



أ.د. عبدالفتاح محمود محمد

أستاذ التحكم الآلي

كلية الهندسة جامعة أسيوط

العنوان الثابت: قسم الهندسة الكهربية والإلكترونية - كلية الهندسة جامعة أسيوط - جمهورية مصر العربية

ت:عمل ٢٠٨٨٢٠٨٠٦٨٨ ت:منزل:٢٠٨٨٢٠٥٩٤٢١ موبايل: ٢٠١٠٦٤١٧٢٢٥٩

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afmm52@yahoo.com البريد الإلكتروني:

العنوان الحالي: قسم الهندسة الكهربية والإلكترونية - كلية الهندسة جامعة أسيوط - جمهورية مصر العربية

ت:عمل ٢٠٨٨٢٠٨٠٦٨٨ ت:منزل:٢٠٨٨٢٠٥٩٤٢١ موبايل: ٢٠١٠٦٤١٧٢٢٥٩

afm@aun.edu.eg البريد الإلكتروني:

معلومات شخصيه: مكان الميلاد: سوهاج - جمهورية مصر العربية تاريخ الميلاد: سبتمبر ١٩٥٣

الإهتمامات البحثيه: تطبيقات نظم التحكم المتين الحديثه فى نظم التعليق المغناطيسى

نظم كراسى التحميل المغناطيسية - نظم القوى الكهربية - والمحركات الكهربية

المؤهلات العلمية:

١- بكالوريوس فى الهندسة الكهربية شعبة القوى الكهربية - جامعة أسيوط - جمهورية مصر العربية ١٩٧٦

٢- ماجستير فى الهندسة الكهربية - جامعة أسيوط - جمهورية مصر العربية ١٩٨١

٣- دكتوراه فى الهندسة الكهربائية - جامعة ميرلاند - الولايات المتحدة الأمريكية ١٩٩٠

التدرج الوظيفى:

- ١- معيد بقسم الهندسة الكهربائية جامعة أسيوط - جمهورية مصر العربية من ١٩٧٨ - ١٩٨١
- ٢- مدرس مساعد بقسم الهندسة الكهربائية جامعة أسيوط - جمهورية مصر العربية من ١٩٨١ - ١٩٨٤
- ٣- عضو بعثة بجامعة ميرلاند - الولايات المتحدة الأمريكية من سبتمبر ١٩٨٤ - مايو ١٩٩٠
- ٤- أستاذ مساعد بقسم الهندسة الكهربائية جامعة أسيوط - جمهورية مصر العربية من ١٩٩٠ - ١٩٩٥
- ٥- أستاذ مشارك بقسم الهندسة الكهربائية جامعة أسيوط - جمهورية مصر العربية من ١٩٩٥ - ٢٠٠٠
- ٦- أستاذ بقسم الهندسة الكهربائية جامعة أسيوط - جمهورية مصر العربية من ٢٠٠٠ حتى الآن
- ٧- أستاذ زائر بقسم الهندسة الميكانيكية جامعة تكساس بالولايات المتحدة الأمريكية من سبتمبر ١٩٩١ - أغسطس ١٩٩٣
- ٨- أستاذ زائر بقسم الهندسة الكهربائيه جامعة كانازاوا باليابان من أبريل ١٩٩٦ - أبريل ١٩٩٧
- ٩- أستاذ بقسم الهندسة الكهربائيه جامعة العلوم التطبيقية من 9/2003 حتى 8/2010 ومعار من جامعة اسيوط جمهورية مصر العربيه
- ١٠- أستاذ زائر بالجامعة التكنولوجية بماليزيا من فبراير ٢٠٠٦ - مارس ٢٠٠٦
- ١١- رئيس قسم الهندسة الكهربائيه جامعة أسيوط من سبتمبر ٢٠١٠ - مارس ٢٠١٢
- ١٢- عميد كلية الهندسة جامعة أسيوط من مارس ٢٠١٢ - سبتمبر ٢٠١٣
- ١٣- أستاذ متفرغ قسم الهندسة الكهربائيه كلية الهندسة جامعة أسيوط من سبتمبر ٢٠١٣ حتى الآن
- ١٤- رئيس قسم هندسة الميكاترونيات والروبوتات الجامعة المصريه اليابانيه برج العرب الأسكندريه من نوفمبر ٢٠١٣ - حتى مارس ٢٠١٦
- ١٥- أستاذ قسم هندسة الميكاترونيات والروبوتات الجامعة المصريه اليابانيه برج العرب الأسكندريه من مارس ٢٠١٦ - مارس ٢٠١٧
- ١٦- رئيس قسم هندسة الميكاترونيات والروبوتات الجامعة المصريه اليابانيه برج العرب الأسكندريه من مارس ٢٠١٧ - سبتمبر ٢٠١٨
- ١٧- أستاذ قسم هندسة الميكاترونيات والروبوتات الجامعة المصريه اليابانيه برج العرب الأسكندريه من أكتوبر ٢٠١٨ - أغسطس ٢٠٢٢
- ١٨- أستاذ متفرغ قسم الهندسة الكهربائيه كلية الهندسة جامعة أسيوط من سبتمبر ٢٠٢٢ حتى الآن

مهارات الحاسوب: اجادة التعامل مع الحواسيب الشخصية ونظم Unix

والبرمجه بلغات Fortran, Basic, MATLAB

اللغات: عربيه - انجليزيه درجة الإجاده: ممتاز قراءة - كتابه - محادثه

المقررات الدراسيه التى قمت بتدريسها:

مستوى البكالوريوس: تحكم آلى - تحكم رقمى - تحليل ومعالجة الإشارات - دوائر كهربائيه - الات كهربائيه
الحاكمات المنطقية المبرمجه - خواص المواد الكهربائيه - كهرومغناطيسييه - قياسات كهربائيه - التحكم فى العمليات الصناعيه - التحكم بالحاسب - رياضيات هندسيه - الكتابه الفنيه باللغه الإنجليزيه

الإشراف على مختبرات التحكم الآلى والآلات الكهربائيه -الإشراف على العديد من مشاريع التخرج لطلاب البكالوريوس فى تطبيقات التحكم الآلى فى نظم التعليق المغناطيسى والروبوتات الصناعيه ونظم المؤازره وتطبيقات الحاكمت المنطقيه المبرمجه فى العمليات الصناعيه
مستوى الماجستير والدكتوراه:

نظريات النظم الخطيه - موضوعات متقدمه فى التحكم الآلى - التحكم الرقمى - التحكم الأمثل

الإشراف على رسائل الماجستير والدكتوراه:

أشرفت على عدد من رسائل الماجستير والدكتوراه بجامعة اسيوط جمهورية مصر العربيه جامعة تكساس بالولايات المتحده الأمريكيه جامعة كانازاوا باليابان فى مجال التحكم فى نظم التعليق المغناطيسى والروبوت والآلات الكهربائيه والقوى الكهربائيه

