

Prof. Assist. Dr. Auday Al-Mayyahi

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PERSONAL PROFILE

- Academic experience and delivering training courses,
- Industrial automation and electrical engineering,
- Experienced in artificial intelligence & e-learning, Engineering
- Certified trainer for inverse classroom by AUF,
- Certified associate tutor from HEA in United Kingdom,
- Certified trainer for modern teaching methods toward blended learning by Ministry of Higher Education and Scientific Research in Iraq,
- Applying IoT in agriculture sector toward sustainability,
- Managerial skills and Teams leading,
- Experienced in working independently,
- Keep an accurate recording and data analysis,
- Ability to prioritise workloads to meet deadlines,
- Industrial experience with different projects and firms.



EDUCATION

2013 – 2018 PhD in Control and Automation

University of Sussex, School of Engineering and Informatics, UK

Thesis Title: "Motion Control of unmanned ground vehicle artificial intelligence".

2004 – 2006 Master in Power and Machine

University of Basrah, College of Engineering, Iraq

Dissertation Title: "Position control of a variable reluctance stepper motor using fuzzy technique".

1999 – 2003 Bachelor in Electrical Engineering

University of Basrah, College of Engineering, First Class Honours

Project Title: "Speed control of direct current motors".

ACADEMIC AND PROFESSIONAL EXPERIENCE

2024 – Present: Director of Avicenna E-Learning Center, University of Basrah, Iraq

2018 – Present: Senior Lecturer, Assistant Professor, Department of Electrical Engineering, University of Basrah, Iraq

2020 – 2022: Director of Avicenna E-Learning Center, University of Basrah, Iraq

2014 – 2018: Doctoral Tutor, Department of Engineering and Design. University of Sussex, UK

2008 – 2012: Assistant Lecturer, Department of Electrical Engineering, University of Basrah, Iraq

TEACHING EXPERIENCE

- Year Three, Linear Systems Theory, Iraq
- Fourth Year, Soft Computing Techniques, Iraq
- Fourth Year, Principle of Robotics, Iraq
- Second Year, Engineering Mathematics 2, Iraq
- Four year “Control and PLC”, Labs, Iraq
- Second year “System Analysis and Control”, UK
- Second year “Digital systems and Microprocessor Design”, Labs, UK
- Second year “Engineering Mathematics 2”, UK
- Second year “Embedded Systems” Lab, UK
- First year “Engineering Mathematics 1”, UK
- First year “Electrical Circuits & Devices”, UK
- First year “Electromechanics”, UK
- First year “Applied Technology”, UK

QUALIFICATIONS

- Pre-Masters and Sessional English Course, University of Sussex.
- International English Language Testing System (IELTS) Certificate, Band 7 overall, CEFR C1 advanced level, British Council.
- Teaching Certificate: Higher Education Academy (HEA) Associate Fellow, United Kingdom.
- IC3 (Internet and Computing Core Certification).
- OSHA (Occupational Safety & Health Administration).
- DSB (Disclosure and Barring Service) Check.

ADMINISTRATION

I have chaired and participated as a member in many administrative works included but not limited to the following:

- Participating in many vivas for PhD and M.Sc. students
- Marking, assessment and related paperwork,
- Examinations, I helped with invigilation,
- Member of procurement committee,
- Member of a committee for final year graduation projects.

RESEARCH INTERESTS

My research interests and activities are within the following listed major domains:

- Artificial Intelligence and IoT
- Computer vision and Robotics
- Industrial automation
- Solar Renewable Energy

KEY SKILLS

IT

- Confident in use of various operating systems: Windows, Linux.
- Skilled Microsoft Office (Word, PowerPoint, Excel and Project).
- Networking.
- Programming languages: MATLAB, Python, C++ and VHDL.
- Using SPSS to analyse research data
- Computer-aided design (CAD) using SOLIDWORKS.

COMMUNICATIONS

- Worked closely with research colleagues, department staff and external contacts.
- Experienced in working with a wide range of students.
- Made presentations to both academic and non-specialist audiences.
- Writing up research or checking other research work.

