



World Meteorological Organization
Organisation météorologique mondiale

Secrétariat

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Weather • Climate • Water
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Our ref.: ETR/CRS-715

GENEVA, 3 July 2015

Annexes: 2 (available in English only)

Subject: International Training Course on Nowcasting Using Satellite Images and Weather Radar, WMO Regional Training Center (RTC), 10-14 October 2015, Tehran, Islamic Republic of Iran

Action required: For information and appropriate action, as necessary

Dear Sir/Madam,

I have pleasure to inform you that the Islamic Republic of Iran will host an International Training Course on Nowcasting Using Satellite Images and Weather Radar, at the WMO Regional Training Center (RTC), in Tehran, Islamic Republic of Iran, from 10 to 14 October 2015.

The course is designed for forecasters, meteorological researchers and airport observers, and will be conducted in English.

The Iranian Government can provide local support including accommodation, meals, and local transportation for the accepted participants, upon request. For detailed information, please find attached the Enrolment Information and the Application Form.

The nominated candidates are requested to complete the attached Application Form, which should be endorsed by the Permanent Representative of their respective countries, and returned directly to the RTC in Tehran, Islamic Republic of Iran at the address provided on the Application Form not later than **26 August 2015**.

Yours faithfully,

A blue ink signature of M. Jarraud, Secretary-General, written over a horizontal line.

(M. Jarraud)
Secretary-General

To: Permanent Representatives of Members of Regional Association II (ASE-638)

cc: Hydrological Advisers to Permanent Representatives

ENROLMENT INFORMATION

Nowcasting using Satellite Images and Weather Radar

An International Training Course on Nowcasting Using Satellite Images and Weather Radar will be held in Mashhad from 10–14 October 2015 by the WMO Regional Training Center in Tehran (RTC-Tehran), sponsored by the Islamic Republic of Iran Meteorological Organization (IRIMO).

A. Objectives

1. To provide required information about the features of Meteosat First and Second Generations channels and to interpret their images in order to understand, monitor, and issue nowcasts for atmospheric phenomena.
2. To increase the students' ability to issue nowcasts for severe convective storms (rain shower, thunderstorm, hail and squall).
3. The students are expected to interpret satellite images, to understand the structure of convective storms, to detect and monitor their life cycle through radar images, to predict the movement and intensity of convective storms and to provide nowcasts for relevant weather.

B. Date and Venue

10–14 October 2015, Training Center in Tehran, Iran.

C. Course Contents

Using Satellite Images

1. General concepts of remote sensing.
2. Introducing general features of the channels: IR, WV, VIS and features of different channels (3 MFG channels and 12 MSG channels).
3. Introducing the combination of satellite channels through the difference between brightness temperature and RGB, and its application in understanding the atmospheric phenomena such as: cloud type, thunderstorms, smoke, forest fires, volcanic ash cloud, dust masses, air masses, freezing, vorticity advection, frontal zones, cyclones and anticyclones.
4. Dynamic features of WV channel.
5. Identification of severe convective storms.
6. Interpretation of scatter plot of temperature effective radius.
7. Structure of overshooting top clouds.
8. Case study of satellite images in comparison with meteorological models outputs and stations data.

Using Weather Radar

1. Radar - general concept and applications in meteorology.
2. Classification and introduction of convective storms conceptual models.
3. Interpretation of weather radar images (phenomena detection and warning - nowcasting products).
4. Thunderstorms monitoring (initiation, development and weakening) through radar images and nowcast issuance.

5. The case study of radar images in comparison with weather models outputs, stations data and satellite images.

D. Training Format

Lecture, group discussion, class task, etc.

E. Instructors

IRIMO and invited experts.

F. Language of Instruction

The course will be conducted in English only.

G. Targeted Trainees

Forecasters, Meteorological researchers, observers.

H. Participants' Qualifications for Admission

Participants are required:

1. To be meteorologists with a minimum of 3 years' experience in forecasting centers or meteorological research institutes or meteorological technicians with a minimum of 10 years' experience in airport observation.
2. To be proficient in English.
3. Not to bring family members to the training course in principle; if accompanied by a family member, the participant has to pay all his/her expenses.

I. Application and Admission

1. The applicants must be working in the field of forecasting and other related fields from Meteorological and Hydrological Services. The nominated candidates are requested to submit the Application Forms (Annex 2) to IRIMO Legal and International Affairs Department for examination and endorsement (affairs.intl@gmail.com).
2. Admission Notices will be issued to the accepted participants by e-mail by the IRIMO Legal and International Affairs Department.
3. Only accepted applicants that receive the Admission Notices endorsed by RTC-Tehran can participate in the training course.

