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## EDITORIAL

Wind energy continues its strong growth trajectory, with offshore and floating wind technologies leading innovation and expansion globally.

Wind turbines are experiencing dramatic growth, with installations in 2023-2025 expected to increase in size by an average of 60% compared to those installed between 2011-2020, growing in total height from 122 meters to significantly larger dimensions. This evolution has resulted in longer, lighter rotor blades, taller towers, more reliable drivetrains, and performance-optimizing control systems.

India has developed an indigenous supplier ecosystem across solar, wind, and green hydrogen sectors supporting domestic manufacturing capabilities. Economic forecasts for 2025 suggest that wind projects contribute significantly to lowering overall energy costs, with long-term viability of wind power expected as domestic energy demands rise alongside global competitiveness in renewable energy markets. These developments highlight India's strong commitment to wind energy expansion as a crucial component of its renewable energy strategy and climate commitments.

NIWE has initiated the offshore wind resource assessment and geophysical & geotechnical investigation for development of offshore wind farm of 500 MW at sub zone 1 Gulf of Mannar off Tamil Nadu coast under Model A. NIWE invited tender for Supply of meteorological and oceanographic data for a continuous period of minimum one year by deploying Integrated Floating Buoy with offshore LiDAR, Meteorological and Oceanographic Sensors in Gulf of Mannar.

The R&D Division actively coordinated and conducted the 32nd Meeting of the R&D Council on 4th September 2025 in hybrid mode. This quarter reflected NIWE's emphasis on rigorous evaluation, constructive engagement with investigators, and careful monitoring of deliverables, thereby reinforcing the institute's role in steering national R&D efforts in wind energy.

The WRA division had successfully commissioned 3 nos. of Wind Monitoring Stations (WMS) in the Andaman & Nicobar Islands and also commissioned 4 nos. of Wind Monitoring Stations in 2 sites in Leh, Ladakh.

A service agreement has been signed to carry out Acoustic Noise Measurement as per IEC 61400-11:2018 (CSV) for INOX wind turbine located at Gujarat and the measurements for the same has started.

The certification division had signed 3 agreements with various institutions with regard to the second stage of the certification process and 3 agreements with regard to the first stage of the certification process.

The Skill Development and Training Division of NIWE has successfully conducted the 28th National Training Course on "Wind Energy Technology", special training course for the officials of M/s. Nordex Engineering and Technology Pvt. Ltd, and a Special Training Course for the officials of ReNew Private Limited. NIWE has received the sanction order from MNRE for implementing the VSDP-Phase-II Project during the FY 2025-26. On the Internship area, a total of 279 applications were received, 11 students successfully enrolled, two students have received the Internship Certificate, with another 6 currently in the process of completing their internships. During the period 215 students & 29 officials had visited NIWE as part of the student visit programme.

Thank you for being part of our community. Your engagement and support makes all the difference. As always, thank you for your time and attention. We're honored to be in your inbox.

**Dr. Rajesh Katyal,** Director General

## Contents



## Editorial Board



# Research and Development

During this quarter, the R&D Division actively coordinated and conducted the **32nd Meeting of the R&D Council (RC)** on 4th September 2025 in hybrid mode. The session brought together distinguished experts from academia, research institutions, industry, and government to deliberate on new and ongoing projects.

The council reviewed three new proposals covering areas such as **AI/ML applications in wind power forecasting and innovative aerodynamic approaches for turbine blades.** Each proposal underwent detailed technical discussions, with members seeking clarifications on methodology, data sufficiency, validation techniques, and industry linkages. The approach ensured that proposers received constructive feedback to strengthen their submissions and align with both international best practices and Indian requirements.

Alongside new proposals, the RC also monitored the **progress of ongoing projects**. Highlights included:

- The **indigenous floating LiDAR buoy project,** which is advancing ahead of schedule with successful development of the motion compensation algorithm and buoy conceptual design.
- The two internal projects of NIWE (a) **Turbulence normalization study** and (b) **acoustic noise measurement project**, which have both achieved significant milestones in validation and reporting phases.
- Updates on the funded project to IIT Goa on **rooftop wind permanent magnet generator project** and the new **R&D Vision Document**, which has now been finalized as a comprehensive 10-year framework for NIWE's research agenda.

