



# Farid Alidoust Aghdam

## Curriculum Vitae

*"There is no substitute for hard work...!"*  
*Thomas A. Edison*

### Education

2010–2013 **M.Sc**, *Tabriz Branch, Islamic Azad University, Tabriz, GPA:3.81.*

**Mechatronics Engineering**

Main activities: Artificial Intelligence, Unmanned Vehicles Guidance

Supervisors: Prof. Ali. Rostami and Dr. Siamak, Haghypour

2004–2009 **B.Sc**, *Tabriz Branch, Islamic Azad University, Tabriz, GPA:3.11.*

**Electrical-Electronics Engineering**

Main activities: DSP and Biomedical Circuits

Supervisor: Dr. Siamak, Haghypour

### Master thesis

title ***UAV Team Path Planning and Control using PSO optimization and Fuzzy Controllers***

supervisors Prof. Ali. Rostami and Dr. Siamak. Haghypour

Abstract The aim of the thesis was enhancing path planning algorithm for UAVs based on PSO algorithm, with the approach followed to adapt dynamically based on UAV and respecting other constraints such as path length, maximum flight altitude, load factor and the distance from the other UAVs. Furthermore, to increase intelligence and automatic control integrated in UAVs, a fuzzy logic controller was designed according to the UAVs kinematics. Proposed fuzzy logic controllers have to act in an implementable way. Thereafter, the proposed fuzzy controller transferred on a reconfigurable FPGA chip.

### Languages

English (US) **intermediate**

*TOEFL-ibt- Grade:86 and*

Duetch **Elementary**

Azerbaijani **Native**

Persian **Native**

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## Skills

Programming: Matlab, C#, VB, PHP                      Database: MySQL, Microsoft SQL, Access  
EDA Tools: Altium Designer, Xilinx ISE              Type-setting:  $\LaTeX 2_{\epsilon}$ , Microsoft Office suite  
                  Simulink, Modelsim, Active HDL  
Devices: AVR, ARM and PIC  
                  Xilinx: CPLD, FPGA, SoC

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## Publications

Farid Alidoust Aghdam; Ali Rostami; Siamak Haghipour, "A Real Time Implementation Of An Autonomous UAV Controller Using FPGA: Based On Fuzzy Logic Approach", IJSSST journal, No 1, Vol 2014, ISSN 1473-8031, ISSN 1473-804x

Farid Alidoust Aghdam and Siamak Saeidi Haghi, "Implementation of High Performance Microstepping Driver Using FPGA with the Aim of Realizing Accurate Control on a Linear Motion System," Chinese Journal of Engineering, vol. 2013, Article ID 425093, 8 pages, 2013. doi:10.1155/2013/425093

Ali. Rostami, Seyed Yousef. Shafiei, Farid. Alidoust Aghdam, 2013, "Optimization of Microstrip Antenna Characteristics Using Photonic Band Gap Structure", HCTL Open International Journal of Technology Innovations and Research, Volume 3, May 2013, ISSN: 2321-1814, ISBN: 978-1-62776-443-8

Ali. Rostami, Seyed Yousef. Shafiei, Farid. Alidoust Aghdam, Pouya. Faeghi, 2012, "Dispersion Properties of Silicon and Silica Photonic Nanowires for Nonlinear Applications", IEEE ICP2012, Penang, Malaysia

Samad Dadvandipour, Farid Alidoust, 2012, "An Intelligent Model For Classification Of Manufacturing Parts Or Part Families Using Image Processing And Neural Network In Ware House Or Storage Of Intelligent Factories", UMTIK 2012, METU University, Pamukkale, Turkey

Farid Alidoust, Misagh Seyed Rasi, 2008, "Designing an IIR Notch Filter using AVR Microcontrollers" (In Persian), Zanjan University, Zanjan, Iran

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## Research Interests

- 1 Discrete Signal Processing, Computer Vision and Digital Circuits (FPGA, CPLD, Microcontrollers, ...)
- 2 Collaborative Robotic Task Programming
- 3 Artificial Intelligence and Optimization Algorithms: Neural Networks, Fuzzy Logic, PSO, Genetic, ACO, ...
- 4 High Frequency switch mode supplies and new trends like Spot-welding, induction-welding, electro-spark-coating (deposition)
- 5 But not limited to above!

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## Patents and Honors

- (Patent) Precise Measurement of Inductance and Capacitance using Frequency Sweep method and DSP, No:66269, 2010, Iran
- (Patent) All Digital Tunable Notch Filter, No: 61424, 2008, Iran
- (Patent) Wireless Portable Monitoring and Electrocardiography system, No: 53155, (2008), Iran
- (Patent) Byway Bluetooth Marketing System, No: 52963, (2008), Iran
- (Honor) Award of Best Ideas Festival, Science and Technology Park, (2011), Tabriz, East Azerbaijan, Iran
- (Honor) Member of National Elites Foundation (Bonyad Melli Nokhbegan) of Iran, 2009

## References

- *Prof. Ali. Rostami*
- *Dr. Siamak. Haghypour*
- *Dr. Samad. Dadvandipour*
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