

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Curriculum Vitae of Dr.:

Ayman Abdel-Hamid Aly Abd Allah El-Naggar

Mechatronics Sec. Mechanical Eng. Dept., Faculty of Engineering, Assiut University

Ayman A. Aly is the head of Mechatronics Section at Taif University, Saudi Arabia since 2008. Prior to joining Taif University, He is also one of the team who established the “Mechatronics and Robotics Engineering” Educational Program in Assiut University in 2006. He was in the Managing and implementation team of the Project “Development of Mechatronics Courses for Undergraduate Program” DMCUP Project- HEEPF Grant A-085-10 Ministry of Higher Education – Egypt, 2004-2006.

The international biographical center in Cambridge, England nominated and selected Ayman A. Aly as **the International Educator of the year 2012**.

Also, Ayman A. Aly nominated and selected for inclusion in **Marquis Who's Who in the World, 30th Pearl Anniversary Edition, 2013**.

In additions to 5 text books, Ayman A. Aly is the author of more than 55 scientific papers in Refereed Journals and International Conferences. He supervised some of MSc. and PhD. Degree Students. His main areas of research are Robust and Intelligent Control of Mechatronics systems, Automotive control systems, Thermofluid systems modeling and simulation.

Personal Data:

Name: Ayman Abdel-Hamid Aly Abd Allah El-Naggar
(Academic Supervisor of Mechatronics Section, Taif University, KSA)

Material state: Married

Date of Birth: 1969-07-19

Place of Birth: Cairo

Work Address: : Mechanical Engineering Department –
Faculty of Engineering, Taif University, 888, KSA

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ACADEMIC QUALIFICATIONS

Degree:	I have two PhDs: PhD(1)		
Faculty:	Engineering	University:	University of Yamanashi -JAPAN
Record of Subject List	Advanced Robotics (Excellent), Advanced Design for Production (Excellent), Advanced Control System (Excellent), Advanced Optimal Control (Excellent), Advanced Intelligent Sensor (Excellent), Information System Engineering I (Excellent) and Information System Engineering II (Excellent)		
Major:	Intelligent Fluid Power Control Systems		
Title of Thesis:	“Model Reference Adaptive Fuzzy Control of an Electro-Hydraulic Six-Axis Motion Base”		

Degree:	PhD(2)		
Faculty:	Engineering	University:	Assiut University -EGYPT
Major:	ROBOTICS		
Title of Thesis:	"Intelligent control of Stewart platform"		

Preceding University Degree: (M.Sc.)			
Degree:	M SC.	Date degree awarded:	1996-12-1
Faculty:	Engineering	University:	Assiut University - EGYPT
Record of Subject List	Advanced Engineering Mathematics (good), Applied Electronics of Computer (Very good), Advanced Automatic Control (Excellent), Optimal Control (Excellent) and System Analysis (Excellent)		
Major:	Robust process control systems		
Title of Thesis:	"Robust control of A Tank Level Process Using Variable Structure Systems"		

Preceding University Degree: (BA)			
Degree:	Bachelor (Distinction with honor's degree)	Date degree awarded:	1991-7-15
Faculty:	Engineering	Assiut University – EGYPT	
Major:	Mechanical Engineering		
Title of graduate project:	"Design and Implementation of an Experimental System for Measuring the Thermal Conductivity of Agricultures Seeds"		

Prizes and Scholarship Awarded			
<ul style="list-style-type: none"> ➤ The prize of Prof. Dr. Ramadan Sadek in Mechanical Engineering 1989. ➤ The prize of Prof. Dr. Talet hafez in Mechanical Design 1990. ➤ Egyptian Government Scholarship 1999-2000. ➤ Japanese Government Scholarship (Monbusho) 2001-2003. ➤ Japanese Government Scholarship (Jasso) 2011. ➤ Taif university prize of scientific publication 2012. 			