LIST of JOURNAL PUBLICATIONS

- **A. Al-Mayyahi**, A. A. Aldair, and Z. A. Khalaf, "Object localisation and recognition for robotic manipulator using control methodology and vision system," Australian Journal of Electrical and Electronics Engineering, pp. 1–14, Jul. 2025, doi: 10.1080/1448837x.2025.2529095. (**Scopus CiteScore:2.6**)
- **A. Al-Mayyahi**, A. Aldair, Z. A. Khalaf, and W. Wang, "Control system design for azimuth position of earth station antennas," Journal of Engineering and Applied Science, vol. 71, no. 1, Oct. 2024, doi: 10.1186/s44147-024-00532-5. (**Scopus CiteScore:2.9**)
- Z. A. Khalaf, **A. Al-Mayyahi**, A. Aldair, and P. Birch, "Airplane Detection Using Deep Learning Based on VGG and SVM," Tikrit Journal of Engineering Sciences, vol. 31, no. 3, pp. 202–211, Aug. 2024, doi: 10.25130/tjes.31.3.19. (**Scopus CiteScore:1.5**)
- A. Aldair, **A. Al-Mayyahi**, Z. Khalaf, and C. Chatwin, "Design and Implementation of a 3RRR Parallel Planar Robot," Iraqi Journal for Electrical and Electronic Engineering, vol. 20, no. 1, pp. 48–57, Oct. 2023, doi: 10.37917/ijeec.20.1.5. (**Scopus CiteScore:2.5**).
- M. Al-Flehawee and **A. Al-Mayyahi**, "Energy management for hybrid electric vehicles using rule based strategy and PI control tuned by particle swarming optimization algorithm," International Journal of Electrical and Computer Engineering (IJECE), vol. 12, no. 6, p. 5938, Dec. 2022, doi: 10.11591/ijece.v12i6.pp5938-5949. (**Scopus CiteScore:3.3**).
- M. Al-Flehawee and **A. Al-Mayyahi**, "Building A Control Unit of A Series-Parallel Hybrid Electric Vehicle by Using A Nonlinear Model Predictive Control (NMPC) Strategy," Iraqi Journal for Electrical and Electronic Engineering, vol. 18, no. 1, pp. 93–102, Mar. 2022, doi: 10.37917/ijeec.18.1.11. (**Scopus CiteScore:2.5**).
- D. Ramadhan, **A. Al-Mayyahi**, and M. Rashid, "Path Planning and Obstacles Avoidance in Dynamic Workspace Using Polygon Shape Tangents Algorithm," Iraqi Journal for Electrical and Electronic Engineering, vol. 17, no. 1, pp. 1–10, May 2021, doi: 10.37917/ijeec.17.1.16. (**Scopus CiteScore:2.5**).
- **Al-Mayyahi, A.**, Aldair, A. A., & Rashid, A. T. (2020). Intelligent control of mobile robot via waypoints using nonlinear model predictive controller and quadratic bezier curves algorithm. Journal of Electrical Engineering & Technology, 15(4), 1857-1870. (**Clarivate Impact Factor: 1.9**).
- **Al-Mayyahi, Auday**, Ammar A. Aldair, and Chris Chatwin. "Control of a 3-RRR planar parallel robot using fractional order PID controller." International Journal of Automation and Computing 17.6 (2020): 822-836. (**Scopus CiteScore:6.4**).

- A. A. Aldair, **A. Al-Mayyahi**, and W. Wang, "Design of a Stable an Intelligent Controller for a Quadruped Robot," *Journal of Electrical Engineering & Technology*, vol. 15, no. 2, pp. 817–832, Dec. 2019, doi: 10.1007/s42835-019-00332-5. (**Clarivate Impact Factor: 1.9**).
- **Auday Al-Mayyahi**, Ramzy S. Ali, Rabee' H. Thejel, (2018) "Designing driving and control circuits of four-phase variable reluctance stepper motor using fuzzy logic control", *Electrical Engineering*, Vol. 100 Issue: 1. (**Clarivate Impact Factor: 1.296**).
- **A. Al-Mayyahi**, W. Wang, P. Birch and Alaa Hussein, (2018) "Obstacle detection system based on colour segmentation using monocular vision for an unmanned ground vehicle", *International Journal of Computational Vision and Robotics*, Vol. 8, No. 3. (**Scopus CiteScore:1.4**).
- **Auday Al-Mayyahi**, Weiji Wang, Alaa Hussein, Phil Birch, (2017) "Motion control design for unmanned ground vehicle in dynamic environment using intelligent controller", *International Journal of Intelligent Computing and Cybernetics*, Vol. 10 Issue: 4, pp.530-548. (**Scopus CiteScore:4.4**).
- **A. Al-Mayyahi**, W. Wang, and P. Birch, (2016) "Design of Fractional-Order Controller for Trajectory Tracking Control of a Non-holonomic Autonomous Ground Vehicle", *Journal of Control, Automation and Electrical Systems*, Vol. 27 Issue: 1. **REF Compliance**. (**Scopus CiteScore:3.2**).
- **A. Al-Mayyahi**, W. Wang, and P. Birch, (2015) "Levenberg-Marquardt optimised neural networks for trajectory tracking of autonomous ground vehicles", *International Journal of Mechatronics and Automation*, vol. 5, no. 2/3. (**Scopus CiteScore:0.79**).
- **A. Al-Mayyahi**, W. Wang, and P. Birch, ((2014) "Adaptive Neuro-Fuzzy Technique for Autonomous Ground Vehicle Navigation", *Robotics*, vol. 3, no. 4, pp. 349–370. **REF Compliance**. (**Clarivate Impact Factor: 3.7**).

