UNIKASSEL VERSITÄT

Fraunhofer IWES

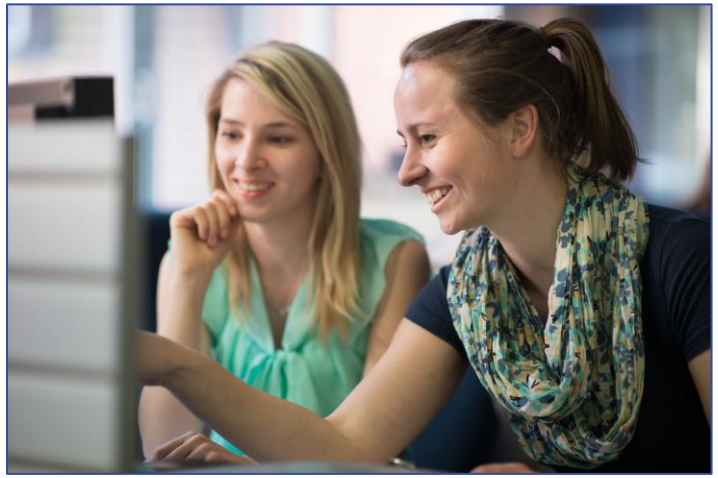
ONLINE M.SC. WIND ENERGY SYSTEMS

DAAD USA: Online Info Session on April 10th, 2017

Online M.Sc. Wind Energy Systems

- **Capacity building in the field of wind energy**
- **For natural scientist and engineers**
- **Combine study and work**
  - Part time-work and study simultaneously and balance your studying and family time
  - International master´s degree program with 100% online learning program
- **Student oriented teaching**
- **Become an expert in the field of wind energy:**

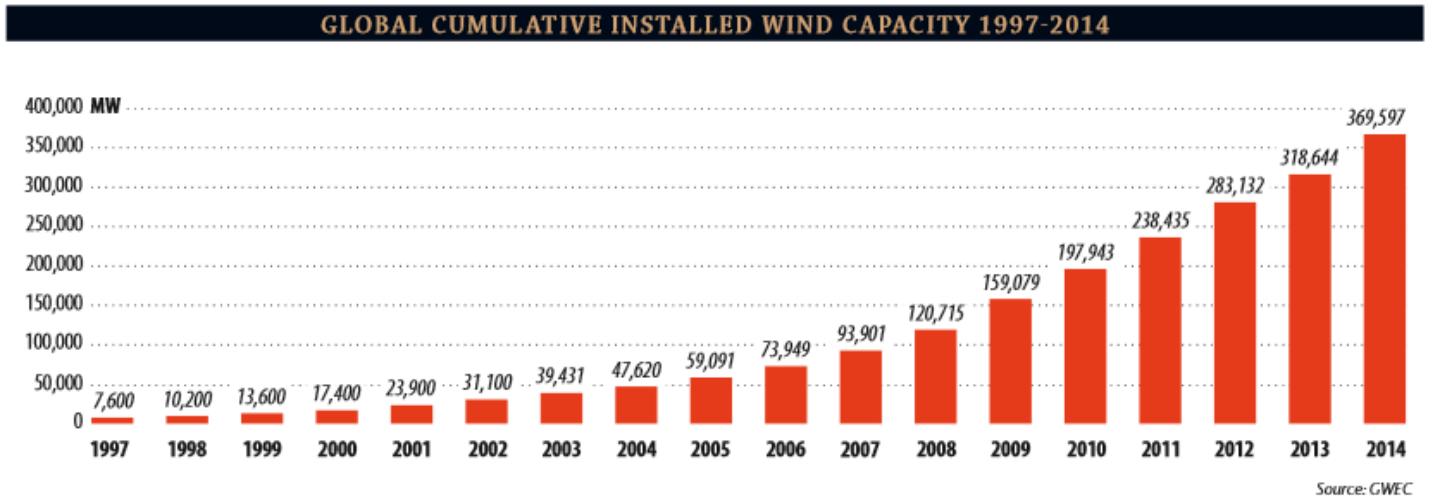
Use this knowledge for a career in a company for wind park planning or in a public entity or become an expert for a single component at the development department of one of the worldwide leading producers



WHY TO STUDY WIND ENERGY?

