



**Metrology in Acoustics, Ultrasound and Vibration  
Global Metrology Academy Group Course (GMA-GT-2023-01-AUV)**

**Theme:** Metrology in Acoustics, Ultrasound and Vibration [AUV]

**Dates:** June 12 (Mon) - June 22 (Thu), 2023

**Organized by:** Global Metrology Academy (GMA), KRIS

**Workshop Overview**

[GMA-GT-2023-01-AUV]

**Applications: by January 20, 2023**

The Global Metrology Academy of KRIS offers workshops to meet the needs of metrology HRD of the customers both at home and from abroad who are responsible for metrology and related functions of national quality infrastructure of the nation. The workshop [GMA-GT-2023-01-AUV] is the first one scheduled to be offered in 2023. Its main theme is metrology in acoustics, ultrasound and vibration [AUV], to be presented in three (3) modules consisting of measurement and calibration of acoustics, ultrasound and vibration.

With its main target audience of basic/Intermediate level of metrologists, the AUV workshop will deliver the concepts of the traceability and measurement standards along with other key subjects of AUV that participants need to obtain for their future career as leaders in their local and global metrology communities.

As an effort to yield as much practical benefits as possible for participants, every session of the AUV workshop is strategically designed that technical lectures are effectively combined with hands-on laboratory exercises to follow. By the end of the workshop, participants might have better understanding of basic knowledge, skills, and information as up to dated on the key elements of metrology in AUV. It will enable them to offer better measurement services for their customers. In addition, participants will be given a two-day session of metrology in general (MiG) to learn selected fundamental subjects of metrology, such as the CIPM MRA requirements covering key comparison (KC); calibration and measurement capabilities (CMC), traceability, uncertainty in measurement, and revised SI.

**Outline of Workshop Program [\* Subject to modifications]**

Modules	Subjects	Chief Lecturers
Orientation	Introduction and brief tour (* to be offered for participants who will arrive by Friday of the week before opening.)	GMA
MiG (Days 1-2)	Metrology in General - Five (5) lectures dealing with the fundamentals of metrology in general	Dr. Joo-Keun Park (jkpark@kriss.re.kr)
AUV	Metrology in Acoustics and Vibration - Three (3) intensive laboratory sessions offered in parallel	Dr. Wan-Ho Cho (chowanho@kriss.re.kr)
AUV-01 (Day 3-4)	Acoustic Measurement and Calibration	Dr. Wan-Ho Cho (chowanho@kriss.re.kr)
AUV-02 (Day 5, 8)	Ultrasound Measurement and Calibration	Dr. Yong-Tae Kim (ytkim@kriss.re.kr)
AUV-03 (Day 9-10)	Vibration Measurement and Calibration	Dr. Sung-Soo Jung (jss@kriss.re.kr)
AUV (Days 11)	Performance test, Individual lab visits, Wrap-up & Closing	Acoustics, Ultrasound, Vibration Metrology Group

Knowledge  
and skills to  
be obtained

At the end of the workshop, participants will become familiar with fundamental knowledge and skills on the key subjects of measurement standards, traceability, calibration and uncertainty in the fields of metrology in acoustics, ultrasound and vibration along with the key measuring instruments. Intensive laboratory sessions (ILS) are effectively combined with lectures and hands-on exercises in ways that allow participants to obtain basic skills required for offering quality services for customers. A two-day session of metrology in general (MiG) will offer participants broad perspectives that will help them grow up to take the leading role in advancing the nation-wide measurement system up to the international level.

Who should  
attend!

