### Curriculum Vitae

### 1. Personal data:

Name : Yousif Ismail Mohammed Al Mashhadany

**Degree** : Professor in Control Engineering

Place and Date of Birth : Baghdad, Iraq, 1973

**Nationality** : Iraq

**Languages** : Arabic, English

Mobile (Iraq): +964-782-464-3998 / +964-771-526-8828

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### > Important Link:

• https://www.uoanbar.edu.iq/English/staff-page.php?ID=1670

- https://www.researchgate.net/profile/Yousif\_Al-Mashhadany
- <a href="https://chl.li/DrYousifAlMashhadanyGoogleScholarCitations">https://chl.li/DrYousifAlMashhadanyGoogleScholarCitations</a>
- https://www.scopus.com/authid/detail.uri?authorId=35408486900
- https://www.youtube.com/channel/UCQs1XFt1bFPp2\_-BiR\_xVbg
- <a href="https://publons.com/researcher/1608468/assist-prof-dr-yousif-ismail-mohammed-al-mashhadan">https://publons.com/researcher/1608468/assist-prof-dr-yousif-ismail-mohammed-al-mashhadan</a>

### **Interesting Research:**

Intelligent Control Systems; Biomedical Engineering; Robotic Systems; Human Robotic Interaction; Control Embedded in Power Systems

### **Biography:**

**Prof. Dr. Yousif Ismail Mohammed Al-Mashhadany** is a lecturer in Electrical Engineering Department – College of Engineering (Control Engineering). Senior member IEEE, He received the B.Sc. (1995), M.Sc. (1999), and Ph.D (2010) in Department of Electrical and Electronic Engineering from the Rashid School of Engineering and Science / University of Technology in Baghdad/Iraq. He completes postdoctoral fellow research in electrical engineering - control department at the University of Malaya in Malaysia (UMPEDAC) in 2012.

He works since 2004, a lecturer in the Department of Electrical Engineering / Engineering College / University of Anbar. He has many publishing that included three books, two chapters, forty-nine Journals paper most of them (Clarivate, Scopus and international journal), and thirty-nine conferences paper. He has 10 in H-index with Scopus, has 14 H-index with Google scholar, has 6 H-index in Publons with 223 reviews. Chief in Editor of Anbar Journal of Engineering Science and Editor with Al-Kitab Journal for Pure Sciences.



### 2. Education Qualifications:

- a) B.Sc. (1995) University of Technology/ Al-Rasheed College of Engineering and Science / Electrical and Electronic Engineering
- b) M.Sc. (1999) University of Technology/ Al-Rasheed College of Engineering and Science / Control Engineering Department
- c) Ph.D. (2009) University of Technology/ Al-Rasheed College of Engineering and Science / Control Engineering Department
- d) B.Sc. (2004) University of Baghdad / Islamic Science College / Al-Sharia Department
- e) Post-Doctoral Research Fellow, University of Malaya, Power Energy Dedicated Advanced Centre (UMPEDAC), Malaysia; (2011-2012)

### 3. Professional Memberships:

- a) Member of Iraqi Engineers Union, 1995.
- **b**) Senior Member of IEEE (SMIEEE)
  - Control Systems Society
  - ➤ Instrumentation and Measurement Society
  - Robotics and Automation Society
- c) IIE (Institute of Industrial Engineers) Member from 2012 to 2013.
- d) Committee Member of *Consultancy Bureau to the Center of Dessert Studies* (University of Anbar)

### 4. Academic Experience:

- Under Graduate:
  - **1. External Lecturer** at Mechatronics Engineering Department of the University of Baghdad from 1999 to 2002, for:
    - a) Electrical Circuit, Electronic device (3<sup>rd</sup> year undergraduate course)
    - **b)** MATLAB Computer Aided Design (CAD), 5<sup>th</sup> year undergraduate course
  - 2. External Lecturer to Ibnu Al-Haithem College, at
    - a) the Computer Department, from 1999 to 2002, teaching 1st year undergraduate course in Computer Architecture
    - **b**) the Biology Department, from 1999 to 2002, teaching 1<sup>st</sup> year undergraduate course in **Programming**Languages
  - **3. Lecturer** at the Electrical Engineering Department of the University of Al-Anbar, from 2004 to 2019, teaching:
    - a) 1st year undergraduate course in C++ Programming Language
    - b) 3<sup>rd</sup> year undergraduate course in Computer Network
    - c) Mathematics I & II

- d) 2<sup>nd</sup> year undergraduate course in Numerical Analysis
- e) Supervisor of 2nd, 3rd, and 4th year undergraduate laboratory courses.
- f) 4th year undergraduate course in Control Theory.

### Postgraduate:

1) MSc Mechanical Engineering Department "Advance Control Theory" 2018-2019

### **5. Academic Works:**

- a) Thesis submitted in 1999 to Al-Rasheed College of Engineering and Science, titled "Neural Network Controller for BTT-CLOS of SAM", pursuant to an M.Sc. Degree in Control Engineering.
- **b**) Thesis titled "Design and Analysis of Virtual Human Arm Driven by EMG Signal", pursuant to a Ph.D. Degree in Control Engineering.

