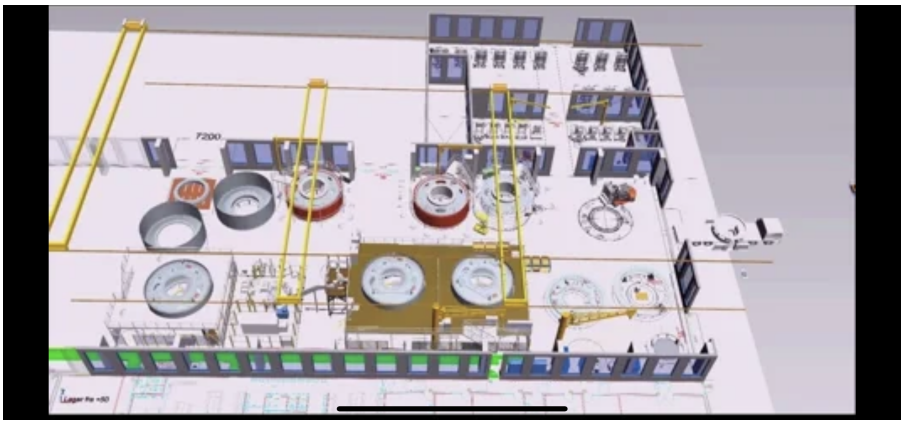
PALESTRA SOBRE MANUFATURA ÁGIL



MSc-ing Mehrnoosh Nickpasand

Senior system engineer / Technical excellence (TEX) project manager at Siemens Gamesa Renewable Energy (SGRE), Denmark

ABSTRACT

This research is a collaboration between NTNU and Siemens Gamesa Renewable Energy (SGRE), a global Offshore/Onshore Wind Turbine manufacturer.
The research discusses the qualitative and quantitative aspects of agility in an industrial context, proposing a preliminary parametric model showing what means to be agile in a system. Agility, like many other system properties, suffers the ambiguity and vagueness due to the multiplicity of qualitative definitions. Proposing a basis for quantification of agility, can help to distinctively characterize an agile system, as well as help to predict certain behaviors of the system in response to uncertainty.
Having identified a manufacturing system, as an industrial system, under the category of system of systems (SoS), this research hypothesizes a system design for an agile system by conducting SoSEngineering principle and methods. Such a design will serve as a framework for any industrial system to be agile. The proposed system configuration for such a design though, is customized for Offshore Wind Turbine manufacturing system, which will be verified in a small pilot project inside SGRE. In such configuration, AI technologies such as advanced simulation, MES (manufacturing execution system), ML, OPC UA, XR, Blockchain for SCM and eventually a Digital Twin based on NVIDIA Omniverse platform are incorporated to enable dimensions of agility.

DATA:	**30/11/2022**
HORÁRIO:	**14:30h**
LOCAL:	**Laboratório Tanque de Provas Numérico – Sala de Visualização 4D – andar térreo**