

Curriculum Vitae: Dr. H. Zidan



Hasan A. Zidan (*Associate Professor*)
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PERSONAL:

Date of birth	1968
Marital Status	Married (3 children)
Nationality	Jordan

Scaling new heights of success with hard work, dedication and leaving a mark of excellence on each step

SUMMARY STATEMENT

Graduated from Arab Academy of Science and Technology, Alexandria, Egypt and received Master of Electrical Engineering from Kyushu Institute of Technology (KIT), Japan, 1998. Completed the PhD degree in Electrical Engineering (Control) from Kyushu Institute of Technology (KIT), Japan, April 2001. Authored/co-authored over 16 papers, 2 conference articles and 2 research reports.

TEACHING PHILOSOPHY

My teaching philosophy is based on active and reflective learning strategy which would foster thoughtful, critical, engaged, independent thinkers and writers. I will create an environment where respectful debate is encouraged and make every effort to set clear grading standards, offer intentional feedback, and connect students to supportive services. I would like to see myself as a co-learner and constantly try to grow, adapt, and respond to the diversity of the classroom. My approach to teaching will enable me to learn as much from my students as they do from me. I will be creative and develop learning environments that will help my students synthesize and apply key course concepts.

EDUCATIONAL QUALIFICATION

- ☐ **Ph. D. Electrical Engineering (Control).**
Kyushu Institute of Technology (KIT), JAPAN (1998-2001)
Speed Sensor-less Control, Position Control and Their Applications of Induction Motor.
- ☐ **M. Sc. Electrical Engineering (Control).**
Kyushu Institute of Technology (KIT), JAPAN (1996-1998)
A Simple Speed Sensor-less Vector Control System of I.M
- ☐ **B. Sc. Electrical and Electronic Engineering.**
Arab Academy for Science and Technology, Alexandria, EGYPT (1986-1991)

CAREER HISTORY

- Associate Professor at Ajman University. Joined September 2005. Electrical and Computer Engineering Department, Ajman, UAE.
- September 2002 - August 2005, Ahliyya Amman University (AAU). Assistant Professor in the Computer Engineering Department. (Head of the Computer Engineering Department). Amman, Jordan.
- June 2001- August 2002, Applied Science University (ASU). Assistant Professor in the Electrical and Computer Engineering Department. Amman, Jordan.
- March 1996- March 2001. Joint Research KIT and YASKAWA robotic sector, Kitakyushu Japan.
- May 1993 – September 1995, JERZEEM Electromechanique's. Projects Manager, WEST-BANK, Palestine.
- October 1991– March 1993, PETRA Eng. Industry [PETRA HITACHI], Electrical Engineer (Control Engineer). Amman, Jordan.

LIST OF SELLECTED PUBLICATIONS AND CONFERENCES AT AU

1. Usman Rafique, Hasan A. Zidan, Fawad Azeem, Sarang Amir, Tareq Manzoor, Habib Ullah Manzoor, *Evaluation of the Potential Power Generation Resources in SAARC Region for Sustainable Energy Trade*, Journal of Energy Science & Engineering, ISSN:2050-0505. Accepted for publication **October 2024**. (Scopus index)
2. Fawad Azeem, Hasan Zidan, *DC Bus Voltage Control of Islanded Microgrid using Renewable Energy Based Distributed Generation*, Journal of Advanced research in applied Mechanics, ISSN:2289-7895. Published on **May 2024**, Volume 118, Issue 1 (2024) 183-192, <https://doi.org/10.37934/aram.118.1.183192>. (Scopus indexed)
3. Masood Ahmad, Fawad Azeem, Hasan Zidan, *Robust Residual Generator Design for Sensor Fault Detection in Twin Rotor Aerodynamic System*, Elsevier's e-Prime - Advances in Electrical Engineering, Electronics and Energy Journal, Volume 8 (2024), ISSN: 2772-6711, Published **online** on **June 2024**. <https://doi.org/10.1016/j.prime.2024.100620>. (Scopus index)
4. Masood Ahmad, Fawad Azeem, Hasan Zidan, *H_{∞} based Robust Observer design, for Fault Detection in linear systems with multi-type model uncertainties*, Interiencia Journal, Accepted, **December 2023**. (Scopus index)
5. Fawad Azeem, Bakhtawar Irshad, Hasan A. Zidan, Ghous Bakhsh Narejo, M. Imtiaz Hussain, and Tareq Manzoor, *Design and Analysis of Peak Times Estimation Framework for Vehicle Occurrences at Solar Photovoltaic and Grid based Swappable Battery Charging Stations*, Sustainability, published on **November 2023**, Volume 15, Issue 23, <https://doi.org/10.3390/su152316153>. (Scopus indexed)

