

CURRICULUM VITAE

PERSONAL DETAIL

Name Dr. Lokman H. Hassan
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ACADEMIC QUALIFICATION

(Qualification), (Institution), (Research Title).

PhD in Power System, University of Malaya, Malaysia, "Power System Stabilization Using Intelligent Control Techniques".

MSc in Power Engineering, University of Technology, Baghdad, Iraq, "Robust Load-Frequency Controller Design for Iraqi National Super Grid System".

BSc in Electrical Engineering, University of Technology, Baghdad, Iraq.

ACADEMIC HISTORY

Jul 2006- Present Lecturer, Department of Electrical and Computer Engineering, College of Engineering, University of Duhok, Kurdistan, Iraq.

Jan 2003 – Jul 2006 Lecturer, Department of Computer Science, College of Science, Duhok University, Kurdistan, Iraq.

Aug 2000– Aug 2001 Demonstrator, Department of Electrical and Electronic Engineering, University of Technology.

March 8 2012-Feb. 21 2013 Chair, Scientific Affairs Committee, School of Engineering, University of Duhok.

March 1 2012-present Member, Scientific Affairs Committee, Dept. of Electrical and Computer Engineering, University of Duhok.

PROFESSIONAL AFFILIATION/MEMBERSHIP

Member of Iraqi Engineers Union

Member of Kurdistan Engineers Union

Member of IEEE, 2008-2012

ADMINISTRATIVE DUTIES

Vice President of University of Duhok for Scientific Affairs and Postgraduate Studies since Dec 2018.

Head of Department, Electrical and Computer Engineering Department, College of Engineering, Sept 2014-July 2017.

Deputy Dean, Faculty of Engineering and Applied Sciences, February 21 2013-Sept 2014

Representative of the lecturers, Faculty of Engineering and Applied Sciences, July 1 2012-Jan 31 2013

Representative of the lecturers, Faculty of Engineering, July1 2006-July 31 2007

Representative of the lecturers, Faculty of Sciences, July1 2005-Jun 31 2006

EDITORIAL WORK

Conference Chairmen, The World Forum for Women in Science 2021 (WFWIS), Duhok – Kurdistan Region – Iraq, (8th -10th) March 2021.

Conference Chairmen, International Conference on Computer Science and Software Engineering (CSASE), Duhok – Kurdistan Region – Iraq, (16th – 18th) April 2020.

Member, Scientific Committee of the 3rd International Conference on Recent Innovations in Engineering (ICRIE) 2020, College of Engineering, University of Duhok, Kurdistan Region, Iraq, September 9-10-2020.

Member, Technical Committee of the 2018 Smart Grid Conference (SGC), ICOASE 2018 conference, University of Kurdistan, Iran, Nov 28-29 2018.

Member, Technical Program Committee of the International Conference on Advanced Science and Engineering 2018 (ICOASE2018), ICOASE 2018 conference, the University of Zakho and Duhok Polytechnic University, Kurdistan Region, Iraq, Oct 9-11 2018.

Member, Editorial Board of International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, 2012.

Member, Editorial Team of Scientific Research and Essays Journal, 2012.

Member, Organizing Committee of the 2nd International Conference of the College of Engineering-Recent Innovations in Engineering (ICRIE), University of Duhok, Kurdistan Region, Iraq, April 26- 27 2017.

Member, Steering Committee of the First Engineering Education Conference-Engineering is the Future, University of Duhok, Kurdistan Region, Iraq, April 17 2012 - April 19 2012.

Member, Organizing and Technical Program Committee of the RV International Online Conference on Information Technology and Applications (RVIOC-ITA), Austin, Texas, USA, April 7 2013.

PEER-REVIEW ACTIVITIES

International Journal of Electrical Power and Energy Systems

IET Generation, Transmission & Distribution

IEEE Transactions on Smart Grid

Energy Conversion and Management

IET Renewable Power Generation

Electrical Power Components and Systems Journal

Applied Soft Computing

Expert Systems with Applications

Journal of Intelligent and Fuzzy Systems

Neural Computing and Applications

Automatika: Journal for control, measurement, electronics, computing and communications

Progress in Nuclear Energy

Ain Shams Engineering Journal

Scientific Research and Essays Journal

International Journal of Physical Sciences

Mindanao Journal of Science and Technology

International Journal of Vocational and Technical Education

Asian Journal of Control

PARTICIPATION IN TRAINING COURSES

Participate in the Iraqi University Linkage Program: Collaboration in Higher Education between Michigan State University and University of Duhok Project, *College of Engineering*, Michigan State University, USA, April 10-May 4 2013.