THESIS SUPERVISED

1. "Analysis and Design of Magnetic Levitation Control Systems" M.Sc thesis submitted to the Dept. of Electrical Engineering, Assiut University, 1994.
2. "Design of Robust Prescribed Eigenstructure Controller for Interconnected Power Systems" M.Sc. thesis submitted to the Dept. of Electrical Engineering, Assiut University, 1998.
3. "Performance of 3-Phase Induction Motor Fed By VSI Using PWM Techniques" M.Sc. thesis submitted to the Dept. of Electrical Engineering, Assiut University, 1998.
4. Design of Robust Control for Two-Link Robot" M.Sc. thesis submitted to the Dept. of Electrical Engineering, Assiut University, 1998.
5. Helped in supervising Master and Ph.D theses at the university of Texas at Austin, USA (1991-1993) in the area of "Micro Automation".
6. Helped in supervising a Ph.D thesis at Kanazawa University, Japan (1996-1997) in the area of "Unbalance Control of Magnetic Bearing Systems".
7. "Modern Robust Control of Magnetic Bearings With Imbalanced Rotor." Ph.D. thesis submitted to the Dept. of Electrical Engineering, Assiut University, 2002.
8. "Robust Control of A Two Area Power System," M.Sc thesis submitted to the Dept. of Electrical Engineering, Assiut University, 2004.
9. "Discretization of Continuous Time Controllers," M.Sc thesis submitted to the Dept. of Electrical Engineering, Assiut University, 2005.
10. "Intelligent Control of Unstable Nonlinear System," M.Sc thesis submitted to the Dept. of Electrical Engineering, Assiut University, 2007.
11. "A Fault-Tolerant Scalable Dynamic Hierarchical Scheduler For Grid Computing," M.Sc thesis submitted to the Dept. of Electrical Engineering, Assiut University, 2013.
12. "ECG Signal Compression Algorithms In Wireless Data Transmission Context," M.Sc thesis submitted to the Dept. of Electrical Engineering, Assiut University, 2014.
13. "Intrusion Detection System in Telecommunication Network," M.Sc thesis submitted to the Dept. of Electrical Engineering, Assiut University, 2015.
14. "Haptic Control Development of Robotic Arm," M.Sc thesis submitted to the Dept. of Mechanical Engineering, Assiut University, 2015.
15. "Motion Control of a Skid Steering Mobile Robot," Ph.D thesis submitted to the Dept. of Mechatronics and Robotics Engineering, Egypt-Japan University of Science and Technology, 2015.
16. "Design and Control of Contactless Robotic Joint Using Magnetic Bearing," M.Sc thesis submitted to the Dept. of Mechatronics and Robotics Engineering, Egypt-Japan University of Science and Technology, 2015.

17. "Controller Design and Implementation of Transformation /Manipulation of System for a Novel Ground/Aerial Robot" M.Sc thesis submitted to the Dept. of Mechatronics and Robotics Engineering, Egypt-Japan University of Science and Technology, 2016.
18. "Synthesis of a Hybrid brain for Humanoid Robot" M.Sc thesis submitted to the Dept. of Mechatronics and Robotics Engineering, Egypt-Japan University of Science and Technology, 2017.
19. "Versatile Climbing Robot for Industrial Vessels Inspection" Ph.D thesis submitted to the Dept. of Mechatronics and Robotics Engineering, Egypt-Japan University of Science and Technology, 2017.
20. "Dynamic Analysis and Control of a Novel All-Terrains Wearable Vehicle" M.Sc thesis submitted to the Dept. of Mechatronics and Robotics Engineering, Egypt-Japan University of Science and Technology, 2017.
21. "Dynamic Modelling and Controller Design /Implementation of a Novel 3D Translational Pantograph Manipulator" Ph.D thesis submitted to the Dept. of Mechatronics and Robotics Engineering, Egypt-Japan University of Science and Technology, 2017.
22. "Design and Implementation of a Novel 3D Translational Pantograph Manipulator" Ph.D thesis submitted to the Dept. of Mechatronics and Robotics Engineering, Egypt-Japan University of Science and Technology, 2017.
23. "Design, Dynamic Modeling and Control of a Novel 3D Compliant Pantograph Manipulator for Micromanipulation" Ph.D thesis submitted to the Dept. of Mechatronics and Robotics Engineering, Egypt-Japan University of Science and Technology, 2017.
24. "Design and Control of a Magnetic Bearing System for Horizontal Axis Wind Turbine" Ph.D thesis submitted to the Dept. of Mechatronics and Robotics Engineering, Egypt-Japan University of Science and Technology, 2017.
25. "Design, Control, and Implementation of a New Dexterous Parallel Manipulator for Minimally Invasive Surgery" Ph.D thesis submitted to the Dept. of Mechatronics and Robotics Engineering, Egypt-Japan University of Science and Technology, 2018.
26. "Design and Control of a Robot with Multiple Contactless Joints Using Active Magnetic Bearing" Ph.D thesis submitted to the Dept. of Mechatronics and Robotics Engineering, Egypt-Japan University of Science and Technology, 2018.
27. "Design and Implementation of a Novel All-Terrains Wearable Vehicle" Ph.D thesis submitted to the Dept. of Mechatronics and Robotics Engineering, Egypt-Japan University of Science and Technology, 2019.
28. "Optimal design of renewable energy resources with energy storage systems " Ph.D thesis submitted to the Dept. of Energy Resources Engineering, Egypt-Japan University of Science and Technology, 2019.
29. "Optimal Design of Micro Energy Grid with Operating Conditions Variations" Ph.D thesis submitted to the Dept. of Energy Resources Engineering, Egypt-Japan University of Science and Technology, 2020.
30. "Efficient Model Predictive Control Based on Linear Parameter-Varying Representations with Application to Magnetic Bearing Systems" Ph.D thesis submitted to the Dept. of Mechatronics and Robotics Engineering, Egypt-Japan University of Science and Technology, 2021.
31. "SOLAR PHOTOVOLTAIC PANEL BASED PUMPING SYSTEMS: A SOLUTION WITHOUT BATTERIES" Ph.D thesis submitted to the Dept. of Energy Resources Engineering, Egypt-Japan University of Science and Technology, 2021.
32. "Modeling and Flight Control of Small/Micro Sized UAVs with Active Morphing Wings" Ph.D thesis submitted to the Dept. of Mechatronics and Robotics Engineering, Egypt-Japan University of Science and Technology, 2021.

33. "Design and Implementation of A new Interconnected Translational Manipulator." Ph.D thesis submitted to the Dept. of Mechatronics and Robotics Engineering, Egypt-Japan University of Science and Technology, 2022.
34. "Optimal Design and Control of a New Interconnected Industrial Robot," M.Sc thesis submitted to the Dept. of Mechatronics and Robotics Engineering, Egypt-Japan University of Science and Technology, 2022.
35. "Design and Control of a Photo voltaic System for Solar-Powered Exploration Robots" Ph.D thesis submitted to the Dept. of Mechatronics and Robotics Engineering, Egypt-Japan University of Science and Technology, 2022.
36. "Development of a Compliant Robotic Leg Based on a New Biarticular Actuation with Series Elastic Actuator" M.Sc thesis submitted to the Dept. of Mechatronics and Robotics Engineering, Egypt-Japan University of Science and Technology, 2022.
37. "Development of an Autonomous Assistive Robotic System for Oral Intake Assistance of People with Disability" M.Sc thesis submitted to the Dept. of Mechatronics and Robotics Engineering, Egypt-Japan University of Science and Technology, 2022.
38. "Development of a Compliant Wrist Rehabilitation Device" M.Sc thesis submitted to the Dept. of Mechatronics and Robotics Engineering, Egypt-Japan University of Science and Technology, 2022.
39. "Intelligent Tracking Control of a D-C Motor," thesis submitted to the Dept. of Electrical Engineering, Assiut University, 2002
40. "Intrusion Detection System in Telecommunication Network," thesis submitted to the Dept. of Electrical Engineering, Assiut University, 2015
41. " ECG Signal Compression Algorithms In Wireless Data Transmission Context " ,thesis submitted to the Dept. of Electrical Engineering, Assiut University, 2014
42. "A Fault-Tolerant Scalable Dynamic Hierarchical Scheduler For Grid Computing," thesis submitted to the Dept. of Electrical Engineering, Assiut University, 2013
43. " Discretization of Continuous Time Controllers" thesis submitted to the Dept. of Electrical Engineering, Assiut University, 2005

