

CURRICULUM VITAE

1. Full name and date

Jormanainen, Ilkka Johannes

Gender: Male

Updated at: October 19, 2020

2. Date and place of birth, nationality, current residence

Date and place of birth: July 17, 1979, Kitee, Finland

Citizenship: Finnish

Current residence: Kylmäojantie 86, FI-80710 Lehmo, Finland

3. Education and degrees awarded

- **Ph.D.**, University of Eastern Finland, Computer Science, 2014. *Supporting teachers in unpredictable robotics learning environments*. Verification: Student and learning services, University of Eastern Finland, tel: +358 294 458 263, email: opiskelu@uef.fi
- **M.Sc.**, University of Joensuu, Computer Science, 2004.

4. Other education and training, qualifications and skills

- Minor subject (35 credit units / 70 ECTS cps) “Computer Aided Instruction (CAI)”, as part of M.Sc. studies, completed with degree “Excellent Knowledge”

5. Linguistic skills

- Mother tongue: Finnish
- English (good), Swedish (fair)

6. Current position

- Senior researcher (Academy of Finland, ProFi IV funds), edTech^Δ research group, University of Eastern Finland, School of Computing (3/2019 – to date)
- Responsible project leader at UEF: *RoboSTEAM – Integrating STEAM and Computational Thinking development by using robotics and physical devices* (Erasmus+ KA2 Strategic Partnership 2018-1-ES01-KA201-050939), 2018 – to date

7. Previous work experience

- Post-doctoral researcher, edTech^Δ research group, University of Eastern Finland, School of Computing (3/2015 – 2/2019)
- Principal investigator / responsible project leader at UEF: *ICT4EEDU – Strengthening ICT in Education in Eritrea*, (HEI ICI Eritrea Program, CIMO / Ministry of Foreign Affairs in Finland)
- Part-time research consultant, Design and development project for a learning environment for reducing carbon footprint at Karhunmäki primary school, City of Joensuu, 2017
- Principal investigator / responsible project leader at UEF: *CONSTRUIT!* (Erasmus+ KA2 Strategic Partnership 2014-1-UK01-KA200-001818), *TACCLE3 – Coding* (Erasmus+ KA2 Strategic Partnership 2015-1-BE02-KA201-012307), 2015 – 2017
- Project manager, Congregational Mobile Technologies (Seurakunnalliset mobiiliteknologiat) project, School of Computing, University of Eastern Finland, 4/2013 – 2/2015
- Executive Director, producer of SciFest festival, 1/2013 – 4/2013, Joensuun Tiedeseura – Joensuu Science Society ry
- University lecturer, 9/2012 – 12/2012, University of Eastern Finland, School of Computing

- Short-term consultant (educational technology), 11/2010 – 2/2011, I4DPeople Ltd.
- Executive Director, producer of SciFest festival, 1/2010 – 8/2012, Joensuun Tiedeseura – Joensuu Science Society ry
- Assistant, senior assistant, University of Joensuu, Department of Computer Science, 9/2007 – 12/2009
- Researcher, Project Manager, University of Joensuu, Department of Computer Science and Statistics, *Technologies and technology education for children with individual needs* project (funded by European Social Fund), 12/2006 – 8/2007
- Marking Assistant, The Department of Information Systems, Massey University, New Zealand, 5/2006 – 9/2006
- Assistant, University of Joensuu, Department of Computer Science, 9/2005 – 12/2005
- Project researcher, University of Joensuu, Department of Computer Science, *Development project for technology education* (funded by European Social Fund), 6/2003 – 8/2005
- Teacher (partially part-time), 10/2001 – 6/2003, Virtual Approbatur, University of Joensuu, Department of Computer Science

