

## Dhiaa Halboot Muhsen

*Al-Mustansiriyah University – Faculty of Engineering*  
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### PERSONAL SUMMARY:

- Lecturer of Computer Engineering Department at Mustansiriyah University since 2006.

### EDUCATION:

- Ph.D. : Computer Engineering, Electrical and Electronic Engineering Department, Tenaga University, Malaysia (2017). Thesis title: Modeling and Multi-Objective Sizing of Photovoltaic Water Pumping Systems Using Adaptive Differential Evolution Algorithms.
- M.Sc. : Computer and Control Engineering, Electrical Engineering Department, Baghdad University (2003). Thesis title: Microcontroller-Based DC Drive.
- B. Sc. : Electrical Engineering, Electrical Engineering Department, Baghdad University (2001).

### ACADEMIC /TEACHING EXPERIENCE:

- Assistance lecturer in Computer and Software Engineering Department, Mustansiriyah University (2006-2011).
- Lecturer in Computer Engineering Department, Mustansiriyah University since 2011.

### PUBLICATIONS:

- **D. H. Muhsen**, T. Khatib, and F. Nagi, "A review of photovoltaic water pumping system designing methods, control strategies and field performance," *Renewable and Sustainable Energy Reviews*, vol. 68, Part 1, pp. 70-86, 2// 2017. **IF 6.798, Q1**
- **D. H. Muhsen**, T. Khatib, and H. T. Haider, "A feasibility and load sensitivity analysis of photovoltaic water pumping system with battery and diesel generator," *Energy Conversion and Management*, vol. 148, pp. 287-304, 2017. **IF 5.589, Q1**
- **D. H. Muhsen**, T. Khatib, and T. E. Abdulabbas, "Sizing of a standalone photovoltaic water pumping system using hybrid multi-criteria decision making methods," *Solar Energy*, vol. 159, pp. 1003-1015, 2018/01/01/ 2018. **IF 4.018, Q1**
- **D. H. Muhsen**, A. B. Ghazali, T. Khatib, I. A. Abed, and E. M. Natsheh, "Sizing of a standalone photovoltaic water pumping system using a multi-objective evolutionary algorithm," *Energy*, vol. 109, pp. 961-973, 8/15/ 2016. **IF 4.844, Q1**
- **D. H. Muhsen**, A. B. Ghazali, T. Khatib, and I. A. Abed, "A comparative study of evolutionary algorithms and adapting control parameters for estimating the parameters of a single-diode photovoltaic module's model," *Renewable Energy*, vol. 96, Part A, pp. 377-389, 10// 2016. **IF 3.476, Q1**
- **D. H. Muhsen**, A. B. Ghazali, T. Khatib, and I. A. Abed, "Parameters extraction of double diode photovoltaic module's model based on hybrid evolutionary algorithm," *Energy Conversion and Management*, vol. 105, pp. 552-561, 11/15/ 2015. **IF 4.38, Q1**