6. Fawad Azeem, Hasan Zidan, *DC Bus Voltage Control of Islanded Microgrid using Renewable Energy Based Distributed Generation*, proceeding of the 2nd International Conference on Advance Science and Engineering ICASE-23, **25-26 November 2023**, Penang, Malaysia. (Scopus indexed).
7. Misbah Sattar, Fawad Azeem, Zulfiqar Memon, Hasan Zidan and Sobia Baig, *Feasibility Assessment of Rural Hybrid Microgrid Using Canal-Based Microhydel Resources: A Case Study of Renala Khurd Pakistan*, Sustainability, published on **November 2022**, Volume 14, Issue 22, 15417. <https://doi.org/10.3390/su142215417>. (Scopus indexed)
8. Safia Babikir Bashir, Hasan A. Zidan, and Zulfiqar Ali Memon, *A modified CPS-PWM for capacitor voltage reduction of MMC based variable speed drive*, International Journal of Power Electronics and Drive Systems (IJPEDS), Published on **September 2022**, Vol. 13, No. 3, pp. 1326~1339. ISSN: 2088-8694.
DOI: <http://doi.org/10.11591/ijpeds.vx.iv.ppab-cd>. (Scopus indexed).
9. Khaled Mahfouz, S. Mohammad Rameshi, Mohanad Rafat, Mahmoud Elsayed, Mohmmmed Sheikh, Hasan Zidan, *Route Mapping and Biometric Attendance System in School Buses*, International Conferences on Advances in Science and Engineering Technology (ASET), **June 2020** IEEE, Dubai, UAE. DOI: <http://doi.org/10.1109/ASET48392.2020.9118199>. (Scopus indexed)
10. SB Bashir, HA Zidan, ZA Memon, *A Modified CPS-PWM for Capacitor Voltage Ripples Reduction of Modular Multilevel Converter Based Variable Speed Drive*, International Symposium on Industrial Electronics (ISIE), 2020 IEEE 29th, Published on **June 2020**, pp 601-605. DOI: <http://doi.org/10.1109/ISIE45063.2020.9152591>. (Scopus indexed)
11. Safia Babikir Bashir, Hasan A. Zidan, Zulfiqar Ali Memon, *Power balancing of grid connected PV system based on MMC under different irradiation conditions*, International Journal of Electrical Power and Energy Systems, IJEPES, Vol. 117, 105717. ISSN: 0142-0615. Published **May 2020**.
DOI: <https://doi.org/10.1016/j.ijepes.2019.105717>. (Scopus indexed)
12. Hasan Zidan, Safia Babikir Bashir, *Sensor-less Vector Control of Induction Motor at Low Speed Operation Using Modular Multilevel Converter*. Australian Journal of Electrical and Electronics Engineering. Published on **June 2019**, pp 127-135. ISSN: 1448-837X, ISSN: 2205-362X, DOI: <https://doi.org/10.1080/1448837X.2019.1626528>. (Scopus indexed)
13. Hasan Zidan, Safia Babikir Bashir, *A Novel Robust Speed Sensor-Less Control of DC Motor*. International Review of Automatic Control (I.RE.A.CO.), Vol. 12, N. 2, ISSN 1974-6059 March 2019, pp 82-88. ISSN: 1974-6067. Published on **March 2019**, pp 82-88. DOI: <https://doi.org/10.15866/ireaco.v12i2.16326>. (Scopus indexed)
14. Safia Babikir Bashir, Hasan A. Zidan, *An Improved Voltage Ripple Control Algorithm*

for Modular Multilevel Converter Based Variable Speed Drive. Proceeding of IEEE-PEMC 2018 Conference. Budapest, Hungary, **26-30 August 2018**, pp 968-973. ISSN: 2473-0165, ISSN: 2469-8741.

