

1. Personal details

Name: PLOSILA, Juha Petteri.

Year of birth: 1965; Nationality: Finland.

Google Scholar: <https://scholar.google.com/citations?user=em4kCrUAAAAJ&hl=en> .

Websites: <https://www.utu.fi/en/people/juha-plosila>; <https://asl.utu.fi/>.

2. Education and degrees completed

- Docent (Adjunct Professor) in Digital Systems Design; Univ. of Turku, Finland - 28.2.2006.

- Doctor of Philosophy in Electronics and Communication Technology; Univ. of Turku, Finland - 12.11.1999.

- Master of Science in Electronics and Communication Technology; Univ. of Turku, Finland - 26.08.1993.

3. Current positions

At University of Turku, Finland - Faculty of Technology, Department of Computing:

- Professor (full) in Robotics and Autonomous Systems (RAS) - since 01/2019.

- Head of Robotics and Autonomous Systems (RAS) Unit - since 01/2019.

- Head of RAS Track in MSc (Tech) Programme in ICT - since 01/2019.

- Member of Department Steering Board - since 01/2021.

- Member of Management Committee of Doctoral Programme in Technology, UTU Graduate School - since 08/2023

At EIT Digital (28Digital), European Institute of Innovation and Technology (a body of the European Union):

- Head of EIT Digital Master Programme in Embedded Systems, EIT Digital Master School - since 2012 (with EU funding).

- Member of EIT Digital Master School Management Group - since 2012.

- Member of EIT Digital Finland/North Regional Strategy Committee (representing Univ. of Turku) - since 2017.

4. Visits

Visiting professor at Fudan University, School of Information Science and Technology, Shanghai, since 2013, as part of a joint dual-degree master programme between Fudan Univ. and Univ. of Turku. Annual 2-4 -week visits during 2013-2019, 2023, and 2025. Online collaboration during 2020-2022. Has included both education and research cooperation.

5. Previous academic positions

- Associate Professor (yliopistonlehtori) in Embedded Computing; U. of Turku, Dept. of Future Technologies; 08/2011-12/2018.

- Academy Research Fellow (akatemiaturkija); Research Council of Finland & U. of Turku, Dept. of IT; 08/2006-07/2011.

- Professor (full, fixed term) in Digital and Computer Systems; U. of Turku, Dept. of IT; 10/2004-07/2006.

- Assistant Professor (yliassistentti) in Digital and Computer Systems; U. of Turku, Dept. of IT; 01/2000 - 09/2004.

- Senior Researcher; Åbo Akademi U., Turku, Dept. of CS; 08/2000-12/2002.

- Research Associate in Electronics and Communication Technology; U. of Turku, Dept. of Applied Physics; 09/1996-12/1999.

- Researcher; Åbo Akademi U., Turku, Dept. of CS; 01/1994 - 08/1996.

- Research Assistant; U. of Turku, Dept. of Applied Physics; 08/1993 - 12/1993.

- Intern; U. of Turku, Dept. of Applied Physics; 05/1991 - 08/1991.

6. Research projects (with external research funding)

- HAIF (Human-Centric Artificial Intelligence for Sustainable Future), Research Group Lead & Head of Training Committee, Horizon-MSCA-COFUND doctoral training programme, 2025 – 2029.

- DIWA (Digital Waters) Flagship. Member of U. of Turku team under the research theme “New observational systems” & PhD Pilot, Research Council of Finland, 2024-2031. Partners: Univ. of Oulu, Univ. of Turku, Aalto Univ., Finnish Environment Institute (Syke), Finnish Geospatial Research Institute, and Finnish Meteorological Institute.

- DOMINIC (Developmental Multi-Robot Systems in Cognitive Manufacturing), Lead, Research Council of Finland, 09/2023 – 08/2026, Partners: Univ. of Turku, VTT Technical Research Centre of Finland.

- FORESAIL (Finnish Centre of Excellence in Research of Sustainable Space), Phase 2; Lead of Dept. of Computing team (Univ. of Turku); Research Council of Finland, 2023 – 2025. Partners: Univ. of Helsinki, Univ. of Turku (Dept. of Physics and Astronomy & Dept. of Computing), Aalto Univ. and Finnish Meteorological Institute.

- ADAFI (Adaptive-Fidelity Digital Twins for Robust and Intelligent Control Systems); Lead; Research Council of Finland, 01/2021 - 12/2023; Partners: Univ. of Turku, Turku Univ. of Applied Sciences.