CONFERENCE PROCEEDINGS and PRESENTATIONS

- A. A. Aldair, **A. Al-Mayyahi**, and B. H. Jasim, "Control of Eight-Leg Walking Robot Using Fuzzy Technique Based on SimScape Multibody Toolbox," *IOP Conference Series: Materials Science and Engineering*, vol. 745, no. 1, p. 012015, Feb. 2020, doi: 10.1088/1757-899x/745/1/012015.
- **A. Al-Mayyahi** and W. Wang, "Fuzzy inference approach for autonomous ground vehicle navigation in dynamic environment," 2014 IEEE International Conference on Control System, Computing and Engineering (ICCSCE 2014), Nov. 2014.
- **A. Al-Mayyahi**, W. Wang, and P. Birch, "Path tracking of autonomous ground vehicle based on fractional order PID controller optimized by PSO," 2015 IEEE 13th International Symposium on Applied Machine Intelligence and Informatics (SAMI), Jan. 2015.
- Adel A. Obed and **A. Al-Mayyahi**, "Effect of Duty Cycle and Chopper Frequency of PWM DC-DC Converter Drive on Performance Characteristics of DC Motor", the 4th International Scientific Conference of Salahaddin University-Erbil, Oct 2011.

Books & Chapters

- **Auday Al-Mayyahi**, Zainab A. Khalaf, and Steven F. Barrett, *E-Learning and Digital Transformation: Lessons Learned, Challenges, Moving Forward, Comparative Research on Diversity in Virtual Learning: Eastern vs. Western Perspectives*, DOI:10.4018/978-1-6684-3595-3.ch002
- **Auday Al-Mayyahi**, Rabee' H. Thejel and Ramzy S. Ali, *Position Control of VR Stepper Motor Using Fuzzy Technique*, LAP LAMBERT Academic Publishing, ISBN-13: 978-3659610974, 6 Oct. 2014.

FUNDING and ACADEMIC AWARDS

- Fulbright scholar visitor 30 June - 08 September at University of Wyoming, US, 2019.
- Four years scholarship for my PhD studies funded by Ministry of Higher Education and Scientific Research in Iraq.
- Full scholarship for travelling and attending the IEEE International Conference on Control System, Computing and Engineering, Penang, Malaysia, November, 2014, funded by Doctoral School in University of Sussex.
- Full scholarship for travelling and attending the 13th IEEE International Symposium on Applied Machine Intelligence and Informatics, Herl'any, Slovakia, January 2015, Funded by Engineering and Design Department in University of Sussex.

UNDERTAKING TRAINING COURSES

- WoS and Scopus courses held in cooperation between MoHESR and Clarivate & Elsevier
- E-Learning training in cooperation between Scientific Supervision and Evaluation Authority, Iraq & Association of Arab Universities
- Writing and publishing strategies: Journal Articles,
- Designing research posters,
- Creating a Research Blog for Absolute Beginners,
- Presentation Design,
- Elsevier Publishing Connect Seminar: Scientific Journals, Peer Review and How to Write a Great Research Paper,
- Level 3: Excel Advanced Functions,
- Leadership and Management,
- Editing your thesis,
- Peer-Reviewing Manuscripts for Journals: Sciences, Engineering and Medicine.

INTERNATIONAL TRAINING COURSES & WORKSHOPS

- "Inverse Class in E-learning", held in Beirut - Lebanon on 21-28 August 2022, funded by AUF, Agence Universitaire de la Francophonie.
- "Teaching Methods and Academic Development", held in Ferdowsi University of Meshhad on 23-30 December 2022, partially funded by the University of Basrah, Ira
- "Learn about Hybrid & Electric Vehicle" in at HEI, Lille, France, 23 April 2015, funded by i-mosyde. <http://www.imosyde.eu/>.
- "Contactless Charging of Electric Vehicles", at the TU Delft, Delft, Holland, 27th May 2015, funded by i-mosyde. <http://www.imosyde.eu/>.
- "Wearable technologies: what's brewing in the lab?", at University of Sussex, Brighton, England, 17th November 2015, funded by IET.
- "The Watch keeper UAV - a drone keeping us all safe", held at Crawley, West Sussex, England, 5th January 2016, funded by IET.
- "Computer Vision for Automotive Applications – the road ahead", held in London, UK on April 13th, 2016, funded by British Machine Vision Association and Society for Pattern Recognition.
- "GATEway – testing automated vehicles on London's streets", held in Brighton University on 27 April 2017, funded by Institution of Mechanical Engineers (IMechE), UK.
- "The Internet of Space (IoS)", held at Crawley, West Sussex, England, 2nd May 2017, funded by IET.

