

Möjlig handledning inom Informationsteknologi våren 2022

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

- Autonoma system (fartyg, bilar, ...)
- Mjukvara för en maritim omgivning
- Algoritmer för autonom navigering
- Energieffektiv mjukvara
- Embedded Deep Neural Computing
- E-health
- Sensorteknologi
- Trådlösa kommunikationstekniker
- Operativsystem

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

- Search Based Software Engineering
 - Heuristics based on genetic algorithms
 - Machine learning
- Frameworks for autonomous systems
- Model Driven Software Development
- Software Process Improvement
- Test-Driven development

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

- Datorgrafik
- GPU-programmering
- Parallel programmering
- Kodoptimering

Adnan Ashraf (<https://research.abo.fi/en/persons/adnan-ashraf>)

- Cloud Computing
- Test automation for cyber physical systems
- Evolutionary algorithms
- Machine Learning

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/sepinoud-azimi-rashti>)

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

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

- 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)

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

Andreas Lundell (<https://research.abo.fi/en/persons/andreas-lundell>)

- Optimering inom processplanering
- Maskininlärning
- Edge computing

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

- Sensorteknologi
- Trådlösa kommunikationstekniker
- Agila mjukvaruutvecklingstekniker
- Broadcasting-nätverk
- Undervisning i programmering

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>)

- Programmeringsspråk
- 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>)

Autonoma fordon

Safe Reinforcement learning

Formella metoder

Integration med industritillämpningar

Den formella utvecklingsprocessen

Agila metoder

Grafiska gränssnitt till FM (UML, Simulink)