- AURORA (Autonomous Performance Management in Digital Manufacturing); Lead; Research Council of Finland, 09/2020 - 08/2023; Partners: Univ. of Turku, VTT Technical Research Centre of Finland.

- LARA (Learning and Assessing Risks for Enhancing Dependability of Autonomous Socio-Technical Systems); Co-Lead; Research Council of Finland, 01/2018 - 12/2019; Partners: Åbo Akademi Univ., Univ. of Turku.
- FORESAIL (Finnish Centre of Excellence in Research of Sustainable Space), Phase 1; Co-Lead of Dept. of Computing team (Univ. of Turku); Research Council of Finland, 2018 – 2022; Partners: Univ. of Helsinki, Univ. of Turku (Dept. of Physics and Astronomy & Dept. of Computing), Aalto Univ. and Finnish Meteorological Institute.
- TACLe (Timing Analysis on Code Level); Lead of the Univ. of Turku team; EU COST Action IC1202, 2012 - 2016. A collaboration network of research units from 20 European countries.
- MEDIAN (Manufacturable and Dependable Multicore Architectures at Nanoscale); Lead of Univ. of Turku team; EU COST Action IC1103, 2011 - 2015. A collaboration network of research units from 24 European countries.
- AMEBA (Agent-Based Management of Embedded Data Reserves); Co-Lead; Research Council of Finland, 01/2012 - 12/2014; Partners: Åbo Akademi Univ., Univ. of Turku.
- AGENT (Agent-Based Management of CMOS Hyper Cores); Lead; Research Council of Finland, 01/2011 - 12/2013; Partners: Univ. of Turku, Aalto Univ, VTT Technical Research Centre of Finland.
- VirtuES (Embedded Multicore Systems Using Virtual Machine Approach); Lead; Research Council of Finland, 01/2009- 06/2012.
- DIJON (Distributed Jointly Operating Networks); Co-Lead; Research Council of Finland, 01/2008 - 12/2011; Partners: Åbo Akademi Univ., Univ. of Turku.
- Academy Research Fellow's project (Fault-Tolerant Nano-Scale Network-on-Chip Platform: Enabling Technologies and Design Methods); Lead; Research Council of Finland, 08/2006 - 07/2011.
- REAL-JAVA (Low-Power Java Co-Processor with Improved Real Time Performance and Predictability); Lead; The Federation of Finnish Technology Industries, 01/2006 - 12/2008.
- Prompt2Implementation (Parallel Processing Dedicated, Rapid Optimised Mapping Platform for Telecom Applications to Implementation). Co-Lead; EU FP5 ITEA, 2002 - 2004; Partners: Nokia (Finland), Univ. of Turku (Finland), Tampere Univ. of Technology (Finland), THALES (France), ESTEREL (France), INRIA (France), LIFL (France), Artisan Software (UK).
- ACID-WG (Asynchronous Circuit Design Working Group); Co-Lead of TUCS Turku Centre for Computer Science team; EU FP5, 2000 - 2004; A collaboration network of excellence/expertise with altogether 21 European university/industry partners.

7. Research leadership and supervision

- Lead of the Autonomous Systems Laboratory (ASL) research group at Univ. of Turku, 2019- .
- Lead of the Embedded Computer and Electronics Systems (ECES) research group and co-lead of the Resilient IT Infrastructures research programme (RITES) at TUCS Turku Centre for Computer Science, 2012 - 2018.
- Supervised post docs (8): Hashem Haghbayan, 2018 – 2023; Liang Guang, 2013 - 2014. Masoud Daneshtalab, 2012 - 2013. Thomas Canhao Xu, 09/2012 - 03/2013. Tero Sääntti, 2009 - 06/2012. Leonidas Tsiopoulos, 07/2011 - 12/2011. Tomi Westerlund, 2008 - 2010. Johanna Tuominen, 01/2010 - 06/2010.
- Supervised PhD Theses (25): Sajad Shahsavari, 2021-2026 (defence expected in September 2026); Anam Tahir, 2017-2023. Sherif Mohamed, 2018-2023. Jawad Yasin, 2018-2022. Amleset Kelati, KTH, 2014-2021. Mohammad Fattah, 2011-2021. Amin Majd, 2015-2019. Hashem Haghbayan, 2013-2018. Fahimeh Farahnakian, 2012-2016. Tuomas Poikela, in collaboration with CERN, 2011-2015. Sergey Ostroumov, Åbo Akademi University, 2012-2015. Syed Jafri, in collaboration with KTH, 2010-2015. Kameswar Rao Vaddina, 2008-2014. Bo Yang, 2009-2013. Masoumeh Ebrahimi, 2010-2013. Liang Guang, 2009-2012. Ville Rantala, 2008-2012. Amir Rahmani, 2009-2012. Masoud Daneshtalab, 2009-2011. Ethiopia Nigussie, 2005-2010. Johanna Tuominen, 2004-2009. Teijo Lehtonen, 2005-2009. Tero Sääntti, 2004-2008. Tomi Westerlund, 2003-2007. Pasi Liljeberg, 2000-2005.
- Currently supervising 10 PhD students at Univ. of Turku (2-3 to graduate in 2026).