SUMMER SCHOOLS and ACADEMIC ACTIVITIES

- **THE Awards Arab World** shortlisted best participations for my proposal on **Teaching and Learning Strategy** of the Year 2025. Amman, Jordan.
- Participation in **the Iraq Education Conference 2025** organised by Ministry of Higher Education & Scientific Research.
- General supervision and ministerial coordinator for organising **3 Minutes Thesis** at the University of Basrah, 2025.
- Participation in **1st Scholarship Conference 2025** organised by Ministry of Higher Education & Scientific Research.
- Participation in the **National Day for Erasmus+ Program 2025** organised by Ministry of Higher Education & Scientific Research in cooperation with European Union.
- Participating in **AIoT Shaping Intelligence Symposium** held in Hangzhou China October 2024.
- Presenter in online training course on Sival Scopus held by Scientific Supervision and Evaluation Authority, Iraq
- Associate tutor in Headstart Engineering Summer School, project titled "**The Automated Robot Sorter**" held at University of Sussex, Brighton, England, in 18-22 July 2016, Supported by the University of Sussex and Royal Academy of Engineering.
- PhD candidate in **Computer vision summer school** held at University of Swansea, Swansea, Wales, in 4-8 July 2016.
- PhD student participation in **Three-minute thesis** competition held at the University of Sussex, Brighton, England on June 2016. My given talk titled "**Autonomous robots for supermarkets**".
- Academic visit for Institute for **Robotics and Mechatronics and Computer Vision Research group** at University of Toronto, Toronto, Canada in 13th-16th June 2016.
- Doctoral researcher at **Thesis Boot Camp** for intensive writing held at University of Sussex by doctoral school between 16th–18th December 2016.
- Associate tutor in Headstart Engineering Summer School, project titled "**The Automated Robot Sorter**" held at University of Sussex, Brighton, England, in 17-21 July 2017, Supported by the University of Sussex and Royal Academy of Engineering.

CIRTIIFICATES and ACHIEVEMENTS

- Awarded a prestigious medal from the Iraqi Minister of Higher Education and Scientific Research, Dr Abdul-Razak Al-Essa for the impact of the published work. The ceremony held at University College London (UCL) on 21/01/2018.
- Awarded a prestigious medal in 2021 from the president of University of Basrah Prof. Dr. Saad Shaheen for the value of H-index in Google Scholar for research papers
- A certificate of achieving the status of Associate Fellow of the Higher Education Academy in recognition of attainment against the UK Professional Standards Framework for teaching and learning support in higher education, 2015.
- A recognition certificate from Fluor AMEC, LLC for performing my duties in very satisfactory manner as a supervising electrical engineer in construction Khor Alzubair power generation 250 MW, 2005.
- A certificate of completion OSHA construction safety program from KBR Company, 2006.
- A recognition certificate of outstanding performance in restoring Iraq's oil and gas infrastructure from KBR Company, 2007.
- A thankfulness letter from SNAFEE Company in Iraq for the achievements in completion 132K electrical substations, 2008.
- Certificate of appreciation from AREEB Company for the hard work and dedication as an Electrical Superintendent in completing Laying 8 Km, 132 KV power cable.

PROFESSIONAL MEMBERSHIPS and PARTICIPATIONS

- A senior member of Institute of Electrical and Electronics Engineers (IEEE),
- A member of British Machine Vision Association (BMVA),
- A member of IEEE Robotic and Automation Society,
- A member of Internet of Things Community,
- A reviewer for many prestigious journals within best worldwide publishers.
- A member of technical committees to international scientific conferences.
- An associate fellow of The Higher Education Academy (HEA), UK.
- Session Chair: ICCSCE2014, IEEE.
- STEM Ambassador, South East of England

ONLINE ACADEMIC PROFILES

- Google Scholar
(<https://scholar.google.com/citations?user=tBoh1ZcAAAAJ&hl=en>)
- Scopus
(<https://www.scopus.com/authid/detail.uri?authorId=56584711900>)
- Web of Science
(<https://www.webofscience.com/wos/author/record/329835>)
- ORCID (<https://orcid.org/0000-0002-8387-1631>)
- ResearchGate (https://www.researchgate.net/profile/Auday_Al-Mayyahi)
- ScholarGPS
(<https://scholargps.com/scholars/87103688521310/auday-al-mayyahi>)
- SciProfile (<https://sciprofiles.com/profile/85695>)
- Lens (<https://www.lens.org/lens/profile/638792197/scholar>)
- Loop (<https://loop.frontiersin.org/people/1914864/overview>)
- Wordpress (<https://audayalmayyah.wordpress.com/>)
- IEEE <https://authorprofile.ieee.org/profiles/37085490526>