

~~DWR Chennai No: 22/RMCCE-21/1/2024-DWRCHE/150Years~~

~~Dated: 10.01.2025~~

DWR Chennai No: 36/RMCCE-21/1/2024-DWRCHE/150Years

Dated: 21.01.2025

## DOPPLER RADAR ORIENTATION PROGRAMME - LEARN AND EXPLORE THE TECHNOLOGY

### [DROPLET]

An initiative to reach the budding technologists on the measurement and observation techniques deployed in Doppler Weather Radar. The hands-on exposure is for a week [five working days] travelling through basics on the methods deployed, and the base measurements to ensure Data accuracy and quality.

#### Anticipated outcome of the Programme:

- ✓ Get to understand the Advance State of Art Observational technologies at IMD
- ✓ Scientific institution visit for Technology update and knowledge enrichment
- ✓ Interactively learn from Experts in the domain, on an operational setup
- ✓ Hand-on exposure to DWR, its calibration and upkeep procedures
- ✓ Carrying out Measurements and Verification of accuracies on a live system
- ✓ Igniting & Enkindling interest to Pursue Technology for day-to-day adaptation.

#### Targeted Group and Eligibility:

1. Students undergoing Technological curriculum [Electronics, Electrical, Communication, Instrumentation] in any AICTE/UGC/NBA approved institute in an around Chennai or Researchers/Project Scientists/Scientists/Officers in Government Institutions with zeal and zest towards Understanding Technological Advancements and its Applications.
2. Below 25Years as on 15.01.2025
3. Maximum intake for the orientation program is Thirty [30]
4. **Each Institute can nominate maximum of two students [a primary and secondary candidate]** in their institution letterhead as per [Proforma](#)

#### Tentative Timelines & Venue:

Five working days (10.00 to 16.00 Hrs IST); ~~27<sup>th</sup> - 31<sup>st</sup> January 2025~~ **During February/March 2025** at Doppler Weather Radar Facility[<https://maps.app.goo.gl/DJNPtB48gHoZSeW99>], India Meteorological Department, MoES at Chennai.

## **Topics Covered with Hands-on Measurements & Calculations:**

Opening Ceremony with Lighting of Lamps and Special talk by DGM-IMD & Other Dignitaries

Radar Fundamentals, Types of radars, and methods. Doppler Weather Radar Principle – Target Detection: range & velocity measurement methods.

Atmospheric and Terrestrial Interaction with EM Waves [Refraction, Scattering, Absorption, Attenuation]. Beam-blockage and other artifacts

Radar Hardware design principles [Transmitter, Receiver, Servo-Antenna, BITE]

Maintenance and Upkeep [Preventive & Periodic]; External Calibration Methods

Exposure to Measuring devices [Multi-Meter, Megger, Oscilloscope, Power Meter, Spectrum Analyzer, Signal Generator, Frequency Counter, etc.] and using it to measure parameters in the Live Radar

Followed by an Assessment, Review & Certificate Distribution and Valedictory Function

## **Program Organizing Committee:**

Dr. R. Balachandran, Scientist G, ADGM & Head Regional Meteorological Center Chennai

Dr. B. Amudha, Scientist F, Head RIMC, RMC Chennai

B. Arul Malar Kannan, Scientist-F, DWR Chennai

Prayek Sandepogu, Scientist D, DWR Machilipatnam

R. Bibraj, Scientist D, IT-CELL & X-Band Radar, Chennai

## **Other Information to Participants/Institutions:**

- **Participants would have to meet their own accommodation and travel logistics.** Transportation and Accommodation requests will **not** be entertained.
- **Institution recommended candidates as per Proforma on or before ~~21<sup>st</sup> January~~ 20<sup>th</sup> February 2025 would alone be considered** for shortlisting to undergo the DROPLET program.
- **Institutions which had already responded may revise their nominations if required. If no revisions are received, the earlier submitted response will be still valid.**
- **The Duly filled proforma shall be sent through e-mail to [dwr.chennai@imd.gov.in](mailto:dwr.chennai@imd.gov.in), [dwrchennai@gmail.com](mailto:dwrchennai@gmail.com). Hard copies need not be sent.**
- **The Shortlisting of the candidature would be through a committee. The decision of the committee is final. Requests/canvassing in any form would not be entertained.**
- **The Shortlisted/Selected candidates would be informed by email/phone as submitted in Proforma with a copy to the institution by ~~23<sup>rd</sup> January~~ 21<sup>st</sup> February 2025. Only selected candidates are supposed to attend the Orientation program.**
- **Selected Candidates should carry the institute Valid ID card without fail.**
- **Selected Candidates should be present through out the training period. For getting evaluated attendance on all days is compulsory.**
- **Candidates only qualifying the evaluation test will get a certificate.**
- **The Selected Candidates should adhere the safety and other instructions failing which rusticated from the training and informed to the Institution that he/she belongs to.**

## **For Additional Details Contact:**

**P. Gururaghavendiran**, Meteorologist B

Doppler Weather Radar Chennai

Phone: (Office) 044-2951106

(Mob) +91-9444505838 [Preferably between 09.00-19.00IST]

Email: (office) [dwr.chennai@imd.gov.in](mailto:dwr.chennai@imd.gov.in) / [dwrchennai@gmail.com](mailto:dwrchennai@gmail.com)

# Institution Letter Head

PROFORMA

To,

The Organizing Committee [DROPLET]

India Meteorological Department, MoES

[dwr.chennai@imd.gov.in, dwrchennai@gmail.com]

Dear Sir/Madam,

SUB: Nomination of students for DROPLET program

REF: 1. Your Circular **36**/RMCHE-21/1/2024-DWRCHE/150Years dated **21.01.2025**.

With reference to above, we are pleased to nominate

	Candidate Name	Candidate Date of Birth	Enrolment /ID Number	Course undergoing and Year of Study / Designation	Candidate Contact Details
Primary					Email Mobile
Secondary					Email Mobile

for your kind consideration to the DROPLET hands-on orientation program ~~27-31<sup>st</sup> January~~ during February/March 2025. We understand, mere nomination to the program doesn't qualify the candidate for selection.

It is assured that the selected Candidate will duly report to the Program conveners each day and attend the program without fail on all five days.

Thanks for the perusal

Yours Faithfully,

Signed and sealed by Authorized signatory of the Institution with date