

VAYUMITRA

FOUNDATION COURSE

ON

WIND ENERGY TECHNOLOGY

10 COURSES

AUGUST - NOVEMBER 2020

Organized by



नीवे NIWE

NATIONAL INSTITUTE OF WIND ENERGY, CHENNAI

Ministry of New and Renewable Energy, Government of India

and



GANDHIGRAM RURAL INSTITUTE, DINDIGUL

Ministry of Human Resource Development, Government of India

Sponsored by



MINISTRY OF NEW AND RENEWABLE ENERGY, NEW DELHI

Government of India

INTRODUCTION

Renewable Energy in particular Wind has become mainstay in meeting energy needs having achieved grid parity in term of costs as well as technical requirement. The wind energy has proved a highly successful energy option with installation of over 651 GW worldwide and 37 GW in India by end of 2019. Decades of concerted efforts have started to yield gratifying results and today, Wind power contributes about 10 % (37669.25 MW) of the total Indian energy mix of 370 GW as on March 2020 and stands fourth in terms of installed wind power capacity worldwide. It is estimated that viable wind power potential across globe is 72 TW, which is four times more than the current World's total energy demand. The Indian estimated wind potential is more than 300 GW at 100 m height, which has to be tapped at faster manner to increase the green energy contribution towards meeting the various national and international targets and also to mitigate the climate changes issues. In this regard, skilled human resource is critical at every stages of wind energy development i.e., from concept to the entire life time of wind turbine, which is estimated to be beyond 25 years.

NIWE is the premier institute of its kind in the South East Asia perhaps in developing countries, it is in the forefront in providing training support to various stockholders for both national and international level. In this regard, NIWE has trained over 2000 professionals from 98 countries by organising 32 national and 40 international training courses.

Considering the vast wind energy potential in the country and also across the world, creation of adequate skilled and trained man power in various facets of the sector is need of the hour. It is therefore, with the directives of MNRE, NIWE is in the process of developing a full fledged programme in wind sector called “Vayumitra” towards addressing the above demand. As a first step in creating awareness about the wind and it technology and also to promote and popularize the technology towards achieving maximum wind installation, “Vayumitra Foundation Course” on Wind Energy Technology for technicians to engineers is designed. In this course, fundamental aspects of entire gamut of wind generation is taught so to move towards achieving the target of Government of India.

OBJECTIVE

The “Vayumitra Foundation Course” aims to provide a complete overview about all aspects of Wind Energy Technology starting from introduction to wind power and its technology, wind resource assessment, installation and commissioning of Wind Turbine Generator, operation and maintenance aspects of wind farms along with policy issues. The programme will enable the participants to basic awareness and know about details of setting up economically viable wind farm projects. This foundation programme will enable the participants to scale up their skills and facilitate for higher level of Vayumitra programme to make true professionals in the chosen field.

SCHEDULE

Name of the Course	: Vayumitra Foundation Course on “Wind Energy Technology”
Duration	: 5 days encompassing presentations, lectures with case studies, success stories and exercises. The training course timing will be from 09.00 am to 06.00 pm
Participants	: 35 participants per course
No. of Courses	: 10

Due to COVID-19 restriction, training courses to be conducted has been rescheduled

Batch	Venue	Phase-I Online Scheduled Dates	Status	Phase – II Physical Contact Scheduled Dates
First	NIWE	03 rd & 04 th August 2020	Completed	08 th to 10 th February 2021
Second	NIWE	03 rd & 04 th September 2020	Completed	11 th to 13 th February 2021
Third	NIWE	17 th & 18 th September 2020	Completed	15 th to 17 th February 2021
Fourth	NIWE	29 th & 30 th September 2020	Completed	18 th to 20 th February 2021
Fifth	NIWE	15 th & 16 th October 2020	Completed	22 nd to 24 th February 2021

Batch	Venue	Physical Contact Scheduled Dates
First	GRI, Dindigul	08 th to 12 th February 2021
Second	GRI, Dindigul	15 th to 19 th February 2021
Third	GRI, Dindigul	22 nd to 26 th February 2021
Fourth	GRI, Dindigul	01 st to 05 th March 2021
Fifth	GRI, Dindigul	08 th to 12 th March 2021

NIWE - National Institute of Wind Energy, Chennai (courses for Graduate and above)
GRI - Gandhigram Rural Institute, Dindigul (courses for ITI and Diploma)

COURSE CONTENT

This “Vayumitra Foundation Course” is intended to cover the key topics such as

- ★ Introduction to wind energy, evolution & developments
- ★ Fundamental aspects of
 - ✧ Wind Turbine Technology
 - ✧ Wind Turbine components
 - ✧ Wind resource assessment
- ★ Basics of
 - ✧ Design of wind farm
 - ✧ Installation & commissioning of wind farms
 - ✧ Grid Integration
- ★ O&M aspects of wind farms
- ★ Hybrid systems
- ★ Government policies and supportive schemes

RESOURCE PERSONS

The resource persons for the training course would be scientists / engineers of NIWE, Industry experts, engineers, scientists and academicians, who have contributed significantly for the developments of energy, renewable energy and wind energy in particular.