### **6. Publications:**

### **Books:**

- 1) Yousif I. Al-Mashhadany, "Optimal Writing for Engineering Articles", First Impression: April 2023, ISBN: 978-81-95987X-X-X, Nex. Gen. Publication, www.nexgenpublication.com
- 2) Yousif I. Al-Mashhadany, Khalaf Gaeid "Classical Control Theory", BOOK, ISBN: 978-3-659-59708-4, 2014, LAP LAMBERT Academic Publishing GmbH & Co. KG
- 3) K. S. Gaeid, H. W. Ping, *Yousif I. Mashhadany*, *BOOK 2012 with title: "Modelling & Fault Diagnosis of IM by using Intelligent Control"*, LAMBERT Academic Publishing, will published at **2012**, ISBN: 978-3-659-15756-1
- 4) Yousif I. Al-Mashhadany, "Design and Analysis of Virtual Human Arm Driven by EMG Signal", BOOK , ISBN: 978-3-8433-7973-1, 2011, LAP LAMBERT Academic Publishing GmbH & Co. KG

### Chapters:

- Yousif I. Al-Mashhadany, "Chapter title: Recurrent Neural Network with Human Simulator Based Virtual Reality", Book title: Recurrent Neural Network, (ISBN 979-953-307-546-3), Online publication of the book March 2012, by INTECH open science.
- 2) Yousif I. Al-Mashhadany, Chapter with title: "Design and Simulation of ANFIS Controller for Virtual Reality Built Manipulator", in Book title: (Fuzzy Controllers) at final publishing step of Online publication of the book end of 2012, by INTECH open science.

### Journals and Conferences:

- R. Ahmed, *Yousif Al Mashhadany*, Design and Analysis of ANFIS Controller for High Accuracy Magnetic Levitation (ML) System, International Journal of Electrical and Electronics Research (IJEER), Volume 11, Issue 1, pp: 185-191, DOI: https://doi.org/10.37391/IJEER.110126
- 2. B. A. Taha, Q. Al-Jubouri, *Yousif Al Mashhadany*, M. H. H. Mokhtar, M. S. D. Bin Zan, A. Ashrif A. Bakar, N. Arsad, Density estimation of SARS-CoV2 spike proteins using super pixels' segmentation technique, Applied Soft Computing, Volume 138, 2023, 110210, ISSN 1568-4946, https://doi.org/10.1016/j.asoc.2023.110210.
- 3. B. A. Taha, Yousif Al Mashhadany, Q. Al-Jubouri, A. R. B. A. Rashid, Y. Luo, Z. Chen, S. Rustagi, V. Chaudhary, Norhana Arsad, Next-generation nanophotonic-enabled biosensors for intelligent diagnosis of SARS-CoV-2 variants, Science of The Total Environment, Volume 880, 2023, 163333, ISSN 0048-9697, <a href="https://doi.org/10.1016/j.scitotenv.2023.163333">https://doi.org/10.1016/j.scitotenv.2023.163333</a>.
- 4. B. A. Taha, Yousif Al Mashhadany, Q. Al-Jubouri, A. R. B. Abdul Rashid, Y. Luo, Z. S. Rustagi, V. Chaudhary, N. Arsad, "Next-generation nanophotonic-enabled biosensors for intelligent diagnosis of SARS-CoV-2 variants", Science of The Total Environment, 2023, ISSN 0048-9697. <a href="https://doi.org/10.1016/j.scitotenv.2023.163333">https://doi.org/10.1016/j.scitotenv.2023.163333</a>
- 5. B. A. Taha, Q. Al-Jubouri, *Yousif Al Mashhadany*, M. H. H. Mokhtar, M. S. D. Bin Zan, A. A. A. Bakar, N. Arsad, Density estimation of SARS-CoV2 spike proteins using super pixels segmentation technique, Applied Soft Computing, Volume 138, 2023, 110210, ISSN 1568-4946, <a href="https://doi.org/10.1016/j.asoc.2023.110210">https://doi.org/10.1016/j.asoc.2023.110210</a>
- 6. Yousif Al Mashhadany, A. K. Abbas, S. Algburi, "Study and Analysis of Power System Stability Based on FACT Controller System", Indonesian Journal of Electrical Engineering and Informatics (IJEEI), Vol. 10, No. 2, June 2022, pp. 317-332, ISSN: 2089-3272, <a href="https://doi.org/10.52549/ijeei.v10i2.3630">https://doi.org/10.52549/ijeei.v10i2.3630</a>
- 7. B. A. Taha, Q. Al-Jubouri, *Yousif Al Mashhadany*, A. A. A. Bakar, M. S. Bin Zan, M. M. Fadhel, N. Arsad, "Photonics enabled intelligence system to identify SARS-CoV 2 mutations", Applied Microbiology and Biotechnology, April, 2022, https://doi.org/10.1007/s00253-022-11930-1
- Yousif Al Mashhadany, Ahmed K. Abbas, Sameer Algburi, "Modeling and Analysis of Brushless DC Motor system based on Intelligent Controllers", Journal Bulletin of Electrical Engineering and Informatics, Vol. 99, No. 1, 2022, ISSN: 2302-9285,

