WMO OMM



World Meteorological Organization Organisation météorologique mondiale Organización Meteorológica Mundial Всемирная метеорологическая организация المنظمة العالية للأرصاد الجوية 世界气象组织

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17 April 2018

Our ref.: 09856/2018/ETR/CRS-1718

Annexes: 2 (available in English only)

Subject: International Training Course on Basics of Calibration, 10 to 14 September 2018, Ankara, Turkey

Action required: For information and appropriate action, as necessary

Dear Sir/Madam,

I have the pleasure to inform you that the Republic of Turkey will host an International Training Course on Basics of Calibration from 10 to 14 September 2018, at the WMO Regional Training Centre (RTC) facilities in Ankara, Turkey.

This training course is open to meteorologists and meteorological technicians working in the fields related to meteorological instruments and their calibration; and will be conducted in English.

The Turkish State Meteorological Service (TSMS) will waive the tuition fee and provide full board accommodation, including bed, breakfast, lunch, dinner, and local transfers for only one accepted participant from each country. There will be no additional payment from TSMS to cover per diem or international and domestic travel costs or any other expenses like transit fares, visa fees, etc., which are expected to be covered by the participants themselves or their respective Governments. Attached please find the "Course Information" for more information about the course and application procedure.

Interested candidates are requested to complete the attached "Application Form", which should be endorsed by the Permanent Representative of their respective countries, and send it directly to the RTC Turkey (Ms Nur Söğütçüklü, nsogutcuklu@mgm.gov.tr) not later than **31 July 2018**.

Yours faithfully,

(P. Taalas) Secretary-General

To: Permanent Representatives (or Directors of Meteorological or Hydrometeorological Services) of Members of WMO





2nd International Training Course on **"Basics of Calibration"** 10-14 September 2018 Ankara, TURKEY

General Information

Calibration is a set of process that measures the reliability and quality of the meteorological instruments by using measuring instruments, system or values according to the measurement standards.

Calibration is required for the meteorological instruments in order to be sure that the meteorological instruments are providing accurate indications or output signals when they are installed or any kind of instrument error that can occur due to a variety of factors in the process of time.

Being aware of the increasing importance of the accuracy of the instruments and traceability of the measurements throughout the world, Turkish State Meteorology Service (TSMS) paid more attention to become a Calibration Center in Region-VI.

TSMS got TS EN ISO/IEC 17025:2005 Certification and became the Calibration Center of TSMS on 30th April 2010. It has been accredited in the fields of:

- Temperature Laboratory
- Relative humidity Laboratory
- Pressure Laboratory
- Wind speed Laboratory

Other laboratories working in accordance with TS EN ISO/IEC 17025:2005 standards are;

- Precipitation Laboratory
- Solar Radiation Laboratory
- Electrical Laboratory
- Wind Direction Laboratory

Objectives of the Training Course

Training Course on Calibration provides an understanding of metrology, calibration and measurement, and how ISO/IEC 17025 relates to equipment, personnel, calibration procedures and reporting. In addition to that, this training will provide an opportunity to exchange information/knowledge and experience from the related countries.



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- $\circ~$ The standards and requirements for implementation and maintenance of calibration and measurement
- $\circ~$ The basic concept of metrology for different types of calibrations and the technical terms commonly used
- Specifications, tolerances and accuracies
- How to interpret and understand the content of a typical calibration report
- The common findings of a quality audit
- What is required to meet and exceed the relevant quality standard and apply the best industry practices

Content

- ✓ Introduction to metrology
- ✓ ISO/IEC 17025 standards
- ✓ Measurement uncertainty
- ✓ Calibration of LIG thermometers and resistance thermometers
- ✓ Hygrometer calibrations
- ✓ Mechanical, frequency-output, digital and analog barometers calibrations
- ✓ Calibrations of different types of anemometers
- ✓ Tipping bucket and pluviometer calibrations
- ✓ Pyrheliometer and pyranometer calibrations
- ✓ Wind direction calibration
- ✓ Datalogger calibration

Course Format

The course will consist of group-learning activities, case study and field trips.

Working Languages of the Course

The Training Course will be conducted in **English** and all documentation will be in English. No translation/interpretation services will be provided.

Internet Facilities

Wireless internet will be available. The password will be provided to the participants during the training.

Travel and Accommodation Arrangements

As the host of the training course, TSMS will arrange transportation to and from the airport to the Ankara Facilities of RTC Turkey as well as the transportation for the field visits. Accepted participants will be provided with accommodation, meals, and coffee

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breaks throughout the training from 09 to 15 September 2018. TSMS will also waive the tuition fee.