Job market wind industry

- 2014 was a record year for the wind industry
- 3% of electricity consumption is covered by wind industry
- Qualified personnel is needed



WES TEAM

Prof. Dr.-Ing. habil. Detlef Kuhl
Course Director, University of Kassel

Dr.-Ing. Kurt Rohrig
Deputy Director of Fraunhofer IWES

Course Management

Dr. André Bisevic
Fraunhofer IWES

Annika Schmitt
University of Kassel

Telsche Nielsen-Lange
Scientific Coordination, Fraunhofer IWES

UNIVERSITY OF KASSEL

Environmental University

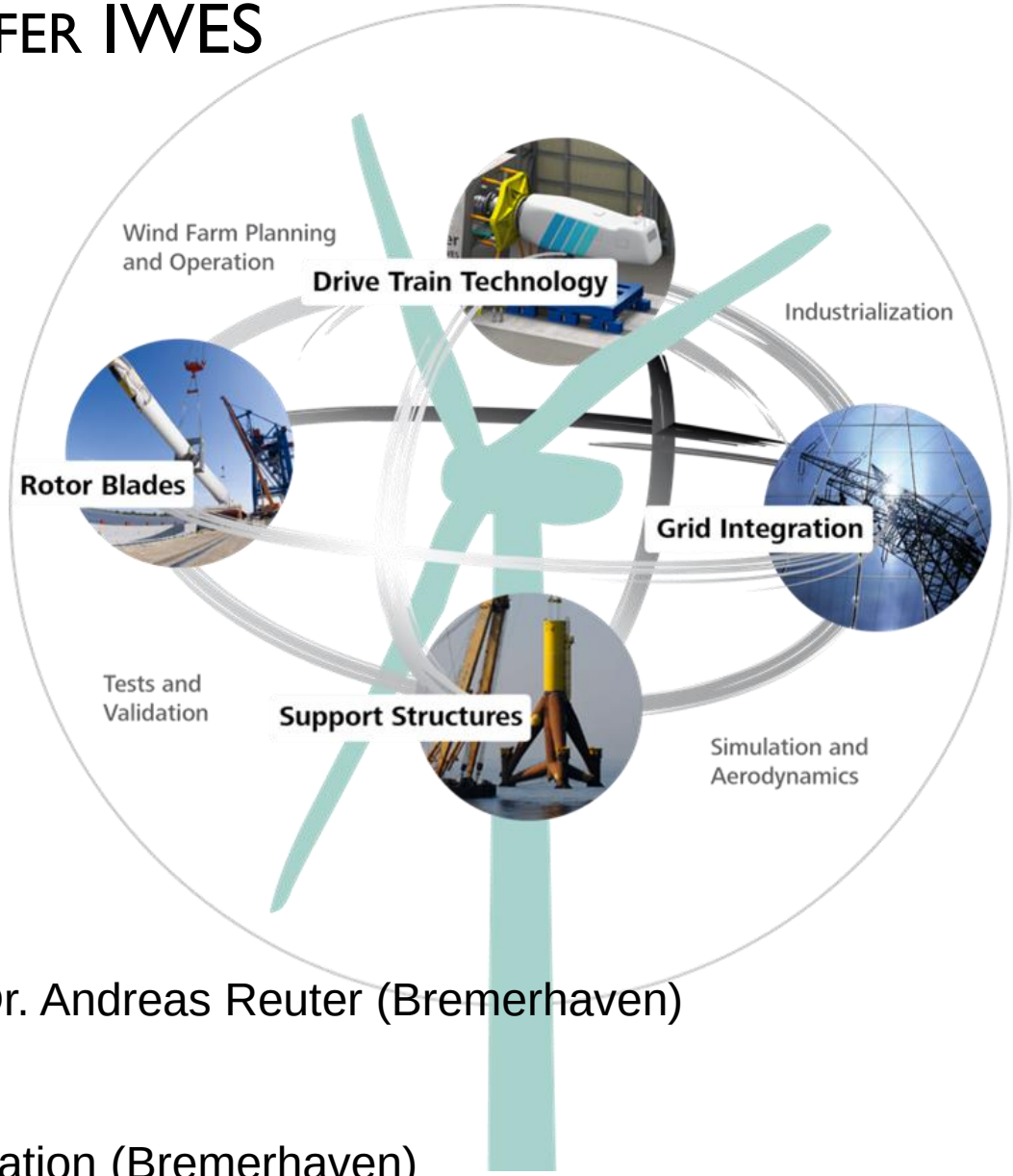
- Founded in 1971
- Current enrollment: ca. 23.696 students
- Practically orientated learning and research
- Environmental profile:
  - Responsibilities and challenges of balancing the needs of mankind with the preservation of the environment
  - Environmental study and research programs.