- 9. B. J. Abdulelah, *Yousif Al Mashhadany*, S. Algburi, G. Ulutagay, "Modeling and analysis: power injection model approach for high performance of electrical distribution networks", Bulletin of Electrical Engineering and Informatics, Vol. 10, No. 6, December 2021, pp. 2943-2952, ISSN: 2302-9285, DOI: https://doi.org/10.11591/eei.v10i6.3126
- 10. A. K. Abbas, K. W. Abid, O. I. Abd, *Yousif Al Mashhadany*, A. H. Jasim, "High performance of solar panel based on new cooling and cleaning technique", Indonesian Journal of Electrical Engineering and Computer Science, Vol. 24, No. 2, November 2021, pp. 803-814, ISSN: 2502-4752, DOI: <a href="https://doi.org/10.11591/ijeecs.v24.i2">https://doi.org/10.11591/ijeecs.v24.i2</a>.
- 11. F. sh. khalifa, Yousif Al Mashhadany, and Mushtaq Najeeb (2022), An Efficient Solution of Phase Interferometry Ambiguity using Zero-Crossing Technique. IJEER 10(3), 722-726. DOI: <a href="https://doi.org/10.37391/IJEER.100350">https://doi.org/10.37391/IJEER.100350</a>.
- **12.** *Yousif Al Mashhadany*, (SMIEEE), Sameh Jassam and Elaf Hamzha Yahia (2022), Design and Simulation of Modified Type-2 Fuzzy Logic Controller for Power System. IJEER 10(3), 731-736. DOI: <a href="https://doi.org/10.37391/IJEER.100352">https://doi.org/10.37391/IJEER.100352</a>.
- **13.** *Yousif Al Mashhadany*, S. Algburi, M. A. Jasim, A. Q. Khalaf and I. Basem, "Human-Robot Arm Interaction Based on Electromyography Signal," 2021 14th International Conference on Developments in eSystems Engineering (DeSE), 2021, pp. 475-480, doi: <a href="https://doi.org/10.1109/DeSE54285.2021.9719553">https://doi.org/10.1109/DeSE54285.2021.9719553</a>.
- **14.** Taha, B.A.; *Yousif Al Mashhadany*, Al-Jumaily, A.H.J.; Zan, M.S.D.B.; Arsad, N. SARS-CoV-2 Morphometry Analysis and Prediction of Real Virus Levels Based on Full Recurrent Neural Network Using TEM Images. Viruses 2022, 14, 2386. <a href="https://doi.org/10.3390/v14112386">https://doi.org/10.3390/v14112386</a>
- **15.** *Yousif Al Mashhadany*, " Optimal results presentation style for engineering research article", AIP Conference Proceedings 2400, 040008 (2022); doi: / <a href="https://doi.org/10.1063/5.0112145">https://doi.org/10.1063/5.0112145</a>
- **16.** *Yousif Al Mashhadany*, M. A. Lilo, A. K. Abbas, "Study and analysis of magnetic levitation system via ANFIS controller", AIP Conference Proceedings 2400, 040007 (2022); https://doi.org/10.1063/5.0112142
- 17. A. K. Abbas, Yousif Al Mashhadany,, M. J. Hameed, S. Algburi, Review of Intelligent Control Systems

- with Robotics, Indonesian Journal of Electrical Engineering and Informatics (IJEEI), Vol. 10, No. 4, 2022, DOI: https://doi.org/10.52549/ijeei.v10i4.3628
- 18. M. S. Ahmed, A. Ramizy and *Yousif AL Mashhadany*, "An Analysis Review: Real Measurement for Surface Electromyography (sEMG) Signal," 2021 14th International Conference on Developments in eSystems Engineering (DeSE), 2021, pp. 329-334, doi: <a href="https://doi.org/10.1109/DeSE54285.2021.9719427">https://doi.org/10.1109/DeSE54285.2021.9719427</a>
- 19. Taha, Bakr A., Yousif Al Mashhadany, Nur N. Bachok, Ahmad Ashrif A Bakar, Mohd H. Hafiz Mokhtar, Mohd S. Dzulkefly Bin Zan, and Norhana Arsad. 2021. "Detection of COVID-19 Virus on Surfaces Using Photonics: Challenges and Perspectives" Diagnostics 11, no. 6: 1119. <a href="https://doi.org/10.3390/diagnostics11061119">https://doi.org/10.3390/diagnostics11061119</a>; (Clarivate Q1)
- 20. Taha, Bakr A., Norazida Ali, Nurfarhana M. Sapiee, Mahmoud M. Fadhel, Ros M. Mat Yeh, Nur N. Bachok, Yousif Al Mashhadany, and Norhana Arsad. 2021. "Comprehensive Review Tapered Optical Fiber Configurations for Sensing Application: Trend and Challenges" Biosensors 11, no. 8: 253. 2021 <a href="https://doi.org/10.3390/bios11080253">https://doi.org/10.3390/bios11080253</a>; (Clarivate Q1)
- 21. B. A. Taha, *Yousif Al Mashhadany*, N. N. Bachok, A. Ashrif A Bakar, M. H. Hafiz Mokhtar, M. S. Dzulkefly Bin Zan, and N. Arsad, "*Detection of COVID-19 Virus on Surfaces Using Photonics: Challenges and Perspectives*", <a href="https://doi.org/10.3390/diagnostics11061119">https://doi.org/10.3390/diagnostics11061119</a>; Diagnostics journal, vol. 11, no. 6, p. 1119, Jun. 2021. (*Clarivate Q1*)
- 22. Yousif Al Mashhadany,. S. S. K. Sameer Algburi, "Trajectory Analysis for SCARA Manipulator with Industrial Application", DE, pp. 9748- 9759, Aug. 2021.

  http://www.thedesignengineering.com/index.php/DE/article/view/3554; (Scopus –Q4)
- 23. W. M. Jasim, Yousif Al Mashhadany, "Diabetics blood glucose control based on GA-FOPID technique", Bulletin of Electrical Engineering and Informatics journal, Vol. 10, No. 1, February 2021, pp. 516-523, M. J. Mahammad, Y. Al Mashhadany, A. M. Eyada, "Real time model of a lock gate system upon fingerprint with microcontroller", Indonesian Journal of Electrical Engineering and Computer Science, Vol. 21, No. 1, January 2021, pp. 37-43, DOI: <a href="http://doi.org/10.11591/ijeecs.v21.i1.pp37-43">http://doi.org/10.11591/ijeecs.v21.i1.pp37-43</a>; (Scopus Q3)
- 24. B. A. Taha, *Yousif Al Mashhadany*, M. H. Hafiz Mokhtar, M. S. Dzulkefly Bin Zan, and N. Arsad, "*An Analysis Review of Detection Coronavirus Disease 2019 (COVID-19) Based on Biosensor Application*" Sensors, vol. 20, no. 23, p. 6764, Nov. 2020; <a href="http://dx.doi.org/10.3390/s20236764">http://dx.doi.org/10.3390/s20236764</a>; (*Clarivate Q1*)

