CURRICULUM VITAE

PERSONAL INFORMATION:

Name: Abdulrhman .A. A. Emhemed.

Nationality : Libyan.

Marital Status: Single.

Date of Birth: 17 /April/ 1983.

Cell Phone: +218919410806

E-mail: abdo_83f@yahoo.com

Hobbies: Reading, traveling, & watching movies.

ACADEMIC QUALIFICATION:

-**PhD** *of Electrical Engineering* (Mechatronic and Automatic Control Engineering)-University of Technology Malaysia (UTM). 2017

Thesis Title: Model Predictive Control Tuning Strategy Using Self Identification Matrix.

-**M.sc** *of Electrical Engineering* (Mechatronic and Robotic Engineering)-University Tun Hussein Onn Malaysia (UTHM). 2011

Thesis Title: Development of Heat Exchanger Performance Using Intelligence Control.

-**B.Sc** *of Electronic Engineering* (Automatic Control Engineering)-The Higher Institute of Electronics-Bani walid, Libya. 2006

Thesis Title: Fuzzy Logic Control Based Speed Control of Permanent Magnet DC Motor.

AREAS OF EXPERTISE/RESEARCH INTEREST:

Automatic Control Engineering.

Robotics and Automation.

Fuzzy Logic Control (FLC).

Model Predictive Control (MPC).

Process Control and Chemical plants Modeling.

Robust Control and disturbance rejection techniques.

Heat transfer and heat exchangers modeling and design.

INTERNATIONAL COMMITTEE / APPOINTMENT :

1. IEEE *Senior Member*.

2. *Senior Member*, International Association of Engineers (IAENG). Since 2012.

3. *Senior Member*, Emirates Association of Computer, Electrical & Electronics Engineers (EACEEE). since March, 2016

4. *Member*, Hong Kong Society of Mechanical Engineers (HKSME), since July, 2015

5. *Member*, Hong Kong Society of Robotics and Automation(HKSRA). May, 2019

6. *Technical Reviewer*, Mechanical Systems and Signal Processing, Elsevier.

7. *Editorial Board Member*, Journal of Electrical and Electronic Engineering (JEEE), Science Publishing Group, NY 10018, U.S.A.

8. *Editorial Board*, International Journal of Control, Energy and Electrical Engineering (CEEE), ISSN:2356-5608

9. *Scientific Committee*, 2019 IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT2019), Amman, Jordan, April 9-11, 2019.

10. *Steering Committee Member*, 6th International Conference on Control & Signal Processing(CSP2019), Tunisia. 2019.

11. *Technical Program Committee*, 2019 International Conference on Power, Energy and Electrical Engineering (PEEE 2019), London, UK, during December 19-21, 2019

12. *Technical Committee*, 3rd International Conference on Control, Automation and Diagnosis (ICCAD'19), Grenoble, France, July 2-4, 2019.

13. *Technical Reviewer*, 5th International Conference on Electrical Energy and Networks 2017, Nanyang Technological University, Singapore, 2017.

14. *Technical Reviewer*, 2017 IEEE 5th International Symposium on Robotics and Intelligent Sensors (IEEE IRIS2017), Ottawa Canada, October 5-7, 2017

15. *Scientific Committee Member*, 2015 IEEE Conference on System, Process & Control (ICSPC2015), Kuala Lumpur, Malaysia, December 19-20, 2015

16. Professional membership in the technical committee of 2019 the 7th International Conference on Control, Mechatronics and Automation (ICCMA2019), Netherlands, November 6-8, 2019

17. *Technical Committees Member*, 2020 IEEE 11th International Conference on Mechanical and Intelligent Manufacturing Technologies (ICMIMT 2020)**,** Japan on March 23-25, 2020

LIST OF PUBLICATIONS:

1. **Emhemed AAA**, Mamat R., 2020, "*Model Predictive Control: A Summary of Industrial Challenges and Tuning Techniques*", International Journal of Mechatronics, Electrical and Computer Technology, 10, 4418-4527

2. Ahmed SM, Osama M, Abdulrazak AA, **Emhemed AAA**, 2019, "*Automatic Building Integrated Solar Shade*", Journal of Sustainable Energy, 10(2), 107-111

3. Milad W, Sulaiman S, Esdeira A, **Emhemed AAA**, 2019, *"Experimental Study of Power Characteristic for Photovoltaic and Wind Turbine"*, International Journal of Information Technology and Electrical Engineering, 8(1), 18-22

4. Aleisawee A, **Emhemed AAA**, Algitta A, 2019, "*DC Network Model Based on VSC-HVDC System*", Transactions on Electrical Engineering, 8(4), 55-62

5. Sulaiman S, **Emhemed AAA**, 2018, *"Design and Implementation of Corporation Robots",* Universal Journal of Control and Automation, 6(2), 19-26

6. Faraj A, Ghnume M, **Emhemed AAA**, 2018, *"Orifice Plate Sizing Calculation Using a New LabVIEW Technique",* Journal of Electrical Engineering, Electronics, Control and Computer Science, 3(2), 29-34