عضوية المؤسسات والجمعيات:

عضو مدى الحياة مميز Senior Life في الجمعيه الأمريكيه لمهندسى الكهرباء والإلكترونيات IEEE
 عضو نقابة المهندسين المصريين
 عضو لجنة قطاع الدراسات الهندسيه من مارس ٢٠١٢ الى سبتمبر ٢٠١٣

معلومات أخرى:

عضو اللجنه العلميه الدائمه لترقيات الأساتذه والأستاذه المساعدين بالمجلس الأعلى للجامعات
 تخصص هندسة النظم والحاسبات من سبتمبر ٢٠١٩ حتى الآن
 عضو اللجنه الدوليه للمؤتمر الدولى الثانى لنظم التحكم والميكاترونيات الذى عقد فى مدينة مالاقا بماليزيا
 يونيو ٢٠٠٩ وتحكيم العديد من الأبحاث فيه
 عضو اللجنه الدوليه للمؤتمر الدولى الخامس لنظم التعليق المغناطيسى الذى عقد فى مدينة كانازاوا باليابان
 أغسطس ١٩٩٦ وتحكيم العديد من الأبحاث فيه
 عضو اللجنه الدوليه للمؤتمر الدولى السادس لنظم التعليق المغناطيسى الذى عقد فى ولاية ماساشوسيتس
 بالولايات المتحدة الأمريكية أغسطس ١٩٩٨ وتحكيم العديد من الأبحاث فيه

عضو اللجنة الدولية للمؤتمر الدولي السابع لنظم الهندسيه الذكيه الذى عقد فى مدينة أسيوط جمهورية مصر العربيه
مارس ٢٠٠٣ وتحكيم العديد من الأبحاث فيه

عضو اللجنة الدولية لمؤتمر الشرق الأوسط لنظم القوى الكهربائيه لعام ١٩٩٦ الذى عقد فى مدينة الأقصر
جمهورية مصر العربيه يناير ١٩٩٦ وتحكيم العديد من الأبحاث فيه

تحكيم العديد من الأبحاث لمجلة IEEE Transactions on Control Systems Technology

فى مجال التحكم فى نظم التعليق المغناطيسى

تحكيم بحث للمؤتمر الدولي الأمريكى للتحكم الآلى American Control conference لعام

٢٠٠٠ الذى عقد فى ولاية شيكاغو بالولايات المتحده الأمريكيه

تحكيم العديد من الأبحاث لمجلة العلوم الهندسيه بكلية الهندسه جامعة اسيوط جمهورية مصر العربيه

تحكيم رسالة ماجستير بقسم الهندسه الكهربائيه بالمعهد العالى للطاقة بأسوان جمهورية مصر العربيه عام ٢٠٠١

تحكيم رسالتى ماجستير بقسم الهندسه الكهربائيه بجامعة المنيا جمهورية مصر العربيه عام ٢٠٠٢ و ٢٠٠٣

تحكيم رسالة دكتوراه بقسم هندسة الطيران بجامعة القاهره عام ٢٠٠٦

الحصول على جائزة احسن بحث بقسم الهندسه الكهربائيه جامعة اسيوط جمهورية مصر العربيه عام ١٩٩٨ و عام ٢٠٠٣

عضو اللجنة الدولية للمؤتمر الدولي الثانى لنظم التحكم والقياسات وهندسة الميكاترونك الذى عقد فى مدينة مالاکا بماليزيا
يونيو ٢٠٠٩ وتحكيم العديد من الأبحاث فيه.

Google scholar H-index: 17

Scopus H-index: 14

ResearchGate H-index: 14

حضور المؤتمرات:

حضرت العديد من المؤتمرات العلميه العالميه والمحليه بالولايات المتحده الأمريكيه

واليابان وجمهورية مصر العربيه والأردن فى مجال التحكم الآلى

1. SIAM Conference, "CONTROL in the 90's, San Francisco, California USA, May 1989.
2. IEEE Conference on Decision and Control, Tampa, Florida, USA, December 1989.
3. American Society of Mechanical Engineers, Winter Annual Meeting, Atlanta, Georgia, USA, November 1991.
4. American Society of Precision Engineering, 7th Annual Meeting, Orlando Florida, USA, October 1992.
5. IEEE Conference on Aerospace Control Systems, Thousands Oaks, California, USA, May 1993.
6. American Control Conference, San Francisco, California, USA, June 1993.
7. American Control Conference, Baltimore, Maryland, USA, June 1994.
8. The fifth International Symposium on Magnetic Bearings, Kanazawa, Japan, August 1996.
9. IEEE Conference on Decision and Control, Kobe, Japan, December 1996.
10. IEEE Conference on Control Applications, Hartford Connecticut, USA October, 1997.
11. The Fourth IEEE Conference on Electronics, Circuits and Systems, Cairo, Egypt December 1997.
12. American Control Conference, Philadelphia, Pennsylvania, USA, June 1998.
13. American Control Conference, San Diego, California, USA, June 1999.
14. American Control Conference, Arlington, Virginia, USA, June 2001.
15. 7th International Conference on Intelligent Engineering Systems, March 2002, Assiut-Luxor, Egypt.

16. 1st International Conference on Telecomputing & Information Technology, September 2004, Applied Science University, Amman Jordan.
17. 1st International Conference on Innovative Engineering systems, ICIES2012, December 2012, E-JUST, Alexandria, Egypt.

خدمة المجتمع:

تدريس دورات تدريبية لرفع كفاءة المهندسين في شركات الألومنيوم بنجع حمادى - الأسمت بأسيوط
السماذ بأسيوط جمهورية مصر العربية في مجال التحكم الآلى وتطبيقات الحاكامات المبرمج
في العمليات الصناعيه
الإشتراك في دراسة لتحسين اداء الشبكات الكهربائيه لمصانع شركة السكر المصريه
جمهورية مصر العربية

الأبحاث العلميه

Journal Papers:

1. Magdy Mohsen, **Abdelfatah M. Mohamed**, S.M. Ahmed, and Khalil Ibrahim, "Bilateral Control of A 2-DOF Teleoperated Manipulator Using UDP Scheme," Ain Shams Engineering Journal <https://doi.org/10.1016/j.asej.2022.102065>
2. Mwayi Yellewa, **Abdelfatah Mohamed**, Hiroyuki Ishii and Samy F. M. Assal, "Design and Hybrid Impedance Control of a New Compliant Wrist Rehabilitation Device," submitted for publication to Part C: Journal of Mechanical Engineering Science. QU = 2 , IF = 1.762
3. Abdonoor kalibala; **Abdelfatah Mohamed**; Shinjiro Umezu; Samy F. M Assal, "Dynamic Modeling and Hybrid Compliant Control for a 2-DOF Compliant Robotic Leg With a New Biarticular Actuation", submitted for publication to Journal of Control, Automation and Systems. QU = 2 , IF = 3.314
4. Amos Alwala, Haitham El-Hussieny, **Abdelfatah Mohamed**, Kiyotaka Iwasaki, Samy F. M. Assal, "Hybrid Impedance Control-Based Autonomous Robotic System for Natural-Like Drinking Assistance for Disabled Persons," International Journal of Control, Automation and Systems. <http://dx.doi.org/10.1007/s12555-022-0690-7>, 21(6) (2023) 1978-1992. QU = 2 , IF = 3.314.
5. Diao E. Abdelfatah, **Abdelfatah M. Mohamed**, and Mohamed Fanni, "Modeling and Flight Control of Small UAV with Active Morphing Wings" Journal of Intelligent & Robotic Systems. QU = 1, IF = 2.646. Published online: 5 October 2022, <https://doi.org/10.1007/s10846-022-01740-y>
6. Abdelrahman Morsi, Hossam S. Abbas, Sabah M. Ahmed and **Abdelfatah M. Mohamed**, "Imbalance Compensation of Active Magnetic Bearing Systems Using Model Predictive Control Based on Linear Parameter-Varying Models". Journal of Vibration and Control, April 2022. QU = 1, IF = 3.095. (<https://doi.org/10.1177/10775463221099074>)
7. Essam Mahmoud, Mohamed Fanni and **Abdelfatah M. Mohamed**, "A New Battery Selection System and Charging Control of a Movable Solar Powered Charging Station for Endless Flying Killing Drones," Sustainability February 2022. QU = 2, IF=2.592 Sustainability 2022, 14, issue 4, 2071. <https://doi.org/10.3390/su14042071>

