Kamiar Radnosrati

PhD student

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Summary

- PhD student in the automatic control group at Linköping University. My research is focused on position estimation and localization.
- Solid knowledge in Bayesian modelling and inference, machine learning, neural networks deep learning.
- Hands-on experience in Matlab, R, Python, and deep learning frameworks such as Tensorflow, Keras.
- Strong communication, presentation and writing skills.
- Excellent problem solver and responsible team player.

Education

Doctor of Philosophy in Electrical Engineering with Specialization in Automatic Control

Linköping, Sweden

Linköping University — *Feb 2015-present*

Research focus on position estimation using radio measurements. The results from this research have been presented in multiple peer-reviewed journals and conferences as listed under publications.
Supervisor: Prof. Fredrik Gustafsson

A PhD degree also includes two years of postgraduate coursework. These courses include courses on: Machine Learning (Advanced), Neural Networks and Deep Learning, Target tracking, Sensor fusion, Bayesian Learning, Target Tracking, Nonlinear Optimization, Equations and Least Squares, Matrix Analysis, Linear Systems, System Identification, Teaching in Higher Education, Research Ethics.

Licentiate in Automatic Control

Linköping, Sweden

Linköping University — *Jun, 2018*

A licentiate degree is a degree that can be obtained after 2.5 – 3 years of the PhD.
Title of Licentiate's thesis: *On Timing-Based Localization in Cellular Radio Networks*
Supervisor: Prof. Fredrik Gustafsson.
Opponent: Prof. Henk Wymeersch.

Master of Science in Information Technology with Major in Communications Engineering

Tampere, Finland

Tampere University of Technology — *Jun. 2013*

The program consists of courses in among others programming (C++), Signal processing, Communication theory, Wireless Communication and Computer networking. Master thesis is in the filed of wireless Communication. The master thesis has resulted in paper [C1] and [C2].
Title of Master's thesis: *Trading-off Compression, Energy Efficiency, and QoE in Wireless Networks*
Supervisor: Docent Dmitri Moltchanov.
Examiners: Prof. Yevgeni Koucheryavy.

Bachelor of Science in Electrical Engineering

Guilan, Iran

Guilan University — *Jul. 2010*

Work Experience

M.Sc. Thesis Supervision

Linköping, Sweden

Linköping University — *2016-present*

- Room correction for smart speakers. Simon Mårtensson, 2019 (performing at Dirac, Linköping).
- Mobility analysis of zoo visitors. Kim Byström, 2019 (performing at LiU, Linköping).
- High resolution frequency estimation in a FMCW-radar application. Johan Svensson, 2018 (performed at Emerson, Linköping).
- Wheel Brake Noise Analysis. Teodor Hamnholm Löfgren, 2017 (performed at Scania, Sodertälje).
- Modelling and temperature control of an industrial furnace. Hampus Carlborg and Henrik Iredahl, 2016 (performed at Sandvik AB, Stockholm).

Teaching assistant
Linköping, Sweden

Linköping University
Sep. 2015 - Dec2018

The PhD program includes a year of teaching both undergraduate and postgraduate students. My teaching experience includes:

- Digital signal processing, master level course – Holding problem solving sessions and labs (2017,2018).
- Sensor fusion, master level course – Lab assistant (2017, 2018).
- Automatic Control, bachelor level course – Teaching problem solving sessions and labs (2015,2016,2018)

Visiting researcher
Linköping, Sweden

Ericsson research
Oct. 2016 - Dec. 2016

2-month research visit to the positioning group of Ericsson research at Linköping. Cooperating with Dr. Fredrik Gunnarsson. The cooperation has resulted in paper [C5].

Research scientist
Oulu, Finland

VTT, technical research center of Finland
Aug. 2013- Dec. 2014

- Member of EU Celtic plus QuEEN project in Quality of Experience Estimators in Networks.
- Member of ESA project in QoE tool for Telemedicine.
- Implementing probes for server and network performance measurement collection for quality of experience analysis, JAVA.

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Research trainee
Oulu, Finland

VTT, technical research center of Finland
Mar. 2013- Aug. 2013

Transforming a network measurement tool written in C++ to JAVA.

Publications

Journal Papers

[J2] P. Kasebzadeh, **K. Radnosrati**, G. Hendeby, F. Gustafsson. Neural Networks for Joint Classification of Gait and Device Modes. To be submitted to IEEE Transactions on Instrumentation and Measurement.
[J1] **K. Radnosrati**, C. Fritsche, F. Gunnarsson, F. Gustafsson, G. Hendeby. Localization in 3GPP LTE based on one RTT and one TDOA observation. Submitted to IEEE Transactions on Vehicular Technology.

Conference Papers

[C5] **K. Radnosrati**, G. Hendeby, C. Fritsche, F. Gunnarsson, F. Gustafsson. Performance Evaluation of OTDOA Positioning in NB-IOT Systems. In Proceedings of the 28th IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC), Montreal, QC, Canada, October 2017.
[C4] **K. Radnosrati**, C. Fritsche, G. Hendeby, F. Gunnarsson, F. Gustafsson. Fusion of TOF and TDOA for 3GPP Positioning. In Proceedings of the 19th International Conference on Information Fusion (FUSION), Heidelberg, Germany, July 2016.
[C3] **K. Radnosrati**, F. Gunnarsson, F. Gustafsson. New Trends in Radio Network Positioning. In Proceedings of the 18th International Conference on Information Fusion (FUSION), Washington DC, USA, July 2015.
[C2] **K. Radnosrati**, D. Moltchanov, Y. Koucheryavy. Trade-offs between compression, energy and quality of video streaming applications in wireless networks. IEEE International Conference on Communications (ICC), Sydney, Australia, 2014.
[C1] **K. Radnosrati**, D. Moltchanov, Y. Koucheryavy. The choice of VoIP codec for mobile devices. Proceedings of the ICN, Nice, France, Feb. 2014. *Honorable mention, received the best paper award.*

Working manuscripts

[WM3] **K. Radnosrati**, G. Hendeby, F. Gustafsson. Exploring Positive Noise in Estimation Theory, a theoretical background.
[WM2] **K. Radnosrati**, G. Hendeby, F. Gustafsson. Tri-Lateration In Presence of Positive Noise.

Skills

Languages Persian (native), English(fluent).
Programming skills MATLAB (everyday), R (often), Python (often).
Python frameworks NumPy, Tensorflow, Keras.
Version Control System Git, SVN.
Computer skills General big interest in computers and overall excellent skills with most OSs and standard software.

References

Available upon request.