This quarter reflected NIWE's emphasis on **rigorous evaluation, constructive engagement with investigators, and careful monitoring of deliverables,** thereby reinforcing the institute's role in steering national R&D efforts in wind energy.

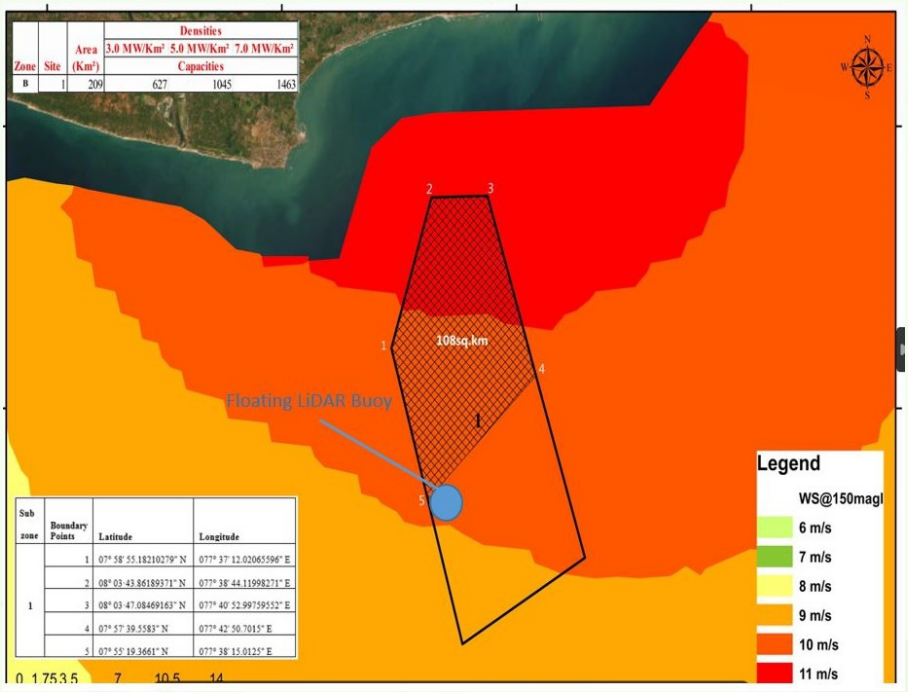
# Offshore Wind Development

NIWE has initiated the offshore wind resource assessment and geophysical & geotechnical investigation for development of offshore wind farm of 500 MW at sub zone 1 Gulf of Mannar off Tamil Nadu coast under Model A.

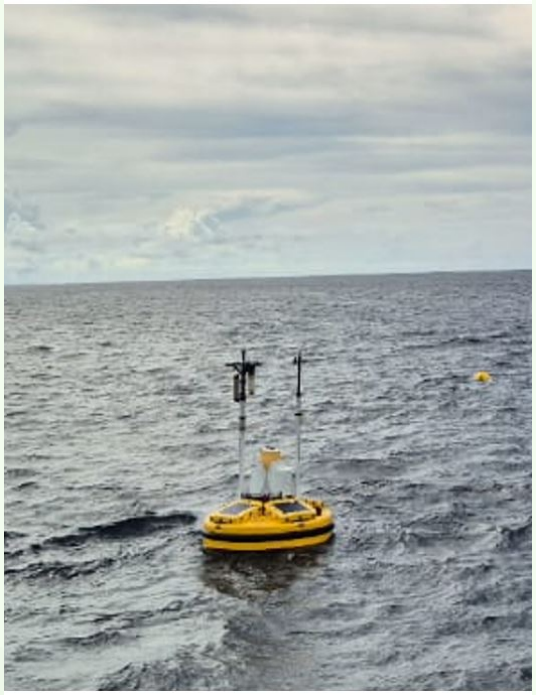
## Offshore Wind Resource Assessment using Floating Buoy LiDAR system:

NIWE invited tender for Supply of meteorological and oceanographic data for a continuous period of minimum one year by deploying Integrated Floating Buoy with offshore LiDAR, Meteorological and Oceanographic Sensors (Wave, Current etc.,) on LEASE BASIS at Sub Zone-1 in Gulf of Mannar off, Tamil Nadu Coast in India including Comprehensive Operation and Maintenance for a period of 12 months.