8. Ahmed S. Abdelaziz, Mohamed Fanni, Victor Parque , and **Abdelfatah M. Mohamed**, “Development of a Balanced 3D Translational Interconnected Manipulator with Solely Rotary Joints/Actuators and Free-Internal-Singularity Workspace” IEEE ACCESS, January 2022 Vol. 10, PP. 167880 – 167899. DOI:[10.1109/ACCESS.2021.3136779](https://doi.org/10.1109/ACCESS.2021.3136779). QU = 2, IF = 3.745
9. Diaa E. Abdelfatah, Mohamed Fanni, **Abdelfatah M. Mohamed**, and Shigeo Yoshida “Low-Computational-Cost Technique for Modeling Macro Fiber Composite Piezoelectric Actuators Using Finite Element Method” materials, Vol. 14 No. 15, August, 2021, <https://doi.org/10.3390/ma14154316> QU = 2, IF = 3.623
10. Ahmed S. Abdelaziz, Mohamed Fanni, and **Abdelfatah M. Mohamed**, “Finite Element Analysis, Control and Simulation of a Novel 3D Hybrid Balanced Manipulator” International Journal of Mechanical & Mechatronics Engineering IJMME-IJENS Vol:21 No:01, 2021. QU = 2, SJR= 0.29
11. Abdelrahman Morsi, Hossam S. Abbas, Sabah M. Ahmed and **Abdelfatah M. Mohamed**, “Model Predictive Control Based on Linear Parameter-Varying Models of Active Magnetic Bearing Systems. IEEE ACCESS, January 2021 Vol. 9. [10.1109/ACCESS.2021.3056323](https://doi.org/10.1109/ACCESS.2021.3056323). QU = 1, IF = 3.745
12. Neama Yussif, Omar H. Sabry, Ayman S. Abdel-Khalik, Shehab Ahmed, and **Abdelfatah M. Mohamed** “ Enhanced Quadratic V/f-Based Induction Motor Control of Solar Water Pumping System.” **Energies 2021, 14, 104.** <https://dx.doi.org/10.3390/en14010104>. QU = 2, IF = 2.702
13. Alaa Farah, Hamdy Hassan, Alaaeldin M. Abdelshafy , and **Abdelfatah M. Mohamed**, “Optimal Scheduling of Hybrid Multi-carrier System Feeding Electrical/Thermal Load Based on Particle Swarm Algorithm,” Sustainability, <https://doi.org/10.3390/su12114701> June 2020. QU = 2, IF=2.592
14. Maha Salman, Ahmed Sameh, Mohamed Fanni, Shigeki Sugano, and **Abdelfatah M. Mohamed**, “Design, Control, and Dynamic Simulation of Securing and Transformation Mechanisms for a Hybrid Ground Aerial Robot”, International Journal of Mechanical & Mechatronics Engineering, Vol:20 No:02, 2020. **QU = 2**
15. Alaaeldin M. Abdelshafy, Jakub Jurasz, Hamdy Hassan, **Abdelfatah M. Mohamed**, “Optimized energy management strategy for grid connected double storage (pumped storage-battery) system powered by renewable energy resources,” Journal of Energy, [Volume 192](https://doi.org/10.1016/j.energy.2019.116615), 1 February 2020, 116615. <https://doi.org/10.1016/j.energy.2019.116615>. IF=5.537.
16. *Mohamed G. Alkalla, Mohamed A. Fanni, **Abdelfatah M. Mohamed**, Shuji, Hashimoto, Hideyuki Sawada, Miwa Takanobu, and Amr Hamed “EJBot-II: An Optimized Skid Steering Propeller-type Climbing Robot with Transition Mechanism,” Journal of Advanced Robotics, <https://doi.org/10.1080/01691864.2019.1657948> , Volume 33, 2019 - Issue 20, August 2019.*
17. Omar Ibn Elkhatib Zahra, Mohamed Fanni and **Abdelfatah M. Mohamed**, “Synthesis of a Hybrid Brain for a Humanoid Robot,” Journal of Robotics and Autonomous Systems, Vol.119, 135–150 July 2019. <https://doi.org/10.1016/j.robot.2019.05.006>
18. Mohamed Selmy, Mohamed Fanni, and Abdelfatah M. Mohamed, and Tomoyuki Miyashita “A New Novel 6-DOF Two-Link Manipulator using Active Magnetic Bearing: Design, Kinematics

and Control,” *International Journal of Advanced Robotic Systems*, December 2018.
<https://journals.sagepub.com/doi/10.1177/1729881418817634>

