Protocol complete</td> </tr> <tr> <td>GULFMET.TF- S1</td> <td>Time difference between two pulses 2017</td> </tr> <tr> <td>Comparison type, Field</td> <td>Supplementary comparison in Time and Frequency, Time</td> </tr> <tr> <td>Parameter(s)</td> <td>Amplitude: 1.8 V square wave</td> </tr> <tr> <td>Status</td> <td>Frequency: 1 kHz, 100 Hz and 20 Hz In progress</td> </tr> </table>	GULFMET.EM.BIPM-K11	DC voltage, Zener diode 2017	Comparison type, Field	Key comparison in Electricity and Magnetism, DC Voltage and Current	Parameter(s)	DC Voltage	Status	Planned	GULFMET.M.M- S1	Mass standards 2014 - 2015	Comparison type, Field	Supplementary comparison in Mass, Mass Standards	Parameter(s)	Density and magnetic susceptibility of the mass standards are determined	Status	Report in progress, Draft A	GULFMET.EM- S1	Resistance at 100 ohm 2016 - 2017	Comparison type, Field	Supplementary comparison in Electricity and Magnetism, Resistance	Parameter(s)	DC Resistance	Status	In progress	GULFMET.EM.RF- S1	Correction factor for electric field measurements 2016 - 2017	Comparison type, Field	Supplementary comparison in Electricity and Magnetism, Radio frequencies	Parameter(s)	Frequencies: 100 Hz, 1 kHz, 10 MHz, 100 MHz, 1 GHz, 9 GHz and 18 GHz	Status	Indicated field level: 30 V/m In progress	GULFMET.EM- S3	AC/DC voltage transfer standards 2017	Comparison type, Field	Supplementary comparison in Electricity and Magnetism, AC Voltage, Current, Power, and AC/DC Transfer	Parameter(s)	Frequency: 10 Hz, 55 Hz, 1 kHz, 20 kHz, 100 kHz, 1 MHz	Status	Protocol complete	GULFMET.EM- S2	AC Power at 50/60 Hz 2017	Comparison type, Field	Supplementary comparison in Electricity and Magnetism, AC Voltage, Current, Power, and AC/DC Transfer	Parameter(s)	Power Factor: 1, 0.8 i/c, 0.5 i/c, 0.25 i/c, 0.01 i/c (where i/c indicates inductive or capacitive)	Status	Protocol complete	GULFMET.TF- S1	Time difference between two pulses 2017	Comparison type, Field	Supplementary comparison in Time and Frequency, Time	Parameter(s)	Amplitude: 1.8 V square wave	Status	Frequency: 1 kHz, 100 Hz and 20 Hz In progress
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Interlaboratory Comparisons



CCL-K11

Comparison of optical frequency and wavelength standards

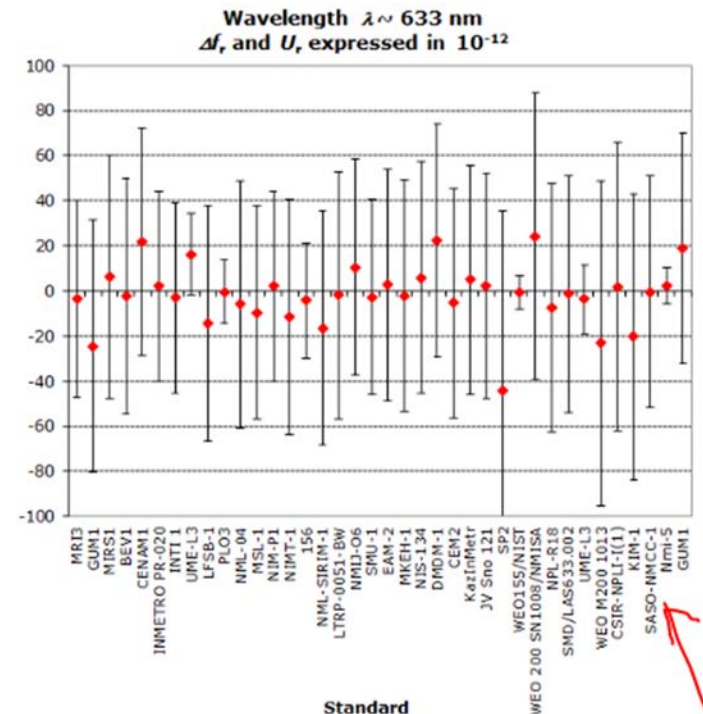
piloted by the Bundesamt für Eich- und Vermessungswesen (BEV, Austria)

3.1 Participants

Table 1. List of participant (and node) laboratories and their contacts.

