

Azadi ka Amrit Mahotsav
to commemorate 75 years of progressive Independent India

**REPORT OF THE
EIGHTH EVENT**

“Webinar on Design and Layout of Wind Farms”

NIWE with the support of MNRE has scheduled sixteen events to commemorate 75 years of progressive Independent India (Azadi Ka Amrit Mahotsav).

The eighth event, **“Webinar on Design and Layout of Wind Farms”** was successfully conducted on 15th February 2023.

The announcement about the event carrying the instructions was hosted in NIWE website and circulated through Social Media pages along with the Flyer given below.

Azadi Ka Amrit Mahotsav
to commemorate the 75 years of progressive Independent India

G20
INDIA 2023

As part of the Azadi ka Amrit Mahotsav, NIWE has scheduled sixteen (16) Events with the support of Ministry of New and Renewable Energy (MNRE)

8th
EVENT

**Webinar on
DESIGN AND LAYOUT
OF WIND FARMS**

Speaker
Shri. J. Bastin
Deputy Director (Technical)
Unit Chief, Data Analytics, NIWE

15th February 2023
4.00 - 5.00 pm

Registration Link : <https://forms.gle/NnAMNtXXyqndySh9>

For more information, please contact **Dr. P. KANAGAVEL**
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NATIONAL INSTITUTE OF WIND ENERGY
An autonomous Research & Development Institution
Ministry of New and Renewable Energy, Government of India
CHENNAI

The event was conducted online, enabling large number of participants to take part in the Webinar.

REGISTRATION

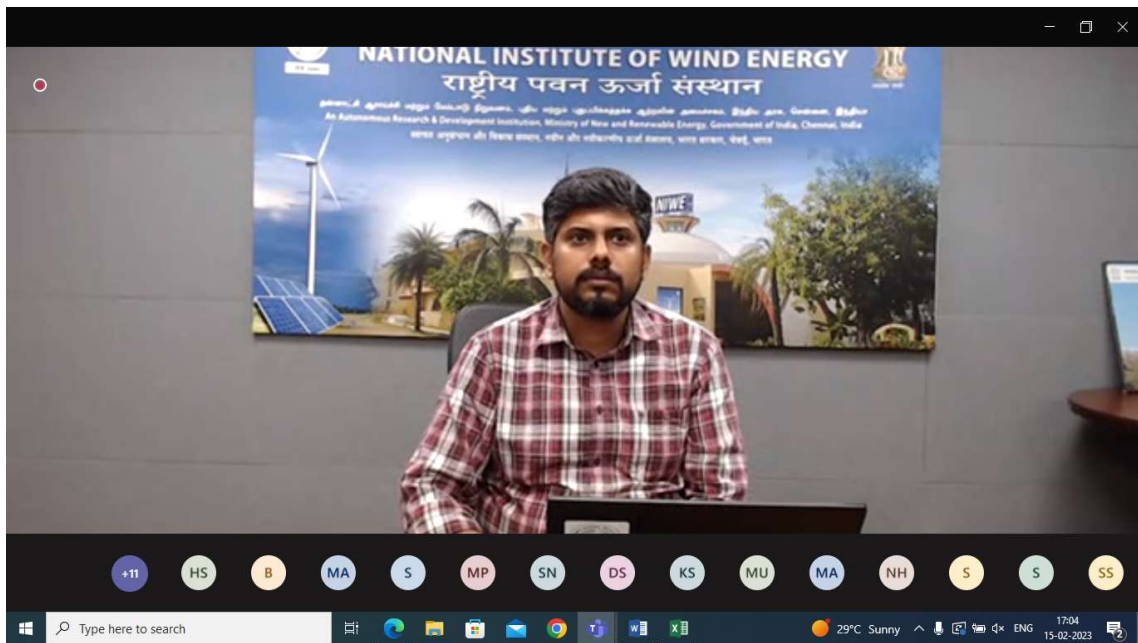
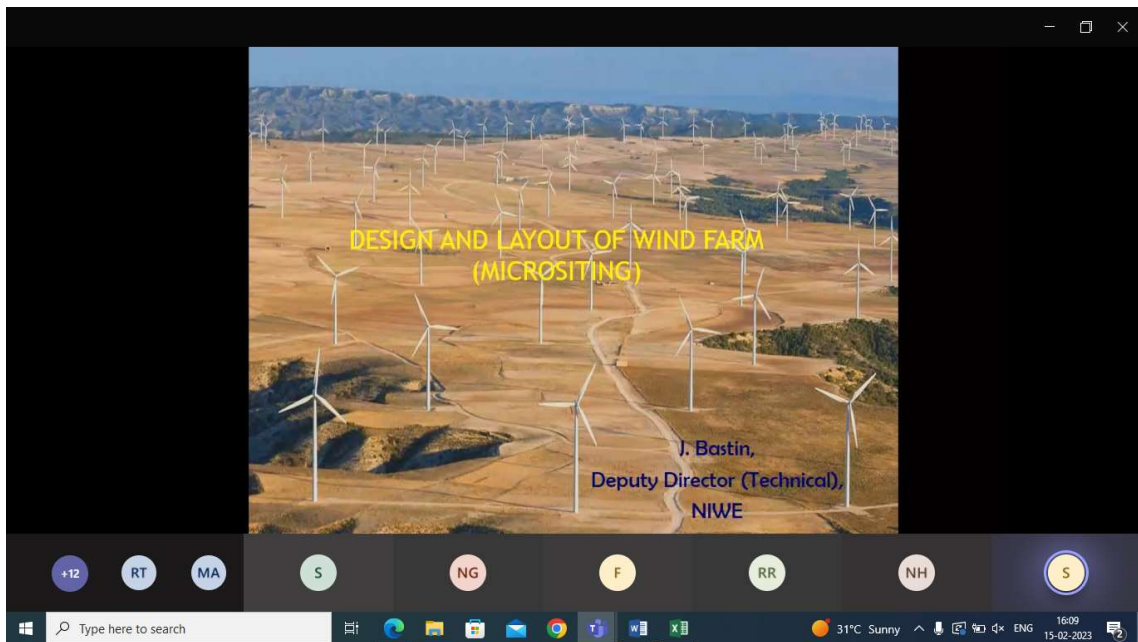
After the announcement, 74 candidates registered and 25 participants have attended the event.