19. Bikheet M. Sayed, Mohamed Fanni, and **Abdelfatah M. Mohamed**, "Design and Control of a Novel All-Terrains Wearable Vehicle," *accepted for publications in the Industrial Robots: An International Journal*. <https://www.emerald.com/insight/content/doi/10.1108/IR-03-2018-0042/full/html> November 2018.
20. M. Fekry, **Abdelfatah M. Mohamed**, Mohamed Fanni, and S. Yoshida, "A Comprehensive Performance Assessment of the Integration of Magnetic Bearings with Horizontal Axis Wind Turbine," *Mathematics and Computers in Simulation (Elsevier)*, <https://doi.org/10.1016/j.matcom.2018.06.011>, July 2018.
21. Manar Lashin, Abdullah T. Elgammal , Mohamed Fanni, **Abdelfatah M. Mohamed**, and Tomoyuki Miyashita "Optimal Controller Design for Fully Decoupled 3D Transnational Pantograph Manipulator for High-Speed Pick and Place", *Accepted for publication in the International Journal of Mechatronics and Automation*, May 2018.
22. Alaa Khalifa, Mohamed Fanni, **Abdelfatah M. Mohamed**, and Tomoyuki Miyashita, "Development of a New 3-DOF Parallel Manipulator for Minimally Invasive Surgery", *The International Journal of Medical Robotics and Computer Assisted Surgery*, March 2018, <https://onlinelibrary.wiley.com/doi/abs/10.1002/rcs..>
23. Alaa M. Khalifa, Mohamed Fanni, **Abdelfatah M. Mohamed**, and Tomoyuki Miyashita "Geometrical/Analytical Approach for Reciprocal Screws-Based Singularity Analysis of a Novel Dexterous Minimally Invasive Manipulator," *Journal: Robotics and Autonomous*, Sep. 2017. , <https://doi.org/10.1016/j.robot.2017.09.005> Vol. 98 (2017) p. 56–66
24. Mahmoud Magdy, Mohamed Fanni, **Abdelfatah M. Mohamed**, and Tomoyuki Miyashita "Kinematic Design and Novel Mobility Analysis of a New 3D Pantograph Decoupled Manipulator," *ScienceDirect. Journal Mechanism and Machine Theory*, Volume 117, November 2017, Pages 253–275
25. Abdelrahman Morsi, Hossam S. Abbas, and **Abdelfatah M. Mohamed**, "Wind Turbine Control based on a modified Model Predictive Scheme for Linear Parameter Varying Systems" *IET Control Theory & Applications* doi: 10.1049/iet-cta.2017.0426, Sep. 2017. Volume 11, Issue 17, 24 November 2017 p. 3056 –3068
26. Manar Lashin, Mohamed Fanni, **Abdelfatah M. Mohamed**, and Tomoyuki Miyashita, "Dynamic Modeling and Inverse Optimal PID with Feed-Forward Control in H_∞ Framework for a Novel 3D Pantograph Manipulator," *International Journal of Control, Automation and Systems* 16(X) (2018) 1-16 <http://dx.doi.org/10.1007/s12555-016-0740-0>. Vol. 16, No. 1, February 2018, p. 39-54
27. Mohamed G. Alkalla, Mohamed A. Fanni, and **Abdelfatah M. Mohamed**, Shuji Hashimoto, "Tele-operated Propeller type Climbing Robot for Inspection of Petrochemical Vessels," *Industrial Robot: An International Journal*, Vol. 44 Issue: 2,pp. 166-177. doi: 10.1108/IR-07-2016-0182
28. Abdullah T. Elgammal, Mohamed Fanni, and **Abdelfatah M. Mohamed**, "Design and Analysis of a Novel 3D Decoupled Manipulator Based on Compliant Pantograph for Micromanipulation," *Journal of Intelligent & Robotic Systems*, July 2017, Volume 87, Issue 1, pp 43–57, DOI 10.1007/s10846-016-0452-y.
29. Ahmed Asker, Samy F. M. Assal, Ming Ding, Jun Takamatsu, Tsukasa Ogasawara, and **Abdelfatah M. Mohamed**, "Modeling of natural sit-to-stand movement based on minimum jerk criterion for natural-like assistance and rehabilitation," *Advanced Robotics*, Taylor& Francis, vol. 31, no. 17, pp. 901-917, Oct. 2017. IF: 0.92
30. Mohamed G. Alkalla, Mohamed Fanni, and **Abdelfatah M. Mohamed**, "Propeller Type Skid Steering Climbing Robot Based On A Hybrid Actuation System", *International Journal of*

Robotics and Automation, ACTA press, April 2017. DOI: [10.2316/Journal.206.2018.3.206-5017](https://doi.org/10.2316/Journal.206.2018.3.206-5017)

31. M. Fekry, **Abdelfatah M. Mohamed** and M. Fanni , “Robust Q-parametrization control for Non-linear Magnetic bearing Systems with Imbalance based on TSK Fuzzy Model” *International Journal of Modeling, Identification and Control*, Vol. 29, No. 3, 2018 pp.195–208.
32. Osama Elshazly, Zakarya Zyada, **Abdelfatah M. Mohamed**, “Genetic-based control of a skid steering mobile robot,” Accepted for publication in *International Journal of Mechanisms and Robotic Systems*, Vol. 3, No. 4, 2016
33. Tarek M. Refaat, Tarik K. Abdelhamid, **Abdelfatah M. Mohamed**, “Wireless Local Area Network Security Enhancement through Penetration Testing,” *International Journal of Computer Networks and Communications Security*. Vol. 4, No. 4, April 2016, pp. 114–129
34. M. M. Abo-Zahhad, Aziza I. Hussein, **Abdelfatah M. Mohamed**, “ECG Signal Compression Technique Based on DWT and Exploitation of Interbeats and Intrabeats Correlations,” *JES, Assiut University, Faculty of Engineering*, Vol. 43, No. 6, November 2015.
35. M. M. Abo-Zahhad, Aziza I. Hussein, **Abdelfatah M. Mohamed**, “Compression of ECG Signal Based on Compressive Sensing and the Extraction of Significant Features,” *Int. J. Communications, Network and System Sciences (IJCNS)*, Vol. 8, No. 4, April, 2015 pp. 97-117.
36. M. M. Abo-Zahhad, Aziza I. Hussein, **Abdelfatah M. Mohamed**, “Compressive Sensing Algorithms for Signal Processing Applications: A Survey,” *Int. J. Communications, Network and System Sciences (IJCNS)*, Vol. 8, No. 6, June, 2015 pp. 197-216.
37. A. Abo-Elsoud, **Abdelfatah M. Mohamed**, “Adaptive Controller For Stabilization of Rotational Motion of A Vertical Shaft Magnetic Bearing,” *International Journal of Modeling, Identification and Control*, Vol. 23, No. 2, 2015, pp. 154-163.
38. **Abdelfatah M. Mohamed**, “Q-Parameterization/ μ Control of A CSI-Fed Induction Motor Drive System,” *International J. Automation, and Control*, Vol. 9, No. 1, 2015, pp 71-88.
39. M. A. Hussein, A. S. Ali, A. B. Sharkawy, and **Abdelfatah M. Mohamed**, ”Haptic Control Development of Robotic Arm,” *Int. J., Control, Automation, and Systems*, Vol, 3, No.3 July 2014.
40. M. M. Abo-Zahhad, T. K. Abdel-Hamid, **Abdelfatah M. Mohamed**, “Compression of ECG Signals Based on DWT and Exploiting the Correlation between ECG Signal Samples,” *Int. J. Communications, Network and System Sciences(IJCNS)*, Vol. 7, No. 1, Jan, 2014 pp. 53-70
41. M. Faisal Elrawy, T. K. Abdel-Hamid, **Abdelfatah M. Mohamed**, “IDS in Telecommunication Network using PCA,” *International Journal of Computer Networks & Communications(IJCNC)*., Vol. 5, No. 4, pp. 147-157 2013.
42. G. Abdel-Raheem, **Abdelfatah M. Mohamed**, A. Abdel-Fatah, and H. I. Hassan, ”Intelligent Control of Magnetic Suspension Systems,” *Journal of Engineering Sciences*, Assiut University, Assiut, Egypt, Vol, 34, No. 3, May 2006.
43. Ahmed N. A. Mohamed, Mohamed M. M. Hassan, and **Abdelfatah M. Mohamed**,” Design Of Robust Load Frequency Controller For A Hydrothermal Power System Using Q-parameterization Theory,” *Journal of Engineering Sciences*, Assiut University, Assiut, Egypt, Vol, 31, No. 3, July 2003.
44. Y. Sayed, M. Abdelsalam, **Abdelfatah M. Mohamed**, and S. Abou-Shadi,”Design of Robust Controller for Vector Controlled Induction Motor Based on Q-parameterization Theory,” *Electrical Power Components and Systems*, Vol. 30 981-999, 2002.
45. Y. Sayed, S. Abou-Shadi, **Abdelfatah M. Mohamed**,” Controller Design Based on Q-parameterization For Controlling The SSR Modes In a Series Compensated Power System,” *Journal of Engineering Sciences*, Assiut University, Assiut, Egypt, Vol, 30, No. 4, October 2002

