



## Hussein Naser

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### WORK EXPERIENCE

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#### University research assistant

**Carleton University** [ 01/01/2023 – Current ]

City: Ottawa, ON | Country: Canada

- Conducting research in assistive drones and cooperative aerial transportation.

#### University teaching assistant

**Carleton University** [ 01/01/2023 – Current ]

City: Ottawa, ON | Country: Canada

- Teaching undergraduate courses.
- Supervising lab work.

#### Manager of Training and Technical Support Unit

**Quality Assurance Department/ University of Thi-Qar** [ 28/01/2019 – 26/12/2022 ]

City: Thi-Qar | Country: Iraq

- Gave technical support for the staff of the university.
- Participated in the annual assessment process of the faculty members and administrative staff.
- Managed data collecting process for the university national and international ranking.
- Managed correspondence with international ranking institutions.

#### Lecturer

**College of Engineering/ Biomedical Engineering Dept./ University of Thi-Qar** [ 13/09/2018 – 26/12/2022 ]

City: Thi-Qar | Country: Iraq

#### Entrepreneurship coach

**UNITAR Hiroshima** [ 2020 – 2021 ]

City: Hiroshima | Country: Japan

- Managed online international training and discussion sessions.
- Assessed Iraqi and international trainees progress and assignments.
- Advised and directed the trainees to achieve their tasks and goals.

#### Assistant lecturer

**AL-Khwarizmi College of Engineering / University of Baghdad** [ 30/09/2015 – 12/09/2018 ]

City: Baghdad | Country: Iraq

- Taught undergraduate courses.
- Advised graduation projects for senior undergraduate students.
- Participated in many committees as a faculty member.

## **Mechatronics engineer**

**AL-Khwarizmi College of Engineering / University of Baghdad** [ 25/01/2009 – 19/08/2012 ]

City: Baghdad | Country: Iraq

- Managed some labs such as microprocessor lab, electric and electronic circuits lab, and sensors lab.
- Helped and directed students to do lab experiments.
- Worked as a technician to maintain the instruments and equipment of the labs.
- Participated in many committees to provide equipment to the college.

## **EDUCATION AND TRAINING**

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### **PhD Candidate in Mechanical and Aerospace Engineering**

**Carleton University** [ 01/01/2023 – Current ]

City: Ottawa | Country: Canada

### **Master of Sciences in Mechanical Engineering**

**College of Engineering, Michigan State University** [ 28/08/2013 – 20/08/2015 ]

City: Lansing | Country: United States

### **Certificate in English as Second Language**

**ESL, Michigan State University** [ 29/08/2012 – 09/08/2013 ]

City: Lansing | Country: United States

### **Bachelor of Sciences in Mechatronics Engineering**

**AL-Khwarizmi College of Engineering / University of Baghdad** [ 15/11/2003 – 15/07/2008 ]

City: Baghdad | Country: Iraq

### **Machine Learning**

**Coursera** [ 10/06/2020 – 20/09/2020 ]

Website: [coursera.org](https://coursera.org)

### **UNITAR Hiroshima Empowering Social Entrepreneurs and Youth Leaders for Iraq**

**UNITAR Hiroshima** [ 20/09/2019 – 14/02/2020 ]

City: Hiroshima | Country: Japan

### **Certificate in Tech Entrepreneurship**

**Five One Labs** [ 07/07/2019 – 01/08/2019 ]

City: Sulaimani | Country: Iraq

### **Android Developer Track**

**Udacity, 1 Million Arab Coders Initiative** [ 01/11/2018 – 30/11/2018 ]

City: Online | Country: United Arab Emirates

### **Data Analyst Track**

**Udacity, 1 Million Arab Coders Initiative** [ 01/08/2018 – 31/08/2018 ]

City: Online | Country: United Arab Emirates

### **Educational Qualification Course**

**Development and Continuing Education Center, University of Baghdad** [ 04/04/2016 – 21/04/2016 ]

City: Baghdad | Country: Iraq

## Computers & Printers Maintenance

*Computer Center, University of Baghdad* [ 31/10/2010 – 23/11/2010 ]