→ Online M.Sc. Wind Energy Systems

Environmental topics of science, e.g.:

- Sustainable materials flow systems
- Biomass as a material and an energy source
- Environmentally-conscious planning
- Integrated water management
- Regenerative energy systems and energy efficiency
- Wind energy systems

FRAUNHOFER IWES



Annual budget: approx. 20 million Euros

Personal: approx. 260 (full-time: 170)

Directors: Prof. Dr. Clemens Hoffmann (Kassel), Prof. Dr. Andreas Reuter (Bremerhaven)

- Energy system technology for all renewables (Kassel)
- Wind energy from material development to grid optimization (Bremerhaven)

Lecturer of the Master program

University

- University of Kassel
- University of Applied Sciences Bremerhaven
- Cologne University of Applied Sciences

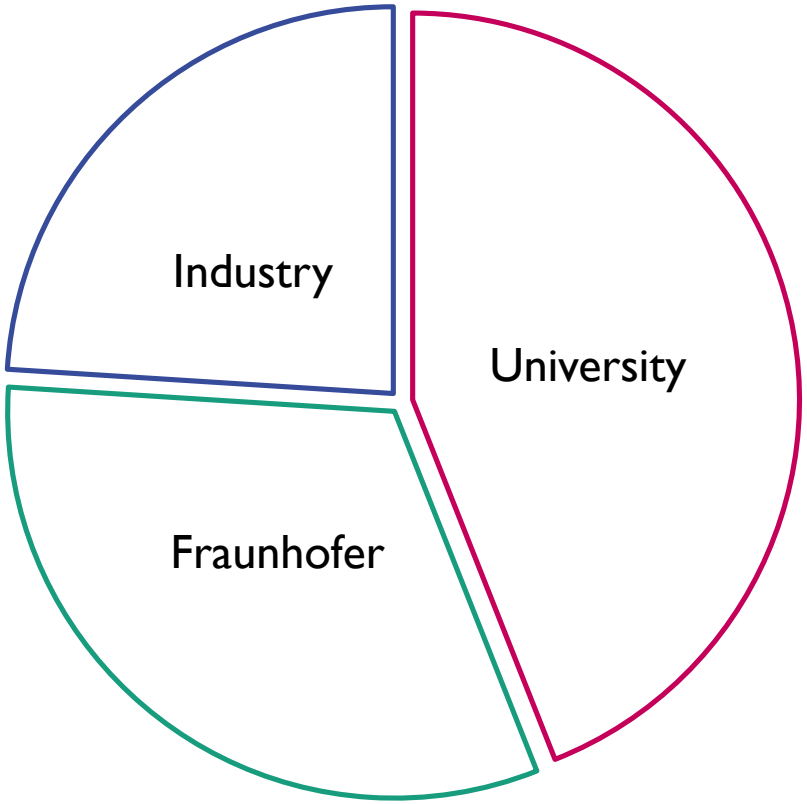
Research Institutes

- Fraunhofer Institute for Wind Energy and Energy System Technology (IWES)