- 25. Yousif Al Mashhadany, "Design and analysis of 7-DOF human-link manipulator based on hybrid intelligent controller", SPIIRAS Proceedings, 2020, 19(4), pp. 774-802; (Scopus Q3)
- 26. Yousif Al Mashhadany, "Virtual Reality Trajectory of Modified PUMA 560 based on Hybrid ANFIS Controller" Bulletin of Electrical Engineering and Informatics, Vol. 9, No. 6, December 2020, pp. 2261-2269; ISSN: 2302-9285, <a href="http://beei.org/index.php/EEI/article/view/2579">http://beei.org/index.php/EEI/article/view/2579</a> (Scopus Q2)
- 27. U. Abubakar, S. Mekhilef, K. S. Gaeid, H. Mokhlis, *Yousif Al Mashhadany*, "*Induction motor fault detection based on multi-sensory control and wavelet analysis*", IET Electric Power Applications journal, August 2020, Vol. 14 Iss. 11, pp. 2051-2061, DOI: <a href="https://doi.org/10.1049/iet-epa.2020.0030">https://doi.org/10.1049/iet-epa.2020.0030</a>; (*Clarivate 01*)
- 28. Yasir A. Ahmed, Yousif Al Mashhadany, Mustafa A. Nayyef "High Performance of Excitation System for Synchronous Generator based on Modeling Analysis" Bulletin of Electrical Engineering and Informatics; Vol. 9, No. 6, December 2020, pp. 2235-2243; <a href="http://beei.org/index.php/EEI/article/view/2627">http://beei.org/index.php/EEI/article/view/2627</a> ( Scopus Q2)
- 29. Yousif I. Al-Mashhadany, Yasir Ahmad, "Optimal DC machines performance based on intelligent controller", 2nd International Conference on Computing, Information Science and Engineering 2020; 30 31 May 2020.
- 30. Yousif Al Mashhadany, Wesam M. Jasim, "Real Time Modified Programmable Universal Machine for Assembly (PUMA) 560 with Intelligent Controller" accepted to publish with Indonesian Journal of Electrical Engineering and Computer Science; September 2020; (Scopus Q3)
- 31. Yousif Al Mashhadany, "Design intelligent solar cell tester system based on microcontroller with handling robot" accepted to publish with Int. J. Computer Aided Engineering and Technology; October 2020; (Scopus Q2)
- **32.** Yousif Al Mashhadany, "Optimal Writing For Research Article In Engineering Journals", Solid State Technology journal; Volume: 63 Issue: 6, 2020; pp: 14020- 14036; Archives Available @ <a href="https://www.solidstatetechnology.us">www.solidstatetechnology.us</a>; (Scopus Q4)
- 33. Yousif Al Mashhadany, Mohammed K. Awsaj, "Detection of muscles diseases based on EMG signal by using locally recurrent neural networks (LRNNs) techniques" International Journal of Engineering & Technology, 7 (4) (2018) 4850-4855; 2019 (Scopus)
- 34. Yousif I. Al-Mashhadany, Khalaf S Gaeid, "Direct Torque Control of Variable Speed IM with DSP

- *Application*", 12th IEEE International Conference on Developments in eSystems Engineering (DeSE2019) 7-10, October. **2019**
- 35. Yousif I. Al-Mashhadany, Khalaf S Gaeid, Mohammed Awasj, "Intelligent Controller for 7-DOF Manipulator Based upon Virtual Reality Model", 12th IEEE International Conference on Developments in eSystems Engineering (DeSE2019) 7-10, October. 2019
- 36. Yousif I. Al Mashhadany, "Muscles Activity Detection from EMG signal of human leg posture afflicted by foot drop disease", Journal of Engineering and Applied Sciences, Vol. 15, 2019. (Scopus)
- 37. Moneer Ali Lilo,..., Yousif I. Al Mashhadany, "Vibration fault detection and classification based on the FFT and fuzzy logic", Journal of Engineering and Applied Sciences, 2016; (Scopus)
- 38. Moneer Ali Lilo,..., Yousif I. Al Mashhadany, "Wireless fault tolerances decision using artificial intelligence technique", Journal of Theoretical and Applied Information Technology, 2016; (Scopus)
- 39. Moneer Ali Lilo,..., Yousif I. Al Mashhadany, "Identify and Classify Vibration Signal for Steam Turbine Based on Neural Sleep Fuzzy System", Research Journal of Applied Sciences, Engineering and Technology 12(5): 589-598, 2016, (Scopus)
- 40. Moneer Ali Lilo,..., Yousif I. Al Mashhadany, "Gas Turbine bearing and vibration classification of using multi-layer Neural Network", 2015 International Conference on Smart Sensors and Application, ICSSA; 2015. (Scopus)
- **41.** Mohammed Q. T, *Yousif I. Al Mashhadany*, Aymen L, "High Performance of the Coaxial Cable Based on Different Dielectrics", Journal of Telecommunications, Vol. 28, Issue 2, Dec. 2014.
- 42. M. A. Lilo, Latiff L.A, Yousif I. Al Mashhadany, Aminudin B. H, Abidulkarim K. I, "Modeling and Classification a Vibration Signal of Steam Turbine Based on Fuzzy System", Wulfenia Journal, Austria, ISNN: 1561-882X, Vol 21, No. 12; Dec. 2014, (ISI Journal)
- **43.** Yousif Al Mashhadany, "High performance for real portable charger through low power PV system", International Journal of Sustainable and Green Energy Published online November 20, 2014 (http://www.sciencepublishinggroup.com/j/ijrse)
- **44.** *Yousif Al Mashhadany, "High-performance multilevel inverter drive of brushless DC motor",*International Journal of Sustainable and Green Energy Published online October 30, 2014
  (http://www.sciencepublishinggroup.com/j/ijrse)