City: Baghdad | Country: Iraq

## Automation Robotics Training System 5150 & Pneumatic I Training System 6081

*Pyramid of Knowledge Co, Lab-Volt Company Agent* [ 01/10/2010 – 18/10/2010 ]

City: Baghdad | Country: Iraq

## LANGUAGE SKILLS

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**Mother tongue(s):** Arabic

**Other language(s):** English (fluent)

## PUBLICATIONS

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### Publications

- **J [1]- Hussein N. Naser**, Hashim A Hashim, Mojtaba Ahmadi, [Aerial assistive payload transportation using quadrotor UAVs with nonsingular fast terminal SMC for human physical interaction](#), *Results in Engineering*, 2025.
- **J [2]- Hussein N. Naser**, and H. A. Hashim, [sEMG-based hand gestures classification using a semi-supervised multi-layer neural networks with Autoencoder](#), *Systems and Soft Computing*, 2024.
- **J [3]- Asaad Migot, Hussein NH Naser**, Adnan A Uгла, Victor Giurgiutiu, [Investigations of fatigue crack detection using local vibration techniques: Numerical and experimental studies](#), *Journal of Nondestructive Evaluation*, 2023.
- **J [4]- Hussein Naeem Hasan Naser**, ["Kreen" an Electronic Platform for Towing Service as an Alternative Solution for Writing on Walls Phenomenon in Iraq](#), *International Journal of Computing and Digital Systems*, 2022.
- **J [5]- Hussein Naeem Hasan**, [A Cost Effective Deaf-Mute Electronic Assistant System Using Myo Armband and Smartphone](#), *International Journal of Science and Research (IJSR)*, 2017.
- **C [1]- Hussein N. Naser**, Hashim A Hashim, Mojtaba Ahmadi, [Human Physical Interaction based on UAV Cooperative Payload Transportation System using Adaptive Backstepping and FNTSMC](#), *2025 IEEE American Control Conference (ACC)*, July 8-10, 2025, Denver, CO, USA.
- **C [2]- Hussein N. Naser**, Husam Hammood, Asaad Q Migot, [Internet-Based Smartphone System for After-Stroke Hand Rehabilitation](#), *2023 International Conference on Engineering, Science and Advanced Technology (ICESAT)*, Mosul, Iraq.
- **C [3]- Hussein Naeem Hasan**, [A Wearable Rehabilitation System to Assist Partially Hand Paralyzed Patients in Repetitive Exercises\\*](#), *Journal of Physics: Conference Series*, Volume 1279, *First International Scientific Conference Al-Ayen University* 30–31 March 2019, Thi-Qar, Iraq.

### Research Interests

- 1- Adaptive and robust nonlinear control.
- 2- Assistive aerial cooperative payload transportation.
- 3- Human-UAVs physical interaction.
- 4- Forces and torques estimation for human-robot interaction.
- 5- Human guidance, navigation, and control.

## NETWORKS AND MEMBERSHIPS

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### Memberships

Member of Iraqi Engineers Union (2009 – until now).

## CONFERENCES AND SEMINARS

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### Conferences Attending

1. The 1st International Conference on Advances in Engineering Science and Technology (AEST-2021), 26-27 April 2021, Babylon, Iraq
2. 1st International Scientific Conference of Al-Ayen University, Nasiriyah, Thi-Qar, Iraq, March, 2019.
3. The First International Conference on Modern Trend in Applied Sciences. 19-21 November 2017, Langkawi island, Malaysia.
4. 7th and the 1st international scientific engineering conference. May, 2017, University of Baghdad, Iraq.
5. Postgraduate studies conference. December, 2017, College of Engineering, University of Baghdad, Iraq.