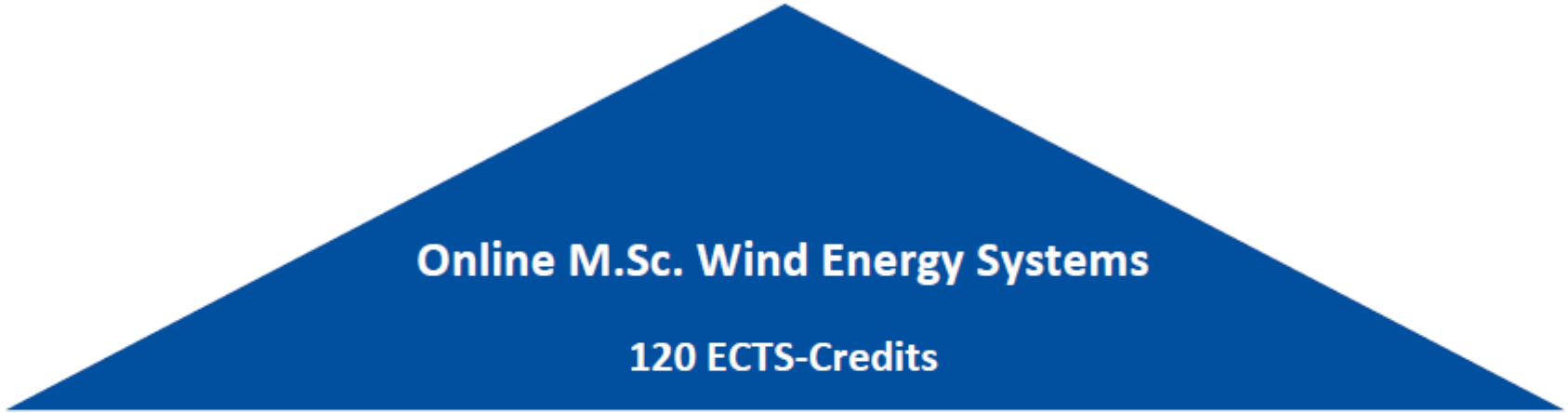
Industry

- SMA Technology
- Cube Engineering
- GLS Bank
- Dikei Abogados

Teaching alliance for your career



CURRICULUM



Master-Thesis	30 ECTS-Credits
Specializations / Additive Key-Competences	60 ECTS-Credits
Fundamentals of Mathematics and Engineering for Wind Energy Systems	30 ECTS-Credits

ASIIN Accredited Degree Programme 2015-2019

Degree:
Master of Science

Duration:
5 - 7 semester

Entitle to do a
PHD

STUDY PLAN - CHOOSE YOUR SPECIALIZATION

High flexibility in module selection

Designed for students in employment

Fundamentals

Specialization **Energy System Technology**

Specialization **Simulation and Structural Technology**

Additive Key-Competences

Master Thesis

Semester 1 - 2

Semester 3 - 6

Semester 7

WRITE YOUR MASTER THESIS

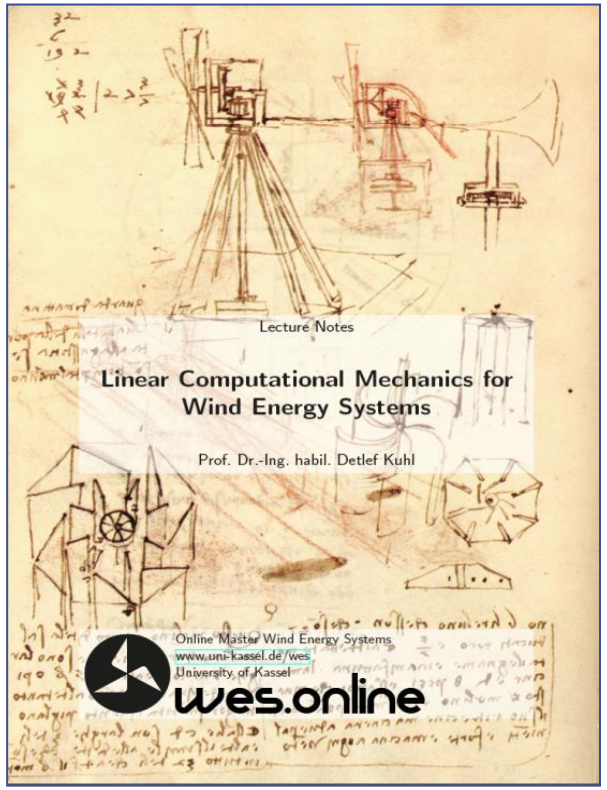
Choose your topic and your institution

- University of Kassel
- Fraunhofer Institute for Wind Energy and Energy System Technology
- Research Institute
- Industry