8. Teaching experience

Teacher-in-charge for 18 different courses - altogether 61 course instances - at Univ. of Turku (50 instances) and Fudan University (11 instances) since 1999, in the fields of digital circuit and system design, computer and multiprocessor architectures, reconfigurable computing, embedded systems, modelling and verification, as well as autonomous systems.

9. Scientific meetings and editorial duties

- Program chair, general chair, or organizing chair at 7 international conferences or workshops (ICCRE 2026, ReCoSoC 2015, PDP 2015, MES WS at ISCA 2014, HPCS 2013, CASEMANS WS at UBIComp 2012, ACID WS of EU FP5 ACID-WG, 2004). Co-chair for 6 special sessions or tracks at international conferences (DFTC at SEAA 2015, MC3 at PDP 2014, DarMuS at PDP 2013, SANES at PECCS 2013 & 2012, SAAES at PECCS 2011).
- Technical program committee member at least for 12 different international conferences.

- Guest editor for 9 special issues in 6 different journals (Elsevier MICPRO, Springer Journal of Supercomputing, IGI GLOBAL IJERTCS, Springer DAES, ACM TECS, IGI Global IJARAS).

10. Evaluation duties

- Evaluation of project proposals and running projects (145 proposals and 5 running project evaluations since 2009) for: European Commission (typically multiple proposals per contract), Christian Doppler Research Association (Austria), Swiss National Science Foundation, Knowledge Foundation (Sweden), Research & Innovation Foundation of Cyprus, EU COST Association, Royal Society (UK), Czech Science Foundation, Estonian Research Council, and Research Council of Finland.

- Evaluation of PhD theses (since 2005): External pre-examiner for 14 theses and a public opponent/examiner for 14 theses (in Finland, Sweden, Denmark, Estonia, Italy, India, Pakistan).

- Evaluation of scholarship applications (since 2023-2025) for the Turku Finnish University Society.

- Evaluation of competence (since 2011): Tenure-track Professorship (Tampere University, Finland), 2024; Professorship (Taylor's University Lakeside Campus, Malaysia), 2024; Associate Professorship (Taylor's University Lakeside Campus, Malaysia), 2022; Adjunct Professorship (Åbo Akademi University, Finland), 2011; HDR (Habilitation à Diriger les Recherches) thesis at University of Haute Alsace, France, 2013; Outstanding Researcher status application, 3 different applicants (U.S. Citizenship and Immigration Services (USCIS)), 2013-2017.

11. Memberships in various committees (examples)

- Publication Forum (<https://www.julkaisufoorumi.fi/en>) Panel membership, Panel 9 (Electrical and Automation Engineering,

Information and Communication Technology), since 2022.

- Member of the steering committee of the Doctoral Programme in Technology (DPT) at Univ. of Turku Graduate School, since 2023.

- Member of UCNDrone (representing Univ. of Turku) – The University Collaboration Network in Unmanned Aerial Systems in Finland, 2022-2023.

- Member of the recruitment committee for ELLIS Fellows/Scholars at Univ. of Turku, 2026.

- Member of the recruitment committee for tenure track professors for Mechanical Engineering at Univ. of Turku (3 professorships: thermal science, electric power transmission, and Industry 4.0), 2021-2024.

- Head of the committee for a tenure track promotion process (from Assoc. Prof. to Full Prof.) at Univ. of Turku, 2022-2023.

- Member of the committees for tenure track promotion processes: Univ. of Turku, 2022-2023 (from Asst. Prof. to Assoc. Prof.); Univ. of Turku, 2022-2025 (from Assoc Prof. to Full Prof., 4 professorships); Tampere University, 2021 (from Asst. Prof. to Assoc. Prof.).

- Member of the steering board of the Arctic Drone Labs ecosystem, 2017-2019.

- Member of the management committee of the Doctoral Programme in Mathematics and Computer Sciences (MATTI) at Univ. of Turku Graduate School, 2017-2019.

- Member or lead of several different master programme management committees at Univ. of Turku since 2000.