



# Workshop on Performance and Potential of Wind Energy Systems in India



**Divecha Centre for Climate Change, Indian Institute of Science,  
Bangalore**

**Date:** August 22 and 23, 2017

**Day 1: Tuesday, August 22**

## **Inaugural Session**

0900-0930 Hrs      Registration/Tea

0930-0940 Hrs      Welcome

**Prof. S.K. Satheesh**

**Divecha Centre for Climate Change**

0940-0950 Hrs      Introduction to the Workshop

**Dr. V. Rao Kotamarthi**

**Argonne National Laboratory, U.S.**

0950-1005 Hrs      **Photo session/ Tea Break**

## **Session I (Chair - Dr. V. Rao Kotamarthi)**

1005-1030 Hrs      Policy Brief on Wind in India

**Mr. Jeevan Kumar Jethani**

**Ministry of New and Renewable Energy**

1030-1055 Hrs      Offshore Wind Development in India- Feasibility Studies

**Dr. M.V. Ramana Murthy**

**National Institute of Ocean Technology, Chennai**

1055-1120 Hrs      Offshore Wind Power Development in India - Quo Vadis?

**Mr. Harsh Pandit and Mr. Bimlesh Shah**

**Suzlon Energy (Offshore), Ahmedabad**

## **Session II (Chair - Dr. Jim Wilczak)**

1120-1145 Hrs      Grid Integration of Renewables

**Smt. Jane Jose**

**Southern Regional Load Dispatch Centre**



Image : Windmills near Chitradurga, Karnataka, India.  
Image Source : MNRE and Manohar Chhapolia



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- 1145-1210 Hrs "Challenges in Managing Grid with More RE Penetration"  
a case study of Karnataka  
**Mr. Chandrashekharaiyah S.B.**  
**State Load Dispatch Centre, Karnataka**
- 1210-1235 Hrs Wind Energy Integration in Indian Grid-challenges and Potential Opportunities  
**Dr. Zakir Rather**  
**Indian Institute of Technology, Bombay**
- 1235-1300 Hrs Remote Sensing of Indian Offshore Wind Resources and  
Cost Reduction Pathways  
**Mr. Malolan Cadambi**  
**Greenshore Energy Pvt Ltd**
- 1300-1400 Hrs **Lunch**
- Session III**
- 1400-1500 Hrs Panel Discussion : Wind Potential, Performance and Policy  
**Dr. Jim Wilczak, National Oceanic and Atmospheric Administration**  
**Mr. Chandrashekharaiyah S.B. State Load Dispatch Centre, Karnataka**  
**Dr. M.V. Ramana Murthy, National Institute of Ocean Technology**  
**Mr. Bimlesh Shah, Suzlon Energy**  
**Dr. Zakir Rather, IIT, Bombay (Moderator)**
- 1500-1515 Hrs **Tea Break**
- Session IV (Chair - Dr. Sue Haupt)**
- 1515-1540 Hrs Forecast Products for Renewable Energy Applications  
**Dr. Raghavendra Ashrit**  
**National Centre for Medium Range Weather Forecasting, Noida**
- 1540-1605 Hrs Forecasting for Renewable Energy Sector  
**Mr. Amresh Khosla**  
**Manikaran Analytics Limited**



Image : Windmills near Chitradurga, Karnataka, India.  
Image Source : MNRE and Manohar Chhapolia



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1605-1700 Hrs      Panel Discussion : Wind Forecasting  
**Dr. Sue Haupt, National Center for Atmospheric Research**  
**Dr. P. Mukhopadhyay, Indian Institute of Tropical Meteorology**  
**Dr. Raghavendra Ashrit,**  
**National Centre for Medium Range Weather Forecasting**  
**Mr. Krishna Kumar Swaminathan, GE Wind**  
**Dr. V. Rao Kotamarthi, Argonne National Laboratory (Moderator)**

1900 Hrs              **Dinner**

## Day 2: Wednesday, August 23

### Session V (Chair - Dr. P. Mukhopadhyay)

0930-0955 Hrs      Catching the wind: pathways to realising India's wind targets

**Mr. Neeraj Kuldeep**  
**Council On Energy, Environment and Water, Delhi**

0955-1020 Hrs      Short Range Wind Power Forecasting

**Dr. Sue Haupt**  
**National Center for Atmospheric Research, U.S.**

1020-1045 Hrs      Forecasting and Resource Characterization:  
Short-term Uncertainty and Inter- Annual Variations

**Dr. V. Rao Kotamarthi**  
**Argonne National Laboratory, U.S.**

1045-1100 Hrs      **Tea Break**

### Session VI (Chair - Dr. Raghavendra Ashrit)

1100-1125 Hrs      Wind Forecasting Research at NOAA :  
Results from Recent On-shore and Off-shore Field Programs

**Dr. Jim Wilczak**  
**National Oceanic and Atmospheric Administration, Boulder, U.S.**



Image : Windmills near Chitradurga, Karnataka, India.  
Image Source : MNRE and Manohar Chhapolia



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1125-1150 Hrs      Recent initiatives of high resolution forecasting wind and solar energy generation  
**Dr. P. Mukhopadhyay**  
Indian Institute of Tropical Meteorology, Pune

1150-1210 Hrs      Role of Offshore | Onshore Wind Energy : Towards 100% Renewables  
**Mr. Vinayak Mamodkar**  
ILAB-E Renewables Pvt Ltd

**Session VII (Chair - Dr. Raghavendra Ashrit)**

1210-1235 Hrs      Wind Potential and Offshore wind  
**Mr. J. Bastin**

**National Institute of Wind Energy**

1235-1300 Hrs      Grid integration of vRE under Green Energy Corridors initiative in India  
**Dr. Indradip Mitra**  
**Indo-German Energy Program**

1300-1400 Hrs      **Lunch**

**Session VIII (Chair - Prof. S.K. Satheesh)**

1400-1425 Hrs      Wind Forecasting Digital Twin  
**Mr. Krishna Kumar Swaminathan**  
**GE Global Research**

1425-1445 Hrs      Impact of Spatial Variation in Wind Generation of Karnataka  
**Ms. Anasuya Gangopadhyay**  
**Divecha Centre for Climate Change**

1445-1515 Hrs      Concluding Session



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