- **45.** Yousif Al Mashhadany, "Adaptive Speed Control System Based on Interval Type-2 Fuzzy Logic", Accepted to published with Transactions on Machine Learning and Artificial Intelligence in Oct. **2014**
- **46.** *Yousif Al Mashhadany*, Farqad Amir, Najlaa Anwer, "Modeling, Simulation and Analysis of Excitation System for Synchronous Generator" Asian Journal of Engineering and Technology (ISSN: 2321 2462), Volume 02– Issue 05, Oct. **2014**
- 47. Yousif I. Al Mashhadany, E. Huassan, A.Najeeb, "Design and Implementation of GUI Package for the Muscle Diseases Recognition Based on EMG Signals", International Journal of Soft Computing and Engineering<sup>TM</sup>, Vol.4, Iss. 2, pp 40-44, 2014
- 48. Yousif I. Al Mashhadany, S. Adel, A. Abdu sattar, A. Khuder, "Novel Controller for PUMA 560 Based on PIC Microcontroller", has been accepted for publication in Wulfenia Journal, Vol. 21, Iss. 4, 2014, (Q3 ISI Journal) (I.F.=0.267),
- 49. Yousif Al Mashhadany, "Design, Analysis, Simulation, and Virtual-Reality-Verified Intelligent Controller for Industrial-Application SCARA Robot", published with International Journal of Advanced Computing, June, 2013.
- 50. Yousif Al Mashhadany, "Hybrid ANFIS Controller for 6-DOF Manipulator with 3D Model", International Journal of Computers & Technology, Vol. 4, No. 2, ISSN 2277-3061, www.cirworld.com, April, 2013,
- 51. Yousif Al Mashhadany, Nasrudin Abd Rahim, "Real-Time Controller for Foot-Drop Correction by Using SEMG Sensor", Proc IMechE Part H: J Engineering in Medicine, 227(4) 373–383. Jan, 2013, ( Q2 ISI Journal)(I.F.=1.208)
- 52. Yousif Al Mashhadany, "Advance 6-DOF Manipulator Controller Design Using DMRAC Based ANFIS", Wulfenia Journal, Austria, ISNN: 1561-882X, Vol 20, No. 3;Mar 2013, ( Q3 ISI Journal) (I.F.=0.267)
- 53. Yousif Al Mashhadany, Nasrudin Abd Rahim, "Design of a Pneumatic Robotic Arm for Solar Cell Tester System By using PLC controller", International Journal of Computer Science Issues, Volume 10, Issue 2, March 2013, (Q4 ISI Journal) (I.F.=0.242)
- 54. Yousif I. Al-Mashhadany, H. H. Jasem, M. N. Abdullah, "Design and Analysis of a Remote Sensing Car Speed on a Runway Based Programmable Logic Controller", World Applied Sciences Journal 16 (1): 34-38, ISSN 1818-4952. 2012, (ISI journal).

- 55. Yousif I. Al-Mashhadany, "Design and Implement of a Programmable logic controller (PLC) for Classical Control Laboratory", Intelligent Control and Automation journal, (<a href="http://www.scirp.org/journal/ica">http://www.scirp.org/journal/ica</a>), Vol. 3 No. 1, ISSN Online: 2153-0661, ISSN Print: 2153-0653, February 2012
- 56. Yousif I. Al- Mashhadany, "Design and Implementation of Electronic Control Trainer with PIC Microcontroller", Intelligent Control and Automation journal, (http://www.scirp.org/journal/ica), Vol. 3 No. 3, ISSN Online: 2153-0661, ISSN Print: 2153-0653, August 2012.
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- 59. Yousif I. Al-Mashhadany, "Recurrent Neural Networks (RNNs) Controller for Dynamical System", International Journal of Information Sciences and Computer Engineering (IJISCE), Vol.2, No. 1, 2011.
- **60.** Yousif. I. Al-Mashhadany, "Neuro Controller for Time Varying Dynamical System", published in Anbar Journal of Engineering Sciences (AJES), in **2010.**
- 61. M. Z. Al-Faiz, Yousif. I. Al-Mashhadany, "Human Arm Movements Recognition Based on EMG Signal", MASAUM Journal of Basic and Applied Sciences (MJBAS) Volume 1 Issue 2, PP 164-171, Sep. 2009.
- 62. Yousif Al Mashhadany, Wesam M. Jasim, "Real Time Modified Programmable Universal Machine for Assembly (PUMA) 560 with Intelligent Controller" In 3rd International Conference on Computing, Communications, and Information Technology (CCIT 2019), 24-25/April 2019
- 63. Yousif Al Mashhadany, Maath Jasim, "Real Time Model of a Lock Gate System upon Fingerprint with Microcontroller" In 3rd International Conference on Computing, Communications, and Information Technology (CCIT 2019), 24-25/April 2019
- **64.** Yousif Al Mashhadany, "Design intelligent solar cell tester system based on microcontroller with handling robot" In 3rd International Conference on Computing, Communications, and Information Technology (CCIT 2019), 24-25/April **2019**
- 65. Osama Y. Mahmood Al-Rawi, Yousif Al Mashhadany, Jwan S. Ra'afat Khadim AL-Sujada "High Performance DC-DC Boost Converter Based on Tuning PI controller" published with The Second Engineering Conference of Control, Computers and Mechatronics Engineering, February 25-27, ECCCM2,