DOI: <https://doi.org/10.1109/EPEPMC.2018.8522009>. (Scopus indexed)

15. Hasan Zidan, *Technology Based E-Management System*. Proceeding of Jordan International Energy Conference, Amman, Jordan. **20-22 September 2011**. (Scopus indexed)

16. Kasim Rashid, Hasan Zidan, *Variable Structure Controller with Prescribed Transient Response to control the Position of the Induction Motor Drives*. International Journal of Advanced Manufacturing Technology Springer Heidelberg Publishing, London, **November 2008**, Volume 39, pp 744–754. ISSN 0268-3768, ISSN 1433-3015. DOI: <https://doi.org/10.1007/s00170-007-1259-6>. (Scopus indexed)

17. Hasan Zidan, *A comparison Study of Induction Motor Position Control using Variable Structure Versus PID Controller with Prescribed Transient Response*. Proceeding of 13th IEEE IFAC-MMAR, Szczecin, Poland. **27-30 August 2007**. (Scopus indexed)

INTERNATIONAL JOURNAL REVIEW MEMBER

Reviewer of at least five respected scientific Journals

INSTITUTIONAL RESEARCH

1. Shall We be WORRIED of warned students? Analysis of warned students and their impact: Ajman University, Ajman, UAE, 2017.
2. Proper advising, Recommendations. Ajman University, Ajman, UAE, 2018.

FIELD OF RESEARCH

Motion and vibration control in general, speed and position control of AC/DC machines, using a variety of control methods such as PID controllers, VSS controllers, Adaptive controllers, H_{∞} , Observers. Applications of Genetic Algorithm, Fuzzy Logic Controllers and Neural Network. Most recent is balancing of three phases in the presence of an unbalance PV generation with grid-connected systems. Applications of MMC at low speed rotating machines. Renewable energy systems

RESEARCH GRANTS

- 2022-IRG-ENIT-27, Research Title: Handling Open Circuit Failure in (MMCs) using Artificial Intelligence Techniques. Research Grant AY 2022-23, Budget: 18700 AED.
- 2023-IRG-ENIT-10, Research Title: A Comprehensive Study on Developments of Mini-grids for Sustainable Access to Electricity Research Grant AY 2023-24, Budget: 15650 AED.
- 2024-IRG-ENIT-6, Research Title: Optimal Sizing and Siting of Renewable Energy based Distributed Generation for Fast Charging Stations in Urban Areas: A Concept of EV

Microgrids. Research Grant AY 2022-23, Budget: 18000 AED.

MEMBER OF

- ☐ Technical Reviewer for Journal of Engineering Research and Technology.
- ☐ Jordan Engineering Community,
- ☐ Technical Reviewer for Jordan Journal of Applied Science.
- ☐ Judging committee for IBDAAT SHABAB conducted by Sharjah TV.
- ☐ Judging committee for IEEE competition.
- ☐ Technical Reviewer for ISSPIT symposium.
- ☐ Member of the college council.
- ☐ Technical Reviewer for ISSPIT symposium UAEGSRC'2023
- ☐ Member of Jordan Japan Academic Society JJAS.

WORKSHOPS ATTENDED

- ☐ Attended several workshops on international accreditation like ABET.
- ☐ Attended several staff development workshops at AU.
- ☐ Attended Assessment in MENA (AIM) conference.
- ☐ Effectively Flipping your Course-Qedex
- ☐ Plan Ahead (Academic Advising)
- ☐ Agile Courses: Ready for Anything
- ☐ Banner Features: Track Attendance & Grade Entry
- ☐ Best Practices for Moodle Quizzes and Online Exams
- ☐ Workshop on "Effective Assessment of Courses and Programs"

SERVICES

ECE Department Related: Actively contributed in most aspects of the ECE department, development, implementation and enhancement for nearly 18 years.