EMPLOYMENT HISTORY

University/Institution (Employer)	From	To	Job Title/Rank (Position)	Inclusive duties (teaching, research, administration)
Assiut University	1991	1996	Research assistant	Teaching & Research
Assiut University	1997	1999	Teaching Assistant	Teaching & Research
University of Yamanashi - JAPAN	1999	2000	Researcher	Research
University of Yamanashi - JAPAN	2000	2003	PhD candidate	Research& Research
Assiut University	2003	2005	Assistant Professor	Teaching & Research
Omer-Elmukhtar University- Libya	2005	2008	Assistant Professor	Teaching & Research
Taif University Saudi Arabia	2008	-	Associate Professor	Teaching & Research

A) University courses (Undergraduate)		
University	Course title	Grade
Assiut University EGYPT	Automatic Control	3 rd year Mechanical Eng. Dept.
	Engineering Measurements	3 rd year Mechanical Eng. Dept.
	Mechanical Engineering Lab.	3 rd year Mechanical Eng. Dept.
	Robotics and Automation	4 th Year Mechatronics Eng. Sec.
	Mechatronics Lab.	4 th Year Mechatronics Eng. Sec.
South Valley University - EGYPT	Thermal and Hydraulic Machines	2 nd Year Electrical Eng. Dept.
	Agriculture Machines	2 nd year Faculty of Agriculture
Omer El-Mukhtar University LIBYA	Computer Programming	3 rd Year Civil Eng. Dept.
	Hydraulics Machines	3 rd year Mechanical Eng. Dept.
	Automatic Control	5 th Year mechanical Eng. Dept.
	Application of MATLAB in Engineering	5 th Year Mechanical /Electrical Eng. Depts.
	Basic Engineering Measurements	3 rd Year Automatic Control Dept.
	Automatic Control	4 th Year Automatic Control Dept.
Taif University – SAUDI ARABIA	Theory of Machines (1)	1 st Year Mechanical Dept.
	Computation Methods in Engineering	2 nd Year Mechanical Dept.
	Computer Programming	1 st Year Mechanical Dept.
	Mechatronics Fundamentals	3 rd Year Mechanical Dept.
	Robotics	4 th Year Mechanical Dept.

B) University courses (graduate)	
University	Course title
Assiut University EGYPT	Advanced Automatic Control
	Robotics
Omer El-Mukhtar University Derna-LIBYA	Mini Course of MATLAB Application in Engineering For Faculty of Engineering Staff Members

C) Computer Experience	
Languages	C++, FORTRAN-77 and BASIC
Software Packages	MATLAB, Automation Studio, Control Station, and Labview.
Hardware	ADA Cards programming and installations, IBM-PC and Compatibles, Measuring circuits and Real time control.

D) Supervisor of undergraduate student projects	
Mechatronics	Design of pike and place robot Provided with end Effectors
Mechatronics	Design of XYZ Manipulator
Mechatronics	Design of Rocket Launcher

Mechatronics Design of two Axis Manipulator Provided with end Effectors
Control of Watering an Agriculture land using PLC
Mechatronics Design of Automatic Motawif
Mechatronics Design of Antilock Brake Control System.
Programmable Logic Control (PLC) Applications in Mechanical systems “Flow and Level Control”
Mechatronics Design of interactive smooth board
Mechatronics Design of RR Manipulator
Design of Laser Cutting Robot
Design of Welding Torch Robot Arm
Mechatronics Design of Automatic Garage door
Mechatronics Design of A Color Mixing Machine
Mechatronics Design of Automatic Marketing Machine

E) Co-supervisor of graduate student thesis

Fault Diagnosis in Electro-hydraulic Systems (PhD)
Auto Tuning of PID and Fuzzy Controllers for Fire Tube Boiler Using Genetic Algorithm (Master)-awarded
Intelligent fuzzy Control of A Flexible Robot Arm (Master) - awarded

