

MEDOW Summer School: **Generic Wind Power Models**, Date: 17-06-2015

Presenter: Prof. Poul Sørensen, Department of Wind Energy, Technical University of Denmark



Prof. Sorensen is the Convener for IEC 61400-27 standard development committee for generic wind power models. In his presentation, he highlighted the need for the standard for the generic models of wind turbine and wind power plants. The IEC 61400-27 models are developed to represent wind power generation in studies of large-disturbance short term voltage stability phenomena. These wind turbine models are also applicable to study other dynamic short term phenomena, such as frequency stability. He has mentioned that potential users of this standard can be Transmission System Operators, Wind Power Developers/Wind Turbine manufactures, Power System Software Developers, Certification Companies and Researchers working on the wind power development. He highlighted the key model specification of this standard and its potential use in the power system studies. Prof. Sorensen explained the different categories of wind turbine available in the market (IEC Type I to Type IV) and their simulation in the models. The difference between the wind turbine models developed by Western Electric Coordinating Council (WECC) and IEC the models has been explained. Finally he concluded the session by explaining the validation procedure for the wind turbine models presented in the IEC 61400-27.