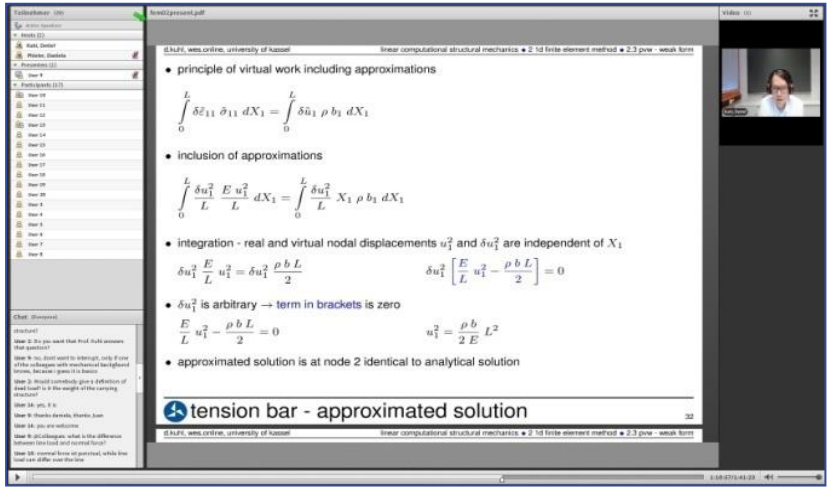
How do we teach our students online?