**Metrologists who are working on R&D and measurement services in the fields of acoustics, ultrasound and vibration**

Applications

**Applications to be accepted: by January 20, 2023**

**Contact Point: Application and Inquiry**

For applications and further information about participation in the course, please contact:  
Jungil Jeon, Coordinator, Global Metrology Academy (GMA), KRIS  
[jeon@kriss.re.kr](mailto:jeon@kriss.re.kr)

### Workshop Program Overview: Modules, Lectures, Hands-on Exercises

\* subject to modifications

Jun 9 (Fri)	<i>Arrival at Daejeon, check-in at the Hotel Graytone in Daejeon</i>	<i>recommended date of arrival at Daejeon, Korea</i>
Jun 10 (Sat)	<b>Orientation Session</b>	<b>10:00-12:00 (provisional)</b>
Jun 11 (Sun)	Free	
<b>MiG</b>	<b>Metrology in General: fundamentals of metrology and quality</b>	<b>Jun 12 (Mon) - 13 (Tue)</b>
	Five (5) lectures and exercises (uncertainty evaluation)	Lecturers
DAY 1 (Mon) Jun 12	MiG-01 CIPM MRA: KC-CMC-Traceability in Measurement (1 h)	Dr. Joo-Keun Park
	MiG-02 Uncertainty in Measurement (Including exercises) (1.5 h)	Dr. Kyoung-Beom Lee
	MiG-03 Revised SI and Fundamental Constants (1 h)	Dr. Ho-Seong LEE
DAY 2 (Tue) Jun 13	MiG-04 QMS Talk (1.5 h)	Dr. Joo-Keun Park
	MiG-05 APMP TCAUV Activities (1 h)	Dr. Wan-Ho Cho
	Presentation of Laboratory Reports(Including QMS) (3.5 h)	Participants, GMA
<b>AUV</b>	<b>Metrology in Acoustics, Ultrasound and Vibration</b> - Intensive laboratory sessions addressing three key subjects of AUV	<b>Jun 14(Wed)-16(Thu), Jun 19(Mon)-Jun 22 (Wed)</b>
	Intensive Laboratory Session (ILS) with lectures and exercises	(L) Lecture, (H) Hands-on exercises
<b>AUV-01 (Day 3-4)</b>	<b>Acoustic Measurement and Calibration</b>	<b>Jun 14(Wed)-15(Thu)</b>
DAY 3 (Wed) Jun 14	(AUV-01-L-1) Basic Theory of Acoustics (1.5 h)	Dr. Wan-Ho Cho
	(AUV-01-L-2) Calibration of Microphone Sensitivity (1.5 h)	Dr. Wan-Ho Cho
	(AUV-01-H-1) Hands-on Exercises (3.0 h) - Calibration of Microphone Sensitivity	Dr. Jae-Gap Suh / Dr. Wan-Ho Cho
DAY 4 (Thu) Jun 15	(AUV-01-L-3) Calibration of Sound Calibrators and Sound Level Meter (1.5 h)	Dr. Wan-Ho Cho
	(AUV-01-L-4) Sound Power Measurement and Evaluation of Facility (1.5 h)	Dr. Wan-Ho Cho
	(AUV-01-H-2) Hands-on Exercises: In two groups (3.0 h) - Calibration of Sound Level Meter, Calibration of Acoustic Calibrators	Dr. Jae-Gap Suh / Dr. Wan-Ho Cho
