AM-day, UiS 10th March 2020

University of Stavanger

Institutt for maskin, bygg og materialteknologi (IMBM)

Department of Mechanical and Structural Engineering and Materials Science

Tor Hemmingsen, HoD, professor

www.uis.no/imbm

University of Stavanger

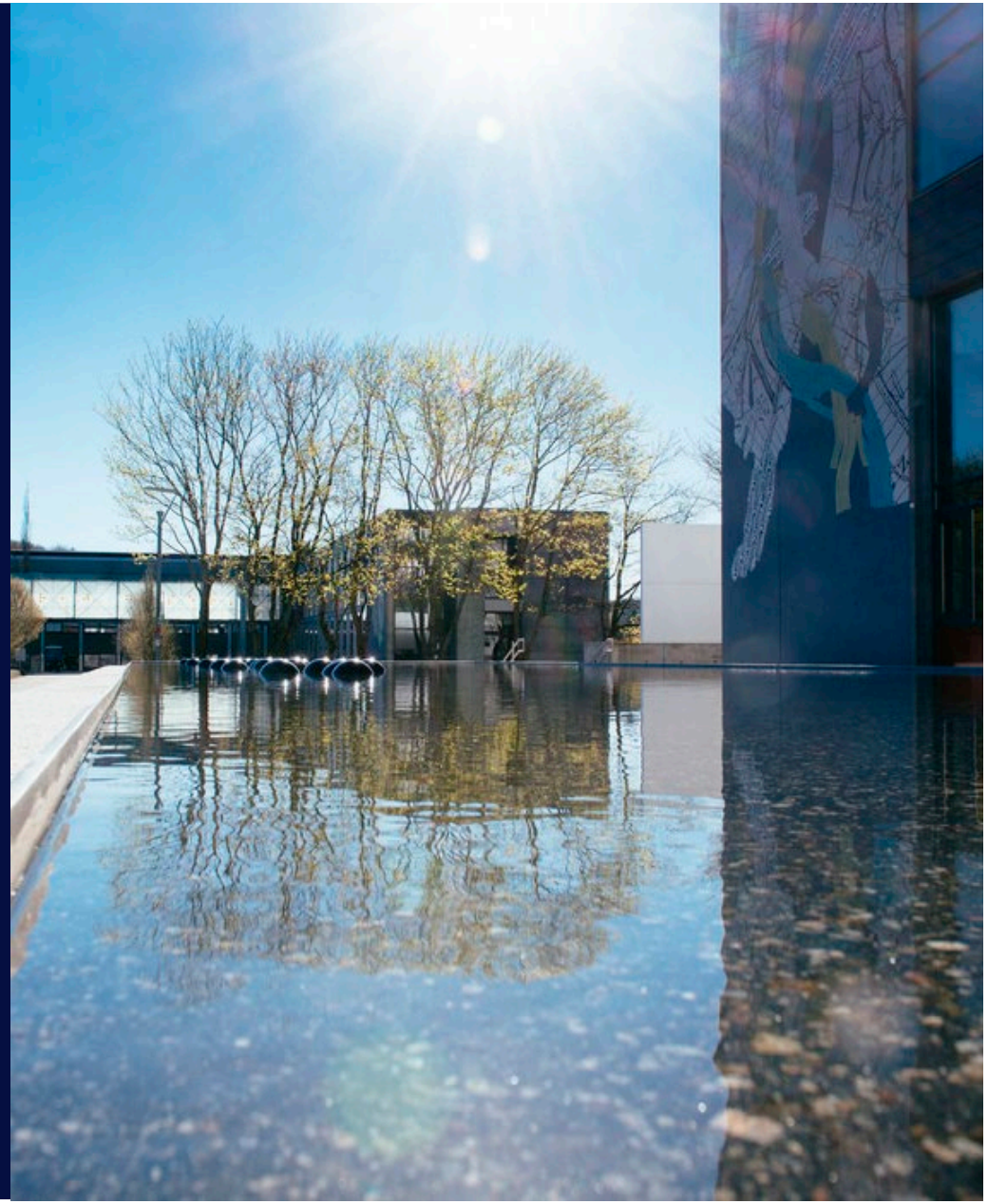
- 1600 faculty, administration and service staff
- 12.000 students
- 1000 international students
- 31 bachelor programmes
- 43 master programmes
- 11 PhD programmes
- 6 Faculties + the Museum of Archaeology
- 12 Departments (7 at TN Faculty)