M SC. Publications

1. **Ayman A. Aly** And A. Abo-Ismael, “**Robust Control of A Level Process Using Variable Structure Theory**”, Proceeding of PEDAC97, 6th International Conference on Production Engineering Design and Control, Alex. University, Egypt, 1997.
2. **Ayman A. Aly** and A. Abo-Ismael “**Design of Variables structure Controller with Sliding Mode for Two-Capacitance Level Process**” , Proceeding of 10th International Conference on Mechanical Power Engineering, Assiut University, Egypt, 1997.
3. **Ayman A. Aly** and A. Abo-Ismael, “**Intelligent Control of A Level Process By Employing Variable Structure Theory**”, Proceeding of International Conference in The Mechanical Production Engineering, Warso, **Poland**, 1998

PhD. Publications

1. **Ayman A. Aly**, A. Abo-Ismael, H. Ohuchi and S. Dessoki “**Intelligent Position Control For Electro-Hydraulic Cylinder**”, Proceeding Of MDP-7, International Conference on Mechanical Design And Production, Cairo University, Egypt, 2000.
2. **Ayman A. Aly**, H. Ohuchi and A. Abo-Ismael, “**A Cross Coupled Intelligent Fuzzy Controller of A 2 DOF Electro-Hydraulic Servo System**”, Conference of Fluid Power System, Akita, **JAPAN**, 2000.

3. **Ayman A.Aly, H.Ohuchi and A.Abo-Ismael, "Intelligent Fuzzy Controller for positioning Electrohydraulic Cylinder"** , Yamanashi District Conference, Japan, 2000/10/28, pp 235-236.
4. **Ayman A. Aly, and H. Ohuchi "Fuzzy Hybrid Control Using Indirect Inference Control For Positioning An Electro-Hydraulic Cylinder"**, Conference of Fluid Power Systems, Yamaguchi, JAPAN, 2001.
5. **Ayman A.Aly, and H.Ohuchi, "Fuzzy Supervisory PID Control in Positing of Electro-hydraulic Servo System"** , Yamanashi District Conference, Japan, October 2001, pp 161-162.
6. **H. Ohuchi, and Ayman A. Aly, "The Robust Motion Control of Electrohydraulic Servo System Using Smart Cam Application"** , Yamanashi District Conference, Japan, October 2001, pp 163-164.
7. **Ayman A. Aly, and H. Ohuchi "Adaptive Fuzzy Control of A Stewart Platform Manipulator"**, The 5th International Symposium on Fluid Power, Nara, JAPAN, November, 2002.
8. **Ayman A. Aly, H. Ohuchi and A. Abo-Ismael, "Model Reference Adaptive Control of An Electro-Hydraulic Servo System Using Fuzzy Logic Technique"**, 3rd International Conference on Mechanical Engineering, Advanced Technology For Industrial Production, Egypt, 2002.
9. **Ayman A. Aly, H. Ohuchi and A. Abo-Ismael, "Fuzzy Model Reference Learning Control of 6-Axis Motion Base Manipulator"**, 7th IEEE International Conference on Intelligent Engineering Systems, Egypt, March, 2003.
10. **Ayman A. Aly, H. Ohuchi and A. Abo-Ismael, "Fuzzy Model Reference Learning Control For Positioning An Electro-Hydraulic Servo System"**, Transaction of The Japan Fluid Power System Society, Vol. 34, No.3, May 2003, JAPAN.

2003-2008 Publications

1. **Aly S. Abo El-Lail and Ayman A. Aly, "On Linerization of Thermocouple Signal Using Analog-To-Digital Converter"** Journal of Engineering Science, JES, Vol. 32, No. 3, pp 12161-1268, July 2004.
2. **O. I. Hassanin and Ayman A. Aly "Genetic PID Controller for a Fire Tube Boiler,"** International Conference on Computational Cybernetics 2004 in Vienna, Austria.
3. **Ayman A. Aly "Modeling and control of an electro-hydraulic servo motor Applying velocity feedback control strategy"**, International Mechanical Engineering Conference & Expo (IMEC2004), Kuwait.
4. **Khalil A. Khalil, Ayman A. Aly and A. Abo-Ismael, "Dynamic modeling and mode shape analysis of a single flexible arm"**, International Mechanical Engineering Conference & Expo (IMEC2004), Kuwait.
5. **Ayman A. Aly and Shehab R.Tawfeic, "Intelligent Fuzzy Controller of Tracking A Hard Disk Drive Actuator Using The Approaching Index Switch"**, ICGST International Journal on Automatic Control System Engineering, ACSE, Issue V2, Germany.
6. **Ayman A. Aly and Aly S. Abo El-Lail, "Self Tuning PI Fuzzy Position Control of A Hydraulic Manipulator"** Journal of Engineering Science, JES, Vol. 33, No. 1, pp 199-209, January 2005.

