

**WMO OMM**

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

Secrétariat

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Ref.: 11464/2024.1.4 MS/ETR

Our ref.: 11464/2024/MS/ETR/CRS-3324

16 July 2024

Annexes: 3 (available in English only)

Subject: Training Course on Seamless Prediction of Air Pollution in Africa
Online sessions: 12 to 25 September 2024
In-person sessions: 1 to 4 October 2024

Action required: For information and appropriate action, as necessary. Candidate nominations to be received by **20 August 2024**

Dear Sir/Madam,

A comprehensive training course on air quality prediction and forecasting for implementation in African applications is being organised under the auspices of the World Meteorological Organization (WMO). This training course will be conducted both online and in person. **Online sessions will be organised from 12 to 25 September 2024.** The course modules covered during the online webinars will introduce participants to the basic concepts of air quality processes, modelling, observations, and applications. **In-person training will be held at the Egyptian Meteorological Authority (EMA), Cairo, from 1 to 4 October 2024.** The modules covered during the in-person sessions will introduce participants to the main principles of air quality and meteorological modelling for African applications and related data products, as well as to the means by which these tools can be implemented using African applications. A further aim of the course is to build and strengthen local capacity in Africa on air quality prediction and forecasting and to promote the use of data products. Participants will also be given an opportunity to take part in a **science workshop on air quality research for Africa that will be held in conjunction with the training course on 30 September 2024.**

This training event is being organised by the WMO Education and Training Office (ETR) in collaboration with the WMO World Climate Research Programme (WCRP), the WMO Global Atmospheric Watch (GAW) programme, GAW's initiatives on Prediction and Forecasting Improvement for Africa (PREFIA) and the Global Air Quality Forecasting and Information System (GAFIS), as well as the University of Hertfordshire, University of Pretoria, Northeastern University, Copernicus Atmosphere Monitoring Service (CAMS) and the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT).

You are invited to submit the application of an interested and qualified candidate for consideration. All applications will be reviewed by WMO in collaboration with EMA. Selection for this course will be made on a competitive basis. When completing the application form ([Annex III](#)), you are requested to provide information on how the participation of your candidate will benefit your service.

To: Permanent Representatives of Members of Regional Association I with WMO

cc: Hydrological Advisers

Any interested candidate from WMO RA I should first apply to WMO and forward a duly completed application form ([Annex III](#)) with the relevant attachments to gaw@wmo.int and tra@wmo.int **no later than 20 August 2024**. Candidates selected for the online sessions will be notified by WMO. Those selected for the in-person sessions will be notified by WMO and will be contacted by WMO regarding travel and related logistics.

Please note that while we encourage Members to cover the expenses of their participants scheduled to attend the in-person sessions of the course, WMO is prepared to support one participant each from selected Members.

I wish to take this opportunity to assure you of my unwavering commitment to capacity-building related activities supporting competency development. Thank you for your continued cooperation in this endeavour.

Yours faithfully,

A handwritten signature in black ink, appearing to read 'C. Saulo', written in a cursive style.

Prof. Celeste Saulo
Secretary-General

Training Course on Seamless Prediction of Air Pollution in Africa

Venue: Egyptian Meteorological Authority (EMA), Cairo, Egypt

Ref.: 11464/2024.14 MS/ETR

1	Host Member	Egypt
2	Host institution(s)	Egyptian Meteorological Authority, EMA
3	Website	http://nwp.gov.eg/about.php
4	Location(city) of institution(s)	Cairo, Egypt
5	Address of institution	Koubry El-Quobba, Cairo, Egypt
6	Course type	Online and in person
7	Main course content	<ul style="list-style-type: none"> • Air quality and its impacts on climate and health • Satellite and ground sensors for atmospheric composition • The components of air quality forecasting systems: global vs regional • Air quality evaluation methodologies and the use of daily model diagnostics • Hands-on
8	Duration of study	2 weeks (online) 1 week (in person)
9	Course dates	12–25 September 2024 (online) 1–4 October 2024 (in person)
10	Target region and members	WMO Regional Association I
11	Basic requirements	<ul style="list-style-type: none"> • Good skills in English, written and spoken (language comprehension), • Bachelor's degree or an equivalent level of academic background in atmospheric science, • Familiar with Unix/Linux and proficiency in at least one of the programming languages.
12	Language	English
13	Number of awards	Up to 50 participants (online) Up to 20 participants (in person)
14	Institution application	Mandatory
15	Admission from institution	Mandatory
16	Closing date for applications	WMO: 20 August 2024
17	Contact info	gaw@wmo.int

Training Course on Seamless Prediction of Air Pollution in Africa

Venue: Egyptian Meteorological Authority (EMA), Cairo, Egypt

Ref.: 11464/2024.14 MS/ETR

Course description

A comprehensive training course on air quality prediction and forecasting for implementation in African applications is being organised under the auspices of the World Meteorological Organization (WMO).

This training event is being organised by the WMO Education and Training Office (ETR) in collaboration with the WMO World Climate Research Programme (WCRP), the WMO Global Atmospheric Watch (GAW) programme, GAW's initiatives on Prediction and Forecasting Improvement for Africa (PREFIA) and the Global Air Quality Forecasting and Information System (GAFIS), as well as the University of Hertfordshire, University of Pretoria, Northeastern University, Copernicus Atmosphere Monitoring Service (CAMS) and the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT).