- D. H. Muhsen, A. B. Ghazali, T. Khatib, and I. A. Abed, "Extraction of photovoltaic module parameters using an improved hybrid differential evolution/electromagnetism-like algorithm," *Solar Energy*, vol. 119, pp. 286-297, 9/11/2015. **IF 3.469, Q1**
- D. H. Muhsen, A. B. Ghazali, T. Khatib, and T. E. Abdulabbas, "Techno-economic study and optimal sizing of a stand-alone photovoltaic water pumping system," *International Transactions on Electrical Energy Systems*, 2017. **IF 1.084, Q3**
- D. H. Muhsen, A. B. Ghazali, and T. Khatib, "Multiobjective differential evolution algorithm-based sizing of a standalone photovoltaic water pumping system," *Energy Conversion and Management*, vol. 118, pp. 32-43, 6/15/ 2016. **IF 4.38, Q1**
- Muhsen, D.H., Haider, H.T., Al-Nidawi, Y. and Khatib, T., 2019. Optimal Home Energy Demand Management Based Multi-Criteria Decision Making Methods. *Electronics*, 8(5), p.524. **IF 2.110, Q2**
- Muhsen, D.H., Nabil, M., Haider, H.T. and Khatib, T., 2019. A novel method for sizing of standalone photovoltaic system using multi-objective differential evolution algorithm and hybrid multi-criteria decision making methods. *Energy*, 174, pp.1158-1175. **IF 5.1, Q1**
- Muhsen, D.H., Haider, H.T., Al-Nidawi, Y.M. and Khatib, T., 2019. Domestic load management based on integration of MODE and AHP-TOPSIS decision making methods. *Sustainable Cities and Society*, p.101651. **IF 4.624, Q1**
- Haider, H.T., Muhsen, D.H., Shahadi, H.I., See, O.H. and Elmenreich, W., 2019. Dynamic smart grid communication parameters based cognitive radio network. *Acta Polytechnica*, 59(3), pp.248-259. **SCOPUS, Cite Score 0.62**
- Muhsen, D.H., Ghazali, A.B. and Khatib, T., 2015, December. Parameter extraction of photovoltaic module using hybrid evolutionary algorithm. In 2015 IEEE Student Conference on Research and Development (SCoReD) (pp. 533-538). IEEE. **SCOPUS**
- Haider, H.T., Muhsen, D.H., Shahadib, H.I. and See, O.H., 2019. A new and adaptive security model for public communication based on correlation of data frames. *Acta Polytechnica*, 59(2), pp.126-133. **SCOPUS, Cite Score 0.62**
- Filfil, N.A., Mohussen, D.H. and Zidan, K.A., 2011. Microcontroller-based sun path tracking system. *Engineering and Technology Journal*, 29(7), pp.1345-1359. **LOCAL**
- Muhsen, D.H., Haider, H.T. and Shahadi, H.I., 2018. Parameter extraction of single-diode pv-module model using electromagnetism-like algorithm. *Journal of Engineering and Sustainable Development*, 22(2 (Part-2)), pp.161-172. **LOCAL**
- Mohussen, D.H., 2011. Analog Speed-Control of DC-Motor Using Proportional and Proportional-Integral Controllers. *Journal of Engineering and Sustainable Development*, 15(3), pp.205-224. **LOCAL**
- Mohussen, D.H., Haider, H.T. and Abbood, W.H, 2010. Analog and Digital Speed Control of DC-Drive by Using Different Control Schemes. *Journal of Engineering and Sustainable Development*, 14(1), pp.87-102. **LOCAL**
- Shahadi, H.I., Haider, H.T. and Muhsen, D.H., 2018, November. Vehicle monitoring based on GSM technology for safety and security. In IOP Conference Series: Materials Science and Engineering (Vol. 433, No. 1, p. 012089). IOP Publishing. **SCOPUS, Cite Score 0.5**

## PROFESSIONAL AFFILIATIONS:

Editorial membership in the following journals:

- Progress of Electrical and Electronic Engineering

- Journal of Management Science & Engineering Research
- Energy and Sustainable Development
- Insight-Power and Electrical
- International Journal of Electrical Components and Energy Conversion
- Insight - Energy Science
- Journal of Human Physiology
- Modern Management Forum (MMF)
- Progress In Energy & Fuels
- Region - Energies



الإسْنَادُ المساعِدُ الدَّكْتُورُ  
علي جبار كاظم  
معاون العميد  
للشؤون العلمية والدراسات العليا

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22/9/2019

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### ملخص تعريفني:

مدرس في قسم هندسة الحاسوب / كلية الهندسة / الجامعة المستنصرية منذ عام 2006.

### الشهادات الدراسية:

- دكتوراه هندسة حاسوب / قسم الألكترونوك والكهرباء / كلية الهندسة / جامعة الطاقة الوطنية / ماليزيا 2017.
- ماجستير هندسة سيطرة وحسابات / قسم الكهرباء / كلية الهندسة / جامعة بغداد / العراق 2003.
- بكالوريوس هندسة كهرباء / قسم الكهرباء / كلية الهندسة / جامعة بغداد / العراق 2003.

### المقررات الدراسية التي تم تدريسها:

- مدرس مساعد في قسم هندسة الحاسوب والبرمجيات / كلية الهندسة / الجامعة المستنصرية (2006 – 2011).
- مدرس في قسم هندسة الحاسوب والبرمجيات / كلية الهندسة / الجامعة المستنصرية منذ 2011.

الدراسات الأولية
Control Engineering LAB
Advanced Digital Systems I
Advanced Digital Systems II
Fundamentals of Logic Design
Multimedia
Analog and Digital Electronics
Engineering Computations LAB

### الأنتساب المهني او الجمعيات:

عضو تحرير في المجلات التالية:

- Progress of Electrical and Electronic Engineering
- Journal of Management Science & Engineering Research
- Energy and Sustainable Development
- Insight-Power and Electrical
- International Journal of Electrical Components and Energy Conversion
- Insight - Energy Science
- Journal of Human Physiology
- Modern Management Forum (MMF)
- Progress In Energy & Fuels
- Region - Energies

- D. H. Muhsen, T. Khatib, and F. Nagi, "A review of photovoltaic water pumping system designing methods, control strategies and field performance," *Renewable and Sustainable Energy Reviews*, vol. 68, Part 1, pp. 70-86, 2// 2017. **IF 6.798, Q1**
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