The floating buoy was successfully deployed at Sub-zone-1 Gulf of Mannar, Tamil Nadu coast on during October 2024 and data is being received at NIWE server. Wind and Oceanographic Measurements are underway.




Proposed location for Floating LiDAR Buoy at Gulf of Mannar, Tamil Nadu



Floating Buoy deployed at Gulf of Mannar, Tamil Nadu

## Paper Publication

Smt. M.C. Lavanya, Deputy Director (Technical), Participated and presented a paper titled "Unified Hybrid Virtual Synchronous Control for Seamless Grid Integration of Renewable Energy Systems" in 5th IEEE SeFet 2025 held during 9th to 12th July 2025.

## Abroad Visit

Smt.M.C.Lavanya, Deputy Director (T) visited the Danida Fellowship Centre (DFC) Scholarship learning Programme "Offshore Wind Energy" arranged by DTU Wind and Energy System, Denmark during the period from 8th to 26th September 2025.

# Wind Resource Assessment

## Data Collection and Analysis

### Andaman & Nicobar Islands

The division had successfully commissioned 3 nos. of Wind Monitoring Stations (WMS) at Manglutan, Bharatpur, and Sigmundera sites in the Andaman & Nicobar Islands. The required No Objection Certificate (NOC) has been obtained from the respective landowners. The measurements are under progress. The summary of measurement is given in table below.

**Installation of 10 no. of mast in A&N islands"**

| Station | Sigmundera | Bharatpur | Mangulthan |
|---|---|---|---|
| Date of commissioning | 18/03/2024 | 22/03/2024 | 24/04/2024 |
| Recommissioned on | 29/04/2024 | | |
| Month | April -2024 to May.2025 | April -2024 to May.2025 | April -2024 to May.2025 |
| 100m m/s | 4.47 | 5.41 m/s | 4.45 |
| WPD ($W/m^2$) | 82.79 | 172.55 | 112.52 |

### Lakshadweep

- Successfully completed data collection and rectification of offshore LiDAR at Kadamat, Lakshadweep Island.
- Data from the LiDAR is being monitored and downloaded daily.
- Continued follow up for regular activities of the LIDAR Project.

Andaman & Nicobar Islands

Lakshdweep

| Site Name | KADMAT | INSTALLATION Date | 21.02.2024 |
|---|---|---|---|
| Latitude | 11° 14'06.42"N | Nearest City | Agatti |
| Longitude | 72° 46'56.69"E | State/Province | Lakshadweep |
| UTM | 1242900.06m N, 257882.06m E | | |
| Altitude (in m) | 31 m | Time Zone | UTC + 5.30 |

### Leh, Ladakh

The division had successfully commissioned 4 nos. of Wind Monitoring Stations (WMS) at Kharnak-1&2 and Pang-1&3 sites in the Leh, Ladakh. The measurements are under progress. The summary of measurement is given in the following table.

**Installation of 4 no. of mast in Leh - SECI"**

| Station | PANG 1 | PANG 3 | KARNAK 1 | KARNAK 2 |
|---|---|---|---|---|
| Date of commissioning | 05.05. 2022 | 06.05. 2022 | 13.09.2022 | 06.07.2023 |
| Month | May-23 to Apr-24 | Sep-23 to Aug-24 | Oct-23 to sep-24 | Jul-23 to Jun-24 |
| 100m m/s | 4.16 | 4.70 | 4.47 | 3.26 |
| WPD ($W/m^2$) | 60.57 | 87.21 | 93.16 | 66.83 |

## Data Analytics

### Consultancy projects

The Division has successfully completed three Wind Monitoring Station (WMS) projects for Energy Yield Assessment:

- M/s.OTPCL- Detailed Project Report 49.5 MW Wind Forms at Sankheshwar, Kusumi and Papadabali in Odisha.
- M/s.INOX - EYA 60 MW (20x3mw) Wind Form Project at Adas site, Maharastra
- M/s.INOX- EYA 201.6 MW Wind Form Project at Khawda District in Gujarat
- M/s.SUZLON - Addendum Report on EYA for the proposed 97.65 MW Wind Form Project at Khavada, Gunarat.
- M/s.SUZLON - Addendum Report on EYA for the proposed 98.7 MW Wind Form Project in Dhamsani, Maharastra.
- M/s.ONGL A.P - EYA of the propsed 300.3 MW Wind Form Project in Deveneddypalli Region, Anantapur District, Andhra Pradesh.
- M/s.INTEGRAM - Estimation of Annual Energy Production (AEP) for the proposed 49.5 MW (15 3.3 MW) Wind Form Project at Gudikoppi site Belgaum District, Karnataka.