8. Research funding as well as leadership and supervision

R&D project funding

- 2019 *SciBotania – Ubiquitous and Context-Aware Learning Environment for Botanical Gardens*, Finnish Cultural Foundation, North Karelia regional fund and the Regional Council North Karelia, 15 000 EUR
- 2019 *Learning Analytics Toolkit for Moodle*, University of Eastern Finland, Learning environment development fund, 8 000 EUR
- 2017-18 *eCraft2Learn – Digital Fabrication and Maker Movement in Education*, Horizon 2020 research and innovation framework, initiator of the application; task leader in a work package, total project fund 1 943 248 EUR
- 2015 *TopMob – a mobile learning environment for university students' practical training periods*, University of Eastern Finland, Learning environment development fund, 6 500 EUR
- 2013-14 *Congregational Mobile Technologies*, European Social Fund (ELY Centre of North Karelia) and The Church Council, 488 000 EUR, main author of the application
- 2014-15 *RobotStory: Digital storytelling and theater performance with educational robotics*, Technology Industries of Finland Centennial Foundation, 60 000 EUR

Development project funding

- 2007-19 SciFest festival for science and technology, total funding 2,1M€ (contributions in various levels in application processes)

PhD research grants

- 2007: Research Scholarship, 16 000 EUR, Finnish Cultural Foundation, North Karelian regional fund
- 2006-7: PhD Scholarship, 1 150 EUR / month, University of Joensuu, Faculty of Science
- 2005: Freemover grant, 1 400 EUR, Rector of University of Joensuu

9. Merits in teaching and pedagogical competence

- 2019: Invited course on educational robotics, University of Turku overseas campus at University of Namibia, Windhoek, Namibia

- 2015-17: Intensive courses on educational technologies, edtech laboratory functions, and mobile programming, Eritrea Institute of Technology, Eritrea, ICT4EEDU HEI-ICI Eritrea project, funded by Ministry of Foreign Affairs, Finland
- 2010, 2011: Intensive courses on technology education and robotics, I4D People Ltd, Initiation of Kids' Club Mozambique living lab project under STIFIMO programme, Maputo and Nampula, Mozambique
- 2010: Lecturer and course coordinator, ICT for Job Creation intensive course, University of Pretoria, South Africa, OpenDoors network, CIMO North-South-South mobility program
- 2009, 2010: Visiting teacher on technology education, Lusaka, Zambia, TEDITE project, Evangelical Folk High School of Kitee
- 2009: Lecturer and course coordinator, ICT for Creative Business Planning intensive course, Purbanchal University, Biratnagar, Nepal, OpenDoors network, CIMO North-South-South mobility program
- Various courses at the University of Joensuu / University of Eastern Finland
 - 2020, lecturing and exercise groups, *Robotics and XR*
 - 2019, lecturing and exercise groups, *State-of-the-art technologies in Digital Learning Environments*
 - 2015-20, principal teacher in online course, *Human Factors of Interactive Technology*
 - 2018, lecturing and exercise groups, *Robotics*
 - 2017-19, contact teacher for the first year programming courses, *Programming I - III*
 - 2017, lecturing and exercise groups, *Programming II (object-oriented programming in Java)*
 - 2016, lecturing and exercise groups, *Robotics and embedded systems*
 - 2012, lecturing and exercise groups, *Introduction to programming*
 - 2008, co-lecturing *Introduction to programming* with prof. Erkki Sutinen, exercise groups of the course
 - 2001-3, programming courses at the Virtual Approbatur program
 - 2000-3, exercise groups on courses of IT passport program
- 2001-14: Development of SciKids' (formerly known as Kids' Club) technology education framework, regular teaching and tutoring in various SciKids' technology clubs and intensive camps

Supervised PhD theses

- *Tapani Toivonen*: Open Machine Intelligence in Education, graduated 10/2020, University of Eastern Finland. Thesis approved with distinction.