Please be informed that there will be no additional payment from TSMS to cover per diem or international and domestic travel costs or any other expenses like visa fees, etc.

Venue of the Course

Training Course will be held in Ankara Facilities of RTC Turkey, located at:

Kütükçü Alibey Caddesi No:4 06120 Kalaba Keçiören/ANKARA



Eligibility and Application

This training course is open to one participant from each country and aimed at the meteorologists and meteorological technicians working on the field related to meteorological instruments and their calibration and have good command of English. Applications with below mentioned documents should be sent to the contact person preferably by e-mail **not later than 31 July 2018**.

Required Documents for Application

- 1- Official Letter: A letter signed by the Permanent Representative of your country with WMO nominating you for the training course.
- 2- Application Form: This form should be filled and signed by the participant and endorsed by Permanent Representative by signing it. It should be sent with the official letter mentioned above.
- 3- Photocopy of Passport: A copy of passport, which you will carry when entering Turkey for this training, should also be submitted with the application form. If you do not have it at the time you are applying, you are requested to submit its photocopy as soon as you obtain it. Passport photocopy should include at least the following information: Name, Date of Birth, Nationality, Sex, Passport Number and Expiration Date.





Contact Person and Course Coordinator

For any information regarding Regional Course and local logistics arrangements, participants may contact with

Contact Person and Course Coordinator

Ms. Nur Söğütçüklü External Relations Division Phone: 0090 312 203 29 24 E-mail: nsogutcuklu@mgm.gov.tr

Deadline for application: <u>31 July 2018</u>

2nd International Training Course on "Basics of Calibration" 10 – 14 September 2018, Ankara, Turkey

APPLICATION FORM

<u>Note:</u> Please complete the form in **CAPITAL LETTERS**; get it scanned in PDF version, and send directly to Ms. Nur Söğütçüklü (nsogutcuklu@mgm.gov.tr) by e-mail **with a passport copy and official letter signed by your PR** not later than **31 July 2018**.

| 1. Country: | | | |
|---------------------------------|----------|--------|-------|
| 2. Given name: | | | Photo |
| 3. FAMILY NAME: | | | |
| 4. Gender: | □ Female | □ Male | |
| 5. Date of birth: | | | |
| 6. Nationality: | | | |
| 7. Passport number: | | | |
| 8. Name of the Organization: | | | |
| 9. Official address: | | | |
| 10. Telephone number: | | | |
| 11. E-mail address: | | | |
| 12. Health condition: | | | |

| 13. Details of contact person in case of emergency: | | | | |
|---|-------------|--------|------------|--------------|
| 14. Qualification (certificates, diplomas, degrees): | | | | |
| 15. English proficiency: | □ Excellent | □ Good | 🗆 Fair | 🗆 Poor 🛛 Nil |
| 16. Current position and brief description of duties: | | | | |
| 17. State why you wish to attend the course and indicate the practical use of the course to your work in the future: | | ĸ | | |
| 18. Do you require travel support? | | | 🗆 Yes 🗆 No | |
| 19. Do you need an entry visa for Turkey? (http://www.mfa.gov.tr/visa-information-for- foreigners.en.mfa) | | | 🗆 Yes 🗆 No | |
| 20. Departure City & Airp | port: | | | |

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21. Declaration by applicant:

- □ I fully understand that the course organizer does not take any responsibility for risks such as loss of life, accidents, illness, loss of property etc.
- □ I hereby declare that the information given above is true, correct and complete. I shall bear the responsibility for the above information.
- □ I pledge to observe all the Turkish laws and will respect the local customs and follow the course regulations during my stay in Turkey for the training course.

Date:

Signature of applicant:

22. Statement by the Permanente Representative with WMO on why this nominee should be selected for this course:

 $\hfill\square$ I endorse this application.

Date:

Signature of Permanent Representative:

Contact Details

| Contact Person | : Ms. Nur Söğütçüklü |
|-----------------------|---|
| Address | : T.C. Orman ve Su İşleri Bakanlığı |
| | Beştepe Mahallesi Alparslan Türkeş Caddesi No: 71 |
| | Yenimahalle / ANKARA |
| Telephone | : +90 312 203 29 24 |
| E-mail | : nsogutcuklu@mgm.gov.tr |

To be returned to the Contact Person not later than 31 July 2018