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Sommario/riassunto	Wind Power Plant (WPP) and Wind Turbine (WT) modeling are becoming of key importance due to the relevant wind-generation impact on power systems. Wind integration into power systems must be carefully analyzed to forecast the effects on grid stability and reliability. Different agents, such as Transmission System Operators (TSOs) and Distribution System Operators (DSOs), focus on transient analyses. Wind turbine manufacturers, power system software developers, and technical consultants are also involved. WPP and WT dynamic models are often divided into two types: detailed and simplified. Detailed models are used for Electro-Magnetic Transient (EMT) simulations, providing both electrical and mechanical responses with high accuracy during short time intervals. Simplified models, also known as standard or generic models, are designed to give reliable responses, avoiding high computational resources. Simplified models are commonly used by TSOs and DSOs to carry out different transient stability studies, including loss of generation, switching of power lines or balanced faults, etc., Assessment and validation of such dynamic models is also a major issue due to the importance and difficulty of collecting real data. Solutions facing all these challenges, including the development, validation and application of WT and WPP models are presented in this Issue.