PROGRAMME SCHEDULE

Date	Time	Webinar Topic	Speaker
15th February 2023	4.00 - 5.00 pm IST	Design and Layout of Wind Farms	Shri. J. BASTIN , Deputy Director (Technical), Unit Chief, Data Analytics, NIWE

The speaker gave a detailed presentation on Design and Layout of Wind Farms and it was followed by a Q&A session, which was open for the participants to interact with the speaker. The participants asked many doubts and queries enthusiastically. All the doubts and queries raised by the participants were clearly explained and clarified by the speaker. The participants were very much satisfied with the presentation and had reciprocated the same by appreciating and thanking the speaker. In addition, they expressed their thanks to NIWE / MNRE for hosting this webinar under the event of Azadi ka Amrit Mahotsav, which is very useful for the students and also for the industrial professionals.

Gallery of the 8th Event



Validation...

Meeting chat

- Mukesh Kumar U (Guest) was invited to the meeting.
- Kalyani S (Guest) was invited to the meeting.
- Devendra S (Guest) was invited to the meeting.
- Sivakumar NIWE (Guest) was invited to the meeting.
- Mahalingam P (Guest) was invited to the meeting.
- NIXON H (Guest) was invited to the meeting.
- Sk (Guest) was invited to the meeting.
- Sk (Guest) was invited to the meeting.
- Haritha R (Guest) was invited to the meeting.
- Recording has started 16:09
- SDT 16:13
Dear Participants **NIWE Welcomes you** to the 8th Event of Azadi ka Amrit Mahotsav to commemorate the 75th anniversary of India's independence.