46. I. M. M. Hassan and **Abdelfatah M. Mohamed**, "Variable Structure Control of A Magnetic Levitation system," *Bulletin of the Faculty of Engineering, Assiut University, Assiut, Egypt*, Vol. 28, No. 2, June 2000.
47. **Abdelfatah M. Mohamed**, "Robust Stability and Performance Control Using Q-Parameterization/ μ Synthesis," *Bulletin of the Faculty of Engineering, Assiut University, Assiut, Egypt*, Vol. 26, No. 1, January 1998.
48. L. JunHo, **Abdelfatah M. Mohamed**, and F. Matsumura, "Experimental Evaluation Of Q-parameterization Controllers To A Magnetic Bearing With Imbalance," *Transactions of the IEE in Japan*, Vol. 117-D, No. 10, pp.1212-1220, October 1997.
49. K. Park, J. Yi, S. Kim, Y. Kwak, **Abdelfatah M. Mohamed**, and I. Busch-Vishniac, "Robust Force Control For Magnetically Levitation Manipulator Using Flux Density Measurement," *Control Engineering Practice*, Vol. 4, Issue 7, July 1996, Pages 957-965.
50. **Abdelfatah M. Mohamed** and I. Busch-Vishniac, "Imbalance Compensation and Automatic Balancing In Magnetic Bearing Systems Using The Q-parameterization Theory," *IEEE Transactions on Control Systems Technology*, Vol. 3, No. 2, pp. 202-211, June 1995.
51. **Abdelfatah M. Mohamed**, B. Vestgaard, and I. Busch-Vishniac, "Real Time Implementation Of A Robust H_{∞} Controller For A 2-DOF Magnetic Micro-Levitation Positioner," *ASME Journal of Dynamic Systems, Measurements and Control*, Vol. 117, pp. 637-640, Dec. 1995.
52. **Abdelfatah M. Mohamed** and F. P. Emad, "Conical Magnetic Bearings with Radial and Thrust Control," *IEEE Transactions on Automatic Control*, Vol. AC-37, No. 12, pp. 1859-1868, Dec. 1992.
53. **Abdelfatah M. Mohamed** and F. P. Emad, "Nonlinear Oscillations In Magnetic Bearing Systems," *IEEE Transactions on Automatic Control*, Vol. AC-38, No. 8, pp. 1242-1245, Aug. 1993.
54. N. H. Fetih, H. M. El-Shewy and **Abdelfatah M. Mohamed**, "Optimal Design of Reluctance-Augmented Shaded-Pole Motors With Two Shading Coils," *Bulletin of the Faculty of Engineering, Assiut University, Assiut, Egypt*, Vol. 11 No. 3, pp. 57-66, July, 1983.
55. N. H. Fetih, H. M. El-Shewy, and **Abdelfatah M. Mohamed**, "Optimal Design of Reluctance Augmented Shaded-Pole Motors With One Shading Coil," *Bulletin of The Faculty of Engineering, Assiut University, Assiut, Egypt*, Vol.11, No. 1, January, 1983.

Conference Papers:

1. Ahmed Gamal, **Abdelfatah Mohamed**, Hiroyasu Iwata and Samy F. M. Assal, "Optimum Design of a Wire-Driven Redundant Spherical Parallel Manipulator for Foot Drop Rehabilitation System," Accepted for publications in the 48th Annual Conference of the IEEE Industrial Electronics Society (IECON 22), October 17- 20, 2022, Brussels, Belgium.
2. Mwayi Yellewa, **Abdelfatah Mohamed**, Hiroyuki Ishii and Samy F. M. Assal, "Design and Hybrid Impedance Control of a Compliant and Balanced Wrist Rehabilitation Device," Accepted for publications in the 48th Annual Conference of the IEEE Industrial Electronics Society (IECON 22), October 17- 20, 2022, Brussels, Belgium.
3. Abdonoor Kalibala, **Abdelfatah Mohamed**, Shinjiro Umezumi and Samy F. M. Assal, "Modeling and Hybrid Compliant Control for a 2-DOF Robotic Leg With a New Biarticular Actuation," in Proc. of the 12th IEEE Int. Conf. on CYBER Technology in Automation, Control, and Intelligent Systems (IEEE-CYBER 2022), Changbai Mountain, China, July 27 – 31, 2022
4. Amos Alwala, Haitham El-Hussieny, **Abdelfatah Mohamed**, Kiyotaka Iwasaki and Samy F. M. Assal, "On the Development of Autonomous Assistive Robotic System for Drinking Task for People with Disability," Proceedings of the IEEE International Conference on Advanced Robotics and its Social Impacts, May 28-30, 2022, Long Beach, California, USA

5. Ezz El-Din Nehad Mostafa, Mohamed Fanni, and **Abdelfatah M. Mohamed**, "Concurrent Design for Gravity-Balancing and Rigidity Enhancing of a New Interconnected Manipulator," accepted for publication in the International Mechanical Engineering Congress and Exposition, IMECE2021, Virtual Conference, November 1-5, 2021. Rank A
6. Abdelrahman Morsi, Hossam S. Abbas, Sabah M. Ahmed and **Abdelfatah M. Mohamed**, "Model Predictive Control for an Active Magnetic Bearing System," Proceedings of the 2020 IEEE 7th International Conference on Industrial Engineering and Applications (ICIEA 2020), Bangkok, Thailand, April 16-18, 2020
7. Essam Mahmoud, Mohamed Fanni and **Abdelfatah M. Mohamed**, "Design and Task Management of a Mobile Solar Station for Charging Flying Drones," Proceedings of the 2020 International Conference on Clean and Green Energy (ICCGE 2020), Parcelona, Spain, February 10-12, 2020
8. Diao E. Abdelfatah, Mohamed Fanni, and **Abdelfatah M. Mohamed**, "New Efficient Technique for Finite Element Modeling of Macro Fiber Composite Piezoelectric Materials," Proceedings of the 8th International Conference on Material Science and Engineering Technology (ICMSET 2019), Singapore, October 19-21, 2019.
9. Neama Yussif, Ayman S. Abdel-Khalik and **Abdelfatah M. Mohamed** "An Improved Quadratic V/f-Based Control of Photovoltaic Battery-Less Induction Motor Driven Water Pumping System" Proceedings of the 7th International Conference on Sustainable Energy Engineering and Application 2019 (ICSEEA 2019), Tangerang, Indonesia, October 23-24, 2019.
10. Ahmed S. Abdelaziz, Mohamed Fanni, and **Abdelfatah M. Mohamed**, "New 3D Translational Interconnected Manipulator for Industrial Applications," Proceedings of The 2018 IEEE International Conference on Mechatronics and Automation (ICMA 2018), Changchun, China August 5-8, 2018
11. Maha Salman, Mohamed Fanni, **Abdelfatah M. Mohamed**, "Modeling and control of a new aerial manipulation system of a Hybrid Ground Aerial Robot", Proceedings of the 2018 IEEE International Conference on Industrial Technology (ICIT 2018), Lyon, France, February 20-22, 2018.
12. Ibrahim Seleem, Samy Assal, **Abdelfatah M. Mohamed**, "Cyclic Gait Planning and Control of Underactuated Five-Link Biped Robot During Single Support and Impact Phases for Normal Walking", Proceedings of the 2018 IEEE International Conference on Industrial Technology (ICIT 2018), Lyon, France, February 20-22, 2018.
13. Alaaeldin M. Abdelshafy, Hamdy Hassan, **Abdelfatah M. Mohamed**, G. el-saady, Shinichi Ookawara, "Multi-Objective Genetic Algorithm Optimal Planning and Scheduling of Hybrid Energy System Connected to the Egyptian Grid," 16th International Conference on Sustainable Energy Technologies 17th - 20th of July 2017, Bologna, IT
14. Alaaeldin M. Abdelshafy, Hamdy Hassan, **Abdelfatah M. Mohamed**, G. El-Saady, Shinichi Ookawara, "Optimal Grid Connected Hybrid Energy System for Egyptian Residential Area," Proceedings of the 2017 International Conference on Sustainable Energy Engineering and Application (ICSEEA), October 23-26, 2017, Jakarta, Indonesia.
15. Alaa Farah, Hamdy Hassan, **Abdelfatah M. Mohamed**, G. El-Saady, Shinichi Ookawara, "Optimal Sizing of Micro Energy grid Based on Multiobjective Particle Swarm Algorithm," Proceedings of the 16th International Conference on Sustainable Energy Technologies – SET 2017, 17 - 20 of July 2017, Bologna, Italy.
16. Abdullah T. Elgammal, Mohamed Fanni, Manar Lashin, Mahmoud Magdy, and **Abdelfatah M. Mohamed**, "Parametric Design and Analysis of a New 3D Compliant Manipulator for Micromanipulation," accepted for publication in 2017 IEEE International Conference on Advanced Intelligent Mechatronics, Munich, Germany, July 3-7, 2017