TARGET PARTICIPANTS

The “Vayumitra Foundation Course” designed to cater to the needs of various personnel's such as technicians, engineers etc focusing on the unemployed youths with rural background. It is proposed to train 350 participants (with 10 courses) with the focused group of technicians, diploma and graduates / post graduate engineers / professionals.

COURSE FEE

The Course is completely free, which is sponsored by Ministry of New and Renewable Energy (MNRE), Government of India. There is no Registration Fee and the selected participants will be provided free

accommodation in twin sharing and three time meals. The registration kit, Course Material and Participation Certificate (subject to successful completion) will also be provided. To and fro travel charges from the place of residence to NIWE / Gandhigram (training venue) has to be taken care by the participants.

ELIGIBILITY CRITERIA

Category	Qualification	Age
Technicians	ITI*	25
Diploma Holders	Diploma*	25
Engineers / Professionals	Degree** / Master Degree***	30

* ITI / Diploma (Electrical, Electronics, Civil, Mechanical and Instrumentation)

** Degree (Electrical, Electronics, Civil, Mechanical, Instrumentation)

*** Master Degree in Engineering or Science

Age Relaxation will be given as per the norms of Government of India.

REGISTRATION

The interested candidate should fill the Registration Form online at the following link : <https://bit.ly/2W2LY3y> in all respects on or before 10/07/2020. The applicant should also download the attached Registration Form and duly fill it up and send the signed scanned copy to niwe.vayumitra@gmail.com and ntraining.niwe@nic.in along with the proof of identification and required documents. Due to limited number of seats (35 seats per course), while selecting the participants, preference would be given to SC (15%), ST (7.5%), OBC (27%) and EWS (10%) as per the norms of Government of India. If the number of application is more than the prescribed limits, the selection of the participants will be based on the marks attained in the eligible qualification (aggregate of all the years or semester) and the write up of the reason(s) provided by the candidates in the application form for choosing Vayumitra Programme.

COURSE COORDINATOR

Dr. P. KANAGAVEL

Director & Head

Skill Development and Training (SDT) Division

National Institute of Wind Energy (NIWE)

Velachery – Tambaram Main Road, Pallikaranai, Chennai – 600 100, Tamil Nadu, India

Phone: +91-44-2246 3982 / 83 / 84, +91-44-2246 3994

Mobile: +91-9445798007 E-mail: ntraining.niwe@nic.in

ABOUT NIWE

National Institute of Wind Energy formerly Centre for Wind Energy Technology shortly known as NIWE is an autonomous R&D institution established at Chennai in 1998 by the Ministry of New and Renewable Energy (MNRE), Government of India. It is a premier institution with highly experienced professionals having expertise in all related disciplines of wind energy sector. NIWE is a forward looking and practical institution always well placed to take the next logical steps towards advancing wind technology in the right direction. With its progressive approach to all wind energy related science and technology from onshore to offshore, NIWE assures assistance from resource assessment (both wind and solar, RE forecasting for Energy production) to project implementation. As an integral part of NIWE, a world class accredited Services providing Wind Turbine Test Station (WTTS) is established at Kayathar, Tamil Nadu. Perhaps, NIWE is the only Testing and Certifying agency in the country.

NIWE has been vested with the responsibility to provide complete scientific and technical backing to all stakeholders in the field of wind energy and has stated its commitment through its quality policy.

QUALITY POLICY

NIWE is committed to achieve customer satisfaction, loyalty and confidence by providing credible, prompt and complete solutions of international quality to all the stakeholders in the wind energy sector.

NIWE, strives to be technical focal point of excellence for the present and future. NIWE shall stay at the forefront of Wind Turbine Technology application by continuously improving its expertise.



नीवे NIWE

NATIONAL INSTITUTE OF WIND ENERGY

An Autonomous Research and Development Institution

Ministry of New and Renewable Energy, Government of India

Velachery – Tambaram Main Road, Pallikaranai, Chennai – 600 100, Tamil Nadu, India

Phone: +91-44-2246 3982, +91-44-2246 3983, +91-44-2246 3984 Fax: +91-44-2246 3980

E-mail: info.niwe@nic.in Web: <http://niwe.res.in>

