

Inauguration lecture of Professor Morten Hartvig Hansen

Mechatronics for a greener future

In the centuries to come, history books will likely look back on September 2016 as a major milestone for the world's climate. That was the month when carbon dioxide officially passed the symbolic 400 ppm mark, predicted not to return below it in our lifetimes.

This calls for action. The good news is that wind has beaten fossil fuels on price and financial security! The levelized cost of energy from new wind power plants is lower and more predictable in the long term than coal and gas power, thanks to mechanical and electrical research over the last four decades. To break the final barriers towards a 100% renewable energy system, the innovation challenges are to be found in the interdisciplinary area of mechatronics. Reliable wind energy requires an intelligent turbine that adjusts its power production to the demand on a smart grid, detects faults early to avoid unscheduled downtime, and predicts its near future production based on all available information from the Internet of Things. SDU Mechatronics have the competences and ambitions to contribute significantly to this greener future.