The Division has also completed elevation-certificate related activities. Additionally, it is actively engaged in an ongoing verification project for GRIDCO at Chudamani, Tamil Nadu

### Geotagging

Geotagging is a process that involves capturing GPS coordinates of wind turbine locations and assigning a unique ID to each turbine. In the case of a wind farm site with multiple turbines, this process was implemented to accurately map the precise location of each turbine. During the period, 150 geotagging IDs have been created.

### Issuance of Elevation Certificate for MoD NoC Applications for Wind Power Projects

- The purpose of the project is to validate the elevation certificate and the inputs given by the surveyor and client. To do this, DGPS will be used to conduct joint site visits. High-resolution terrain modeling and desktop GIS tools will be used to validate the coordinates of all proposed wind turbine locations, and a report and certificate will be provided.
- Visited 30 WTGs in Anantapur District, Andhra Pradesh for Issuance of Elevation Certificate.

## Certification & Information Technology

### CERTIFICATION

- An Agreement has been signed between NIWE and M/s. Siva Windturbine India Private Limited for the second stage of Type Certification Process Viz., "Evaluation of Siva U57 WT model in connection with Type Certification". The Evaluation process has been completed.
- An Agreement has been signed between NIWE and M/s. Inox wind Limited for the second stage of Certification process viz., Evaluation of documentation in connection with the inclusion of additional component supplier in the existing Type certificate issued by NIWE for wind turbine model viz., "INOX DF/3000/145 3.0 MW Power Booster Mode 3.3 MW Rotor Blade Type SR71 V2 (T-Bolt) / WBSR146-3.0 Hub Height 100m / 122.5m / 140m IEC WT Class IIIB/S". The Evaluation process has been completed.
- An Agreement has been signed between NIWE and M/s. Inox wind Limited for the final stage of Certification process viz., Certification of "INOX DF/3000/145 3.0 MW, Power Booster Mode 3.3 MW Rotor Blade Type SR71 V2 (T-Bolt) / WBSR146-3.0 Hub Height 100m / 122.5m / 140m IEC WT Class IIIB/S" wind turbine model in connection with inclusion of additional component suppliers in the existing Type Certificate. The Type Certificate has been issued.
- An Agreement has been signed between NIWE and M/s. Pioneer Wincon Energy Systems Private Limited for the final stage of Certification process viz., Certification of "Pioneer Wincon 750/57, 750.0 kW, PW28.0, HH 90.0m, IEC III A" wind turbine model for the completed re-evaluation of existing 90m Hub Height tower design. The Type Certificate has been issued.
- An Agreement has been signed between NIWE and M/s. Pioneer Wincon Energy Systems Private Limited for the second stage of Certification process viz., Evaluation of documentation in connection with Type Certification of "Pioneer Wincon 750/57, 750.0 kW, PW28.0, HH 90.0m, IEC III A" for the inclusion of 110m Hub Height tower design and the re-evaluation of existing 90m Hub Height tower design. The re-evaluation of existing

90m Hub Height tower design has been completed and inclusion of 110m Hub Height tower design is ongoing.

- M/s. Siva Windturbine India Private Limited has requested for the third stage of Type Certification Process Viz., "Certification of Siva U57 WT model in connection with Type Certification". The Certification process has been completed.

## Other Activities

Shri S. Arulselvan visited CBI, ACB office at Shimla from 01.07.2025, 02.07.2025 and 03.07.2025 and provided technical assistance to the CBI official in connection with M/s.SJVNL Wind Farm issues.

Shri S. Arulselvan and S. Paramasivan visited Perundurai, Erode and carried out manufacturing evaluation of "SIVA U57" Wind Turbine model of M/s. Siva Windturbine India Private Limited at their blade facility factory on 14.07.2025.