Teaching Videos

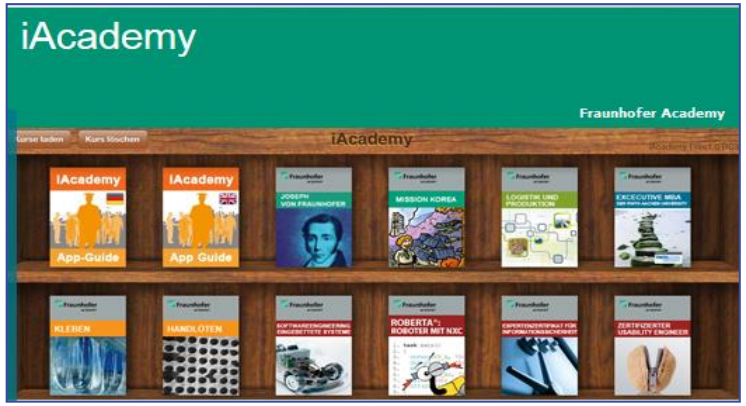
Online Teaching Script



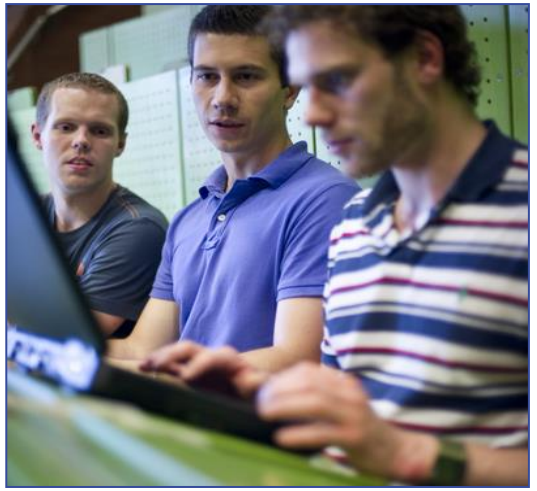
Virtual Classroom



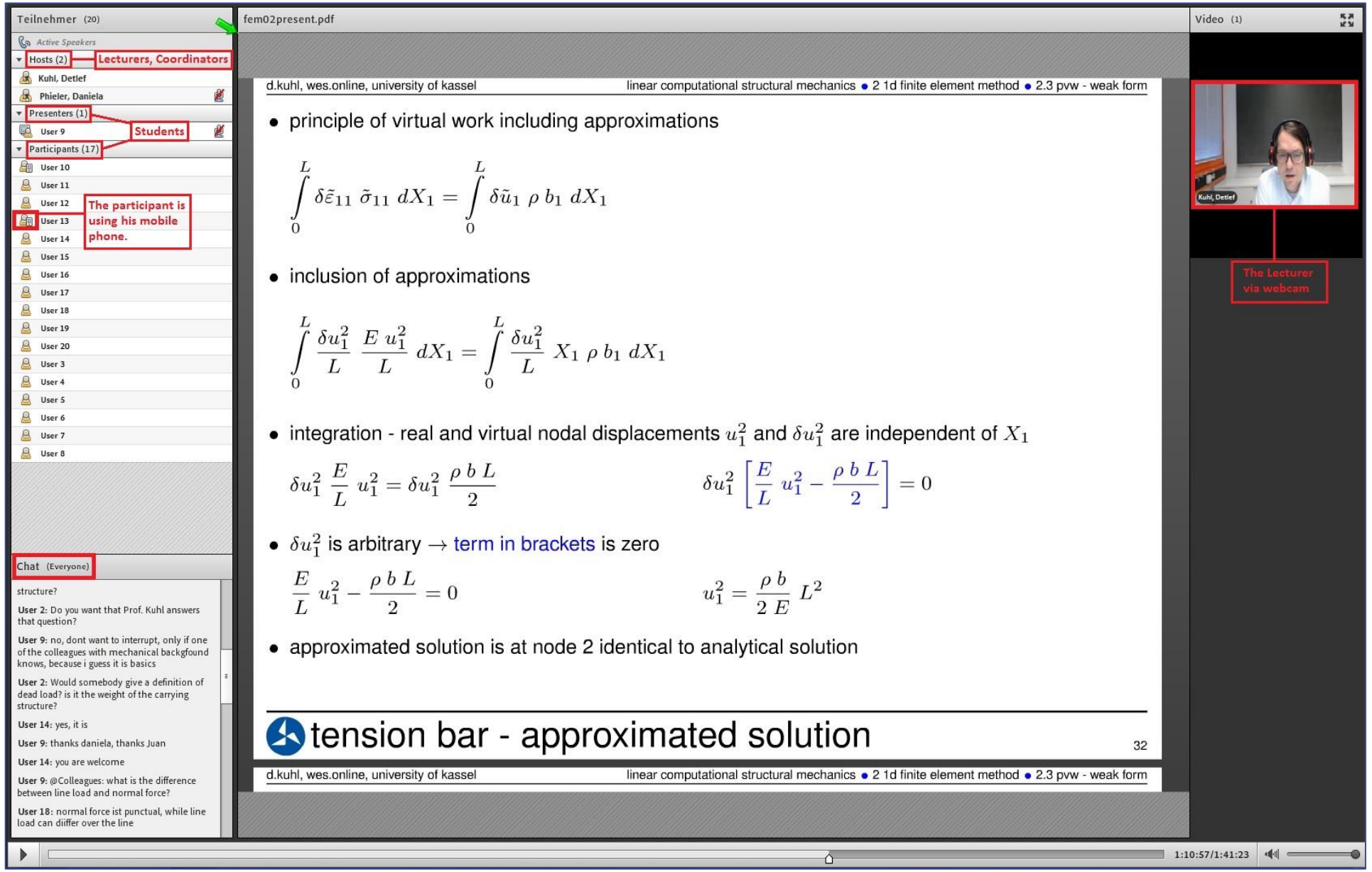
Mobile Learning with Tablet



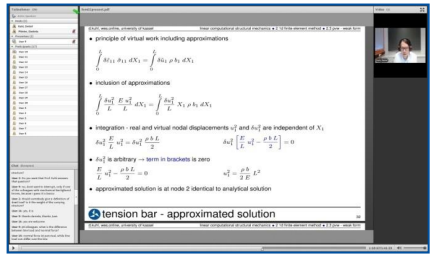
Online Learning Groups

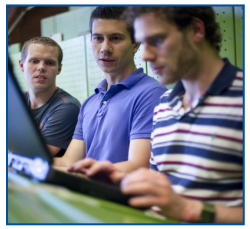


VIRTUAL CLASSROOM – ADOBE CONNECT



SYNCHRONOUS AND ASYNCHRONOUS TEACHING CONCEPT



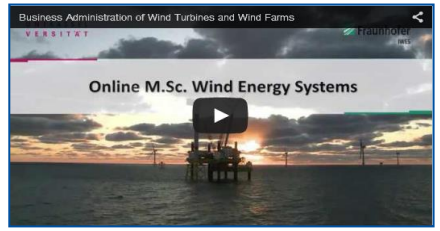


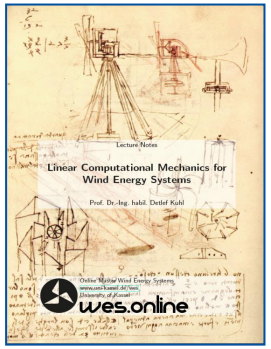
Synchronous Teaching

- Live Online Sessions
- Live Online Tutorials
- Live Consultation Time
- Online Learning Groups

Asynchronous Teaching

- Recorded Online Tutorials
- Recorded Online Sessions
- Videos
- Teaching Skript





Admission Requirements for the Master Program I

1. Bachelor's degree, diploma or equivalent degree with at least 180 Credits in the subject fields
   - civil and environmental engineering
   - mechanical engineering
   - electrical engineering
   - physics
   - or a comparable technical study program

Or

2. in another program with basic subjects from the fields of
   - mathematics
   - natural sciences
   - engineering
   - and achieved at least 60 credits, of which at least 18 credits are in the field of mathematics (analysis, algebra).

Admission Requirements for the Master Program II

3. Letter of motivation (max. two pages)
   - personal motivation
   - suitability for the master program through a record of previous academic performance
   - work experience and scientific work

4. One year of professional experience after finishing the first course of higher education

5. Language skills of level B 2 in English.

Tuition Fees

Study the complete Online M.Sc. Wind Energy Systems (120 Credits)

- Overall 14.000 Euro (each semester 2.000 Euro)

  \+ Enrollment fees of University of Kassel (currently 140,70 €, each semester)

Important: Costs are independent of study duration!

WES.ONLINE CERTIFICATES