7. **Emhemed AAA**, Alsseid A, Hanafi D, 2018, *"Modelling and Controller Design for Temperature Control of Power Plant Heat Exchanger",* Universal Journal of Control and Automation, 5(3), 49-53

8. Alsseid A**, Emhemed AAA**, Abdesalam M, 2017, *"Small Signal Stability Analysis of Detailed DC Grids Network Model",* World Journal of Computer Application and Technology, 6(2), 23-31

9. Alsseid A, **Emhemed AAA**, Abdesalam M, 2017, "*A Detailed Comparison of the Outer-loop Control Performance at the Receiving End Station of VSC Based HVDC Transmission System*", Advances in Energy and Power, 5(4), 48-57

10. **Emhemed AAA**, Mamat R, Faudzi AAM, 2017, "*Development of Predictive Control Strategy Using Self-Identification Matrix Technique (SMT)",* Journal of Engineering Science and Technology (JESTEC), 12(7),1915-1929 (SCOPUS)

11. **Emhemed AAA**, Mamat R, Hanafi D, Alsseid A, 2016*, "Investigation of Modeling and Control for a Class of Process Control",* 6th International Graduate Conference on Engineering, Science & Humanities (IGCESH 2016), 69-71

12. **Emhemed AAA,** Mamat R, Faudzi AAM, 2015, "Non-Parametric Identification Techniques for Intelligent Pneumatic Actuator", Journal Teknologi, 77(22), 115–119 (SCOPUS)

13. **Emhemed AAA**, Mamat R, Faudzi AAM, Johary MR, Osman K, 2016,"*Modified Predictive Control for a Class of Electro-Hydraulic Actuator*," International Journal of Electrical and Computer Engineering (IJECE), 6(2), 630-638 (SCOPUS)

14. **Emhemed AAA**, Mamat R, Faudzi AAM, 2015, "A New Predictive Control Technique for Force Control of Pneumatic Actuator Plant", The 10th Asian Control Conference 2015 (ASCC 2015).1-6 (SCOPUS)

15. **Emhemed AAA**, 2013, "*Investigation In Two Wheels Mobile Robot Movement: Stability and Motion Paths*", International Journal of Robotics and Automation (IJRA), 2(2),. 45-49.

16. **Emhemed AAA**, 2013,"Fuzzy Control for Nonlinear Ball and Beam System", International Journal of Fuzzy Logic Systems (IJFLS), 3(1), 25-32.

17. **Emhemed AAA**, Mamat R, Hanafi D, 2012,"*Comparison of Boiler Plant Model and Real Plant Responses Based on Proportional Integral Controller", 2nd* IEEE Conference on Sustainable Utilization and Development in Engineering and Technology, Kuala Lumpur, Malaysia, 117-122. (SCOPUS)

18. **Emhemed AAA**, Mamat R, 2012, "*Modelling and Simulation for Industrial DC Motor Using Intelligent Control", 2nd* International Symposium on Robotics and Intelligent Sensors IRIS2012, Kuching, Malaysia, Published by ELSEVIER, Engineering Proceedia, Vol 41, 420-425 (SCOPUS)

19. **Emhemed AAA**, Mamat R, and Hanafi D, 2012, *"Mathematical Modeling of Industrial Heat Exchanger System",* 4th International Conference on Mechanical and Electrical Technology (ICMET 2012), Kuala Lumpur, Malaysia, Vol 229, 2122-2124 (SCOPUS)

20. **Emhemed AAA**, 2012,*"Implementation 7 Segment Display by Educational Board - Software /Hardware Interfacing" ,* International Journal of Engineering Research and Applications (IJERA), 2(3), 748-751

21. Hanafi D, Than M, **Emhemed AAA**, Mulyana T, Zaid A, Johari A, 2011*,"Heat Exchanger Shell and Tube Modeling for Intelligent Control Design",* 2011 International Conference on Industrial and Intelligent Information (ICIII2011), 37-41. (SCOPUS)

22. **Emhemed AAA**, and Hanafi D, 2011*,"Comparison of Control Modes Focus on Real Heat Exchanger System",* International journal of Integrated Engineering, 3(2), 25-29. (SCOPUS)

INTERNATIONAL SEMINARS AND WORKSHOPS ATTENDED:

1. **Seminar of Oil and Gas Techniques,** Department of Oil and Gas Instrumentations, College of Electronic Technology-Bani walid, Libya, 8 April 2019.

2. **ROBOCUP @ HOME: An Open Platform for Service Robot and Large Scale HRI Via Simulation**, Dr. Jeffrey Too Chuan TAN, Lecture at University of Tokyo, Venue: University of Technology Malaysia (UTM), 23th September, 2015.

3. **How to Write A Great Paper and Get It Published in A Research Journal**, **Prof. Deirdre Dunne,** Journal Publisher – Environmental Science & Health, **Elsevier**, Dewan Sultan Iskandar (University's Main Hall), UTM JB, Universiti Teknologi Malaysia, 4 March 2015.