17. Mohamed Selmy, Mohamed Fanni, and **Abdelfatah M. Mohamed**, "Micro/Macro-Positioning Control of A Novel Contactless Active Robotic Joint Using Active Magnetic Bearing," Proceedings of the 18th International conference on Industrial Technology (ICIT), Toronto, Canada, March, 22-25, 2017.
18. Mohamed Selmy, Mohamed Fanni, and **Abdelfatah M. Mohamed**, "Macro/Micro-Positioning Control and Stability Analysis of Contactless Active Robotic Joint Using Active Magnetic Bearing," Proceedings of the [17th IEEE International Conference on Autonomous Robot Systems and Competitions \(ICARSC 2017\)](#), Coimbra, Portugal, on April 26-28, 2017.
19. Omar Ibn Elkhatab Zahra, Mohamed Fanni and **Abdelfatah M. Mohamed**, "Towards a Hybrid Brain-Based Robot," Proceedings of the [17th IEEE International Conference on Autonomous Robot Systems and Competitions \(ICARSC 2017\)](#), Coimbra, Portugal, on April 26-28, 2017.
20. Ahmed Asker, Samy F. M. Assal, Ming Ding, Jun Takamatsu, Tsukasa Ogasawara, **Abdelfatah M. Mohamed**, "Experimental Validation of a Motion Generation Model for Natural Robotics-based Sit to Stand Assistance and Rehabilitation," Proceedings of the 2016 IEEE Conference on Robotics and Biomimetics (ROBIO 2016), Qingdao, China, Dec. 3-7, 2016
21. Alaa M. Khalifa, Mohamed Fanni, and **Abdelfatah M. Mohamed**, "Singularity Analysis of a Novel 4-DOF Surgical Robot," Proceedings of the 2016 3rd International Conference on Information Science and Control Engineering (ICISCE 2016), Beijing, China, July 8-10, 2016.
22. Bikheet M. Sayed, Mohamed Fanni, and **Abdelfatah M. Mohamed**, "Design of a Novel all Terrains Wearable Vehicle," Proceedings of the 2016 3rd International Conference on Information Science and Control Engineering (ICISCE 2016), Beijing, China, July 8-10, 2016.
23. Bikheet Sayed, Mohamed Fanni and Abdelfatah M. Mohamed, "Design of a Novel Hybrid Exoskeleton for Mass Handling", ACIRS – Tokyo, sponsored by IEEE, 20-24 July, 2016.
24. Manar Lashin, Mahmoud Magdy, Mohamed Fanni, and **Abdelfatah M. Mohamed**, "PD Type of Fuzzy Controller for a New 3DOF Fully Decoupled Translational Manipulator," Proceedings of the 2016, 2nd International Conference on Control, Automation and Robotics (ICCAR 2016), Hong Kong, April 28-30, 2016
25. Mahmoud Magdy, Abdullah T. Elgammal, Mohamed Fanni, and **Abdelfatah M. Mohamed**, "New Fully Decoupled Manipulator with Three Translational Motion for Pick and Place Applications," Proceedings of the 2016, 2nd International Conference on Control, Automation and Robotics (ICCAR 2016), Hong Kong, April 28-30, 2016
26. Abdullah T. Elgammal, Manar Lashin, Mohamed Fanni, and **Abdelfatah M. Mohamed**, "Dynamic Modeling and Robust Motion Control of A 2D Compliant Pantograph for Micromanipulation," Proceedings of the 2016, 2nd International Conference on Control, Automation and Robotics (ICCAR 2016), Hong Kong, April 28-30, 2016
27. Mohamed Raessa, Mohamed Fanni, and **Abdelfatah M. Mohamed**, "Dynamics Analysis and Control of All-Terrain Wearable Vehicle," Proceedings of the 2016 IEEE International Conference on Industrial Technology (ICIT2016), Taipei, Taiwan, on Mach 14-17, 2016, pp. 72-77.
28. Abdelrahman Morsi, Hossam S. Abbas, and **Abdelfatah M. Mohamed**, "Control of a Wind Turbine Using Model-based Predictive Control," Proceedings of the International Conference of Engineering Sciences and Applications, Aswan, Egypt, pp. 262-267, January 2016.
29. Maha Saeed, Mohamed Fanni, and **Abdelfatah M. Mohamed**, "Controller Design and Implementation of The Transformation/Manipulation System of a Novel Hybrid Ground Aerial Robot," Proceedings of the 2015 IEEE Advanced Information Technology, Electronic and Automation Control Conference, December 19-20, 2015, Chongqing, China.
30. M. M. Abo-Zahhad, Aziza I. Hussein, **Abdelfatah M. Mohamed**, "[A hybrid ECG compression technique based on DWT and removal of interbeats and intrabeats correlations](#)," Proceedings of

the 10th IEEE International Conference on Computer Engineering and Systems (ICCES 2015), December 23-24, 2015, pp. 416-421, Cairo, Egypt.