Laboratory Code	Contact person, Laboratory	Phone
BIM	Veselin Gavalyugov, Denita Tamakyarska Bulgarian Institute of Metrology BIM 52-B, G.M. Dimitrov Blvd.,1040 Sofia Bulgaria	Tel: e-m:
SASO	Nasser Alqahtani, Mohammad Alfahaid Saudi Standards, Metrology & Quality Org. SASO P.O.Box: 3437 Riyadh 11471 Saudi Arabia	Tel: e-m:
NPLI	Girja-Moona, Rina Sharma CSIR-National Physical Laboratory, India NPLI Dr. K.S. KRISHNAN MARG, New Delhi – 110012, India	Tel: e-m:
KIM-LIPI	Asep Hapidin, Ahmad Mohamad Boynawan Indonesian Institute of Sciences Puslit KIM-LIPI Kompleks PUSPIPEK Serpong, Tangerang, Banten, Indonesia	Tel: e-m:
NIMT (host)	Monludee Ranusawud National Institute of Metrology (Thailand) NIMT 3/4 – 5 Moo 3, Klong 5, Klong Luang, Pathumthani 12120 Thailand	Tel: e-m:
BEV (pilot, node)	Michael Matus Bundesamt für Eich- und Vermessungswesen BEV Arltgassee 35, 1160 Wien Austria	Tel: Fax: e-m:
NMIJ (node)	Feng-Lei Hong, Jun Ishikawa National Metrology Institute of Japan and National Institute of Advanced Industrial Science and Technology NMIJ, AIST Tsukuba Central 3, Umezono 1-1-1, Tsukuba 305- 8563 Japan	Tel: e-m:
BIPM (observer)	Lennart Robertsson BIPM Pavillon de Breteuil, 92312 Sèvres France	Tel: Fax: e-mail: lroberts@bipm.org

Degrees of equivalence



GULFMET Training Course



BIPM Training Course

□ Workshop on Inter laboratory Comparison (ILCs)

Dubai - 21-23 Nov. 2016

Hosted by ESMA in association with BIPM

Instructor : Mr. Andy Henson

35 delegates



Leaders of Tomorrow

□ Capacity Building and Knowledge Transfer Program

BIPM / Paris 07-18 Nov. 2016

1 delegate from GULFMET



Training courses



Workshop on Validation of Calibration Methods

Kuwait, 13-15 March 2017

Host by Kuwait Public Authority(PAI)