7. Khalil A. Khalil, **Ayman A. Aly** and A. Abo-Ismael, "**Tip Position Control of A Single Flexible Arm**", International Conference on Mechatronics (ICOM05), Malaysia.
8. **Ayman A. Aly**, "**Self Tuning Fuzzy Logic Control of an Electrohydraulic Servo Motor** ", ICGST International Journal on Automatic Control System Engineering, ACSE, Issue 4, V5, Dec.2005, Germany.
9. Aly S. Abo El-Lail, and **Ayman A. Aly**, "**Temperature Control of A Thermoelectric Cooler**", 11th Asian Congress of Fluid Mechanics (11ACFM), May 22 – 25, 2006, at Kuala Lumpur, Malaysia.
10. Khalil A.K., **Ayman A. Aly** and Ahmed Abo. Ismael. "**Intelligent Control System of Flexible Arm**" International workshop on Mechatronics Education, Luxor, Egypt, Feb. 13-16, 2006.
11. **Ayman A. Aly** and Aly S. Abo El-Lail, "**Fuzzy Temperature Control of A Thermoelectric Cooler**", IEEE International Conference on Industrial Information Technology, (ICIT 2006), Dec. 15-17, 2006, at Mumbai, India.
12. **Ayman A. Aly**, "**A Non Linear Optimal PID Control of A Hydraulic Crane**" Journal of Engineering Science, JES, Vol. 33, No. 1, pp 199-209, Feb. 2007.
13. **Ayman A. Aly**, "**Flow Rate Control of Variable Displacement Piston Pump With Pressure Compensation Using Neural Network**" Journal of Engineering Science, JES, Vol. 33, No. 1, pp 199-209, Feb. 2007.
14. Khalil A. Khalil, **Ayman A. Aly**, and A. Abo-Ismael, "**Adaptive Based Block Fuzzy Controller of Flexible Robot Arm**", IASTED International Conference on Intelligent Systems and Control, Orlando, USA, November 16 - 18, 2008.

Recent Publications in International Conferences

1. A. A. Alshennawy, and **Ayman A. Aly**, "**Edge Detection in Digital Images Using Fuzzy Logic Technique**," International Conference on Computer Vision and Image Processing, ICCVIP, pp. 178-186, Hong Kong, March 23-25, 2009.
2. M.M.M. Salam and **Ayman A. Aly**, "**Fuzzy control of a quarter-car suspension system**", International Conference in Mechanical Engineering, ICME, pp. 258-263, Tokyo, Japan, May 27-29, 2009.
3. **Ayman A. Aly** and A. A. Alshennawy, "**An Edge Detection and Filtering Mechanism of Two Dimensional Digital Objects Based on Fuzzy Inference**", International Conference in Mechanical Engineering, ICME, pp. 247-251, Tokyo, Japan, May 27-29, 2009.
4. E.B. Zeidan, **Ayman A. Aly**, and A.M. Hamed, "**Investigation on the Effect of Operating Parameters on the Performance of Solar Desiccant Cooling System Using Artificial Neural Network** ", International Engineering Conference on Hot Arid Regions IECHAR May 2010, Saudi Arabia.
5. **Ayman A. Aly**, E.B. Zeidan, and A.M. Hamed, "**Performance Evaluation of Open Solar Regenerator Using Artificial Neural Network Technique** ", International Engineering Conference on Hot Arid Regions IECHAR May 2010, Saudi Arabia.
6. Ahmed M Hamed, Kabeel A. E., Seidan E. Shafei, **Ayman A. Aly**, "**A technical Review on The Extraction of Water from Atmospheric Air in Aride Zone**," 7th

International Engineering Conference, Faculty of Engineering, Mansoura University, **Egypt**, March 2010.

