SARIT KHIRIRAT

Contact information

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          Stockholm, Sweden, 115 57.

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Qualifications

- Comprehensive knowledge of **Optimization, Advanced Control Theory,** and **Signal Processing**.
- Extensive research experience on **large-scale communication-efficient optimization algorithms**.
- Proficiency in programming languages such as **Java, Matlab/Simulink, LaTeX, GAMS, OpenModelica,** and **MS Office: Excel, PowerPoint,** and **Word**.
- GRE: Verbal **149**, Quantitative **168**.

Education

KTH Royal Institute of Technology, Stockholm, Sweden   2017-present
Ph.D. at Electrical Engineering and computer science,
Research area: *Large-scale communication-efficient*
                distributed optimization
Advisor: Prof. Mikael Johansson

KTH Royal Institute of Technology, Stockholm, Sweden   2014-2017
M.Sc. Systems, Control, and Robotics,
Track: Systems and Control Theory
Thesis: *Randomized First-order Methods for Large-scale Optimization*
        in Machine Learning Applications
Advisor: Prof. Mikael Johansson

Chulalongkorn University, Bangkok, Thailand   2009-2013
B.Eng. (First Class Honours) Electrical Engineering, Gpa: 3.83/4.0
Major: Communications and Control Engineering
Thesis: *Application of Adaptive Backstepping Design for Uncertain*
        Linear Systems with Unknown Input Time-Delay
Advisor: Assoc. Prof. Watcharapong Khovidhungij

Engineering Experience

Summer intern,   Summer 2012
Yokogawa, Thailand, Ltd., Bangkok, Thailand
Distributed control and automation systems for chemical processes
- Programmed with **CENTRUM VP**, **PLC**, **SCADA** and **AutoCAD**
- Installed and monitored communications network, and power lines for
  distributed control systems
- Inspected electrical and field instrument panels, and their blueprints

Mentorship Experience

Project Co-Supervisor,   2018
KTH Royal Institute of Technology, Stockholm, Sweden
EL111X: Degree Project in Electrical Engineering, First Cycle
Student: Rasmus Jerndal, Ossian Krödel
Main Supervisor: Robert Mattila
Thesis: Portfolio Optimization with Market State Analysis

Project Co-Supervisor,   2018
KTH Royal Institute of Technology, Stockholm, Sweden
EL111X: Degree Project in Electrical Engineering, First Cycle
Student: Gustav Ekman, Fredrik Rubin
Main Supervisor: Robert Mattila
Thesis: Portfolio Inversion: Finding Market State Probabilities From Optimal Portfolios

Project Supervisor,   2017
KTH Royal Institute of Technology, Stockholm, Sweden
EL111X: Degree Project in Electrical Engineering, First Cycle
Student: Viktor Norrsjö, Viktor Stenberg
Thesis: PID Controllers for Autonomous Vehicle Path Following

Project Supervisor,   2017
KTH Royal Institute of Technology, Stockholm, Sweden
EL111X: Degree Project in Electrical Engineering, First Cycle
Student: Jonathan Adolfsson
Thesis: Lane Following for Autonomous Vehicles

Teaching Experience

Teaching and Laboratory Assistant,   2018
KTH Royal Institute of Technology, Stockholm, Sweden
EL1010: Automatic Control, General Course

Teaching and Laboratory Assistant,   2017
KTH Royal Institute of Technology, Stockholm, Sweden
EL1010: Automatic Control, General Course

Professional services

- Reviewers in conferences:
  IEEE American Control Conference (ACC); IEEE Conference on Decision and Control (CDC); IEEE European Control Conference (ECC)

Courseworks

- Control Engineering:
  Nonlinear Control; Hybrid and Embedded Control Systems; Optimal Control Theory; Modeling of Dynamical Systems

- Communications Engineering:
  Estimation Theory; Adaptive Signal Processing

- Mathematics:
  Optimization; Applied Linear Optimization; Probability and Statistics; Random Processes