UiO : Department of Technology Systems
University of Oslo

Master studies at ITS

Kaja Mosserud-Haavardsholm
Administrative head of studies, ITS
kajaem@its.uio.no

Department of Technology Systems, you say?

- Based at Kjeller Science Park – where the Internet first came to Europe

- Foundation (started by UiO and establishments at Kjeller) for 30 years; since 2017 a department at MN/UiO
- About 12 full-time researchers
- About 30 lecturers and supervisors with main positions in industry or research establishments

Accociated organisations

Kjeller Science park, Lillestrøm

Other partners companies of ITS:

Thales

ABB

Telenor

Campus Blindern

ITS

- Purpose: Take the knowledge and research available in the science park, and insert it into the University
- ~40+ courses for Master and PhD students taught by researchers from Kjeller Science Park and other research establishments
- Supervisors for Master’s and PhD theses

Teachers and supervisors from:


UiO : Universitetet i Oslo


KONGSBERG

IFE


FFI Forsvarets forskningsinstitutt


FRIDTJOF NANSENS INSTITUTT
FRIDTJOF NANSEN INSTITUTE

ABB


NASJONAL SIKKERHETSMYNDIGHET


NILU

Justervesenet

NORSAR

THALES

telenor

NORCE

KJELLER INNOVASJON

NTNU
Det skapende universitet

Research areas and Master's studies

- Two sections and one Centre for research based innovation:
  - Energy Systems
  - Autonomous Systems and Sensor Technologies
  - CENSSS, Centre for Space Sensors and Systems (RIMFAX)

- Three Master's studies/programme options:
  - Renewable Energy Systems
  - I:Robotics: Cybernetics and Autonomous Systems
  - Space Systems

Courses at ITS

Autonomous Systems and Sensor Technologies

TEK4030 Control of manipulators and mobile robots
TEK4040 Mathematical modelling of dynamic system
TEK4050 Stochastic systems
TEK5010 Multi-agent systems
TEK5020 Pattern Recognition
TEK5030 Computer Vision
TEK5040 Deep learning for autonomous systems
TEK5600 Visualization of scientific data

Space Sensors and Systems

TEK4000 Systems Engineering
TEK4010 Optics and light
TEK4700 Space Systems
TEK4710 Space Sensors and Communications
TEK5050 Detection of Optical and Infrared Radiation
TEK5130 Satellite Communications
TEK5160 Radar remote sensing
TEK5710 Design of Small Satellites (2024)
TEK5720 Project in Space Systems (2024)

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Security and Cyber Physical systems

TEK4500 Introduction to Cryptography
TEK5070 Wireless communications for autonomous and critical sensor systems
TEK5110 Building and Monitoring Communication Networks
TEK5510 Security in operating systems and software
TEK5520 Information security in industrial sensor and mobile systems
TEK5530 Measurable Security for the Internet of Things
TEK5550 Advanced topics in cryptology

Energy Systems

TEK5300 Renewable energy: science and technology
TEK5330 Solar Energy Systems
TEK5340 Energy systems analysis: Modelling, methods and scenarios
TEK5350 Energy Markets and Regulation
TEK5370 Grid, smartgrid og IoT
TEK5380 Prosjekt innen fornybar energi
TEK5390 Hydrogenteknologi
TEK5410 Energy Markets and Regulation - Modelling and Analysis
TEK5420 Norway’s Energy Transitions: Policy Directions and Challenges
TEK5440 Batteries: Technology and Systems

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http://www.uio.no/studier/emner/matnat/its/

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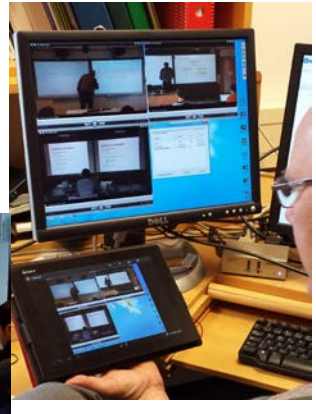
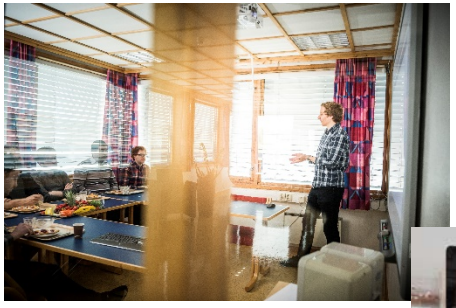
Attending courses at ITS

- Two teaching sessions
  - 09:15-12:00 /13:15-16:00
- Free bus from Blindern (OJD – Informatics building) to and from each session
- A lot of our courses are video transferred (streaming / recording / zoom)





Contact

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www.mn.uio.no/its

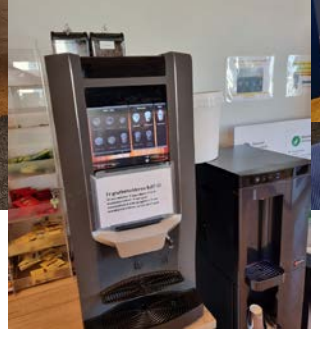
UiO : Department of Technology Systems
University of Oslo

Student life at ITS







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