Shri S. Paramasivan visited Red Hills, Chennai on 10.07.2025 and performed manufacturing evaluation of "Yaw Brake Caliper, Rotor Brake Caliper, Rotor Lock, and Hydraulic Brake Control Unit" in connection with the 2nd stage of Certification Process of Inclusion of additional component suppliers in the Type Certificate issued by NIWE for the wind turbine model "INOX DF/3000/145 3.0 MW, Power Booster Mode 3.3 MW Rotor Blade Type SR71 V2 (T-Bolt) / WBSR146-3.0 Hub Height 100m/122.5m/140m IEC WT Class IIIB/S" at M/s. TREBU Technology Private Limited of M/s. INOX Wind Limited.

## Abroad Visit

- Shri S.A. Mathew and Shri S. Paramasivan visited Dalian and Zhengzhou, China from 22.06.2025 to 02.07.2025 and performed the manufacturing inspection of machinery components in China for the 2nd stage of the Certification process viz. "Evaluation of documentation in connection with the inclusion of additional component suppliers in the Type certificate issued by NIWE for wind turbine model viz., "INOX DF/3000/145 3.0 MW Power Booster Mode 3.3 MW Rotor Blade Type SR71 V2 (T-Bolt) / WBSR146-3.0 Hub Height 100m / 122.5m / 140m IEC WT Class IIIB/S" of M/s. INOX Wind Limited.
- Shri S. Arulselvan and Shri S. Paramasivan visited Sacheon, South Korea and performed the manufacturing inspection of HNA & Tower in South Korea for the 2nd stage of the Certification process viz. Evaluation of 'SIVA U57' wind turbine model in connection with Type Certification of M/s. Siva Windturbine India Private Limited.

## INFORMATION TECHNOLOGY

- Continued to maintain the IT infrastructure to keep servers, storage, systems, Firewalls, Switches, CCTV, endpoint security and software up and running.
- Continued to provide IT support for users at NIWE and its stakeholders.
- Carrying out procurement of new hardware, software, and AMC services.
- Taking backups of NIWE data in DC and DR IT infrastructure.
- E-Office upgradation to latest version has been completed.
- Migration of NIC email services to new cloud based platform has completed.
- STQC GIGW certification for NIWE website is in progress.
- Certification for NIWE website is in progress.

# Testing

A Service agreement has been signed on 14.08.2025 to carry out Acoustic Noise Measurement as per IEC 61400-11:2018 (CSV) for "INOX DF/3000/145 3.0 MW Power Booster Mode 3.3 MW Rotor Blade Type SR71 V2 (T-Bolt) Hub Height 100m IEC WT Class IIIB" wind turbine located in Gujarat, and Measurements for the same are ongoing at the Site.

## Calibration Wind Tunnel Facility (CTF) Project

An Interactive Session was organised by MPIDC with the following organisations with regard to Technical Discussion on Tender "Engagement of a Technical Consultant for the Wind Tunnel Facility" held on 03.07.2025 in hybrid mode, floated by M/s. Madhya Pradesh Industrial Development Corporation (MPIDC). Technical Evaluation inputs for the Tender were prepared by the Division and communicated to MPIDC, and had an online Committee meeting on 14.08.2025, along with PTC India & MPIDC officials. Further, the division provides continuous support to MPIDC in the Tendering process & Technical Specifications preparation for the Calibration Wind Tunnel.

## Quality Management System

Continual improvement and maintenance of the Quality Management System for Testing services, as per ISO 9001:2015 and ISO/IEC 17025:2017 are in progress.

## Research Activities

### "Maintenance and Repair Strategy for Wind Energy Development"

Carried out Damage Assessment of Wind Turbine Blades Using Non-Destructive Testing Methods and prepared a research paper for publication.

### DST – TARE Research Project

Initiated processing for procurement of 1 kW Small Wind Turbine (Design, Engineering, supply, civil work, testing, installation & commissioning, electrical, along with rectifier with controller unit, including O&M for 2 years) at NIWE, Chennai as a part of the Research activity.