<b>AUV-02 (Day 5, 8, 9)</b>	<b>Ultrasound Measurement and Calibration</b>	<b>Jun 16(Fri)-20(Tue)</b>
DAY 5 (Fri) Jun 16	(AUV-02-L-1) Fundamentals of Ultrasonic Metrology and Instrumentation (2.0 h)	Dr. Kyung-min Baik
	(AUV-02-L-2) Thermal and Nonthermal effects of Biomedical Ultrasound (1.0 h)	Dr. Yong-Tae Kim
	(AUV-02-L-3) Ultrasound power calibration of ultrasonic source transducer by radiation force balance method (1.0 h)	Dr. Yong-Tae Kim
	(AUV-02-L-4) Transmitting voltage (current) response calibration of ultrasonic source transducer by reciprocity method (2.0 h)	Dr. Yong-Tae Kim
DAY 8 (Mon) Jun 19	(AUV-02-L-5) Acoustic pressure field measurement by hydrophone scanning (2.0 h)	Dr. Yong-Tae Kim
	(AUV-02-L-6) Acoustic properties of ultrasonic materials (1.5 h)	Dr. Yong-Tae Kim / Dr. Hyung-Jin Lee
	(AUV-02-H-1) Hands-on Exercises (1.5 h) - Acoustic pressure field measurement and hydrophone calibration (substitution method)	Mr. Sung-Mok Kim
	(AUV-02-H-2) Hands-on Exercises (1.5 h) - Acoustic property measurement of material by through-transmission method	Dr. Yong-Tae Kim
DAY 9 (Tue) Jun 20	(AUV-02-H-3) Hands-on Exercises (1.5 h) - Ultrasound power calibration of ultrasonic source transducer by RFB method	Mr. Sung-Mok Kim
	(AUV-02-H-4) Hands-on Exercises (1.5 h) - Transmitting voltage (current) response calibration of ultrasonic source transducer by reciprocity method	Dr. Yong-Tae Kim
<b>AUV-03 (Day 9-10)</b>	<b>Vibration Measurement and Calibration</b>	<b>Jun 20(Tue)-21(Wed)</b>
DAY 9 (Tue) Jun 20	(AUV-03-L-1) Basic Vibration Principles (2.0 h)	Dr. Sung-Soo Jung
DAY 10 (Wed) Jun 21	(AUV-03-L-2) Calibration of Vibratoin Transducers and Measurement Uncertainty (2.5 h)	Dr. Sung-Soo Jung
	(AUV-03-H-1) Hands-on Exercises (3.0 h) - Calibration of Vibration Transducers	Dr. Byung-Soo Jeon / Dr. Sung-Soo Jung
<b>AUV</b>	<b>Performance Evaluation Test, Individual Lab Visits, Closing</b>	<b>Jun 22 (Thu)</b>
DAY 11 (Thu) Jun 22	[Performance Evaluation Test]	GMA
	[Individual Visits to Laboratories]	
	[Development/Presntation of Action Plans]	Participants, GMA
	Closing Session (Evaluation of the workshop, Certificate awarding)	GMA
June 22-23 (Thu-Fri)	<b>Departure: June 22(Thu) - 23 (Fri)</b>	<b>* Depending on the flight itinerary</b>