Type a new message

31°C Sunny 15-02-2023

Wind Flow Modeling Tools

- ▶ Linear Tools
 - ▶ Solving the linearized equations
 - ▶ Quick results, Low computation requirements
 - ▶ Suitable for homogeneous terrain conditions
 - ▶ Not suitable for complex terrain flow modeling
- ▶ Non Linear / CFD Tools
 - ▶ Solving the non-linear flow equations using CFD solvers
 - ▶ Separate equation for turbulence modeling
 - ▶ Suitable for complex terrain
 - ▶ Time consuming & High computation requirements

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- Recording has started 16:09
- SDT 16:13
Dear Participants **NIWE Welcomes you** to the 8th Event of Azadi ka Amrit Mahotsav to commemorate the 75th anniversary of India's independence.

Type a new message

16:28 15-02-2023

Optimization Tools

The slide displays a software interface for optimization tools. The main window shows a map with several blue circular markers and lines, likely representing wind turbine locations and their influence areas. A sidebar on the left lists various layers and settings, including 'New_Layer', 'New_Polygon_Layer', and 'New_Grid'. The interface is running on a Windows operating system, as indicated by the taskbar at the bottom.

People

Share invite

Presenters (3)

- ST SDT Team (Guest)
- F F & IT
- S SDT Organizer

Attendees (24)

- A Amit (MSEC) (Guest)
- AK AWDHESH KUMAR (Guest)
- B Barath (Guest)
- DS Devendra S (Guest)
- DL Dhananjay Lakhe (Guest)
- D Dhanshri (Guest)
- HR Hari R (Guest)

Step 6: Study each location...

- Analyze each location for suitability of the selected WTG model
 - More critical in complex sites
 - Use of advanced modeling tools (CFD) may help in decision making
 - Harmful location need either correction or cancellation
 - Final run of program for estimated output.

16:47 15-02-2023

16:50 15-02-2023

AKAM-2022-23 - Webinar on Wind Resource Assessment on 27th January 2023

01:16:20

Take control Pop out Chat People Raise React View Rooms Apps More Camera Mic Share Leave

Participants

Type a name

Share invite

Presenters (2) Mute all

- SDT Organizer
- Dr.K.Boopathi

Attendees (32)

- Alagappan Pandian External
- Bhanu Prakash External
- Dr B Jyothi External
- Dr. M Kirankumar External
- Dr.G.G.Raja Sekhar (Guest) Meeting guest

Siting Considerations

- Desirable wind speeds (>7 m/s)
- Long term average.
- Wind profile.
- Substation Requirements.
- Existing infrastructure.
- Compatibility
- Point of Use.
- Land Use:
 - Agricultural compatibility.
 - Habitat preservation.
 - Maintenance facilities.
 - Access roads.
 - Scale of project.
- Permitting
 - Local, state, authorities.
 - Involving general public.
 - Environmental impact study.
 - Avian impact study.

Dr.K.Boopathi

29°C Mostly sunny

Search

ENG IN 16:45 27-01-2023

AKAM-2022-23 - Webinar on Wind Resource Assessment on 27th January 2023

01:20:56

Take control Pop out Chat People Raise React View Rooms Apps More Camera Mic Share Leave

Participants

Type a name

Share invite

Presenters (2) Mute all

- SDT Organizer
- Dr.K.Boopathi


Attendees (31) Mute all

- Alagappan Pandian External
- Bhanu Prakash External
- Dr B Jyothi External
- Dr. M Kirankumar External
- Dr.G.G.Raja Sekhar (Guest) Meeting guest

Data logger

All measurements are recorded on the data logger:

- Must be stored in enclosure to protect from elements
- Requires a remote power source (normally a PV module) and/or a battery
- For the wind power industry, *average measurements* recorded every 10min
- Data collection either by GSM modem or manual recovery via USB or SD memory card
- Complete and precise data is essential for wind farm design software (and for acquiring financing)**



Dr.K.Boopathi

29°C Mostly sunny

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ENG IN 16:49 27-01-2023