- 66. Hussain A. Attia, Yousif I. Al-Mashhadany, Beza N. Getu "Design, Simulation and Analysis of High Performance for Standalone Photovoltaic System", published with The 3rd International Conference on Renewable Energy: Generation and Applications, United Arab Emirates University, AlAin, UAE, March 2nd 5th, 2014
- 67. Yousif Al Mashhadany, "High-Performance of Power System Based Upon ANFIS Controller", 2013

  International Symposium on Mechatronics and its Applications (IEEE ISMA'13), hold at 29-11/ Jordan –

  Amman. April, 2013
- 68. Ali Amer Al rawi, *Yousif Al Mashhadany*, et.al, "*Novel Sliding-Mode Chatter-less Brushless DC (BLDC) Motor Controller*", is accepted for oral presentation at the ICIRA 2013: International Conference on Intelligent Robotics and Applications to be held in Paris, France during June 27-28, **2013**
- 69. Yousif Al Mashhadany, Hussain A. Attia, "Novel Design and Real Implementation of Portable Charger Based on Low Power PV Energy System", published on Joint International Conference on Nanoscience, Engineering and Management (BOND21), 19-21 at Penang, Malaysia, Aug. 2013
- 70. Hussain A. Attia, *Yousif Al Mashhadany*, H. W. Ping, "Design and Analysis for High Performance Synchronized Inverter with PWM Power Control", IEEE Conference on Clean Energy and Technology (CEAT 2013), Malaysia, 18 20, Nov. 2013.
- 71. Hussain A. Attia, *Yousif Al Mashhadany*, "Design and Simulation of Dual Axis Solar Tracker for Optimum Solar Energy Absorption", The International Conference on Electrical and Electronics Engineering, Clean Energy and Green Computing (EEECEGC2013), AUE, Dec. 2013.
- 72. Yousif Al Mashhadany, "SCARA Robot: Modeled, Simulated, and Virtual-Reality Verified", International Conference on Intelligent Robotics Automation and Manufacturing, will be held in Monash University Sunway Campus, Kuala Lumpur, Malaysia, 28th 30th Nov. 2012
- 73. Yousif. I. Al-Mashhadany, "Measurement of human leg joint angle through motion based on electromyography (EMG) signal", The Engineering Conference of Control, Computers and Mechatronics, ECCCM2011, university of Technology, 30-31, Jan.2011.
- 74. Yousif. I. Al-Mashhadany," Best Choosing of Rule Set for Adaptive Neuro-Fuzzy Inference System (ANFIS)", 2nd Scientific Conference of Electrical Engineering, University of Technology Electrical and Electronics Engineering Department, 4-5, April, 2011.
- 75. Yousif. I. Al-Mashhadany, "Modeling and Simulation of Adaptive Neuro-Fuzzy Controller for Chopper-Fed DC Motor Drive", 2011 IEEE Applied Power Electronics Colloquium, Malaysia, 18 19 April 2011

- **76.** Yousif. I. Al-Mashhadany," Virtual Reality For Real Planer Motion of Human Arm", MTS4: Engineering and technology symposiums 4, Turkey, 28-29/April, 2011.
- 77. Yousif. I. Al-Mashhadany, Mouhanad F. Al-Thalej, "Design and Analysis of High Performance Home Solar Energy System", first Engineering college conference Iraq-Al Anbar, 22-23/11/2011.
- 78. Yousif. I. Al-Mashhadany, "Artificial Limps Driven by EMG Signal", Local Symposium at the Engineering College / Al Nihreen University, DEVELOPMENT OF PROSTHETIC LIMPS, Baghdad, 11 / 2 / 2010.
- 79. Yousif I. Al-Mashhadany, "Planer Tracking of Human Arm by Analytical Solution Implemented With GUI Package", Second Information Technology Conference, University of Technology, ITAH02, 11, Baghdad, 20-21 April 2010.
- 80. Yousif I. Al-Mashhadany, "Inverse Kinematics Problem (IKP) of 6-DOF Manipulator By Locally Recurrent Neural Networks (LRNNs)" International Conference on Management and Service Science (MASS 2010) in Wuhan, China August 24-26, 2010.
- 81. Yousif I. Al-Mashhadany, "A Posture of 6-DOF Manipulator by Locally Recurrent Neural Networks (LRNNs) Implement in Virtual Reality", IEEE Symposium on Industrial Electronics and Applications (ISIEA 2010), Penang, Malaysia. 3-5, Oct. 2010
- 82. M. Z. Al-Faiz, Yousif I. Al-Mashhadany, "Analytical Solution for Anthropomorphic Limbs Model (IK of Human Arm)", IEEE Symposium on Industrial Electronics and Applications (ISIEA 2009), , Kuala Lumpur, Malaysia. Oct. 2009
- 83. Yousif I. Al-Mashhadany, "Locally Recurrent Neural Network (LRNNs) Controller for Dynamical System", First Information Technology Conference, University of Technology, ITAHOI,552, Baghdad, 21-23 April 2009
- **84.** *Yousif I. Al-Mashhadany, "Image recognition based Neural network with MATLAB Software"*, Local Symposium at the Engineering College (Remote Sensing Center), University of Anbar, **3-12/12/2005.**
- 85. Yousif I. Al-Mashhadany, Osama, Y. Al-Rawi, "Face Recognition Based on Full Recurrent Neural Network", Booster in International Conference on Advanced Remote Sensing for Earth Observation Systems, by KACST & ISPRS in Riyadh, May 7-11, 2005.
- 86. Yousif I. Al-Mashhadany, M.Z.Al-Faiz, "Direct Neuro-Adaptive Controller Based on Finite Recurrent Back Propagation (FRBP) Network", CATAEE, Jordon, 2002