Academic Leadership Course, Erbil, Kurdistan, *IREX*, Iraq, March 24-26 2013.

Workshop on Research "Best Practices in Publishing Research", *IREX*, Duhok University, Kurdistan, Iraq, Dec 1 2012.

Workshop in programmable system on chip application to mobile robotics, University of Philadelphia, Jordan, April 14-21 2007.

Course in Methods of Teaching and Developing of Academic Education, College of Basic Education – University of Dohuk, Iraq, October 1 2004–October 14 2004.

Course in Computer, Mosul University, Iraq, July 20- August 5 1999.

Proficiency course in English Language Academic, Mosul University, Iraq, 1999.

PROJECT LEADER

Project title	Intelligent Controller for UPEC Device of Large Scale Power Systems in Real Time Implementation
Project No.	PS007-2007B
Start date	01/10/2007
End date	31/03/2009
Total allocation	RM 21,000.00

Project title	Intelligent Controller for UPEC Device of Large Scale Power Systems in Real Time Implementation
Project No.	PS126-2009B
Start date	18/02/2010
End date	17/08/2011
Total allocation	RM 26,944.00

PROVIDING TRAINING COURSES (TRAINER)

Electricity training course, Training and Developing Center, Duhok, May 8-18 2017.

Design of photovoltaic-powered water pumping systems, UNDP, Workshop, University of Duhok, Nov. 7-9 2016.

ENGINEERING DESIGN WORKS

Electrical design for Kwashi sewage water treatments, 2017

Checker for Electrical design for Three Technical and Vocational Training Centers- Ministry of Education in Erbil, Sulaimaniyah and Duhok, Kurdistan Regional Government, Iraq, 2014.

Electrical design and wiring installation for many private sector buildings in Duhok city, 1992-2000.

Project engineer in Badosh Dam, Mosul, Iraq, 1988-1989.