7. **Ayman A. Aly**, "**Intelligent Fuzzy Control for Antilock Brake System with Road-Surfaces Identifier**," 2010 **IEEE** International Conference on Mechatronics and Automation (ICMA 2010) **China**, August 4-7, 2010.
8. Ali Yousef and **Ayman A. Aly**, "**Effect of Non-linearities in Fuzzy Approach for Control A Two –Area Interconnected Power System**", 2010 **IEEE** International Conference on Mechatronics and Automation (ICMA 2010) **China**, August 4-7, 2010.
9. **Ayman A. Aly** and A. Abd Elmotalip, "**Effect of Leading Extended Vanes on a Vertical Axis Wind Turbine Performance**," 5th International Conferences on Energy Research and Development ICERD-5, **Kuwait**, April 9-11, 2012.
10. M. S. Youssef and **Ayman A. Aly**, "**Modeling of Nanofluids Pressure Drop Under A Turbulent Flow Regime Using Artificial Neural Network**," 5th International Conferences on Energy Research and Development ICERD-5, **Kuwait**, April 9-11, 2012.

Recent Publications in International Journals

1. **Ayman A. Aly** and A. A. Alshnnaway, "**An Edge Detection and Filtering Mechanism of Two Dimensional Digital Objects Based on Fuzzy Inference**", International Journal of Information Technology and Communication Engineering Vol. 5 No. 8, pp 564-568, 2009.
<http://www.waset.org/journals/ijice/v5/v5-8-78.pdf>
2. A. A. Alshennawy, and **Ayman A. Aly**, "**Edge Detection in Digital Images Using Fuzzy Logic Technique**," International Journal of Electrical and Computer Engineering , Vol. 4 No. 7, pp 415-423, 2009.
<http://www.waset.org/journals/ijece/v4/v4-7-63.pdf>
3. M.M.M. Salam and **Ayman A. Aly**, "**Fuzzy control of a quarter-car suspension system**", International Journal of Aerospace and Mechanical Engineering Vol.4 No.4, pp 235-240, 2010.
<http://www.waset.org/journals/ijame/v4/v4-4-39.pdf>
4. Mohamed M. K., **Ayman A. Aly** and Ali W, "**Friction Behaviour of Natural Fibres Sliding Against Steel**", Journal of The Egyptian Society Of Tribology, **EGTRIB**, Journal Volume 6, No. 3, pp 41 – 50, JULY 2009.
5. A. M. Hamed, A. E. Kabeel , E. B. Zeidan And **Ayman A. Aly**, "**A Technical Review On The Extraction Of Water From Atmospheric Air In Arid Zones**," JP Journal of Heat and Mass Transfer, Volume 4, Number 3, 2010, Pages 213-228.
6. E.B. Zeidan, **Ayman A. Aly**, and A.M. Hamed, "**Investigation on the Effect of Operating Parameters on the Performance of Solar Desiccant Cooling System Using Artificial Neural Network**", The International Journal of Thermal & Environmental Engineering, Vol.1, No.2, 91-98, 2010.
7. **Ayman A. Aly**, Zeidan E. B., Hamed A. M., Ali W. Y., "**Effect of Heat Treatment On The Abrasion Resistance Of Thermoplastic Polymers**", **EGTRIB** Journal Of The Egyptian Society of Tribology Volume 7, No. 4, 52 -64, October 2010.
8. **Ayman A. Aly**, Zeidan, E.B., and Hamed, A.M., "**Performance evaluation of**

