Student supervision details

The following section provides concise details of the individual research students I have supervised or advised, including their research topics, my supervisory role, supervision period, status, and associated research outputs [1]

- **Hansi Abeynanda**: Doctoral student, School of Electrical Engineering and Computer Science, KTH, Sweden
  - Thesis: Distributed Machine Learning Over Networks
  - Role: Co-supervisor
  - My supervision period: 2023-present
  - Status: Ongoing
  - Reaserach outputs: 1 journal paper published (IEEE TSP), 1 Journal paper submitted (IEEE TCNS)
    * Hansi Abeynanda, Chathuranga Weeraddana, and Carlo Fischione. *On the characteristics of the conjugate function enabling effective dual decomposition methods*. IEEE Transactions on Signal Processing (2026). (Link)
- **Tamara AlShammari**: Doctoral student, Faculty of Information Technology and Electrical Engineering, University of Oulu, Finland
  - Thesis: TBD
  - Role: Co-supervisor
  - My supervision period: 2022-present
  - Status: Ongoing
  - Research outputs: 1 journal paper published (IEEE TSP), 1 Journal paper conditionally accepted (IEEE JSTSP Special Issue on Autonomous and Evolutive Optimization in Networked AI), 1 Journal paper submitted (JMLR)
    * Tamara AlShammari, Chathuranga Weeraddana, and Mehdi Bennis. *BayGO: Decentralized Bayesian learning and information-aware graph optimization framework*. IEEE Transactions on Signal Processing (2024). (Link)
- **Ahmed Elbakary**: Doctoral student, Faculty of Information Technology and Electrical Engineering, University of Oulu, Finland
  - Thesis: TBD
  - Role: Co-supervisor
  - My supervision period: 2025-present
  - Status: Ongoing
  - Research outputs: 1 journal paper conditionally accepted (IEEE TCCN)
- **Hebatalla Issa**: Doctoral student, Faculty of Information Technology and Electrical Engineering, University of Oulu, Finland
  - Thesis: TBD
  - Role: Co-supervisor
  - My supervision period: 2024-present
  - Status: Ongoing
  - Research outputs: -
- **Randitha Rajapaksha**: Master's student, Faculty of Information Technology and Electrical Engineering, University of Oulu, Finland
  - Thesis: Emergent Communication for Multi-Agent Learning under Communication-Constrained Networks
  - Role: Main supervisor
  - My supervision period: 2025-2026

[1] Acronyms: IEEE JSTSP = IEEE Journal of Selected Topics in Signal Processing, IEEE TSP = IEEE Transactions on Signal Processing, IEEE TCNS = IEEE Transactions on Control of Network Systems, JMLR = Journal of Machine Learning Research, IEEE TCCN = IEEE Transactions on Cognitive Communications and Networking, IEEE SPL = IEEE Signal Processing Letters.

  - Status: Graduated 2026
  - Research outputs: Currently finalizing a journal manuscript for submission
    * Randitha Rajapaksha. *Emergent Communication for Multi-Agent Learning under Communication-Constrained Networks*. Master's thesis, University of Oulu (2026). (Link)
- **Athmajan Vivekananthan**: Master's student, Faculty of Information Technology and Electrical Engineering, University of Oulu, Finland
  - Thesis: Adaptive Autonomy in Multi-Agent Systems with Modeled Interactions: An Empirical Analysis
  - Role: Main supervisor
  - My supervision period: 2024-2025
  - Status: Graduated 2025
  - Research outputs: Currently finalizing a journal manuscript for submission
    * Athmajan Vivekananthan. *Adaptive Autonomy in Multi-Agent Systems with Modeled Interactions: An Empirical Analysis*. Master's thesis, University of Oulu (2025). (Link)
- **Sandushan Ranaweera**: Bachelor's student, University of Moratuwa, Sri Lanka
  - Undegraduate project: On the Convergence of Inexact Gradient Descent With Controlled Synchronization Steps
  - Role: Main supervisor
  - My supervision period: 2021-2022
  - Status: Graduated 2022
  - Research outputs: 1 signal processing letter published (IEEE SPL)
    * Sandushan Ranaweera, Chathuranga Weeraddana, Prathapasinghe Dharmawansa, and Carlo Fischione. *On the Convergence of Inexact Gradient Descent With Controlled Synchronization Steps*. IEEE Signal Processing Letters (2023). (Link)
- **Hansi Abeynanda**: Master's student, University of Sri Jayewardenepura, Sri Lanka
  - Thesis: Distributed Consensus with Dual Decomposition Methods Under Additive and Bounded Errors
  - Role: Main supervisor
  - My supervision period: 2021-2022
  - Status: Graduated 2022
  - Research outputs: 1 journal paper published (IEEE TSP)
    * Hansi Abeynanda, Chathuranga Weeraddana, G. H. J. Lanel, and Carlo Fischione. *On the primal feasibility in dual decomposition methods under additive and bounded errors*. IEEE Transactions on Signal Processing (2023). (Link)
- **Nishal De Silva**: Master's student, SLIIT, enrolled in the Sheffield Hallam University (SHU) Master's programme in Sri Lanka
  - Thesis: On Musical Onset Detection via the S-Transform
  - Role: Main supervisor
  - My supervision period: 2016-2017
  - Status: Graduated 2018
  - Research outputs: 1 SP conference paper published in Asilomar Conference on Signals, Systems, and Computers (Asilomar)
    * Silva, Nishal, Pradeep Chathuranga Weeraddana, and Carlo Fischione. *On musical onset detection via the s-transform*. 2018 52nd Asilomar Conference on Signals, Systems, and Computers (2018). (Link)
    * Nishal Silva. *On Musical Onset Detection via the S-Transform*. Master's thesis, Sheffield Hallam University (2017). (Link)
- **Sindri Magnússon**: Doctoral student, School of Electrical Engineering and Computer Science,