## RE Projects

2 MWp Ground Mounted Grid Connected Solar Power Plant at Indian Institute of Management (IIM)-Trichy and 1 MW (AC) Ground Mounted Grid Connected Solar Power Plant at Madurai Kamaraj University (MKU), Madurai

- The division is actively managing two significant solar power projects at prominent educational institutions. These include a 2 MWp ground-mounted, grid-connected solar PV power plant at the Indian Institute of Management (IIM) Trichy campus and a 1 MW (AC) ground-mounted, grid-connected solar power plant at Madurai Kamaraj University (MKU), Madurai.
- The management process involves daily reviews of solar power generation data, complemented by periodic site visits to inspect critical components such as solar arrays, inverters, and transformers. Additionally, there is close oversight of Operation and Maintenance (O&M) activities, including module cleaning, string checks, and equipment testing.
- These activities are meticulously conducted in accordance with established operational and maintenance agreements. The primary objectives of this proactive approach are to ensure proper maintenance of the solar assets, optimise their performance, and maximize clean power generation from these grid-connected plants. This rigorous management strategy underscores the organisation's commitment to maintaining the efficiency and sustainability of these renewable energy installations, contributing significantly to the green energy initiatives of these educational institutions.

The team visited IIM Trichy for monitoring the plant

## Awards/achievements by Division Staff

Shri. A. Hari Bhaskaran, Deputy Director (Technical) has successfully defended the PhD Thesis on 'Optimisation of offshore wind farm layout and financial analysis of an offshore wind power project in India' and was awarded a Doctorate (PhD) on 25.07.2025 by Gandigram Rural Institute, Dindigul.

# Standards and Regulation

- Review of documentation has been completed for 09 numbers of ALMM (Wind) applications of various wind turbine models submitted by wind turbine manufacturers for ALMM (Wind). Further, technical support has been provided to MNRE for implementation of Approved List of Models and Manufacturers (Wind) process.
- Organized the Prototype committee meeting Chaired by DG, NIWE held on 22.08.2025 through Video Conference.
- Completed the review of documentation of one modified prototype wind turbine model. Subsequently, a revised letter has been issued in connection with grid synchronization for one modified prototype wind turbine model, as decided by the Prototype Committee.
- Provided technical support to Bureau of Indian Standards (BIS) in connection with the works related to standards. Further, the works related to preparation of draft Indian standards / IEC standards & IECRE documents are under progress.

# Skill Development and Training

## Trainings

NIWE proposed to conduct the following Training Courses during the period. To equip participants with comprehensive knowledge on wind energy systems and their applications, share updates on global and national wind energy scenarios, government policies, legal frame works and capacity enhancement in the sector.

## 28th National Training Course

The Division has successfully conducted the 28th National Training Course on "Wind Energy Technology" held during 28.07.2025 to 30.07.2025. This course provided focused coverage of wind power, from an introduction to wind and its technology, to wind resource assessment, installation, commissioning, operation, maintenance, financial and policy aspects. Forty participants from nine Indian states (Gujarat, Haryana, Karnataka, Kerala, Maharashtra, Tamil Nadu, Telangana, Uttar Pradesh, West Bengal) and one Union Territory (New Delhi) attended the training. The diverse group comprised 32 male and 8 female participants

The training course was inaugurated by Dr. P. Kanagavel, Director & Head of the SDT Division. Followed by the inauguration, eleven technical lectures were delivered by eight Scientists and Engineers from NIWE during the course.

Glimpse of RE facility visit at NIWE by the training participants

Participants gained hands-on experience by touring the renewable energy facilities at the NIWE campus. Their visit offered insights into various systems, including Water Pumping Wind Mill, Vertical and Horizontal Axis Small Wind Turbines, Wind-Solar Hybrid System, Wind Turbine Nacelle, Wind Monitoring Station (Meteorological Mast), Solar Calibration Laboratory, and Solar Radiation Resource Assessment (SRRA) Station

At the end of the course, participants shared positive feedback, commending the organizers for their efficient coordination and high degree of hospitality. They found the lectures both useful and engaging. Dr. P. Kanagavel,



Participants received Course Certificate from Dr. P. Kanagavel, Director & Division Head, SDT, NIWE

Director & Head, SDT Division, distributed the course certificates and thanked the participants for their appreciation.

Group photo of 28th National Training Course Participants

## Special Training Course for the officials of Nordex Global Shared Service Pvt. Ltd.

The Division had successfully conducted the special training course on "WIND ENERGY TECHNOLOGY" for the officials of M/s. Nordex Engineering and Technology Pvt. Ltd. held during 15.09.2025 to 17.09.2025. The program covered basics of wind and its concepts to resource assessment, project implementation, operations including


Course inauguration glimpse

wind-solar hybrid and offshore aspects. The training helped the participants to understand the important aspects in developing the economically viable wind farm projects. Forty officials participated in the course.