- open-cycle solar regenerator using artificial neural network technique**”, Journal of Energy and Buildings 43, 454–457, 2011.
9. Ahmed M. Hamed, **Ayman A. Aly** and E. B. Zeidan, **“Application of Solar Energy for Recovery of Water from Atmospheric Air in Climatic Zones of Saudi Arabia”**, Journal of Natural Resources, Vol 2, 8-17, 2011. **The Impact Factor(IF) is 0.44.**
 10. **Ayman A. Aly**, Zeidan, E.B., and Hamed, A.M., **“Solar-powered open absorption cycle modeling with two desiccant solutions,”** Energy Conversion and Management 52 (2011) 2768–2776. Impact Factor: 2.216.
 11. **Ayman A. Aly**, **“PID Parameters Optimization Using Genetic Algorithm Techniques for an Electrohydraulic Servo Control System,”** Intelligent Control and Automation (ICA), 2011, Vol. 2, No. 2, pp 69-76, May 2011, USA. **The Impact Factor (IF) is 0.28.**
 12. **Ayman A. Aly** and S. Elnaggar, **“Genetic PD Control of a Three-Link Rigid Spatial Manipulator,”** International Journal on Automatic Control System Engineering, ICGST-ACSE Journal, Vol. 11, No.1, pp 15-22, June 2011, Germany.
 13. **Ayman A. Aly**, **“Intelligent fuzzy controller with road surfaces identifier for antilock brake system,”** Int. J. Mechatronics and Automation (IJMA), Vol. 1, Nos. 3/4, pp 153-160, 2011.
 14. **Ayman A. Aly**, Zeidan, E.B., A. M. Hamed, and Farahan S., **“An Antilock-Braking Systems (ABS) Control: A Technical Review,”** Intelligent Control and Automation (ICA), 2011, Vol. 2, No. 1, pp 57-68, May 2011, USA. **The Impact Factor (IF) is 0.28.**
 15. **Ayman A. Aly**, **“Optimization of Desiccant Absorption System Using a Genetic Algorithm”**, Journal of Software Engineering and Applications (JSEA), Vol. 4, No.9, pp 527-533, Sep. 2011, USA. **The Impact Factor (IF) is 0.83.**
 16. **E.B. Zeidan, Ayman A. Aly, and A.M. Hamed**, **“Modeling and simulation of solar-powered liquid desiccant regenerator for open absorption cooling cycle”**, The International Journal of Solar Energy 85 (2011) 2977–2986. **Impact Factor: 2.475**
 17. **Ayman A. Aly**, Zeidan, E.B., A. A. Alshennawy, Ali Elmasery, Wahid A Wasel, **“Friction and Wear of Polymer Composites Filled by Nano-Particles: A Review,”** World Journal of Nano Science and Engineering (WJNSE), Vol. 2 No.1, 32-39, 2012, USA. **The Impact Factor(IF) is 0.36.**
 18. Osama I. Hassanein, **Ayman A. Aly**, Ahmed A. Abo-Ismael, **“Parameter Tuning Via Genetic Algorithm of Fuzzy Controller for Fire Tube Boiler”**, I. J. Intelligent Systems and Applications (IJISA), 4, 9-18, 2012.
 19. **Ayman A. Aly**, M.M. Mahmoud, A. A. Omer, **“Enhancement in Mechanical Properties of Polystyrene Filled with Carbon Nano-Particulates (CNPS)”**, World Journal of Nano Science and Engineering (WJNSE), Vol. 2 No.2, 103-109, 2012, . **The Impact Factor(IF) is 0.36.**
 20. **Ayman A. Aly**, Aly S. Abo El-Lail, Kamel A. Shoush, Farhan A. Salem, **“Intelligent PI Fuzzy Control of An Electro-Hydraulic Manipulator,”** I. J. Intelligent Systems and Applications (IJISA), 7, 43-49, 2012.
 21. **Ayman A. Aly**, **“Model Reference PID Control of an Electro-hydraulic Drive”** I. J. Intelligent Systems and Applications (IJISA), 11, 24-32, 2012.
 22. **Ayman A. Aly**, **“ Hardware-in-the-loop of Simulation for a Hydraulic Antilock Brake System ”** I. J. Intelligent Systems and Applications (IJISA), 02, 91-95, 2013.
 23. Ahmad A. Mahfouz, **Ayman A. Aly**, Farhan A. Salem, **“Mechatronics Design of a Mobile Robot System”**, I. J. Intelligent Systems and Applications (IJISA), vol.5, no.3,

pp.23-36, 2013.