**Daily Program (Provisional)**

Language of the course: **English**

Jun 9 (Fri)	Arrival at Daejeon, check-in at the Hotel Graytone	
Jun 10 (Sat)	Orientation Session	10:00-12:00
Jun 11 (Sun)	Free	
Jun 12 (Mon)	<b>Opening &amp; Metrology in General (MiG)</b>	<b>Tech. Service Bldg (Seminar RM #1, 1st floor)</b>
09:30-10:00	From Hotel to KRISS (* ride offered by the Hotel Graytone)	GMA (Jungil Jeon)
10:00-10:30	Greetings and Introduction to KRISS	
10:30-11:00	Opening session	
11:00-12:00	<b>MiG-01 CIPMMRA: KC-CMC-Traceability in Measurement</b>	Dr. Joo-Keun Park
12:00-13:30	Lunch	KRISS cafeteria (2nd floor)
13:30-15:00	<b>MiG-02 Uncertainty in Measurement Revised SI with Fundamental Constants</b>	Dr. Kyoung-Beom Lee
15:20-16:20	<b>MiG-03 Revised SI and Fundamental Constants</b>	Dr. Ho-Seong LEE
16:20-17:00	From KRISS to Hotel (* ride offered by the Hotel Graytone)	GMA (Jungil Jeon)
Jun 13 (Tue)	<b>Metrology in General (MiG)</b>	<b>Tech. Service Bldg (Seminar RM #1, 1st floor)</b>
08:30-09:00	From Hotel to KRISS (* ride offered by the Hotel Graytone)	GMA (Jungil Jeon)
09:30-11:00	<b>MiG-04 QMS Talk</b>	Dr. Joo-Keun Park
11:00-12:00	<b>MiG-05 TCAUV Activities</b>	Dr. Wan-Ho Cho
12:00-13:30	Lunch	KRISS cafeteria (floor 2)
13:30-17:00	<b>Presentation of Laboratory Reports(Including QMS)</b>	Participants
17:00-17:30	From KRISS to Hotel (* ride offered by the Hotel Graytone)	GMA (Jungil Jeon)
<b>AUV-01</b>	<b>Acoustic Measurement and Calibration</b>	<b>Tech. Service Bldg (Seminar RM #1, 1st floor)</b>
Jun 14 (Wed)	Lectures (L), Hands-on Exercises (H)	<b>Hands-on session: Laboratories in charge</b>
08:30-09:00	From Hotel to KRISS (* ride offered by the Hotel Graytone)	GMA (Jungil Jeon)
09:30-11:00	<b>[AUV-01-L-1] Basic Theory of Acoustics</b>	Dr. Wan-Ho Cho
11:00-12:30	<b>[AUV-01-L-2] Calibration of Microphone Sensitivity</b>	Dr. Wan-Ho Cho
12:30-14:00	Lunch	KRISS cafeteria (2nd floor)
14:00-17:00	<b>[AUV-01-H-1] Hands-on Exercises - Calibration of Microphone Sensitivity</b>	Dr. Jae-Gap Suh / Dr. Wan-Ho Cho
17:00-17:30	From KRISS to Hotel (* ride offered by the Hotel Graytone)	GMA (Jungil Jeon)
<b>AUV-01</b>	<b>Acoustic Measurement and Calibration</b>	<b>Tech. Service Bldg (Seminar RM #1, 1st floor)</b>
Jun 15 (Thu)	Lectures (L), Hands-on Exercises (H)	<b>Hands-on session: Laboratories in charge</b>
08:30-09:00	From Hotel to KRISS (* ride offered by the Hotel Graytone)	GMA (Jungil Jeon)
09:30-11:00	<b>[AUV-01-L-3] Calibration of Sound Calibrators and Sound Level Meter</b>	Dr. Wan-Ho Cho
11:00-12:30	<b>[AUV-01-L-4] Sound Power Measurement and Evaluation of Facility</b>	Dr. Wan-Ho Cho
12:30-14:00	Lunch	KRISS cafeteria (2nd floor)
14:00-17:00	<b>[AUV-01-H-2] Hands-on Exercises - Calibration of Sound Level Meter, Calibration of Acoustic Calibrators</b>	Dr. Jae-Gap Suh / Dr. Wan-Ho Cho
17:00-17:30	From KRISS to Hotel (* ride offered by the Hotel Graytone)	GMA (Jungil Jeon)
<b>AUV-02</b>	<b>Ultrasound Measurement and Calibration</b>	<b>Tech. Service Bldg (Seminar RM #1, 1st floor)</b>
Jun 16 (Fri)	Lectures (L), Hands-on Exercises (H)	<b>Hands-on session: Laboratories in charge</b>
08:30-09:00	From Hotel to KRISS (* ride offered by the Hotel Graytone)	GMA (Jungil Jeon)
09:30-11:30	<b>[AUV-02-L-1] Fundamentals of Ultrasonic Metrology and Instrumentation</b>	Dr. Kyung-min Baik
11:30-12:30	<b>[AUV-02-L-2] Thermal and Nonthermal effects of Biomedical Ultrasound</b>	Dr. Yong-Tae Kim
12:30-14:00	Lunch	KRISS cafeteria (2nd floor)
14:00-15:00	<b>[AUV-02-L-3] Ultrasound power calibration of ultrasonic source transducer by radiation force balance method</b>	Dr. Yong-Tae Kim
15:00-17:00	<b>[AUV-02-L-4] Transmitting voltage (current) response calibration of ultrasonic source transducer by reciprocity method</b>	Dr. Yong-Tae Kim
17:30-18:00	From KRISS to Hotel (* ride offered by the Hotel Graytone)	GMA (Jungil Jeon)
Jun 17 (Sat) Jun 18 (Sun)	FREE	