- 87. Yousif I. Al-Mashhadany, "6- D.O.F Trajectory For S.S.M with Quaternion Transformation", Second Control Conference, Baghdad, 2002
- 88. Yousif I. Al-Mashhadany, "Neural Controller for Time Varying Dynamical System Based on Finite Recurrent Back-propagation (FRBP) Network", First control Conference, University of Technology, Baghdad, 2001
- 89. M. Z. Al-Faiz, S. A. Meki, *Yousif I. Al-Mashhadany*, "3-D Neuro Controller for BTT CLOS Missile", First military engineering collage conference, 2000

### 9. Supervision Projects:

### Co-Supervisor (Ph.D Student):

- 1. (2019-): UKM—Department of Electrical, Electronic and Systems Engineering, Faculty of Engineering and Built Environment, Universiti Kebangsaan Malaysia; Prof. Dr. Norhana Arsad; Prof. Dr. Yousif Ismail Al Mashhadany, "Design and implementation of biosensor for detection COVID 19 based on optical imaging technique".
- 2. (2018-): Physics Department, College of Science, University of Anbar, Ramadi, Iraq; Prof. Dr. Jassim Muhammad Najm; Prof. Dr. Yousif Ismail Al Mashhadany "Design and Implementation of Nuclear Magnetic Resonance (NMR) Circuit for Diseases Detection Based on Physical Parameters"
- 3. (2019-): Physics Department, College of Science, University of Anbar, Ramadi, Iraq; Prof. Dr. Asemat Ramizi; Prof. Dr. Yousif Ismail Al Mashhadany "High Performance for Detection and Classification of Real Time Surface Electromyography (SEMG) Signal Based on Nanotechnology".
- 4. (2012-2015): University of Malaya (UMPEDAC), Prof. Dr. Hew Wooi Ping; Assist. prof. Dr. Yousif Ismail Al Mashhadany, "Real time implementation and analysis optimal topology for solar inverter connected to smart grid"
- 5. (2013-2016): Universiti Teknologi Malaysia (UTM), Prof. Madya Dr. Liza Binti Abdul Latiff, Assist. prof. Dr. Yousif Ismail Al Mashhadany, "Wireless Vibration Fault Tolerance System in Steam Turbine Using Neural Sleep Fuzzy"

### Co-Supervisor (M.Sc. Student):

"Developing New E-Learning Model For Iraqi Universities: Al-Anbar University As A Case Study",
 Supervisor: Dr. Abdullah Abualkishik; Co-Supervisor: Assist. Prof. Dr. Yousif Ismail Al Mashhadany; A Thesis of Master of Information Technology, College Of Graduate Studies; University
 Tenaga Nasional; March, 2014

### Supervisor (Undergraduate):

- 1) (2000-2001) of 2 students for "Design and Analysis of PID control for Dynamic System", at the Mechatronics Department of Baghdad University Engineering College;
- 2) (2010-2011) at the Electrical Department of University of Anbar Engineering College;
  - a. ''Design and Implementation of Analogue Electronic Tester Board''; three students
  - b. ''Design and Analysis of speed car measurement based PLC controller''; two students
  - c. "Design and Implementation of Microcontroller (PIC) based Stepper Motor"; two students
- 3) (2010-2011) with Mr. Wissam Al-Rawi at the University of Anbar Computer College, for "Design and Implementation of Microcontroller (PIC) based Digital Clock"; four students
- 4) (2012-2013) at the Electrical Department of University of Anhar Engineering College:
  - a. "Practical Implementation for Computerized Industrial Application with PUMA 560 Robot Based on Microcontroller", three students
  - b. "Design and Analysis of GUI Package for Detection of Muscles Diseases based on EMG Signal", two students
  - c. Supervised with Dr. Maath Jasim "Simulation and Analysis of Excitation System for Synchronous Generator", two students
- 5) (2012-2013) at the Electrical Department of University of Anbar Engineering College:
  - a) "Design and Implement New Structure of Remote Control for LCD Display Based on Microcontroller", **Two students**
  - b) "Design and Implement Display Unit for Teeth Surgery Processes", Two students
  - c) "Design and Implementation of Submarine Robot with Searching Camera Based on Microcontroller", **Two students**
  - d) "Study and Analysis of Automatic Irrigation System for Garden Zone Based on programmable Microcontroller by Using Solar Energy", **Two students**

### 10. Other Activities:

### Practical:

- a) Laboratory Lecturer, for two years (1995-1997), at Al-Rasheed College of Engineering and Science for two years, (1995-1997).
- b) at Quality Control Center in Baghdad, for 2 years (2000-2002), testing
  - 1. Electronic board components and their functioning
  - 2. Electronic devices in Environment tests

- 3. Computer parts and their functioning
- 4. Wiring and connection of electric cables
- 5. Software for Inertial Navigation System and Control.
- c) Software Lecturer (*MATLAB*, *Visual Basic*, *Virtual Reality*) at the Future Center in Baghdad, from 1998 to 2007.
- **d)** Chairman of Baghdad Engineering Department and SNG Engineer at Al-Rafedeen TV Channel from 2005 to 2006).
- e) SNG Engineer at Al-Jazeera (JSC) TV Channel for 8 months in 2004.
- f) Produced for First Anbar International Fair in Habbaniya City 12-16/6/2011:
  - 1. the design and implementation of an Analogue Electronic Tester Board.
  - 2. the design and implementation of a Microcontroller (PIC) Laboratory Trainer.
  - 3. the design and implementation of a Programmable Logic Controller (PLC) Laboratory Trainer.
- g) the NAMAB projects at Baghdad Airport, in which I designed, analyzed, and instructed the use of PLC control for the airport's **fueling and fire alarm systems**, collaborating with Al-Nihreen University, Iraq, 2009.
- h) Design and Implementation of four *Digital and Circuit Laboratory Trainers* for the Electrical Department of Al-Anbar University Engineering College.