The course was formally inaugurated by Dr. P. Kanagavel, Director and Head of NIWE's SDT Division, with the introductory remarks by Mr. Arumugam Muthiayan, Head, Mechanics, Towers and Loads Engineering Department, Nordex Global Shared Services Pvt. Ltd., Chennai.

11 classroom sessions were scheduled during the course, which was handled by the Engineers / Scientists of NIWE.

Dr. P. Kanagavel, Director & Head, SDT, NIWE has distributed the Course Certificates to all the participants at the end of the course after collecting the feedback from the participants, which was well received.


Dr. P. Kanagavel distributing the Course Certificate

## Special Training Course for the officials of ReNew Private Limited

The Division had successfully conducted the special training course on "Wind Energy Technology" for the officials of M/s. ReNew Private Limited held during 22.09.2025 to 27.09.2025. The course addressed basic areas of Wind Power starting from what is wind to wind resource assessment, components, installation, operations & maintenance aspects in a focused manner along with financial and policy aspects towards going for economically viable wind farm projects. A total of 19 numbers of ReNew officials working in different facets of wind projects had participated enthusiastically in the course.

Before technical sessions started, Dr. P. Kanagavel, Director & Head, SDT Division, NIWE had welcomed the participants and inaugurated the course.

During the course,11 classroom sessions were scheduled, which was handled by NIWE Engineers / Scientists.

The participants had a glimpse of Renewable Energy facilities available in NIWE campus, such as, Water Pumping Windmill, Vertical & Horizontal Axis Small Wind Turbines, Wind-Solar Hybrid System, Wind Turbine Nacelle Assembly facility, Metrological Mast, Biogas Plant and Solar Radiation Resource Assessment (SRRA) Station.

The participants were also taken to the southern part of Tamil Nadu, to visit Wind Turbine Test Station at Kayathar, where they got an exposure on small and large wind turbine testing process. Also, visited Operation and Maintenance facilities of Wind Turbines at RS Windtech Engineering Pvt. Ltd., Aralvaymozhi and Apollo Transformers and Filters, Nagercoil to gain knowledge about the electrical aspects of wind turbines. They had also visited the Centralized Monitoring Station at Suzlon Energy, Tirunelveli.

Glimpse of Study visit during training

As part of the training Schedule, the participants were taken for a sightseeing tour in and around Kanyakumari and visited places like Vivekananda Rock, Thiruvalluvar Statue, Boating and Thirumala Temple.


Group photo of Training Participants after receiving the Course Certificates

The participants appreciated NIWE for having organized a course with knowledgeable lecture sessions. They enjoyed and appreciated each and every aspect of the training course including study visit and sightseeing. They had also profusely thanked the organizers for their cooperation, coordination and comfortable stay during the period.

## Vayumitra Skill Development Programme (VSDP)

MNRE has sanctioned VSDP Phase-II project (copy enclosed) with a total outlay of Rs.6,59,20,920/- to NIWE to train 1125 numbers of trainees (900 Participants through 30 numbers of ToP, 210 Trainers through 7 numbers of ToT and 15 numbers of Master Trainers through ToMT) with the new QP "Wind Farm Engineer" (NQR Code: QG-05-ES-01970-2024-V1-NIWE) developed by NIWE which was approved by NCVET. The physical verification of training centres has been completed. Master Trainers (ToMT)course is proposed to be conducted during the 1st week of October and this will be followed by the Training of Trainers (ToT) programme.

## Internship Programme

The "NIWE-Academic Associate Programme" (NIWE-AAP) aims to encourage students and provide an opportunity to choose renewable energy as their career option. To create awareness and interest in the field of renewable energy research among the young talented Sciences, Management and Engineering students NIWE invites applications from the eligible candidates for the "NIWE-Academic Associate Programme" (NIWE-AAP).

The duration of the Internship is normally in the range of two weeks to six months. NIWE-AAP will provide opportunities for the graduate / post graduate students / Lecturers / Professors to work with scientists / engineers on NIWE's projects.

From July to September 2025, our internship program saw significant activity. Out of 279 applications received, 11 students successfully enrolled. Looking at outcomes, two students have received the Internship Certificate, with another 6 currently in the process of completing their internships.

