

Kiarash Aryankia

Networked Control Systems Lab.,
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Education

- **Sharif University of Technology, Tehran , Iran**
 - *Master of Science in Electrical Engineering-Control* GPA:16.65/20 2013 – 2015
 - **Master Thesis: Distributed Optimal Control Using an Efficient Method for Decomposition**
 - * Thesis got high 5 percent of students' top marks (18.6/20) , supervisor : **Dr. Alireza Farhadi**.
 - * New method of decomposition has been introduced to shrink the Large Scale System to either homogeneous or heterogeneous clusters of subsystem. To achieve this goal, the interaction of subsystems denoted by Interaction Strength(IS) and for choosing subsystems of each cluster or neighborhood Strength Weight (SW) presented. Finally using extreme simulations, the authenticity of the proposed method acknowledged.
 - **Key Courses:** Optimal Control, Network Control system, Stochastic Control, Nonlinear Control, Model Prediction Control, Advanced Engineering Mathematics.
 - **Imam Khomeini International University, Qazvin, Iran**
 - *Bachelor of Science in Electrical Engineering-Control* GPA:14.92/20 2008 – 2013
 - **Bachelor Thesis: Research on Controller of Quadrotor**
 - * Thesis got the best mark (20/20) , supervisor : **Dr. Amirfarhad Ehyaei**.
 - * The Quadrotor dynamic has been implemented on MATLAB and a controller in order to track a specific path used.
 - **Key Courses:** System Analysis, Linear Algebra, Industrial Control, Instrumentation, Digital and Non-Linear Control System, Advanced Control System.

Research Interests

• **Distributed Optimal Control • Large Scale Systems • Model Predictive Control (MPC) • Network Control System • Optimization Methods • Quadrotor Control**

Experience

- **Modern Control Engineering Lab. (Sharif University of Technology)**
 - *Electrical-Control Engineer* Summer 2016
 - Designing PCB boards using Altium Designer and Building Electrical tools.
 - Simulating Electrical Circuits on PSpice.
 - Making Modern Control Engineering Control Lab. gears and tools, supervisor: **Dr. Alavi**.
 - **Sanjesh Serv.**
 - *Test Question Writer* Summer 2013
 - Designing the multiple-choice question of Advanced Mathematics and Circuit Theory for **Sanjesh Serv.**
 - **Ray AvinFan Co.,Tehran, Iran**
 - *Electrical and Control Engineer* April 2013- September 2013
 - I worked as an Electrical and Control Engineer at **Ray Avin Co.** who has the responsibilities about Instrumentation and Control (I&C) Cable Schedule documents and there I learned how to provide these documents.
 - **Tose Tamin Perisa Co., Tehran, Iran**
 - *Intern and Electrical and Control Engineer* June 2010- September 2011
 - I worked my probationary period at **Tose Tamin Persia** as a part time intern. Afterwards, I worked there as a junior Electrical Control Engineer who calibrated the Fuji Instruments. Moreover, I learned how to install the Flow meter, Differential Pressure transmitter and work with HMI and programming Siemens PLCs.

Teacher Assistantship

- **Teacher Assistant for ”System Identification”**
 - *Imam Khomeini International University* Spring 2016

– Teacher Assistant of Dr. Ehyaei, Assistant Professor of Electrical Engineering Department.

- **Teacher Assistant for ”System Identification”**

Islamic Azad University

Spring 2015

– Teacher Assistant of Dr. Ehyaei, Assistant Professor of Electrical Engineering Department.

- **Teacher Assistant for ”Network Control System”**

Sharif University of Technology

Fall 2014

– Teacher assistant of Dr. Farhadi, Assistant Professor of Electrical Engineering Department.

Honors and Achievements

Achievement: Designing and implementing Modern Control Lab tests for Sharif University of Technology and building a DC motor driver, August 2016.

Achievement: Fundamental Engineering certificate (FE) in Electrical Engineering, The National Organization for Educational Testing (NOET), April 2014.

Honor: Ranked **56th** among the Electrical- Control students (about 48000 students) participating in national university entrance exam for graduate entrance exam.

Honor: Ranked **133th** and **136th** among the Electrical- Electronics and Communication students (about 48000 students) participating in national university entrance exam for graduate entrance exam.

Publications

1. Aryankia, K., and Farhadi, A.. ” *Distributed Optimal Control Using an Efficient Method for Decomposition.*”, Electrical Engineering (ICEE), **2017 Iranian Conference on (pp. 661-666) IEEE**, 2017.
2. A. Ehyaei and K. Aryankia, *Cooperative Backstepping Control of Quadrotors via Sliding Mode Observer*, **9th Conference of Command, Control, Communication and Computers Intelligence**, Kharazmi University, Tehran, Iran, November 2016.

Extra Curricular Activities

- **Advanced MATLAB Certificate**

Sharif University of Technology

May 2014

- **Member of the Iranian Society of Instrumentation and Control Engineer**

April 2013

- **Pilot License (PPL)**

Homa Aviation Center

September 2011

- **Siemens Simatic S7-300 PLC Certificate**

Instrumentation and Control department of NovinParisan

September 2010

Skills

General software: Microsoft Office,LaTeX.

Computing language: MATLAB (System Identification Toolbox,MPC Toollbox,YALMIP,...), Simulink.

Graphical softwares: Altium Designer, PSpice, Adobe Photoshop, Adobe Indesign, Autocad, Microsoft FrontPage, Visio, Corel DRAW.

Language

Persian Native

English Fluent

TOEFL Exam: Reading: 24, Listening: 22, Speaking: 23, Writing: 23, Overall: 92.

GRE Exam: Verbal : 140, Quantitative: 160, Analytical writing: 3.

Turkish Intermediate.