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MODULAR TRAINING COURSES IN GRID INTEGRATION OF RENEWABLE ENERGIES

The challenge

Keeping the pace with the fast changing energy industry is a big challenge today. Make sure to be up-to-date with current developments all over the globe. Make sure to take good and by learning from the experiences of other countries with high shares of Renewable Energies like Germany, Ireland, Australia and the US.

lecturers who have profound academic and industrial training experience in almost all countries around the globe. Make your selection from our menu of training content, and we will provide you an effective in-house course with excellent trainers.

Modules available

- Introduction to Renewable Energy (RE) Utilization
- Predictions of wind and solar power
- Balancing and scheduling in RE-rich systems
- Market, policy and regulatory mechanisms
- Grid codes and technical standards
- Grid and system integration studies
- Control of RE power plants
- Visualization and analysis of RE generation

More to come. Please ask.

Modular in-house training course

On base of training material from leading experts world-wide, we offer in-house courses covering the entire field of Renewable Energies, from basics about wind and solar energy utilization to grid codes, from wind and solar power forecasts to grid studies. In cooperation with our partners Overspeed, Energynautics, and Oldenburg University, we developed state-of-the-art training material and a team of

IN COOPERATION WITH





Modules and topics

Forecasting

- Basics of wind and solar energy utilisation
- Wind/PV forecasting
- Energy meteorology
- Application of forecasting

Balancing and scheduling

- Balancing requirements
- Balancing options
- Real time balancing
- Flexibility in demand as balancing options

Market, policy and regulatory framework

- Key policy, regulatory and market instruments
- Scheduling and imbalance settlement
- Ancillary services market
- Cost of RE grid integration

Grid codes and technical standards

- Features of grid codes to facilitate high RE penetration
- Technical standards to integrate distributed RE generation
- Voltage control and reactive power management

Grid and system integration studies

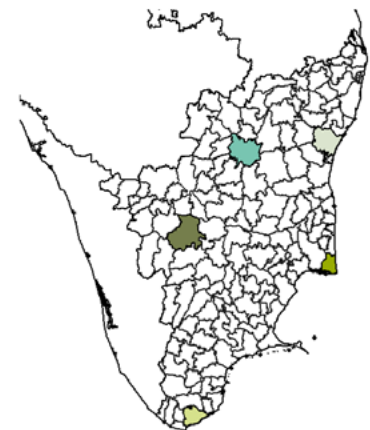
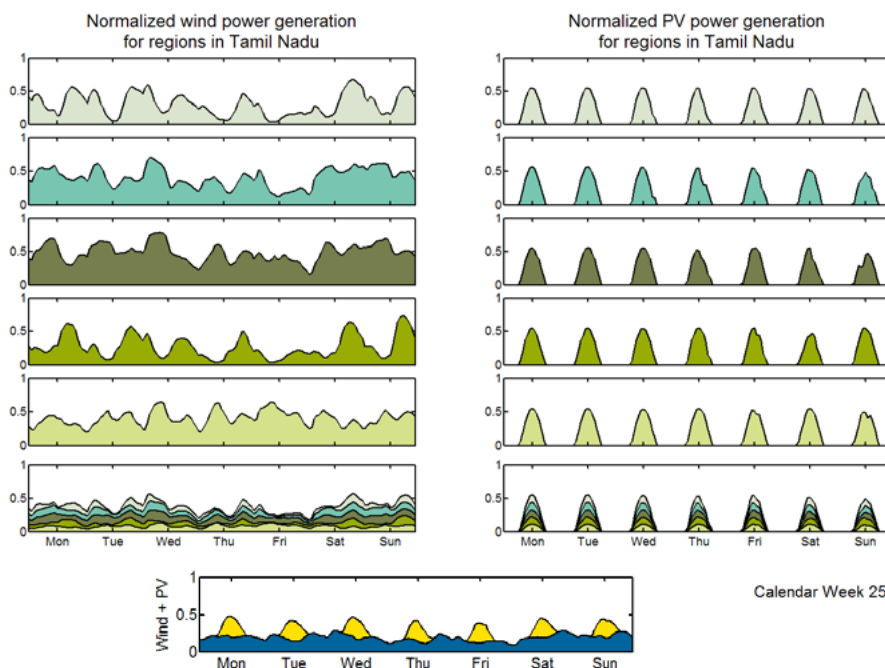
- Grid and system integration
- Power system adequacy
- Power system security
- Power system operation

Visualization and control

- Control strategies for distributed renewable generation
- Data communication between generating machine and control centre

Prepared in-house trainings

All our course modules consist of face-to-face class room training. In addition all participants receive a script which is made available upfront. By this didactical approach, the course participants may prepare the face-to-face class room training beforehand and the on-site time can be used the most effective way. This teaching concept has already been successfully carried out several times by the course lecturers.



Integration of renewables in grid operation considering smoothing effects (exemplified for Tamil Nadu, India) © Fraunhofer IEE