## Officials / Students Visit

To create awareness and to motivate towards research on wind energy, achieving the indigenization and also to create awareness about the activities and services of NIWE, schools and college students are encouraged to visit the campus.

During the period from July to September 2025, 215 students & 29 officials had visited NIWE. The officials had appreciated and stated that the visit was a truly enriching experience.

| S.No. | Name of Institution | No. of Students | No. of Staff | Visited on |
|---|---|---|---|---|
| 1 | Vel Tech Rangarajan Dr Sakunthala R&D Institute of Science & Technology | 60 | 1 | 18.07.2025 |
| 2 | National Power Training Institute | 29 | 2 | 19.08.2025 |
| 3 | SRM Institute of Science & Technology | 55 | 1 | 21.08.2025 |
| 4 | SRM Institute of Science & Technology | 50 | 1 | 25.08.2025 |
| 5 | SRM Institute of Science & Technology | 50 | 1 | 26.08.2025 |

Student Visit Glimpse

## Staff Retirement

**Shri. S.A. MATHEW**
Director & Division Head
Certification & Information Technology, NIWE
has retired on superannuation
on 31st July 2025

# Why the International Electrotechnical Commission (IEC) Matters for India's Energy Future

Author : J.C. David Solomon, Director & Head, R&D Division, WTRS (Incharge) - Email : david@niwe.res.in

Its Delhi. September 2025 a few days ago, the International Electrotechnical Commission (IEC) gathered its global community of experts, practitioners, and young professionals for its annual General Meeting. IEC President Jo Cops set the tone with a powerful reminder: "Take time to look around you this week. You are not just attending a workshop — you are joining a global community of practitioners, thinkers and leaders who believe in progress with purpose."

The IEC is the world's leading body for developing international standards and conformity assessment systems in electrical and electronic technologies. From wind turbines to smart grids, from solar modules to energy storage, IEC standards form the backbone of trust and interoperability across borders. Without such harmonization, global trade in technology would be fragmented, and progress in renewable energy would slow dramatically.

A highlight of this year's meeting has been the Young Professionals (YP) Programme, where early-career engineers and scientists are given the unique opportunity to engage directly with IEC leaders. They explore how standards are created, debated, and adopted, and more importantly, how these standards shape markets, safeguard consumers, and enable innovation. For India, which has one of the world's fastest-growing renewable energy sectors, participation in such dialogues is both timely and strategic.

Why does this matter to us? India's ambitions in renewable energy — 500 GW of non-fossil fuel capacity by 2030 — cannot be realized in isolation. Wind turbines manufactured in Tamil Nadu may be shipped to Europe; solar modules tested in Gujarat may serve projects in Africa. For Indian products and technologies to compete globally, alignment with IEC standards is not optional — it is essential.

Beyond exports, the influence of IEC standards also strengthens domestic reliability and safety. When a wind turbine installed in Rajasthan follows IEC-based design, testing, and certification protocols, it provides confidence to investors, insurers, and end-users. It reduces uncertainty, improves performance predictability, and ultimately lowers the cost of clean power.

Equally significant is India's growing voice within the IEC. As our industries and research institutions mature, India is increasingly contributing to the development of standards, not merely adopting them. This ensures that our unique operating conditions — such as monsoon variability, high ambient temperatures, and diverse grid systems — are reflected in international technical frameworks.

The presence of young professionals at the IEC General Meeting this week is a reminder of how the next generation will carry this work forward. They are not just learning the mechanics of standards writing; they are shaping how India positions itself in global technology governance. Their participation is also a message of inclusivity — that India's engineers, scientists, and innovators will help define the rules of tomorrow's clean energy marketplace.

As the IEC General Assembly concluded, the outcomes will echo far beyond conference halls. They will influence how renewable projects are designed, how technologies are certified, and how nations cooperate on energy transition. For India, staying engaged with IEC is not just about compliance; it is about leadership.

The wind that powers our turbines does not recognize borders — and neither should the standards that govern them. In this spirit, India's active role in the IEC is a vital bridge between our national priorities and global progress. The more we participate, the more we ensure that international standards reflect not just universal best practices, but also the realities and aspirations of a rising India.

नीवे NIWE
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NATIONAL INSTITUTE OF WIND ENERGY (NIWE)
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