4. **Learn to Design Real Systems Fast with NI myRIO Hands On Workshop,** National Instruments Company, Asia branch, KSL Hotel and Resorts, Taman Abad, 80250 Johor Bahru, Johor, Malaysia , 19th Nov 2014.

5. **Robotics Seminar,** National Instruments Company, National Instruments Company, Asia branch, Thistle Hotel, Jalan Sungai Chat, 80100 Johor Bahru, Malaysia, 5 Sep 2013.

6. **Graphical System Design Summit 2013, Annual Event,**Thistle Hotel, Jalan Sungai Chat, 80100 Johor Bahru, Malaysia, 16th October 2013.

7. **PXI Symposium 2013,** National Instruments Company, National Instruments Company, Asia branch, Thistle Hotel, Jalan Sungai Chat, 80100 Johor Bahru, Malaysia, 24th April 2013.

8. **Colloquium on Best Practice in Teaching Control & Mechatronics** (in conjunction with Asian Steering Committee Meeting), Japanese team, UTM, Johor, 26 March 2012.

9. **From Conversational Interactive Robots to the Human-Robot Cloud,** presenter *Associate Prof Dr. Nikolaos Mavridis***,** Director, Interactive Robots and Media Lab, and Associate Prof. of Computer Engineering, New York Univ. Abu Dhabi. Kuching ,Malaysia. 2012.

10. **Three-Axis Tactile Sensor and Its Applications,** *Prof. Masahiro Ohka,* Graduate School of Information Science, Nagoya University, Japan. Director, Complex System Computing Lab., Nagoya University. Kuching ,Malaysia. 2012.

11. **Bendable and Conformable Electronic Skin,** *Dr. Ravinder S. Dahiya* Centre for Materials and Microsystems, Fondazione Bruno Kesseler Via Sommarive 18, Trento, ITALY, Kuching ,Malaysia. 2012.

12. **Robotics in Gastroenterology,** *Prof. Louis Phee Soo Jay* is currently the Head of the Mechatronics & Design Division, School of Mechanical & Aerospace Engineering at NTU Singapore, presented at Kuala Lumpur Malaysia 6 October 2012.

13. **Robotics Seminar, National Instruments Company**, Asia branch, Thistle Hotel, Jalan Sungai Chat, 80100 Johor Bahru, Malaysia, 24 july 2012.

14. **System Design Summit 2012: Innovative Tools for Test & Measurement & Control**, National Instruments Company, Asia branch, Thistle Hotel Johor, Jalan Sungai Chat, 80100 Johor Bahru, Malaysia , 17th Oct 2012.

15. Technical Course in "**Process Control and Manufacturing Plants**" Malaysia, 4 Jan - 21 Jan 2010.

EMPLOYMENT HISTORY:

- **[Mar2020 -Now]**(Lecturer at Bright Star University, Libya, " Control Theory II and Optimal Control ").

- **[Dec2017-Jan2020]**(Lecturer at College of Technical Sciences-Bani walid, Libya."Subjects: Numerical Analysis, Artificial Intelligent, and Statistics "), Part time.

- **[Dec2017-2019]**(Lecturer at College of Electronic Technology, Bani walid, Libya."Subjects: Project Management and Quality, and Process Control"), Part time.

- **[Feb2018-Jan2020]**(Lecturer at Higher Institute of Engineering Technology, Bani walid, Libya."Subjects: Introduction to Automatic Control, Electronics, Sensors, and Modern Control"), Part time.

- **One Year Experience[Dec2010-Nov2011]**(Lecturer at College of Electronic Technology Bani walid, Libya. "Subjects: Digital Signal Processing, Advanced Microcontroller, and Introduction to Electronics and Instrumentation")

- **One Year Experience[Feb2011-May2011]** (Lecturer at Faculty of Engineering at Bani walid University, Libya "Subject: Physics")

- **Two Years' Experience [2006-2008]** (Working At **IMEC** Company for medical equipment-Tripoli /Libya).

- **Two Years Technician Engineer [2004-2006]**, part time, (networking, programmer) at DUBAI center corporation of communication & information technology, Bani walid/ Libya.

COMPUTER SKILLS:

1. **Software Packages**: (MATLAB, PLC, Fortran 90, M68HC11, Assembly, C, and LABVIEW).

2. **Microsoft Office**: Microsoft Office Word, Microsoft Office Power Point, Microsoft Office Excel and Microsoft Office Front Page.

LANGUAGES :

Arabic: Excellent (Well Written And Spoken **Mother Language**).
English: Very Good (Well Written And Spoken).
Malayu: Fair (Basic Written And Spoken).

REFERENCES:

1. **Associate Prof Dr. Rosbi Mamat**

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   Tel. No: +6075535239
   E-mail: rosbi@fke.utm.my

2. **Associate Prof Ir Dr Dirman Hanafi**

   Address: Faculty of Electrical and Electronic Engineering, Universiti Tun Hussein Onn Malaysia, Batu Pahat, 86400 Parit Raja, Johor, Malaysia
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3. **Associate Prof Ir Dr Ahmad `Athif Bin Mohd Faudzi**

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