COMPUTER PROGRAMMING SKILLS

MATLAB

C++

Fortran

AutoCAD

Microsoft Office Applications

MASTERED LANGUAGES

Kurdish

English

Arabic

PUBLICATION

Academic Journals

- Deldar M Abdulah, Burhan A Zaman, Zuhair R Mustafa, Lokman H Hassan, "Artificial Intelligence Integration in Academic Writing," *Aro-The Scientific Journal of Koya University*, vol. 12, no. 2, pp. 194-200, 2024. (SCOPUS Indexed Publication)
- Hanady Q. Sahib, L. H. Hassan, "Enhancing voltage stability and minimizing power losses via reconfiguration and sizing of distributed generators," *Passer Journal of Basic and Applied Sciences*, vol. 6, no. 1, pp. 491-501, 2024. (SCOPUS Indexed Publication)
- M. K. Abdullah, L. H. Hassan, and M. Moghavvemi, "Voltage stability assessment of grid connected PV systems with FACTS devices," *Scientific Reports*, vol. 12, no. 1, p. 22279, 2022/12/24 2022. (ISI/SCOPUS Indexed Publication)
- Ruaa R Safaaldeen, Lokman H Hassan, "Design of a fuzzy controller for solar pv array fed water pumping systems," *Journal of Duhok University*, vol. 24, no. 2, pp. 76-89, 2021.
- Melat K Abdulla, Lokman H Hassan, "optimum location of SPVG to enhance voltage stability using static techniques," *Journal of Duhok University*, vol. 23, no. 2, pp. 49-58, 2020.
- Kerry A. Sado, L. H. Hassan, "Modeling and Implementation of a PV-powered dc water pump system for irrigation in Duhok city," *Academic Journal of Nawroz University (AJNU)*, vol. 7, no. 4, pp. 228-235, 2018.
- Neven E. Zaya, L. H. Hassan, Halis Bilgil, "Mathematical modeling for prediction of heating and air-conditioning energies of multistory buildings in Duhok city," *Academic Journal of Nawroz University (AJNU)*, vol. 7, no. 4, pp. 153-167, 2018.
- A. A. Abo and L. H. Hassan, "Thermal analysis of a pentagonal solar air collector," *Journal of University of Duhok*, vol. 20, no. 1, pp. 394-403, 2017.
- L. H. Hassan, et al., "A Coordinated design of PSSs and UPFC-based stabilizer using genetic algorithm," *IEEE Transactions on Industry Applications*, issue 99, 2014. (ISI/SCOPUS Indexed Publication)
- L. H. Hassan, et al., "Optimization of power system stabilizers using participation factor and genetic algorithm," *International Journal of Electrical Power and Energy Systems*, vol. 55, pp. 668-679, 2014. (ISI/SCOPUS Indexed Publication)
- L. H. Hassan, et al., "Current state of neural networks applications in power system monitoring and control," *International Journal of Electrical Power and Energy Systems*, vol. 51, pp. 134-144, 2013. (ISI/SCOPUS Indexed Publication)
- L. H. Hassan, M. Moghavvemi, and H. A. F. Almurib, and Otto Steinmayera, "Application of genetic algorithm in optimization of unified power flow controller parameters and its location in the power system network," *International Journal of Electrical Power and Energy Systems*, vol. 46, pp. 89-97, 2013. (ISI/SCOPUS Indexed Publication)
- L. H. Hassan, M. Moghavvemi, H. A. F. Almurib, K. M. Muttaqi, and H. Du, "Damping of low-frequency oscillations and improving power system stability via auto-tuned PI stabilizer using Takagi-Sugeno fuzzy logic," *International Journal of Electrical and Energy Systems*, vol. 38, pp. 72-83, 2012. (ISI/SCOPUS Indexed Publication)
- L. H. Hassan, M. Moghavvemi, and H. A. F. Almurib, "Modeling UPFC into multi-machine power systems," *Arabian Journal for Science and Engineering*, published online: 24 April 2012. (ISI/SCOPUS Indexed Publication)
- L. H. Hassan, M. Moghavvemi, and H. A. F. Almurib, "Impact of UPFC-based damping controller on dynamic stability of Iraqi power network," *Scientific Research and Essays*, vol. 6, pp. 136-145, 2011. (ISI/SCOPUS Indexed Publication)
- L. H. Hassan, M. Moghavvemi, and H. A. F. Mohamed, "Power system oscillations damping using unified power flow controller-based stabilizer," *American Journal of Applied Sciences*, vol. 7, pp. 1393-1395, 2010. (SCOPUS Indexed Publication)
- L. H. Hassan, M. Moghavvemi, and H. A. F. Mohamed, "Takagi-sugeno fuzzy gains scheduled PI controller for enhancement of power system stability," *American Journal of Applied Sciences*, vol. 7, pp. 145-152, 2010. (SCOPUS Indexed Publication)
- L. H. Hassan, H. A. F. Mohamed, M. Moghavvemi, and S. S. Yang, "Automatic generation control of power system with fuzzy gain scheduling integral and derivative controller," *International Journal of Power, Energy and Artificial Intelligence*, vol. 1, pp. 29-33, 2008.
- H. A. F. Mohamed, E. L. Lau., L. H. Hassan, S. S. Yang, and M. Moghavvemi, "Improving speed control of Industrial Motors through Fuzzy-SMC-PI control," *International Journal of Power, Energy and Artificial Intelligence*, vol. 1, no.1, pp. 61-65, 2008.
- L. H. Hassan, "Variable-structure controller design for multi-area power systems using pole assignment technique,"

Journal of University of Duhok, vol. 11, pp. 117-123, 2008.

R. H. Al-Rubayi and L. H. Hassan, "Robust-Load Frequency Controller Design For Iraqi National Super Grid System," *Engineering and Technology Journal*, vol 26, no.3, pp. 505-325, 2008.

Proceeding

KA Sado, LH Hassan, S Sado, "Photovoltaic Panels Tilt Angle Optimization," in International Conference on Renewable Energy (ICREN 2020), Online, France, Nov. 25 - 27 2020.

Kerry A. Sado, Lokman H. Hassan, Mahmoud Moghavvemi, "Design of a PV-powered DC water pump system for irrigation: a case study," in 53rd International Universities Power Engineering Conference (UPEC), Glasgow, UK, Sept. 4-7 2018. (ISI/SCOPUS Indexed Publication)

L. H. Hassan, "Impact of a PV Controller on Stability of Renewable Energy Based Large Distribution Systems," 3rd International Conference on Artificial Intelligence, Computer, Electrical and Electronics Engineering (ICACEEE), Kuala Lumpur, Malaysia, Feb.7-9 2017.

