

Mission and Vision

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Graduate Schools in Finland

- **Graduate schools (1995-2013)**
 - Turku Centre for Computer Science (TUCS, <https://tucs.fi/>)
 - Graduate School in Electronics, Telecommunications and Automation (GETA, <http://geta.aalto.fi/en/>)
- **Graduate school networks**
 - DELTA graduate school network (<http://www.delta-network.fi/>)
 - IMPDET-LE (International Multidisciplinary PhD Studies in Educational Technology & Learning Environments) is an online doctoral training programme (<http://www.impdet.org/>)
- **University Doctoral Programmes**
 - Doctoral Programme in Mathematics and Computer Sciences (MATTI, <https://www.utu.fi/en/research/utugs/doctoral-programme-in-mathematics-and-computer-sciences>)
- **Other activities**
 - University-university collaborations and joint degrees (e.g. Cotutelle agreements)
 - Innovation & Entrepreneurship education for PhD students (<https://doctoralschool.eitdigital.eu/>)
 - Research Alliance for Autonomous Systems (RAAS) Graduate School (50% industry funded, <https://autonomous.fi/>)



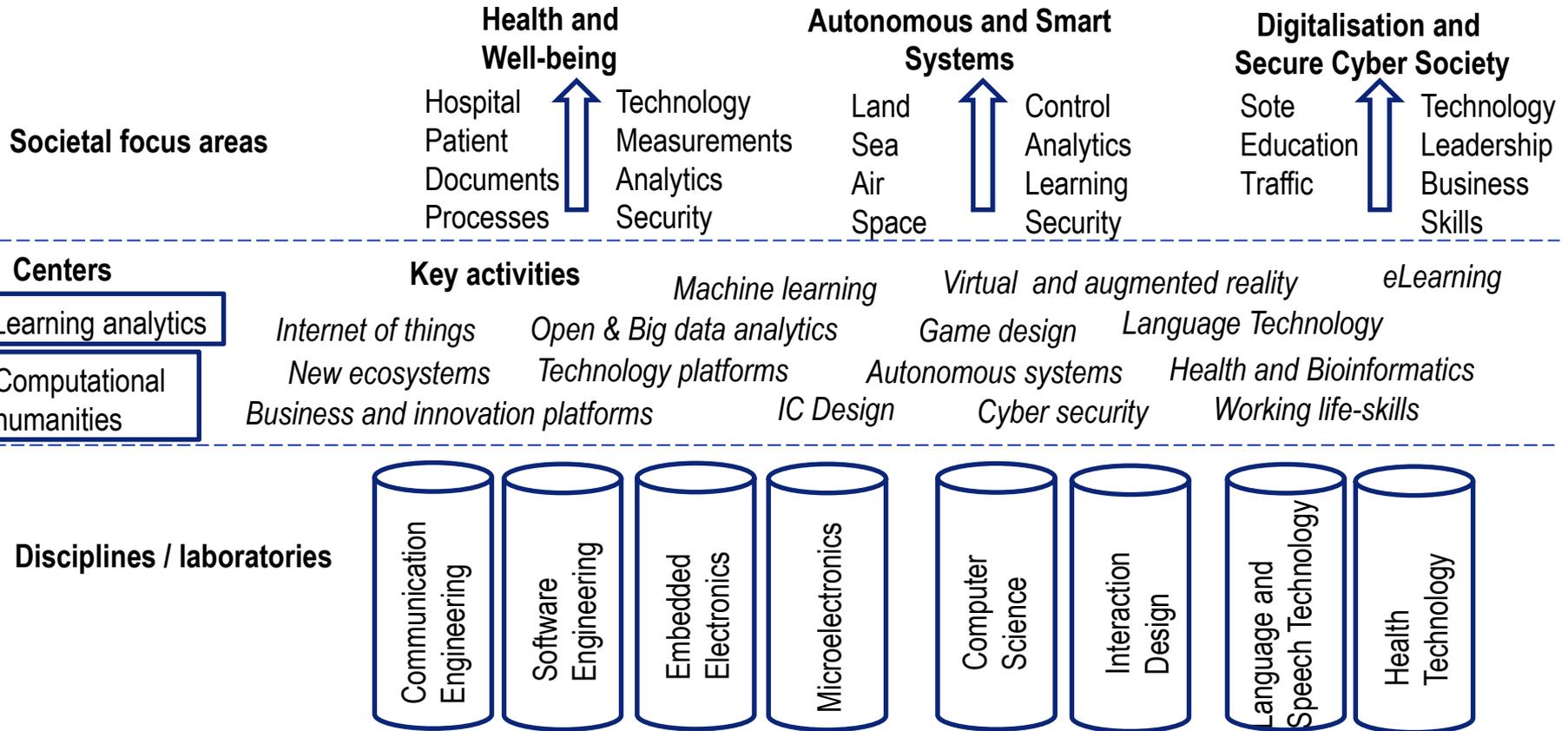
MATTI Doctoral Programme

- Department of Future Technologies
 - Doctor of Philosophy (Natural Science, Humanities)
 - Doctor of Science in Technology
- Department of Management and Entrepreneurship
 - Doctor of Science in Economics and Business Administration or Doctor of Philosophy
- Department of Mathematics and Statistics
 - Doctor of Philosophy

- 50% Matching funding
- Resources 2019: 16 (192 person-months) funded positions and 32.000 euros operative funding
- 2018: 16 PhD
- 2018: funding 200 person-months (119 pm/60% female, 81 pm/40% male)
- 60 => 40 credit points (1.8.2018)
- One phase application round (autumn 2018)
- Phonetics joint us in 2018
- Towards paperless processes
- 1. Matti day 2018



Department of Future Technologies



Development Plans

- Extending engineering education at University of Turku jointly with Turku University of Applied Sciences and Åbo Akademi (joint teaching and research infrastructure, supervision capacity and new contents, and joint projects). Developing co-operation and co-operation forms with industry and business.
- Graduate school networks, joint courses and summer schools with other organisations, joint degrees, student exchange
- 4 years study time vs. what you learn
 - Better readiness for your future career
 - Working-life and well-being at work skills
 - Better connections to industry and business
- Strengthening PhD students/Matti's impact on industry, business and education
- Improving PhD student recruitment (volume and quality) and later their recruitment as graduated PhDs to local industry, business and other organisations.
 - Shortage of man power in our field in Southwestern Finland



Challenges in Education

Key challenges in IT education

1. Contextual change
2. Globalisation/working-life readiness
3. Agility/the rate of change
4. Integration with other fields
5. Rapid renewal of substance

Wide competence “engineer”



Highly profiled expert



System “engineer” with multicultural and multidisciplinary challenges

Only part of learning is easily “visible”



- Challenging existing, new approaches
- Multiple views to the problems
- Co-operation and networking skills (multicultural, multidisciplinary, academia, industry, ...). $1+1 = 2-$, 2 or $2+???$
- Directly to the point (finding what is essential)
- Skills to present and convince people
- Understanding impacts of your work (technology, society, us, our daily life)
- Understanding development of your research field
- Actively and positively impacting on working environment

