

# Ali Khaleel Mahmood

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## EDUCATION

**MSc in Mechatronics Engineering:** 2013 – 2014

*Newcastle University, Newcastle Upon Tyne, UK,*

**Modules Included:** MSc Mechatronics Project, Industrial Automation, Robotics and Artificial Intelligence, Distributed Control Systems, Microprocessor Control, Image Processing and Machine Vision, Mechatronics Design, Robotics, Instrumentation and Drive Systems, Mechanical Power Transmissions.

**BSc in Mechatronics Engineering:** 2006 – 2010

*University of Mosul, Mosul, Iraq,*

**Modules Included:** BSc Mechatronics Project, Robotics, Design of Mechatronics System, Special Topics in Mechatronics, Production Tooling and Automation, Planning Engineering/Project Management, Intelligent Mechatronics, Digital Control Systems, Mobile Laser Applications, Mechatronics Instrumentation, Theory of machines, Industrial Electronics, Signal Processing, Design of Machine Elements, Microprocessor and Digital Systems, Control systems, Math, Digital Logic Design, Engineering Mechanics II, Electrical Machines, Machine of materials, Thermodynamics, Fluid Mechanics,

## PUBLICATIONS

- ISO Stress Analysis and Micro Geometry Corrections of Parallel Axis Gearbox Using Dontyne Systems Gear Production Suite
- Helicopter Stabilization Using Integer and Fractional Order PID Controller Based on Genetic Algorithm
- Quantitative Design Analysis of an Electric Scissor Lift
- Comparison of PID, GA and Fuzzy Logic Controllers for Cruise Control System
- Autonomous Model Vehicles: Signal Conditioning and Digital Control Design
- Localization of Indoor Mobile Robot Using Monte Carlo Localization Algorithm (MCL)
- Path Planning, Motion Control and Obstacle Detection of Indoor Mobile Robot

## EXPERIENCE AND CAREER HISTORY

**Assistant Lecturer:** Dec.2016- Present

*Systems and control Engineering/college of Electronics/ Ninevah University, Mosul, Iraq*

**SWT Field Engineer:** Feb.2016 – Jan.2017

*OiLSERV Company, Oilfield Services Company, Basra, Iraq*

**SPM /SPS Field Engineer** Sep.2015 – Feb.2016

*OiLSERV Company, Oilfield Services Company, Basra, Iraq*

**MSc Mechatronics project:** Feb.2014 – Aug.2014

*Newcastle University, Newcastle Upon Tyne, UK.*

**Project Aims:**

- The aim of this project is to study, investigate and analyses an autonomous navigation system for a wheeled mobile robot. As a result, the functionality of the mobile robot will be improved

hence it is expected to achieve robust and consistent navigation and localization algorithms which can be effectively used in autonomous mobile robot applications especially in an Indoor structured environment.

<b>Developing an animal sensing and tracking system Project:</b> <i>Newcastle University, Newcastle Upon Tyne, UK.</i>	<b>2013 – 2014 / 2 Months</b>
<b>Kinematic analysis of the ABB IRb140 robot Project:</b> <i>Newcastle University, Newcastle Upon Tyne, UK.</i>	<b>2013 – 2014 / 2 Months</b>
<b>Design, Analysis of an electric scissor lift Project:</b> <i>Newcastle University, Newcastle Upon Tyne, UK.</i>	<b>2013 – 2014 / 2 Months</b>
<b>Communication Engineer:</b> <i>Golden Oasis, subcontractor with PowerTech Communication Company, Erbil, Iraq.</i>	<b>Jan.2011 – Mar.2013</b>

## COMPUTER SKILLS

Programming ability in assembly, C, MultiSim, MATLAB, LabVIEW and LabVIEW Robotics.

## GRADUATION PROJECTS SUPERVISING

**2016-2017:**

- **Comparison Performance between PID and LQR Controllers for 4-legs Voltage Source Inverters.**
- **Design and simulation of PD, PID and Fuzzy logic controller for industrial application.**

**2017-2018:**

- **Implementation and design of smart cars with fuzzy logic controller(FLC).**

**2018-2019:**

- **Design and implementation of Auto-parking system of a mobile robot.**
- **Design and implementation of 3D printed quadruped robot**

**2019-2020:**

- **Real Time DC Motor Speed Control using LabVIEW.**

## LANGUAGES SKILLS

**Arabic:** Native speaker

**English:** Very good

## PERSONAL INFORMATION

**Nationality:** Iraqi

**Date of Birth:** March, 1988

**Marital Status:** Single

## REFERENCES

Professional and academic references available upon request.