AUV-02	Ultrasound Measurement and Calibration	Tech. Service Bldg (Seminar RM #1, 1st floor)
<b>Jun 19 (Mon)</b>	Lectures (L), Hands-on Exercises (H)	Hands-on session: Laboratories in charge
08:30-09:00	From Hotel to KRIS (* ride offered by the Hotel Graytone)	GMA (Jungil Jeon)
09:30-11:30	<b>[AUV-02-L-5] Acoustic pressure field measurement by hydrophone scanning</b>	
11:30-13:00	<b>[AUV-02-L-6] Acoustic properties of ultrasonic materials</b>	Dr. Hyung-Jin Lee
13:00-14:00	Lunch	KRIS cafeteria (2nd floor)
14:00-15:30	<b>[AUV-02-H-1] Hands-on Exercises</b> - Acoustic pressure field measurement and hydrophone calibration (substitution method)	Mr. Sung-Mok Kim
15:30-17:00	<b>[AUV-02-H-2] Hands-on Exercises</b> - Acoustic property measurement of material by through-transmission method	Dr. Yong-Tae Kim
17:00-17:30	From KRIS to Hotel (* ride offered by the Hotel Graytone)	GMA (Jungil Jeon)
AUV-02	Ultrasound Measurement and Calibration	Tech. Service Bldg (Seminar RM #1, 1st floor)
<b>Jun 20 (Tue)</b>	Lectures (L), Hands-on Exercises (H)	Hands-on session: Laboratories in charge
08:30-09:00	From Hotel to KRIS (* ride offered by the Hotel Graytone)	GMA (Jungil Jeon)
09:30-11:00	<b>[AUV-02-H-3] Hands-on Exercises</b> - Ultrasound power calibration of ultrasonic source transducer by RFB method	Mr. Sung-Mok Kim
11:00-12:30	<b>[AUV-02-H-4] Hands-on Exercises</b> - Transmitting voltage (current) response calibration of ultrasonic source transducer by reciprocity method	Dr. Yong-Tae Kim
12:30-14:00	Lunch	KRIS cafeteria (2nd floor)
AUV-03	Vibration Measurement and Calibration	Tech. Service Bldg (Seminar RM #1, 1st floor)
14:00-16:00	<b>[AUV-03-L-1] Basic Vibration Principles</b>	Dr. Sung-Soo Jung
17:00-17:30	From KRIS to Hotel (* ride offered by the Hotel Graytone)	GMA (Jungil Jeon)
AUV-03	Vibration Measurement and Calibration	Tech. Service Bldg (Seminar RM #1, 1st floor)
<b>Jun 21 (Wed)</b>	Lectures (L), Hands-on Exercises (H)	Hands-on session: Laboratories in charge
08:30-09:00	From Hotel to KRIS (* ride offered by the Hotel Graytone)	GMA (Jungil Jeon)
09:30-12:00	<b>[AUV-03-L-2] Calibration of Vibratoin Transducers and Measurement Uncertainty</b>	Dr. Sung-Soo Jung
12:00-14:00	Lunch	KRIS cafeteria (2nd floor)
14:00-17:00	<b>[AUV-03-H-1] Hands-on Exercises</b> - Calibration of Vibration Transducers	Dr. Byung-Soo Jeon / Dr. Sung-Soo Jung
17:00-17:30	From KRIS to Hotel (* ride offered by the Hotel Graytone)	GMA (Jungil Jeon)
AUV	Performance Evaluation Test, Individual Lab Visits, Closing	Tech. Service Bldg (Seminar RM #1, 1st floor)
<b>Jun 22 (Thu)</b>	Lectures (L), Hands-on Exercises (H)	Hands-on session: Laboratories in charge
08:30-09:00	From Hotel to KRIS (* ride offered by the Hotel Graytone)	GMA (Jungil Jeon)
09:30-11:00	<b>[Performance Evaluation Test]</b>	
11:00-12:30	<b>[Individual Visits to Laboratories of further interest]</b> - Q&A on matters of further interest to participants, including their Action Plans	participants will be divided into different groups by the subject of individual interest.
12:30-13:30	Lunch	KRIS cafeteria (2nd floor)
13:30-15:00	<b>Elaboration/Presentations of Action plans</b>	Participants, GMA
15:00-16:00	<b>Evaluation of the course (written &amp; oral)</b>	
16:00-16:30	<b>Closing session (certificate awarding)</b>	
16:30-17:00	From KRIS to Hotel (* ride offered by the Hotel Graytone)	GMA (Jungil Jeon)
<b>June 22-23 (Thu-Fri)</b>	<b>Departure (June 22-23)</b>	<b>* depending the flight itinerary of participants</b>
* Participants are supposed to take the airport limousine bus bound for Incheon airport.		
* Ride to the bus stop near the Hotel Graytone will be provided by the Hotel Graytone in cooperation with GMA, KRIS.		
※ Dress code: Smart casual		