Hassan, L.H., Moghavvemi, M., Almurib, H.A.F., Muttaqi, K.M., "Damping of low-frequency oscillations using Takagi-Sugeno Fuzzy stabilizer in real-time," in: 2016 IEEE Industry Applications Society Annual Meeting, Oct. 2-6 2016, pp. 1-7. (ISI/SCOPUS Indexed Publication)

L. H. Hassan, M. Moghavvemi, H. A. F. Almurib, K. M. Muttaqi, "A Coordinated Design of PSSs and UPFC-based Stabilizer Using Genetic Algorithm," in the 2013 IEEE IAS Conference, Orlando, FL USA, October 6-11 2013. (ISI/SCOPUS Indexed Publication)

L. H. Hassan, M. Moghavvemi, H. A. F. Almurib, "Types of Feedback for Assessing the Engineering Program Outcomes in the University of Malaya in Malaysia," in First Engineering Education Conference, Dohuk, Kurdistan Region, April 17-19, 2012.

H. A. F. Almurib, L. H. Hassan, and M. Moghavvemi, "Design of robust power system stabilizers for Iraqi power network," in SICE Annual Conference, Tokyo, Japan, 2011. (ISI/SCOPUS Indexed Publication)

L. H. Hassan, M. Moghavvemi, and H. A. F. Mohamed, "Dynamic stability assessment of the Iraqi power system network," in Technical Postgraduates (TECHPOS), 2009 International Conference for, Kuala Lumpur, 2009, pp. 1-5. (ISI/SCOPUS Indexed Publication)

L. H. Hassan, M. Moghavvemi, and H. A. F. Mohamed, "Power system stabilization based on artificial intelligent techniques; A review," in Technical Postgraduates (TECHPOS), 2009 International Conference for, Kuala Lumpur, 2009, pp. 1-6. (ISI/SCOPUS Indexed Publication)

L. H. Hassan, H. A.F. Mohamed, M. Moghavvemi, S.S. Yang, "Load frequency control of power systems with Sugeno fuzzy gain scheduling PID controller," in ICCAS-SICE, Tokyo, 2009, pp. 614-618. (ISI/SCOPUS Indexed Publication)

L. H. Hassan, H. A.F. Mohamed, M. Moghavvemi, S.S. Yang, "Load frequency control of a two area hydro power system with fuzzy gain scheduling integral and derivative controller," presented at the The Second International Conference on Control, Instrumentation and Mechatronic Engineering (CIM09), Malacca, Malaysia, 2009, pp. 677-681.

K. Salloum Gaeid, H. A. F. Mohamed, H. Wooi Ping, and L. H. Hassan, "NNPID Controller for Induction Motors with Faults," Presented in the Second International Conference on Control, Instrumentation and Mechatronic Engineering (CIM09) Malacca, Malaysia, June 2-3, 2009.

L. H. Hassan, H. A. F. Mohamed, M. Moghavvemi, and S. S. Yang, "Automatic generation control of power system with fuzzy gain scheduling integral and derivative controller," presented at the The 2nd International Power Engineering and Optimization Conference (PEOCO2008), 2008, pp. 137-141.

H. A. F. Mohamed, E. L. Lau, L. H. Hassan, S. S. Yang, and M. Moghavvemi, "Improving speed control of induction motors through Fuzzy-SMC-PI control engineering practice," presented at the The 2nd International Power Engineering and Optimization Conference (PEOCO2008), 2008, pp. 142-146.

L. H. Hassan, H. A.F. Mohamed, M. Moghavvemi, and S.S. Yang, "Contingency monitoring and voltage collapse estimation for Iraqi national super grid system," in The 4th International Colloquium on Signal Processing and its Applications (CSPA) 2008 Kuala Lumpur, 2008, pp. 570- 574. (Best Paper)

H. A.F. Mohamed, L. H. Hassan, M. Moghavvemi, N. Hashim, and S.S. Yang, "Small signal voltage stability analysis for Iraqi national super grid system," in The 4th International Colloquium on Signal Processing and its Applications (CSPA) 2008 Kuala Lumpur, Malaysia, 2008, pp. 571-575.

H. A.F. Mohamed, L. H. Hassan, M. Moghavvemi, and S.S. Yang, "Load frequency controller design for Iraqi national super grid system using fuzzy logic controller," in SICE Annual Conference, Tokyo, 2008, pp. 227-232. (ISI/SCOPUS Indexed Publication)