



AARHUS  
UNIVERSITY

# AU SUMMER UNIVERSITY 2019

IN COOPERATION WITH SIEMENS GAMESA RENEWABLE ENERGY A/S  
AND VESTAS WIND SYSTEMS A/S

**WIND POWER SUMMER SCHOOL**  
**11 - 23 AUGUST 2019**  
**IN DENMARK**



# WIND POWER SUMMER SCHOOL

**Are you interested in getting an insight into the latest developments in wind power along with other international and Danish students during your summer vacation?**

In close cooperation with representatives from the wind turbine industry in Denmark, Aarhus University School of Engineering offers a summer course with focus on wind turbine technology in August 2019 in Denmark. The summer course is an intensive and challenging 2-week course.

The purpose of the summer course is to enable participants to apply their engineering competences to wind turbine technology problems and gain an insight into the functioning of turbines and the interaction between the different sub-components and their demand profiles. The summer course's main focus is on mechanics and power engineering problems.

Having attended the course, you will be able to:

- Understand basic LCOE – levelized cost of energy – calculations, as well as business case calculations for wind turbines and wind power plants.
  - Describe the main components, analyze the interactions and load transfer between the components.
  - Analyze design criteria for the different components due to normal operational dynamic loads and extreme load conditions.
  - Analyze and describe principles for optimizing the operation of the turbine and the construction in relation to advanced control.
  - Gain experience from teamwork and case related problem solving.
  - Gain understanding of and experience with working in an intergenerational environment and solving intercultural challenges.
  - Gain experience in procedures for professional problem solving in an industrial and international environment.
- Describe the working principle for a wind turbine on both component and system level.
  - Gain understanding of the multi-disciplinary challenges of work with both aerodynamics, structural dynamic systems, control technology and power components in a complex system.
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Photo: Jesper Bruun

## APPLICATION

The online application system will open on 15 January 2019.  
The application deadline is 1 April 2019.

Please visit:

[ase.au.dk/summerschool](http://ase.au.dk/summerschool) for more information on application procedures, admission requirements, housing and fees.

## PARTICIPANT TESTIMONIAL

"The course easily exceeded my expectations, and it has been the best education experience I have been a part of across the course of my two degrees. The course provided both technical knowledge and industry exposure. And we were treated as engineers rather than students. In fact, I hope to return to Denmark and work for either Siemens or Vestas."

- Sena Dubois, Australia

## FACTS

Date: 11 August - 23 August 2019  
ECTS: 5  
Level: Bachelor

50 students from 14 different countries participated in 2018. 25 speakers and teachers from the industry and the university participated in teaching the course, which included several company visits across Denmark.

## TARGET GROUP

AU Summer University welcomes Danish and international full time students, exchange students and free movers.

The target group is mechanical and power engineering students.



*"At Vestas, we are 100% focused on wind, and our engineers work on tasks across the entire value chain from the initial contact with our customers over site layout and transportation to installation, operation and service. It is of great relevance for Vestas and a pleasure for me personally to be a part of the Wind Summer School because it is a chance to meet talented young engineers from all over the world who are so dedicated to this industry that they are willing to spend their summer vacation on it."*

Anders Vedel, Chief Technology Officer, Vestas Wind Systems A/S

## SIEMENS Gamesa

RENEWABLE ENERGY

*"Siemens Gamesa Renewable Energy employs a great number of engineers every year. Therefore, we support education of engineering students who are heading for the competences that we are looking for. I appreciate the direct dialogue with students at the summer school. Through workshops and discussions about the technology of modern wind turbines, we get to know each other, and I get an opportunity to tell about our high-tech industry and what this industry offers as well as requires from future graduates."*

Per Hessellund Lauritsen, Research Manager,  
Siemens Gamesa Renewable Energy A/S