**Qualification**

1. The applicant should be duly nominated by the employer, whose official seal and signature should be put on the application/nomination form.
2. The applicant should be an employee of the national metrology institute (NMI) or measurement service laboratory at the time of application.
3. The applicant should be engaged in R&D and services in the subjects of workshop;
4. The applicant should be a university/college graduate or have equivalent professional career and knowledge on themes of the workshop.
5. For the sake of effectiveness, the applicant is required to have a good command of **English**.
6. The applicant should be healthy both physically and mentally enough to go through the whole programs of the workshop.

**Requirements: applications are accepted by January 20, 2023 along with the following requirements.**

1. **An official nomination** by the employer with the official seal and the signature of the top management of the employer;
2. A copy of the **curriculum vitae** of the applicant, describing the academic background and professional experience in detail;
3. A copy of **passport** as valid for more than six (6) months as of the expected date of arrival at Korea;
4. **Laboratory report and Action Plan:** Participants are supposed to submit their laboratory reports and draft action plans according to the template to be provided later on; and
5. Plan of sharing the results of his/her study in the GMA workshop for their institution and the nation.

**Number of participants: each GMA workshop will be operated with around 10 participants.**

### Financial Arrangements

- Participants and their employers are responsible for paying all expenses of the tuition fees, airline tickets, accommodations and meals, etc. required for the participants' travel to and stay in Korea.
- Lunches for nine (9) working days are offered free to ALL participants.
- Subject to the availability of fund, additional financial assistance might be discussed for a limited number of people from developing countries.