### Seminars

1. 3D printing technology and its applications/ AL-Khwarizmi College of Engineering (2018).
2. The symposium on the launch of Baghdad smart city project. Mayoralty of Baghdad (2018).
3. Myo gestures control armband and its applications/ AL-Khwarizmi College of Engineering/ Mechatronics Dept. (2018).
4. Robotic Fish as a mechatronic application/ AL-Khwarizmi College of Engineering (2017).

## HONOURS AND AWARDS

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### Honours and awards

- 1- Innovation shield award for graduation project supervision from Mechatronics Engineering Department/ University of Baghdad (2018).
- 2- Certificates of recognition, president of University of Baghdad (2018) and president of University of Thi-Qar (2019, 2020, 2021).
- 3- Scholarship to complete master degree HCED office of the Iraqi prime minister (2012).
- 4- Graduate Project Competition Prize, Ministry of Higher Education and Scientific Research, Iraq (2009).
- 5- Iraqi Excelled Student Reward (Waedoun) Iraqi Vice President, Iraq (2008).

## TEACHING

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### Teaching

- 1- Analog Electronics.
- 2- Control Systems Design.
- 3- Artificial Neural Networks fundamentals.
- 4- Fuzzy Logic fundamentals.
- 5- Engineering Drawing Software (SolidWorks).
- 6- AC Electric Machines fundamentals.
- 7- DC Electric Machines fundamentals.

## PROFESSIONAL ACTIVITIES

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### Journal Reviewer

- Journal of Intelligent & Robotic Systems \ Netherlands.
- Intelligent Service Robotics \ Germany.
- Journal of Circuits, Systems, and Computers (JCSC) \ Singapore.

[ 26/03/2020 – 20/04/2020 ]

### Fully Automatic Sterilization Tunnel

Design and implement a Fully Automatic Sterilization Tunnel for the University of Thi-Qar and Thi-Qar Health Directorate in help of combating of COVID-19.

[ 2015 – 2016 ]

### Autonomous Robotic Fish-human Interaction System

Design and implement an Autonomous Robotic Fish-human Interaction System for the Michigan State University Museum Exhibit

## PROJECTS ADVISING

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### Projects Advising

- - Undergraduate advisees
  - a. Fatimah Ahmed, Hijran Munaf, Mohammed sulaiman. Project: Follow me robotic platform. University of Thi-Qar.
  - b. Shahad Ali, September. Project: Conversion of gestures and movements of deaf-mute people to audible speech using myo armband and smartphone. University of Baghdad.
  - c. Reem Hyder, September. Project: Design and implementation of a 3D printed mobile Robot. University of Baghdad.
  - d. Hussein Rashid, September. Project: Design an android Application to control a mobile Robot. University of Baghdad.

## TECHNICAL SKILLS

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### Technical Skills

- 1- ROS, ArduPilot, and Gazebo.
- 2- Android Development (Android Studio).
- 3- Embedded Systems.
- 4- Programming: Good experience in Matlab, Python, C, C++, Java, PHP, Mysql Database.
- 5- Microcontrollers: Arduino and Atmel as well as Wireless Communication Modules (Xbee & Bluetooth).
- 6- Computer: MS Office, LaTeX, Computers Maintenance.
- 7- Bio-sensors and Myo Gesture Control Armband from Thalmic Labs.
- 8- PCB Design (Eagle).
- 9- 3D printing and CAD Modelling (SolidWorks).

## MEDIA COVERAGE

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**Unitar news stories (Developing Entrepreneurship Skills in Iraq, Hussein Naeem Hasan Naser), 2020**

Link: <https://unitar.org/about/news-stories/stories/hussein-naeem-hasan-naser-0>

**“MSU Night at the Museums makes splash with robotic fish,” Lansing State Journal, by R. Wolcott, 2016**

Link: <https://www.lansingstatejournal.com/story/news/local/2016/04/14/msu-museums-open-doors-science-festival/82936252/>