Universitetet i Stavanger

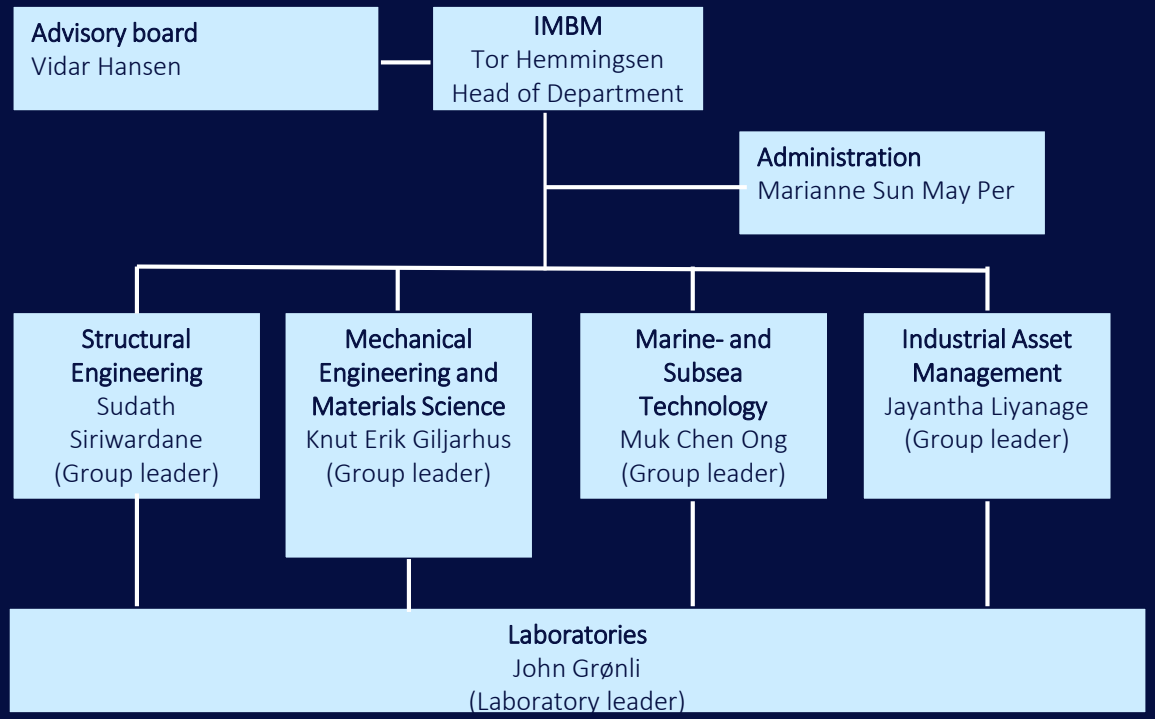
Academic staff at IMBM

Approximately 60 employees

- 20 full time scientific staff
- 11 in Professor II and temporary reseach positions
- 19 PhD and 4 Post-doc
- 14 laboratory staff



Department of Mechanical and Structural Engineering and Materials Science (IMBM)



Study programmes, overall structure

PhD Offshore Technology
19 students

Master 2 years

Engineering Structures and Materials
- Civil Engineering Structures
- Offshore Structures
- Mechanical Systems
- Renewable energy

Bachelor 3 years

Structural Engineering

Master 2 years

Marine- and Offshore engineering

Industrial Asset Management
- Technical and Operational Integrity
- Technological Innovation and Entrepreneurship

Bachelor 3 years
(+ Vocational path, Y-vei)

Mechanical Engineering

5-year programs
(Bachelor+Master)

