

**Elnaz Karimpour**

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**Career Objective:**

An individual with a master degree in electrical engineering (Mechatronics and Automation Control) and thorough grasp of C Programming Skills, Microcontroller Programming and Matlab Scripting, seeking a software development opportunity in a recognized organization.

**Summary of Skills**

- Well-versed in Engineering Software Matlab (Matlab Programming, GUI and Matlab Simulation),
- In-depth knowledge of embedded control C programming, Microcontrollers such as AVR, PIC and Arduino, system level electronic design, and system interface design,
- Sound knowledge of Metaheuristic algorithm such as ANN, GA, and PSO
- Possess strong technical, analytical and communication skills,
- Comfortable with working in a fast-paced environment, and
- Strong work ethic

**Work Experiences**

Mentor at CodingKids New Farm, Brisbane City QLD 4005

Nov 2016- Present

**Brief Description of Activities:**

Working as a mentor to teach students how to code with scratch and python, robotic classes with EV3, electronic classes with Arduino, attending workshops for teaching librarians to make them familiar with Scratch, Python, Raspberry Pi, Kano Computer, Sphero robotic ball, Dash and Dot robot, LittleBits electronic modules, and App Inventor (a visual, blocks language for building Android Apps).

Research assistant on a casual basis

Mining3 101/2436 Moggill Rd, Brisbane QLD 4069

Nov 2016- Jan 2017

**Brief Description of Activities:**

To develop a Software with matlab scripting and Matlab GUI to determine fuel consumption of trucks based on a number of relevant input parameters and by implementing an optimization algorithm find the optimized input parameters that give the minimum fuel consumption for the truck.

Sadra Robotic, educational institution and electrical sales (Isfahan, Iran)

Electrical Sales Specialist

Dec 2015 – Jun 2016

**Brief Description of Activities:**

- Developed and implemented new strategies directed at teaching the C language programming to students
- Conduct special classes for students aged between 5 to 17 with appropriate strategies named CoSpace Rescue which is virtual autonomous robots to teach basic C programming and robotics
- Teaching students with Visual aids for better understanding
- Stay updated with the changing syllabus.
- Designing the syllabus for the students and the school.

Electrical Test Engineer

Piroozan Sanat Sepahan Novin Company (Private Joint Stock- Iran)

From Oct 2009- March 2011

**Brief Description of Activities:**

It was a Technical- Engineering Company with the bussiness of Sale, Installment and Starting Diesel Engins and Generators Equipped with Automatic Control System Design and Installation of Fire Alarm System of Factories and Gas Stations

- Responsible for PCB board-level functional testing, troubleshooting, and testing process and instruction configuration,
- offer electrical system maintenance services to clients,
- testing products, and
- electrical circuit design.

Electrical Test Engineer

Arman Technic Sepahan Company (Iran)

From April 2011- Feb 2012

**Brief Description of Activities:**

- Design and test of switching power supply (charging of Automobile Batteries And Rectangular Batteries, and I phone Video System)
- Responsible for PCB board-level functional testing, troubleshooting, and testing process and instruction configuration,
- Designed a temperature controlled fan circuit (microcontroller based project)

**Academic Experiences (Teaching)**

**March and April 2016** Cooperated with Isfahan University Scientific Assosiations Coordination Office as instructor in holding MATLAB Software training workshop held for 32 hours

**Jan 2015 March 2016** Private tutoring in MATLAB Software (Simulation, Programming and GUI) and ANN

**Volunteer Experience**

- Volunteer at Robogals which is a student-run non profit that run EV3 workshops in schools.
- Volunteer judge at RoboCup Junior competition 2017
- Working at University of Queensland, Mechanical and mining school as a volunteer researcher.
- Assisting in conducting literature reviews for drafting: A chapter of Energy Efficiency in hauling and loading in the Minerals industry book.

**Education**

**Bachelor of Engineering:**

Electrical Engineering, Azad University, Isfahan, IRAN, 2004-2008

**Bachelor Research Project:** Speech processing of the sound of crying infants to categorize them in three groups: 1. Healthy 2. Dumb 3. Deaf

**Master of Engineering:**

Master of Engineering. in Electrical Engineering (Major of Mechatronics and Automation Control)

Universiti Teknologi of Malaysia (UTM), Johor Bahru, Malaysia, 2012- 2014

CGPA: 3.91 out of 4

**Thesis Title:** Simulation and Optimization of Electrical Discharge Machining Process Using Particle Swarm Optimization (PSO) via MATLAB coding and simulation.

**Awards**

2014 Recipient of Best Student Award in 53rd Convocation Ceremony, UTM

**Computer Skills**

Engineering Software Matlab (Matlab Programming, GUI and Matlab Simulation),  
Microcontrollers (PIC, AVR, Arduino),  
C Programming, Python  
Protel (Altium Designer),  
Orcad,  
Proteus,  
AutoCAD,  
Application Microsoft Office (Word, Excel, PowerPoint), and Adobe Acrobat, Operating System Windows.

#### **Publications**

1. **Title:** "Dynamic Modeling of Electrical Discharge Machining (EDM) System Using Matlab"

**Authors:** Elnaz Karimpour, Azli Yahya, Sophan Wahyudi, Trias Andromeda, and Muhammad Arif Abdul Rahim

Applied Mechanics and Materials Vol. 661 (2014) pp 176-182 © (2014) Trans Tech Publications, Switzerland doi:10.4028/www.scientific.net/AMM.661.176

2. **Title:** "SYSTEM IDENTIFICATION USING MICROCONTROLLER-BASED N-PRBS GENERATOR"

**Authors:** Elnaz Karimpour and Mohammed F. Jaff

3rd international conference on science and engineering which was held in Istanbul- Turkey on 2nd June 2016

3. **Title:** "Design and fabrication of dual-axis solar tracking system using PLC technology for parabolic dish"

**Authors:** Hosein Dehghani Samani, Behnam Mostajeran Goortani, Elnaz Karimpour

3rd international conference on science and engineering which was held in Istanbul- Turkey on 2nd June 2016

4. **Title:** "Carbon Nanotubes-Based Gas Sensor."

**Authors:** Vahid Behtaji Siahkal, Elnaz Karimpour, Farshad Davoudifar, and Ali Hosseingholipourasl.  
International Journal of Pharmaceutical Science Invention ISSN (Online): 2319 – 6718, ISSN (Print): 2319 – 670X www.ijpsi.org Volume 2 Issue 6 | June 2013 | PP.115-120