J. Training Expenses

1. Tuition is free for all the accepted participants that receive the endorsed Admission Notices by IRIMO.
2. RTC-Tehran will provide local support to the accepted participants, including accommodation, meals, and local transportation.
3. The international travel costs including return air tickets and transit fares during the travel are to be covered by the participants.
4. The expenses of visa, medical care, insurances and daily subsistence allowance for the participants should be borne by the participants.
5. It should be taken into account when booking the flight tickets that the course will take place exclusively from 9-15 October 2015. Any liability or expense out of this term shall be entirely at the expense of the participants.

K. Insurance

The Organizer of the Training Course on Nowcasting Using Satellite Images and Weather Radar does not hold any responsibility for such risks as loss of life, accidents, illness, and loss of property incurred during the whole period of participation in the training course.

L. Deadline for application

Application shall be submitted and reach RTC-Tehran no later than **26 August 2015**.

M. Liaison Information

1. Attn: Dr Sahar Tajbakhsh
WMO Regional Training Centre in Tehran
Islamic Republic of Iran Meteorological Organization
P.O. Box 13185-461
Tehran
Iran

Tel/Fax: +98-21-66070077
E-mail: sahartajbakhsh@gmail.com
 2. Ms Mina Jabbari
IRIMO Director of International Affairs Department
P.O. Box 13185-461
Tehran
Iran

Tel/Fax: +98-21-66070038
E-mail: affairs.intl@gmail.com and mina747@gmail.com
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WORLD METEOROLOGICAL ORGANIZATION

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ETR/CRS-715, ANNEX 2

APPLICATION FORM

International Training Course on Nowcasting Using Satellite Images and Weather Radar Tehran, Iran (10-14 October 2015)

Please complete the form in **typed capital letters** and get it scanned in PDF version, send directly to IRIMO Legal and International Affairs Department (affairs.intl@gmail.com) by e-mail as soon as possible **but not later than 26 August 2015.**

I. Personal Data

1. Surname _____
Given Name _____
2. Gender _____
3. Date of Birth _____
4. Place of Birth _____
5. Passport Number _____
6. Nationality _____
7. Marital Status _____
8. Health Condition _____
9. History of infectious disease: ☐ No ☐ Yes



(Please specify if yes)

10. Address: _____
Mobile phone: _____
Telephone _____ Fax _____
E-mail Address: _____@_____
11. Permanent Address: _____
12. Contact person in case of emergency
Name: _____
Address: _____
Mobile phone: _____
Telephone _____ Fax _____
E-mail Address: _____@_____
13. Statement of present work
Name of institution _____
Present Position or Occupation _____

Brief description of duties _____

14. Previous employment history

Date	Institution	Position and Duties
_____	_____	_____
_____	_____	_____
_____	_____	_____

15. Educational and/or professional qualification

Date	Major and University	Degree/Diploma
_____	_____	_____
_____	_____	_____

16. Language Proficiency

Mother Tongue _____

English Proficiency (Please tick):

Reading: a. excellent b. good c. fair d. poor

Listening: a. excellent b. good c. fair d. poor

Speaking: a. excellent b. good c. fair d. poor

Writing: a. excellent b. good c. fair d. poor

17. State why you wish to attend the course and indicate the practical use of the course to your work in the future.

18. Do you have responsibilities for providing short range forecasts and nowcasts for severe weather within your responsibility area?

II. Financial Support

Do you need local support from IRIMO if you are a participant from developing countries?

Yes ☐ No ☐

If you require financial assistance for travel costs, to whom will you make your request?

III. Insurance

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.

IV. Personal Statement

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 Iranian laws and will respect the local customs and follow the course regulations during my stay in Iran for the training course.

Signature of Applicant

Date _____

V. Endorsement of the Nominator

1. Name of Organization _____

2. Name and Signature of the Permanent Representative of WMO in your country:

Name _____

Signature _____

Official Seal _____

Date _____

VI. Contact Details

Contact Persons:

Dr Sahar Tajbakhsh, WMO Regional Training Center – Tehran
Ms Mina Jabbari, IRIMO Legal and International Affairs Department

Address:

Islamic Republic of Iran Meteorological Organization
Meraj Ave.
Mehrabad Airport
P.O. Box 13185-461
Tehran
Iran

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E-mail: sahartajbakhsh@gmail.com & affairs.intl@gmail.com & mina747@gmail.com