Certificates of Advanced Studies

- Certificate **Scientifically Oriented Fundamentals of Wind Energy Systems**
- Certificate **Electrical Engineering of Wind Energy Systems**
- Certificate **Wind Energy Converter Systems**
- Certificate **Structural Mechanics of Wind Energy Systems**
- Certificate **Fluid Mechanics of Wind Energy Systems**

Credits: each 30 ECTS-Credits

Costs: each € 6.000

Admission criteria: Bachelor Degree in a technical or scientific course, e.g. Mechanical Engineering, Electrical Engineering

- Job experience and English language proof is not required!

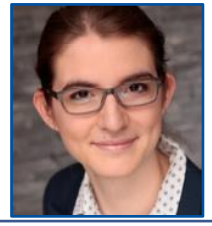
Website: http://www.uni-kassel.de/uni/studium/wind-energy-system/wesonline-certificates.html

THANK YOU FOR YOUR ATTENTION

Online Application for Master Program (until July, 15th)

www.uni-kassel.de/wes

For further questions after this Online Session contact:

Course Management	
	**Dr. André Bisevic** **Fraunhofer IWES** wes@iwes.fraunhofer.de **0049-561-7294451**
	**Annika Schmitt** **University of Kassel** wes@uni-kassel.de **0049-561-8043446**

WHICH DOCUMENT DO I NEED TO SUBMIT MY APPLICATION FOR WES?

- School leaving certificate with which you fulfill the entrance requirement for higher education.
- Certificates and transcripts of records of your previous higher education.
- Proof of at least one year of professional work experience after finishing the first degree of higher education
- Proof of English language knowledge equivalent to level B2 according to the Common European Framework of Reference for Languages.
- Letter of motivation.
- Applicants from China, Mongolia or Vietnam have to submit the so called APS as well.

<u>uni-assist needs two versions of the above mentioned certificates:</u>

1. One set of authenticated copies of the original documents and
2. one set of authenticated copies of translated versions (English or German language).

Please do not submit original documents to uni-assist!