24. **Ayman A. Aly, Aly S. Abo El-Lail,"A Novel Circuit for Thermocouple Signals Linearization Using AD Converter"**, International Journal of Information Technology and Computer Science (IJITCS), vol.5, no.3, pp.56-60, 2013.

25.

Referee of:

International Conferences:

- + The 8th IEEE International Conference on Control & Automation (ICCA2010) Xiamen, China, June 9-11, 2010.
- + The 18th Mediterranean Conference on Control and Automation, June 23-25, 2010, Morocco.
- + The 2010 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, July 6-9, 2010 in Montreal, Canada.
- + The 2010 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, July 6-9, 2010 in Montreal, Canada.
- + 2011 IEEE International Conference on Robotics and Automation May 9-13, 2011, Shanghai International Conference Center, China.

International Journals:

- + Modeling and Numerical Simulation of Material Science Journal (MNSMS).
- + International Journal of Intelligent Systems and Applications(IJISA).
- + World Journal of Nano Science and Engineering (WJNSE).
- + Journal of Electrical and Electronics Engineering Research.
- + Information Technology Research Journal.
- + International Journal of Modelling, Identification and Control (IJMIC)
- + Energy Conversion and Management, Elsevier.

Others

- + External assessors of City University, Hong Kong.

Published books:

- * **Intelligent control,**
LAP LAMBERT Academic Publishing (Germany), ISBN (978-3-8433-8066-9)
- * **FUNDAMENTALS OF COMPUTER NUMERICAL CONTROL (CNC).**
LAP LAMBERT Academic Publishing (Germany), ISBN (978-3-8443-0546-3)
- * **Fundamentals of Automation and Industrial Control Systems Using PLC.**
LAP LAMBERT Academic Publishing (Germany), ISBN (978-3-8443-9984-4)
- * **"Fundamentals of Automatic Control**
LAP LAMBERT Academic Publishing (Germany), ISBN (978-3-8473-1355-7)
- * **"Fundamentals of Theory of Machines**
LAP LAMBERT Academic Publishing (Germany), ISBN (978-3-8484-8551-2)

CONTRIBUTIONS

Research Projects

- ✚ Management and Implementation Team Member of The Project of **Development of Mechatronics undergraduate courses (HEEP Grant- A 085-10)**, Assiut University- Bath University, 2004-2006, Egypt-UK.
- ✚ Management and Implementation Team Member of the Project of **Technicians Training in Assiut University (HEEP Grant- A 083-10)**, Assiut University- 2004-2006, Egypt.
- ✚ Implementation Team Member of The Project of **Curricula development of Sugar Industry Institute in Assiut University (HEEP Grant- A 084-10)**, Assiut University- 2004-2006, Egypt.
- ✚ Management and Implementation Team Member of the Project of **Design A Measurement System for Measuring the Resistance of Engineering Material for Wearing**, Taif University, 2008-2009, Saudi Arabia.
- ✚ **Project Manager** of The Project of **Heat Treatment of Polymers**, Taif University, 2009-2010, Saudi Arabia.
- ✚ Management and Implementation Team Member of the Project of **Using Solar Energy for Extracting Water from Atmospheric Air**, Taif University, 2009-2010, Saudi Arabia.
- ✚ Management and Implementation Team Member of the Project of **The Solar Energy Application in Condition Air in Wet Areas**, Taif University, 2009-2010, Saudi Arabia.
- ✚ **Project Manager** of The Project of **ABS Control for Saudi Road Surfaces**, Taif University, 2010-2011, Saudi Arabia
- ✚ **Project Manager** of The Project of **Friction and Wear of Polymer Composites Filled by Nano-Particles**, Taif University, 2011-2012, Saudi Arabia.
- ✚ Management and Implementation Team Member of the Project of **Modeling of Nanofluids Pressure Drop under A Turbulent Flow Regime Using Artificial Neural Network**, Taif University, 2012-2013, Saudi Arabia .
- ✚ **Project Manager** of The Project of **Intelligent Active Suspension control of A Vehicle**, Taif University, 2012-2013, Saudi Arabia.