KTH, Sweden
  - Thesis: Bandwidth Limited Distributed Optimization with Applications to Networked Cyberphysical Systems
  - Role: Postdoctoral advisor
  - My supervision period: 2014
  - Status: Graduated 2017
  - Research outputs (only during the year 2014): 1 journal paper published (IEEE TCNS)
    * Sindri Magnússon, Pradeep Chathuranga Weeraddana, Michael G. Rabbat, and Carlo Fischione. *On the convergence of alternating direction lagrangian methods for nonconvex structured optimization problems*. IEEE Transactions on Control of Network Systems (2016). (Link)
- **Sindri Magnússon**: Master's student, School of Electrical Engineering and Computer Science, KTH, Sweden
  - Thesis: A Distributed Approach to the Optimal Power Flow Problem and Its Privacy Properties
  - Role: Postdoctoral advisor
  - My supervision period: 2013
  - Status: Graduated 2013
  - Research outputs: 1 journal paper published (IEEE TCNS)
    * Sindri Magnússon, Pradeep Chathuranga Weeraddana, and Carlo Fischione. *A Distributed Approach for the Optimal Power-Flow Problem Based on ADMM and Sequential Convex Approximations*. IEEE Transactions on Control of Network Systems (2015). (Link)
    * Sindri Magnússon. *A Distributed Approach to the Optimal Power Flow Problem and Its Privacy Properties*. Master's thesis, KTH Royal Institute of Technology, Stockholm, Sweden (2013). (Link)
- **Elisabetta Alfonsetti**: Master's student, School of Electrical Engineering and Computer Science, KTH, Sweden
  - Thesis: Privacy preserving car-parking: a distributed approach
  - Role: Postdoctoral advisor
  - My supervision period: 2012-2013
  - Status: Graduated 2013
  - Research outputs: 1 journal paper published (IEEE TCNS)
    * Xu Yuzhe, Elisabetta Alfonsetti, Pradeep Chathuranga Weeraddana, and Carlo Fischione. *A Semidistributed Approach for the Feasible Min-Max Fair Agent-Assignment Problem With Privacy Guarantees*. IEEE Transactions on Control of Network Systems (2018). (Link)
    * Elisabetta Alfonsetti. *Privacy preserving car-parking: a distributed approach*. Master's thesis, KTH Royal Institute of Technology, Stockholm, Sweden (2013). (Link)
- **Umberto Mosca**: Master's student, School of Electrical Engineering and Computer Science, KTH, Sweden
  - Thesis: A Novel Distributed Approach for Optimal Power Flow Problem in Smart Grids
  - Role: Postdoctoral advisor
  - My supervision period: 2012-2013
  - Status: Graduated 2013
  - Research outputs: -
    * Umberto Mosca. *A Novel Distributed Approach for Optimal Power Flow Problem in Smart Grids*. Master's thesis, KTH Royal Institute of Technology, Stockholm, Sweden (2013). (Link)