### Theory;

- a) Reviewer for IEEE Transactions on Neural Networks and Learning Systems
- b) Reviewer for Transactions of the Institute of Measurement and Control
- c) Reviewer for International Journal of Computer Science Issues
- d) Reviewer for British Journal of Applied Science & Technology
- e) Reviewer for Journal of Machinery Manufacturing and Automation (JMMA),
- f) Reviewer for applied soft Computing journal
- **g)** Reviewer for Journal intelligint robotic systems
- **h)** Reviewer for Intelligent Control and Automation journal
- i) Reviewer for Anbar Journal of Engineering Sciences (AJES), since 2005;
- j) Reviewer for Institute of Industrial Engineers Journal, 2012.
- k) Reviewer for International Journal of Computer Science Issues (ISI Journal) 2012.
- I) Reviewer of three papers for the 2009 IEEE Symposium on Industrial Electronics and Applications (*ICEDAS 2009*).
- m) Reviewer of three papers for the 2010 IEEE Symposium on Industrial Electronics and Applications (*ISIEA* 2010).

- n) Reviewer of two papers for the 2010 International Conference on Science and Social Research (CSSR 2010).
- o) Reviewer of two papers for the 2010 IEEE International Conference on Power and Energy (*PECON 2010*).
- p) Reviewer of two papers for the IEEE Applied Power Electronics Colloquium (IAPEC 2011).
- **q)** Reviewer of one paper for the 2011 IEEE International Symposium on Business, Engineering & Industrial Applications (*ISBEIA 2011*).
- r) Reviewer of one paper for the 2012 IEEE International Symposium on Robotics and Intelligent Sensors (IRIS 2012).
- s) Reviewer of one paper for the 2012 IEEE International Conference on Power and Energy (*PECON 2012*).

### 11. Honorariums

- 1) from the *Dean of the Engineering College*, University of Anbar, Iraq, in 2005.
- 2) from the *Vice President of University of Anbar*, Iraq, received on 20/12/2005.
- 3) from the *President of University of Anbar*, Iraq, on 12/5/2011
- 4) from the *Deputy Dean of Research & Industrial Networking*, Associate Professor Dr. Ismail Musirin, Chair of IEEE-PES Malaysia Chapter, Faculty of Electrical Engineering, Universiti Teknologi MARA, on 29/11/2010.
- 5) from the Iraqi *Minister of Higher Education and Scientific Research* for achievements made in the academic year of 2010 -2011
- **6**) from the *President of Al-Nihreen University*, Baghdad, for lecture on DEVELOPMENT OF PROSTHETIC LIMBS Workshop, on 11/2/2010.
- 7) from the *President of University of Anbar*, Iraq, in 2012
- 8) Iraqi Minister of Higher Education and Scientific Research for achievements made in the academic year of 2011 -2012

Republic of Iraq
Ministry of Higher Education
& Scientific Research
University of Technology
Baghdad - Iraq





No.: 322

Date: 28/2 / 2010

TO: WHOM IT MAY CONCERN

Name: YOUSIF ISMAIL MOHAMMED

Date & Place of Birth: Baghdad/1973

Nationality: Iraqi

Enrollment Date: 1/10/2002

### DEGREE AWARD CERTIFICATE

This is to certify that Mr. YOUSIF ISMAIL MOHAMMED, Whose Photograph is Affixed above has been awarded the degree of Doctor of Philosophy in (Electrical Engineering/Control) from "AL-Rasheed College of Engineering & Science" (Revoked) on 2/2/2010.

His Project is Entitled:

(( Design and Analysis of Virtual Human Arm Driven by EMG Signal )).

HEAD ASSIST OF

ASER & OPTOELECTRONICS
ENGINEERING DEPARTMENT

Dr. Sabah A. Dhahir Deputy Head of Department Asst. Prof. Dr. Mohammed Hussain Ali Head of Department

OF TECHNOLOGY HEAD OF DEPARTMENT

W.A. Kharraji

Prof. Dr. Kahtan K. M. AL-Khazraji President of University

### 2013

# CERTIFICATE OF IEEE MEMBERSHIP

This certificate recognizes

## Yousif Mohammed

as a Senior Member
In good standing through December 2013, denoting a
personal and professional
commitment to the advancement
of technology

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PETER STAFKER, 2013 IEEE PRESIDENT

1 January 2013



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John L. Hennessy
2012 IEEE Medal of Honor Recipient
Stanford University, California
Phesident

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Conficulation Conficulty in the Name: Yousif Ismail Mohammed Al-Mashhadany, Ministry Of Higher Education The Ministry of Foreign Afters, Manyela is not

Passport No: G1310557

Nationality: Iraqi

Enrollment Date: 23-11-2011



Executive Officer Consular Division Ministry of Foreign Affail Putrajaya Malaysia 0 6 FEB 228

### POST DOCTORAL RESEARCH FELLOW-CERFIFICATE

This is to certify that Dr. Yousif Ismail Mohammed Al-Mashhadany, a Post-Doctoral Research Fellow with University of Malaya Power Energy Dedicated Advanced Centre (UMPEDAC) since 23rd November 2011 has published the following publications:

- 1. Two citation index Journal Papers with the following title:
  - > Real-Time Controller for Foot-Drop Correction by Using SEMG Sensor, published in 2013 in the Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine (ISI Journal with L.F.=1.28)
  - Design of a Pneumatic Robotic Arm for Solar Cell Tester System By using PLC controller, published in 2013 in the International Journal of Computer Science Issues. (LF, = 0.242)
- Book with title:

Modeling & Fault Diagnosis of IM Using Intelligent Control, published by Lambert Academic Rublishing with ISBN: 978-3-659-15756-1.

> Prof. Dr. Nasrudin Abd. Rahim Director

UM Power Energy Dedicated Advanced Centre

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