Marine and Offshore Technology

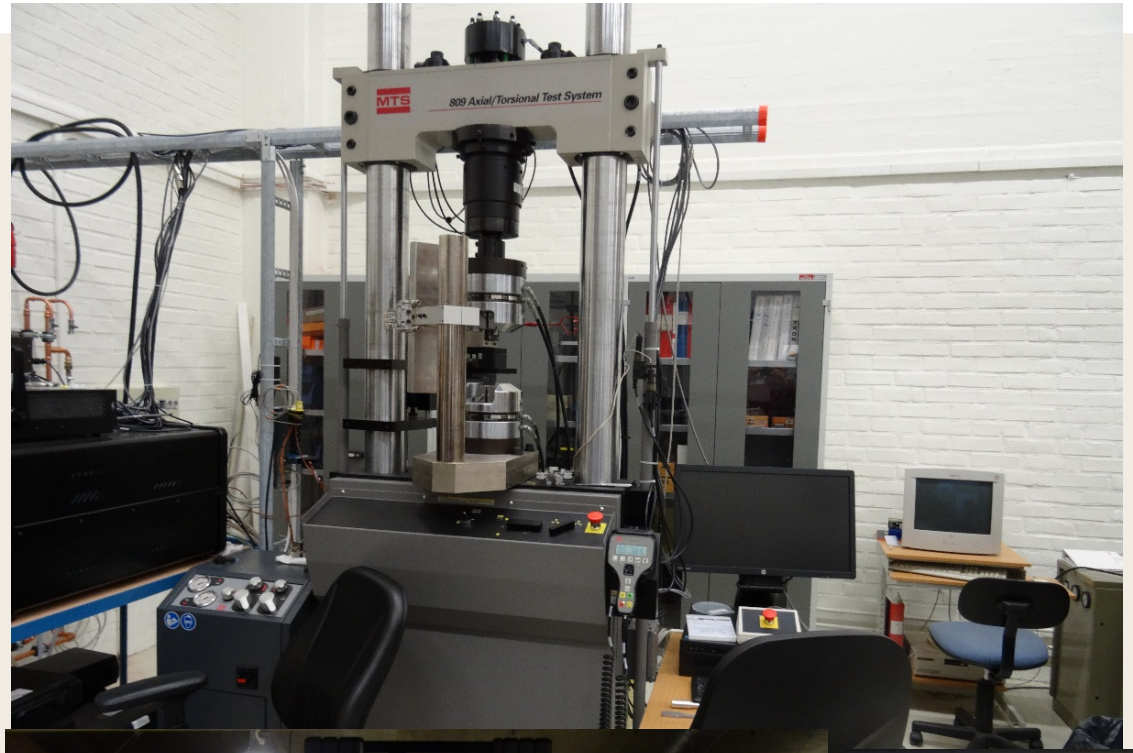
Engineering Structures and Materials

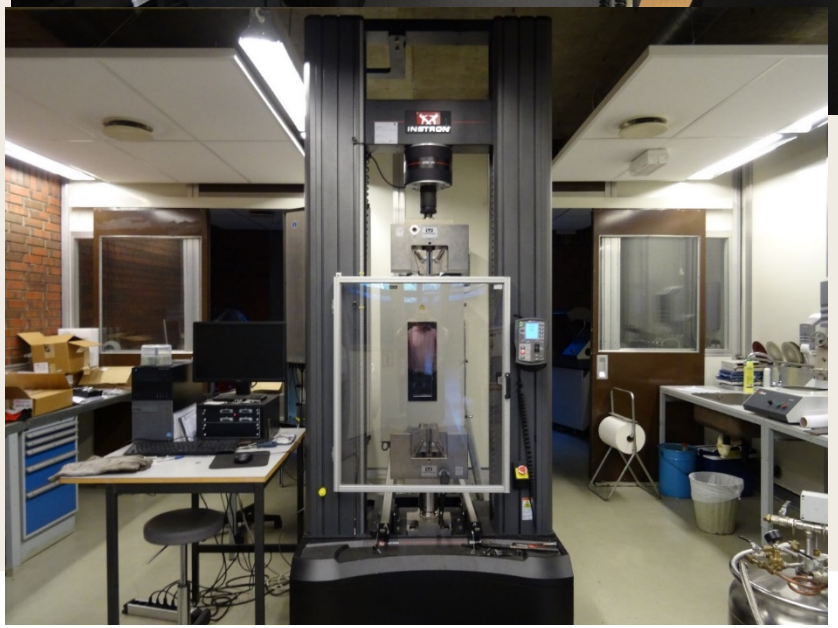
Totally Approx. 650 students

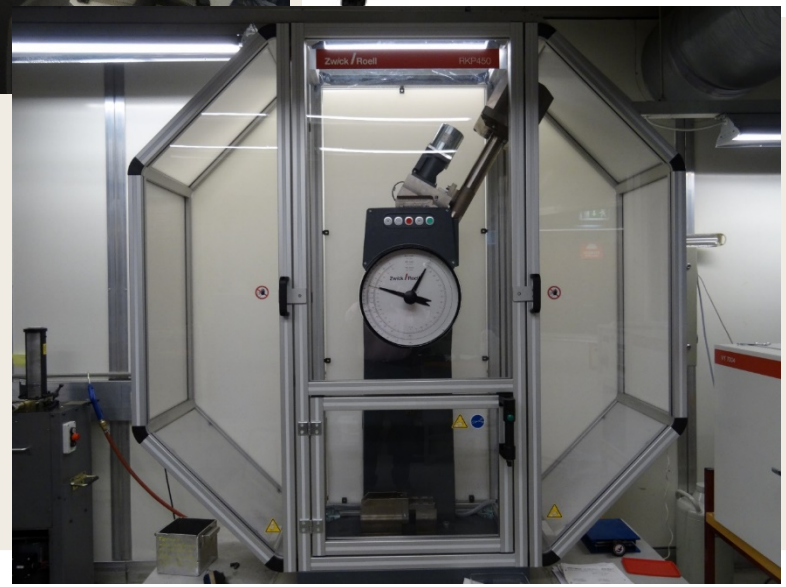
Mechanical Engineering and Materials Science – Research

- **Modelling and systems development of complex mechanical systems**
  - Additive manufacturing
  - Development of methods and techniques by use of advanced computational tools as FEM and CFD
  - Modelling of materials
  - Product development and production
  - Integrated operations and systems
  - Fracture Mechanics, Fatigue and Corrosion
- **SEM and TEM for characterization of materials**
- **Thermoelectric properties of materials**

Laboratory Equipment







3D Printing equipment

- Plastic printer
- Composite printer
- Metal printer with sintering
- Medium scale printer

- 3D Skanner
- 3D Coordinator machine

- Promet – Industrial metal printer

Some projects

- NFR project with India for 3D printing

«Alloy development for additive manufacturing of prostheses and reconstructive implants”.

- Printing of model for down hill skiing for the Olympic Centre and modelling wind effects
- Printing models for ONS – arm for a 3 meter model
- Printing experimental fluid cells and spare parts for UiS and Archaeological Museum
- Applications for projects e.g. VISTA, industry, …
- Student theses