<b>1. Tuition fees</b>	<p>① <b>Amount: US\$750/US\$1,500 per person</b></p> <ul style="list-style-type: none"> <li>☞ Two different categories of the tuition fees are applicable according to the economic performance of the applicant's country.</li> <li>☞ <b>Please contact the coordinator, BEFORE making applications, to get confirmed of the tuition fee category applicable for you.</b></li> </ul>
<b>2. Banking information</b>	<p>② Applicants are supposed to remit the tuition fees by bank transfer to the official bank account of KRISS.</p> <ul style="list-style-type: none"> <li>☞ <b>Payment should be made by February 20, 2019 which will make the application complete.</b></li> <li>☞ Please make sure that all the handling and banking charges raised both to the remitter and beneficiary should be paid by the remitter, so that the <u>net amount of tuition fees (US\$750 or US\$1,500) could be received by KRISS</u>.</li> </ul>
	<p>③ Official bank account of KRISS</p> <ul style="list-style-type: none"> <li>- Bank name: Kook-Min Bank (Branch: Yuseong Branch) - Swift code: CZNBKRSE</li> <li>- Account number: <b>461-01-0184-494</b></li> <li>- Account holder's name: Korea Research Institute of Standards and Science (KRIS)</li> <li>- Bank address: 1F, #468-3, Bongmyeong-dong, Yuseong-gu, Daejeon, Republic of Korea</li> <li>☞ <b>invoices will not be issued separately if otherwise requested. (* Receipts might be issued upon the participant's arrival at KRIS.)</b></li> <li>☞ <b>The statement of bank transfer should be sent to KRIS either by Email (jeon@kriss.re.kr) or FAX (+82-42-868-5531) with attention to the GMA course coordinator.</b></li> </ul>
<b>2. Living expenses</b>	<p>④ Participants are responsible for paying living expenses in Korea including accommodations and meals.</p>
	<p>⑤ For selected participants from the developing world, KRIS might provide free accommodations, subject to its financial availability.</p> <ul style="list-style-type: none"> <li>☞ Lunch for nine (9) working days will be offered free to ALL participants.</li> </ul>
	<p>⑥ Please note that expenses for all other meals shall be paid by the participants.</p> <ul style="list-style-type: none"> <li>☞ Participants are advised to bring some pocket money of their own for incidental expenses.</li> </ul>
	<p>⑦ It is likely that participants will stay at the Hotel Graytone, Dunsan in Daejeon. (<a href="http://www.graytone.co.kr/">http://www.graytone.co.kr/</a>)</p> <ul style="list-style-type: none"> <li>☞ The room rate (around US\$55 per night per room) includes breakfast, tax, and service charge.</li> </ul>
<b>3. Airline tickets</b>	<p>⑧ Participants and their employers are responsible for purchasing the airline tickets for the participants.</p>

**Every applicant and participant should commit to read, strictly abide by, and respect the following rules and regulations as specified below that GMA endorses in implementing the GMA courses:**

1. Participants shall conduct themselves at all times in a manner compatible with their status as participants in the subject GMA course;
2. Participants shall attend, to the best of their abilities, all sessions of the GMA group and/or individual courses they are participating in;
3. Participants shall refrain from engaging in political activity or any form of employment for profit or gain;
4. Participants shall return to their home country upon completion of the subject course of GMA and resume work in their country;
5. Participants shall not extend the length of stay in Korea for personal convenience;
6. Participants whose flights are supported by GMA and other donor organizations are not permitted to change their flights for their personal convenience;
7. Participants shall not be accompanied by any member of their family;
8. Participants shall assume responsibility for any personal expenses incurred regardless of implementation of the course; and
9. Participants are required to strictly observe the course schedule and abide by the **rules and regulations stipulated by the KRIS and their sponsors, and by the laws of the Republic of Korea.**
10. Any form of harassment or insult, including but not limited to misconduct arising out of racial/ethnic, gender or class discrimination, whether it be physical or verbal, will not be tolerated and will be dealt with in accordance with the laws of the Republic of Korea and the rules and regulations of KRIS.
11. Especially, **sexual harassment**, defined as a form of behavior characterized by sexually connotative words, acts or gestures that could undermine individual dignity and by which the victim takes offense, is regarded as a serious misconduct and will be dealt with accordingly.
12. Offenders who fail to comply with the above **Rules and Regulations** laws shall be subject to punishment in accordance with the laws of the Republic of Korea and the regulations of KRIS, **which include sending an official letter of complaint to the offender's employer and government and instant deportation with ban of the offender's participation in the future GMA programs.**



**Applications and Inquiry!**  
For any further information about participation in the subject course and GMA programs, please contact:

<b>Jungil Jeon</b> Coordinator, Global Metrology Academy (GMA), KRIS	<a href="mailto:jeon@kriss.re.kr">jeon@kriss.re.kr</a> TEL + 82-42-868-5531 Fax + 82-42-868-5565
<b>Mr. Kangyoung Sung</b> Coordinator, Global Metrology Academy (GMA), KRIS	<a href="mailto:sky0512@kriss.re.kr">sky0512@kriss.re.kr</a> TEL + 82-42-868-5910 Fax + 82-42-868-5565