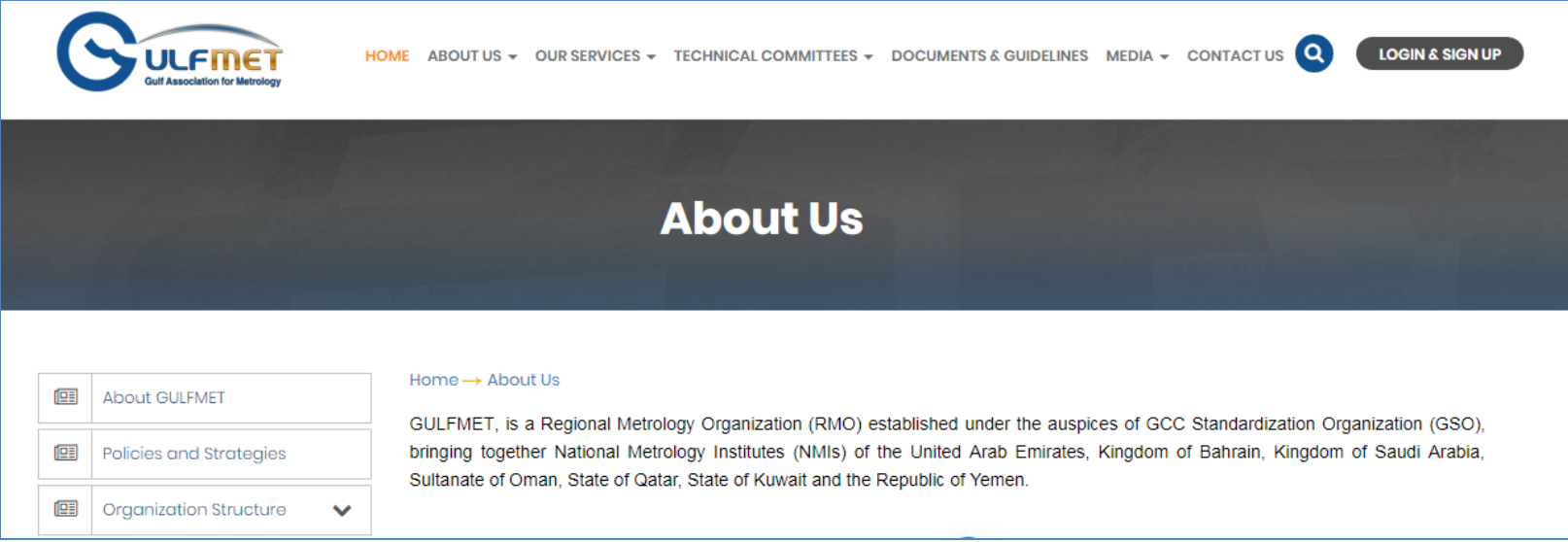
25 delegates

Workshop on the Use of Reference Materials

Muscat /Oman, 8-10 May 2017


Host by Oman General Directorate for Standards and Metrology

35 delegates



The screenshot shows the 'About Us' page of the GULFMET website. The header includes the GULFMET logo and navigation links: HOME, ABOUT US, OUR SERVICES, TECHNICAL COMMITTEES, DOCUMENTS & GUIDELINES, MEDIA, CONTACT US, a search icon, and a LOGIN & SIGN UP button. The main heading is 'About Us'. A breadcrumb trail shows 'Home → About Us'. A sidebar menu on the left contains 'About GULFMET', 'Policies and Strategies', and 'Organization Structure'. The main content area contains a paragraph describing GULFMET as a Regional Metrology Organization (RMO) established under the auspices of the GCC Standardization Organization (GSO), bringing together National Metrology Institutes (NMIs) of the United Arab Emirates, Kingdom of Bahrain, Kingdom of Saudi Arabia, Sultanate of Oman, State of Qatar, State of Kuwait and the Republic of Yemen.

ULFMET
التجمع الخليجي للمترولوجيا

HOME ABOUT US OUR SERVICES TECHNICAL COMMITTEES DOCUMENTS & GUIDELINES MEDIA CONTACT US  **LOGIN & SIGN UP**

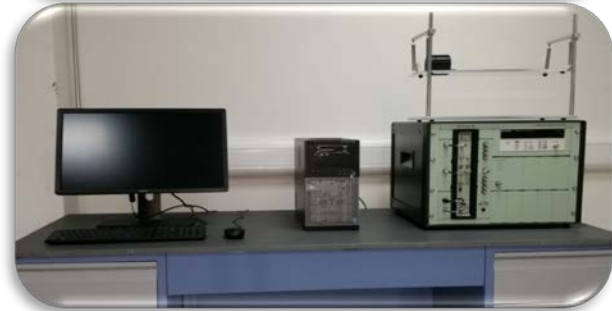
About Us

Home → About Us

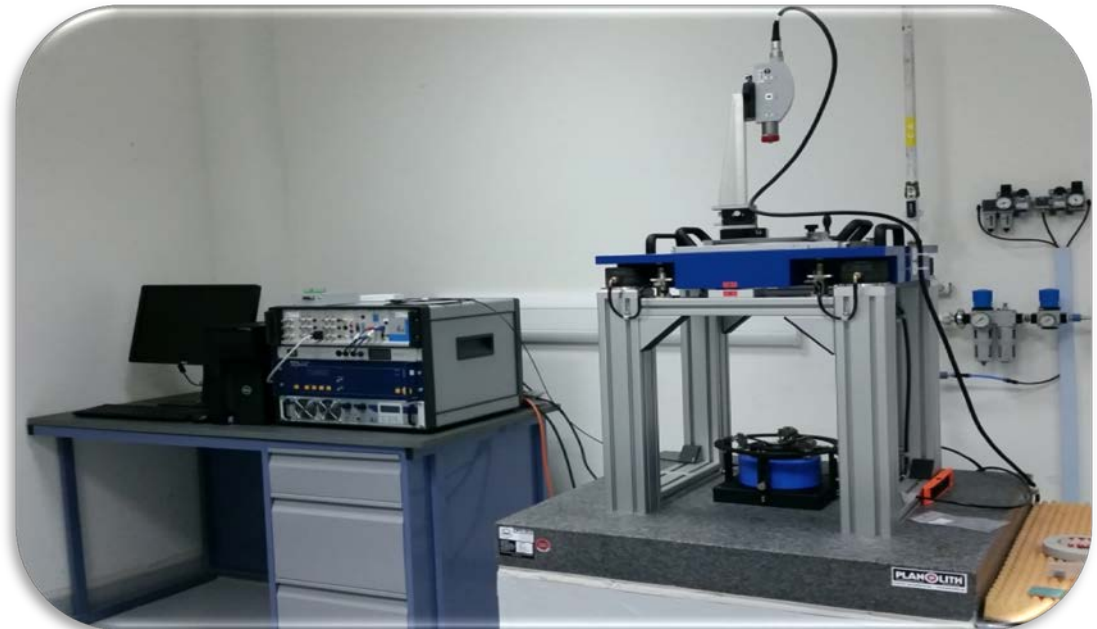
About GULFMET
Policies and Strategies
Organization Structure

GULFMET, is a Regional Metrology Organization (RMO) established under the auspices of GCC Standardization Organization (GSO), bringing together National Metrology Institutes (NMIs) of the United Arab Emirates, Kingdom of Bahrain, Kingdom of Saudi Arabia, Sultanate of Oman, State of Qatar, State of Kuwait and the Republic of Yemen.

Please look at web-site: www.gulfmet.org



- No TC-AUV yet...
- The only capabilities are available at SASO NMCC (Saudi Arabia)



Thank you!

