

## Möjlig handledning inom Informationsteknologi våren 2021

Johan Lilius (<https://research.abo.fi/en/persons/johan-lilius>)

- Autonoma system (fartyg, bilar, ...)
- Mjukvara för en maritim omgivning
- Sensorteknologi
- E-health
- Trådlösa kommunikationstekniker
- Operativsystem

Ivan Porres (<https://research.abo.fi/en/persons/ivan-porres-paltor>)

- Model Driven Software Development
- Software Process Improvement
- Test-Driven development
- A comparison of the ROSS and MOOS-IvP frameworks for autonomous systems

Jan Westerholm (<https://research.abo.fi/en/persons/jan-westerholm>)

- Datorgrafik
- GPU-programmering
- Parallel programmering
- Kodoptimering

Mats Aspnäs (<https://research.abo.fi/en/persons/mats-aspnäs>)

- Parallell programmering
- Kodoptimering
- Tillämpningar av parallell programmering

Sepinoud Azimi (<https://research.abo.fi/en/persons/sepinouid-azimi-rashti>)

- Deep learning
- Data Science
- Computational modelling of biological and medical phenomena

Jerker Björkqvist (<https://research.abo.fi/en/persons/jerker-björkqvist>)

- Autonoma system (fartyg, bilar, ...)
- Mjukvara för en maritim omgivning
- Sensorteknologi
- Data-analys, big data
- Time series analysis
- Trådlösa kommunikationstekniker
- Operativsystem
- Signalprocessering
- Maskindiagnostik (tillämpningar på dieselmotorer och hissar m.m.)
- Software defined radio (applications in DVB-T/T2)

Eugen Ceizler (<https://research.abo.fi/en/persons/eugen-czeizler>)

- Mathematical modelling
- Computational Systems Biology
- DNA Algorithmic Self-Assembly
- Computational Complexity
- Quantitative model refinement
- Controlling directed protein interaction networks in cancer

Sebastien Lafond (<https://research.abo.fi/en/persons/sebastien-lafond>)

- Autonomous systems (ships, cars, ...)
- Energy efficient many-core systems
- Multi-media coding
- Stream-based languages
- Scheduling algorithms
- Parallel video transcoding systems

Kristian Nybom (<https://research.abo.fi/en/persons/kristian-nybom>)

- Sensorteknologi
- Trådlösa kommunikationstekniker
- Agila mjukvaruutvecklingstekniker
- Broadcasting-nätverk

Luigia Petre (<https://research.abo.fi/en/persons/luigia-petre>)

- Machine learning and data science
  - Personalized medicine
  - Gravitational waves
  - Nuclear physics
- Formal methods
  - Refinement-based methods for software development
  - Integration of formal methods
- Network modeling and analysis
  - Smart electrical grids
  - Network-on-chip architectures
  - Wireless sensor-actor networks
  - Multi-core systems

Annamari Soini (<https://research.abo.fi/en/persons/annamari-soini>)

- Programming
- IoT
- Autonomous vehicles
- IT-undervisning
- Könsroller inom IT
- Sociala aspekter inom IT

Dragos Truscan (<https://research.abo.fi/en/persons/dragos-truscan>)

- Cloud computing and automatic resource scaling
- Non-SQL Databases och Webbapplikationer
- Automated White Box Testing
- Parallel Testing with the Robot and TestNG frameworks
- Overview of Test tools for Android applications
- Security testing of web applications
- Comparison of web / mobile automation frameworks.

Marina Waldén (<https://research.abo.fi/en/persons/marina-walden>)

- Formella metoder
  - Integration med industritillämpningar
  - Den formella utvecklingsprocessen
- Agila metoder
- Grafiska gränssnitt till FM (UML, Simulink)
- Autonomous vehicles
- Safe Reinforcement learnig