ECE Department Reaccreditation (2006, 2011, 2017, 2023): Actively contributed to the design, development, implementation and enhancement of the program assessment system and preparations of department self-study reports, preparation for visit of external review teams, preparation of responses to requirements following the program review.

Prepared several analyses/reports related to ELE program enhancements, students advising and evaluation.

ELE Program International Accreditation (ABET) and Reaccreditation: Contributed to the preparation of self-study report, program assessment system and continuous improvements. Other services within the College Preparing the assessment report for the college of engineering and IT on annual bases.

Recent contribution in the following committees:

Department Level

- ☐ Student advisory coordinator

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- ☐ Department of ECE council member
- ☐ Curriculum Committee member (ICE Programs coordinator)
- ☐ Student affairs coordinator
- ☐ Curriculum and Study Plan Sub-Committees (ICE Chair)
- ☐ Effective Member of CAA reaccreditation SSR
- ☐ Effective Member of ABET reaccreditation SSR
- ☐ ICT- 4.0 International Conference Committee chair
- ☐ Recruitment chair for academic positions.
- ☐ Preparing Machine Learning course.
- ☐ Internship file chair.

College Level

- ☐ Member of a task force on CEIT strategic plan
- ☐ Member of the College Council
- ☐ College Effectiveness Committee chair
- ☐ Student advisory Coordinator
- ☐ VIVA chair for Master of Science in Artificial Intelligence
- ☐ Task force chair on Internship/External Training
- ☐ Delivering lectures on CEIT Internship/external training.

University Level

- ☐ FAC Faculty Academic Council (Member)
- ☐ WSCUC international visit member
- ☐ Recruitment and Promotion committee Member
- ☐ Institutional Effectiveness IE Member
- ☐ Deanship search committee member
- ☐ Procurement Committee Chair
- ☐ Heading the Japanese Club (advisor).
- ☐ Acted as Jury Member/Assessor in several Students' Research/Scientific Competitions
- ☐ University Recruitment Member for Academic/Administration positions
- ☐ AU interactive online Study Plans Committee chair (7 colleges 46 programs)
- ☐ Energy optimization subcommittee co-chair
- ☐ Session co-chair of ACIT-23 international conference
- ☐ Search Committee Member- Dean Candidate

TEACHING COURSES

- ☐ Control Systems
- ☐ Industrial Control Systems

- ☐ Process Control
- ☐ Digital Logic Design
- ☐ Artificial Intelligent
- ☐ Fuzzy Logic and Neural Network
- ☐ Electric Circuit Principles
- ☐ Basic Electronics
- ☐ Introduction to Engineering
- ☐ Engineering Management

TRAINING COURSES (last Three years)

- ☐ Engaging All Learners with Universal Design for Learning
- ☐ Plan Ahead (Academic Advising)
- ☐ Best Practices for Moodle Quizzes and Online Exams
- ☐ Banner Features: Track Attendance & Grade Entry
- ☐ Agile Courses: Ready for Anything
- ☐ Curriculum Mapping: Tool for Curriculum Alignment and Improvement
- ☐ QASPIR: Onboarding Faculty and Staff
- ☐ QASPIR: Change Management
- ☐ QASPIR: Preparing and Creating Lesson Plan
- ☐ QASPIR: Coaching and Mentoring-Qedex
- ☐ Mastering Conditional Access in Moodle: Enhancing Course Navigation and Learner Engagement
- ☐ KLIKCS: Enhancing Employability Through Effective Pedagogy
- ☐ Effective Assessment of Courses and Programs

REFERENCES

1. Dr. Ayman Tawfik, ECE Department Head, AU. Tel. No. +97167056785, Mob.: +971505976335. Email: a.tawfik@ajman.ac.ae.
2. Dr. Mohamed Nasor, CEIT Dean, AU. Tel. No. +97167056762, Mob.: +971507869252. Email: m.nasor@ajman.ac.ae
3. Prof. Mustahsan Mir, Office of Institutional Planning and Effectiveness (OIPE), Executive Director, AU. Tel. No. +97167056800, Mob.: +971507613797. Email: m.mir@ajman.ac.ae.