Supervised MSc theses

- *Sha Md. Nayeem*: Updating Machine Register with Robotic Process Automation, graduated 10/2020, University of Eastern Finland
- *Joel Jumppanen*: Games in informatics technology education, graduated 2/2018, University of Eastern Finland
- *Tapani Toivonen*: Extending Empirical Modelling with a physical computing framework, graduated 6/2016, University of Eastern Finland
- *Pasi Saukkonen*: Encountered problems with iPads in teaching in Finland, graduated 12/2015, University of Eastern Finland
- *Ville Räisänen*: Efficiency and battery usage in Android apps, graduated 12/2015, University of Eastern Finland

- *Mikko Laamanen*: Architecture of theatre robotics, University of Eastern Finland, graduated 3/2015, University of Eastern Finland

10. Awards, prizes and honours

- 2019: Best Presentation Award, 19th Koli Calling International Conference on Computing Education Research
- 2019: Best Learning Analytics Paper Award, 7th International Conference on Technological Ecosystems for Enhancing Multiculturality (TEEM'19)
- 2018: Best Poster Award, 18th Koli Calling International International Conference on Computing Education Research
- 2004: Fast Master award, 600 EUR, University of Joensuu, Department of Computer Science

11. Other academic merits

Work abroad, research visits, invited talks abroad

- 2016: Invited talk: *Arts Meet Robot – Toward Inclusive STEAM Education*, The EDUROBOTICS 2016 International conference, Athens, Greece
- 2012: Invited workshop leader, *Workshop A – The Content: The Relevance of Content - Shilly-shallying vs. Critical Thinking*, SiS Catalyst / EUCU.NET joint conference, University of Porto, Portugal
- 2009: Visiting researcher (four weeks), Meraka Institute, CSIR, South Africa
- 2009: Research visit, University of Warwick, UK
- 2008: Erasmus teacher exchange visit, University of Warwick, UK
- 2006: Visiting PhD student, Advanced Learning Technologies Research Centre, the Department of Information Systems, Massey University, New Zealand

Academic organizational duties

- 2019 – Joensuun Tiedeseura – Joensuu Science Society ry, Vice-chair
- 2009 – Joensuun Tiedeseura – Joensuu Science Society ry, Board member
- 2003 – 2004: Student Union of University of Joensuu, Board member
- 2008 – 2010: Administrative Coordinator, University of Eastern Finland (University of Joensuu), OpenDoors network, CIMO North-South-South mobility program
- 2003 – 2005, 2007 – 2014: Head of organizing committee, Koli Calling International Conference on Computing Education Research
- 2004: Member of steering and program committees, JoyOodi project, University of Joensuu
- 2002 – 2003: Member of Departmental council, University of Joensuu, Department of Computer Science

Program committee member / peer reviewer in the following conferences and scientific publications

- ACM International Computing Education Research Conference (ICER)
- Computers & Education
- Computers in Human Behavior
- DEANZ Conference (The New Zealand association for professionals working in flexible, open and networked education)
- EDUROBOTICS International Conference
- IEEE International Conference on Advanced Learning Technology (ICALT)
- IEEE International Workshop on Wireless, Mobile and Ubiquitous Technologies in Education (WMUTE)

- IEEE Transactions on Education
- Informatics in Education journal
- International Conference on Computers in Education (ICCE)
- International Koli Calling Conference on Computing Education Research
- International Journal of Social Robotics
- Journal of Educational Technology and Society
- Journal of Advanced Technology for Learning
- Smart Learning Environments journal

12. Scientific and societal impact of research

Peer-reviewed scientific articles (since 2001)

- Book chapters: 1
- Journal articles: 4
- Conference publications: 51

Monographs: 2

Other publications: 3

Merits in science communication

I was working in 2010-2013 as Executive Director of Joensuu Science Society that is responsible for SciFest Finland (www.scifest.fi), a landmark science and technology festival aimed at youngsters. SciFest was started in 2007 and has been organized annually, gathering annually more than 10 000 participants. I have been responsible for program production for SciFest festivals 2010 – 2013. I'm also a founding member and currently vice-chair and board member of Joensuu Science Society.