Curriculums Development:

- Development the Curricula of Mechatronics Section, Faculty of Engineering – Assiut University, Assiut, 2004, Egypt.
- Development the Curricula of Mechanical Engineering Department At Omer El-Mukhtar University, 2006, Libya.
- Development the Curricula of Mechatronics Section, Faculty of Engineering – Taif University, 2008, Saudi Arabia.
- Development the Curricula of Mechatronics Department, Faculty of Engineering – Taif University, 2013, Saudi Arabia.

Laborites Setup:

- Construct and Setup the Mechatronics Section Laboratories, Assiut University- 2003-2005, Egypt.
- Construct the Engineering Education Center, Assiut university, 2004, Egypt
- Construct and Setup a Process Control and Engineering Measurements Laboratories At Omer El-Mukhtar University, 2005-2008, Derna, Libya.
- Construct and Setup the Mechatronics Section Laboratories, Taif University. 2008-2013, Saudi Arabia.
- Setup the technical specifications for Electronic Education and Virtual laboratories, Taif University, 2012, Saudi Arabia.

Institutional and professional service

- Member of the organization Commit of the 7th International conference of the intelligent engineering Systems, (IEEE), 2003, Egypt.
- Member of the organization Committee of the 1st International Workshop of the Mechatronics Education, 2003, Egypt.
- The academic supervisor of Mechatronics Section, Taif University, 2008-, Saudi Arabia.
- Member of Curriculum and courses commit Taif University, 2008-, Saudi Arabia.
- Member of Students affaires commit Taif University, 2008-, Saudi Arabia.
- Coordinator of the faculty of Engineering for the 1st Student research conference, Taif University, 2010, Saudi Arabia.

Training programs of

- ✓ **Preparing of Faculty Staff**, July,1994, Assiut University.
- ✓ **Advance Level of English Language for Toefl Exam Preparing**, Feb., 1997, Assiut University.
- ✓ **How to Write A Research Project**, 22-23 April, 2004, Assiut University.
- ✓ **Management's Skills Development**, 15-18 August, 2005, Assiut University.
- ✓ **Teaching Using Technology**, 2-4, September, 2006, Assiut University.
- ✓ **Courses Design**, 9-11, September, 2006, Assiut University.
- ✓ **Ethics of Teaching**, 9-11, September, 2006, Assiut University.
- ✓ **Teaching Evaluation**, 25-27, July, 2007, Assiut University.
- ✓ **International Research Prepare and Publication**, 25-26, July, 2007, Assiut University.
- ✓ **Quality Management In High Education Systems, Sigma 6**, march, 2009, Taif University.
- ✓ **Electronic Education**, May 2009, Fahed University of minerals and petroleum.
- ✓ **Using ABET Instruction for Preparing the Mechanical Engineering Courses**, 2010-2013, Taif University.
- ✓ Training course of "**PID control Panel Trainer**", Lab-Tech company, 2012, Taif university
- ✓ Training course of "**Hot water Solar panel Trainer**", Lab-Tech company, 2012, Taif university

Scientific and professional societies of which a member

- ✚ **Egyptian Engineering Syndicate.**
- ✚ **Member of "The International Congress for global Science and Technology ICGST Academic Community," 2011**
- ✚ **Member of the Institute of Electrical and Electronics Engineers, IEEE (Member #92196631)**

- ✦ Member of the Japanese Society of Mechanical Engineering .
- ✦ IEEE Computational Intelligence Society Membership
- ✦ IEEE Robotics and Automation Society Membership
- ✦ IEEE Control Systems Society Membership
- ✦ IEEE Communications Society Membership
- ✦ Editorial board Member of International Journal of Intelligent Systems and Applications (IJISA).
- ✦ Associate Editor of International Journal of Engineering and Manufacturing (IJEM).

References

Professor Dr. Ahmed Abo-Ismael

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