This training course will be conducted both online and in person. **Online sessions will be organised from 12 to 25 September 2024.** The sixteen 90-minute course modules covered during the online webinars will introduce participants to the basic concepts of air quality processes, modelling, observations, and applications. **In-person training will be held at the Egyptian Meteorological Authority (EMA), Cairo, from 1 to 4 October 2024.** The hands-on training modules covered during the in-person sessions will introduce participants to the main principles of air quality and meteorological modelling for African applications and related data products, as well as to the means by which these tools can be implemented using African applications. A further aim of the course is to build and strengthen local capacity in Africa on air quality prediction and forecasting and to promote the use of data products. Participants will also be given an opportunity to take part in a **science workshop on air quality research for Africa that will be held in conjunction with the training course on 30 September 2024.**

Participants are expected to demonstrate satisfactory attendance and progress and a timely and satisfactory completion of online tasks/quizzes as per submission deadlines. It is recommended that all participants bring their own laptop.

Expected Learning outcomes

By the end of the course, the participants will have successfully achieved the following outcomes:

1. Understand the principles of air quality modelling for real applications relevant to Africa as defined by the WMO course outlines and objectives.
2. Be able to use and apply relevant datasets such as remote sensing products and air pollutant emissions.
3. Understand the stages of implementation of the air quality and weather models used during the training course for air quality and climate service applications.

4. Understand the set-up, configuration and operation of models and datasets as well as challenges relevant to African applications.
5. Be able to apply stepwise implementation of the models supported by datasets and analyse and visualize outputs for relevant African applications.

Competencies attained and certificates issued

Upon the successful completion of the course, the candidates will receive a certificate stating the underpinning skills that support the WMO Competency implementation in the "Satellite Skills and Knowledge for operational meteorologists" framework, which covers parts of Skill 4 'Identify and interpret atmospheric phenomena'. See more information at <https://community.wmo.int/en/wmo-competency-frameworks>.

Target Audience

The primary audience will be meteorologists working in operational NWS from WMO RA I Members, specialized technicians, and students of Master/Ph.D. programmes. Participants should have at least a bachelor's degree or an equivalent level in an academic background in atmospheric science. Forecasters are expected to have at least 2 years work experience, a knowledge of meteorology and a sufficient command of spoken and written English.

Instructors

Trainers from the WMO World Climate Research Programme (WCRP) and Global Atmosphere Watch (GAW) community experts, EUMETSAT and Copernicus will be the instructors of the course. Additional experts will contribute to specific portions/subjects of the course.

Working language

The course will be conducted in English only. No translation service will be available.

Entry requirements

- Some understanding of atmospheric composition and/or air pollution, atmospheric science (and their interactions with meteorology and climate) and atmospheric numerical models;
- Basic computer literacy for online training;
- Should be familiar with Unix/Linux and be proficient in at least one of the programming languages (such as Fortran, C++, Python, MATLAB, or R);
- Good skills in written and spoken English (language comprehension).
- The entry requirements outlined above will need to be verified via the candidate's CV and qualifications.

Work experience

Relevant work experience in atmospheric transport, meteorology/climate, atmospheric composition (i.e. air quality, atmospheric chemistry, wildfires, sand and dust storms), and numerical model prediction and forecasting as well as related datasets is preferred.

Useful resources in preparing for the course

A laptop with a good processor, sufficient memory capacity and storage (external storage is advised).

Application procedure

The application form must include:

- A letter of motivation in English of no more than 200 words;
- A CV;
- Relevant certified qualifications;
- Nomination letter from relevant Permanent Representatives (PR).

All applications will be handled according to general data protection regulations.

Completed application forms should be sent to: gaw@wmo.int with the SUBJECT of the email clearly marked as follows: **PREFIA TRAINING – Egypt 2024**

Application deadline: **20 August 2024**

APPLICATION FORM (online version)

To be completed before 20 August 2024



Microsoft Forms

**Training Course
on Seamless Prediction of Air Pollution in Africa
Cairo, Egypt**

12 to 26 September 2024 (online) / 1 to 4 October 2024 (in person)

APPLICATION FORM

Ref.: IIA64/2024-14 MS/ETR

A	PERSONAL	
1.	First name	
2.	Family name	
3.	Country	
4.	Date of birth (dd/mm/yyyy)	
5.	Gender	M/F
6.	Passport number	
7.	Passport validity	
8.	Do you have a disability?	Yes/No
	If yes, please specify	
9.	Permanent home address (number, street, postcode, town)	
10.	Mobile telephone no.	
11.	Email address	
12.	Professional contact Name: Telephone no.(office): Professional links:	
13.	Will you be requesting financial assistance to participate in the course?	Yes/No

Note: Please read the [notes and instructions](#) on the last page before completing this form

B	GENERAL		
1.	Give details of your work experience in meteorology and air quality		
	Name of organisation	Start and end dates	Brief description of role and responsibilities
2.	Write a brief statement setting out clearly why you have chosen this course and how you intend to use it after graduation		
3.	Write a brief statement on any services on air quality forecasting in your country (i.e. operational, under development or none)		

I declare that to the best of my knowledge all the information on this form is true and correct.

Signature

Date

C	PERMANENT REPRESENTATIVE ENDORSEMENT
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Signature

Date

Notes and instructions:

Please read these notes and instructions carefully before completing this application form. Be sure to read every section and ensure that the information you provide is accurate.

1. Applications received after 2 September 2024 **will not be considered;**
2. Applications received without the endorsement of the Permanent Representative **will not be considered;**
3. Incomplete application forms **will not be considered;**
4. Closing dates for receipt of applications have been published and will be strictly adhered to;
5. A copy of the passport document must be included in the application;
6. Please ensure that your contact details are correct as successful candidates will be contacted by email.