31. Ahmed Asker, **Abdelfatah M. Mohamed**, Sammy Assal, "Dynamic Analysis of a Parallel Manipulator-Based Multi-Function Mobility Assistive Device for Elderly," Proceedings the 2015 IEEE International Conference on Systems, Man, and Cybernetics (SMC2015), October, 9-12, 2015, Hong Kong.
32. Mohamed Fekry, **Abdelfatah M. Mohamed**, Mohamed A. Fanni, "An intelligent Q-Parameterization Control Design that Captures Non-linearity and Fuzziness of Uncertain Magnetic Bearing System," Proceedings of the 2015 IEEE Multi-Conference on Systems and Control (MSC), September 21 - 23, Novotel Manly Pacific Hotel, Manly Beach, Sydney, Australia, 2015., pp. 1078-1083.
33. Abdelrahman Morsi, Hossam S. Abbas, **Abdelfatah M. Mohamed**, "Model Predictive Control for a Wind Turbine Based on Linear Parameter-Varying Models," Proceedings the 2015 IEEE Multi-Conference on Systems and Control (MSC), September 21 - 23, Novotel Manly Pacific Hotel, Manly Beach, Sydney, Australia, 2015, pp. 318-323.
34. Abdelrahman Morsi, Hossam S. Abbas, **Abdelfatah M. Mohamed**, "A Low Conservative MPC for Wind Turbine Control based on LPV Models," Accepted for publication in *Australian Control Conference*, Gold Coast, 2015.
35. Mohamed Selmy, Mohamed Fanni, and **Abdelfatah M. Mohamed**, "Novel Contactless Active Robotic Joint Using AMB: Design and Control" Proceedings of the 2015 ASME/IEEE International Conference on Mechatronic and Embedded Systems and Applications, pp. V009T07A072- V009T07A082, August 2-5, 2015, Boston, Massachusetts Boston, USA.
36. Osama Elshazly, Zakarya Zyada, **Abdelfatah M. Mohamed**, Giovanni Muscato, "Optimized Control of Skid Steering Mobile Robot with Slip Conditions," Proceedings of the IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM2015), July 7-11, 2015. Busan, Korea, pp. 959-964.
37. Mohamed G. Alkalla, Mohamed A. Fanni, and **Abdelfatah M. Mohamed**, "A Novel Propeller-Type Climbing Robot for Vessels Inspection," Proceedings of IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM2015), pp. 1623-1628, July 7-11, 2015. Busan, Korea.
38. Mohamed G. Alkalla, Mohamed A. Fanni, and **Abdelfatah M. Mohamed**, "Versatile Climbing Robot for Vessels Inspection," Proceedings of the International Conference on Control, Automation and Robotics (ICCAR 2015) in Singapore, pp. 18-23, May 20-22, 2015.
39. Mohamed Selmy, Mohamed Fanni, and **Abdelfatah M. Mohamed**, "Design and Control of a Novel Contactless Active Robotic Joint Using AMB," Proceeding of the IEEE International Conference on Autonomous Robot Systems and Competitions, University of Tras-os-Montes e Alto-Douro ([UTAD](#)) in Vila Real, Portugal, pp. 144-149 on April 8-10, 2015.
40. Ikbal M. M. Hassan and **Abdelfatah M. Mohamed**, and Awad I. Saleh, "Variable Structure Control of A Magnetic Bearing system," Proceedings of *7th International Conference on intelligent Engineering Systems*, Assiut-Luxor, Egypt, March 2003.
41. Ikbal M. M. Hassan and **Abdelfatah M. Mohamed**, "Variable Structure Control of A Magnetic Levitation system," Proceedings of *the 2001 American Control Conference*, Arlington, Virginia, USA, June, 25-27, 2001, pp. 3725-3730.
42. Ikbal M. M. Hassan, **A. M. Mohamed**, and Awad I. Saleh "Variable Structure Control of A Magnetic Suspension system," Proceedings of *the 2001 IEEE Conference on Control Applications*, Mexico city, Mexico, September, 5-7, 2001, pp 330-338.
43. **Abdelfatah M. Mohamed**, Ikbal M. M. Hassan, and Adel M. K. Hashem, "Application of Discrete-Time Gain-Scheduled Q-parameterization Controllers To Magnetic Bearing Systems With Imbalance," Proceedings of *the 1999 American Control Conference*, San Diego, California, USA, June, 2-4, 1999. pp. 598 – 602.

44. **Abdelfatah M. Mohamed**, Ikbal M. M. Hassan, and Adel M. K. Hashem, "Elimination Of Imbalance Vibrations In Magnetic Bearing Systems Using Discrete-Time Gain-Scheduled Q-parameterization Controllers," *Proceedings of the Eighth IEEE Conference on Control Applications*, August 22-27, 1999, Kohala Coast-Island of Hawai'i, Hawai'i, USA, pp. 737 – 742.
45. F. N. Abdelbar, H. M. Mohamed, **Abdelfatah M. Mohamed**, and A. M. Hashem, "Improving Of Starting Performance of 3-Phase Induction Motor Fed By VSI Employing Pulse Width Modulation," *Proceedings of First Minia International Conference For Advanced Trends In Engineering*, pp. 61-69, March, 14-16, 1999, Minia, Egypt.
46. **Abdelfatah M. Mohamed**, "Modern Robust Control Of A CSI-Fed Induction Motor drive System," *Proceedings of the 1998 American Control Conference*, pp. 3803-08, Philadelphia, USA, June, 24-26, 1998.
47. **Abdelfatah M. Mohamed**, "Robust Trajectory Tracking For Robotic Manipulators Using Q-Parameterization Controllers," *Proceedings of the Fourth IEEE International Conference On Electronics, Circuits, and Systems*, pp. 1375-1381, December 15-18, 1997, Cairo, Egypt.
48. F. N. Abdelbar, H. A. Mohamed, **Abdelfatah M. Mohamed**, and A. M. Hashem, "Faults Study Of 3-Phase Induction Motor Fed By VSI Employing Pulse Width Modulation," *Proceedings of the Fifth International Conference of the Faculty of Engineering, Al-Azhar University, Egypt*, pp. 190-198, December 19-22, 1997, Cairo, Egypt.
49. L. JunHo, **Abdelfatah M. Mohamed**, and F. Matsumura, "Elimination Of Unbalance Vibrations In Variable Speed Magnetic Bearings Using Discrete-Time Q-parameterization Control," *Proceedings of the 4th International Symposium on Magnetic Suspension Technology*, pp. 327-338, October 30 - Nov. 1, 1997, Gifu, Japan.
50. **Abdelfatah M. Mohamed**, F. Matsumura, T. Namerikawa, and L. JunHo, "Q-parameterization/ μ Control Of An Electromagnetic Suspension System," *Proceedings of the Sixth IEEE Conference on Control Applications*, pp. 604-608, October 5-7, 1997, Hartford, Connecticut, USA.
51. **Abdelfatah M. Mohamed**, F. Matsumura, T. Namerikawa, and L. JunHo, "Q-Parameterization Control Of Vibrations In A Variable Speed Magnetic Bearing," *Proceedings of the Sixth IEEE Conference on Control Applications*, pp. 540-546, October 5-7, 1997, Hartford, Connecticut, USA.
52. **Abdelfatah M. Mohamed**, F. Matsumura, T. Namerikawa, and L. JunHo, "Modeling and Robust Control of Self-Sensing Magnetic Bearings With Unbalance Compensation," *Proceedings of the Sixth IEEE Conference on Control Applications*, pp. 586-594, October 5-7, 1997, Hartford, Connecticut, USA.
53. L. JunHo, **Abdelfatah M. Mohamed**, and F. Matsumura, "Q-Parameterization Control of Magnetic Bearing Systems With Imbalance," *Proceedings of the 5th International Symposium on Magnetic Bearings*, pp. 179-184, August 28-30, 1996, Kanazawa, Japan.
54. K. Park, J. Yi, S. Kim, Y. Kwak, **Abdelfatah M. Mohamed**, and I. Busch-Vishniac, "Force Control For Magnetic Levitation Systems Using Flux Density Measurement," *Proceedings of the 34th Conference on Decision and Control*, pp.2153-2158, December 1995, Seattle, Washington.
55. **Abdelfatah M. Mohamed** and I. Busch-Vishniac, " Imbalance Compensation and Automatic Balancing In Magnetic Bearing Systems Using The Q-parameterization Theory," *Proceedings of The American Control Conference*, pp. 2952-2957, June 29-July 1, 1994, Baltimore Maryland.
56. **Abdelfatah M. Mohamed**, B. Vestgaard, and I. Busch-Vishniac, "Real Time Implementation Of A Robust H_{∞} Controller For A 2-DOF Magnetic Micro-Levitation Positioner," *Proceedings of The American Control Conference*, pp. 3219-3223, June 29-July 1, 1994, Baltimore Maryland.

57. **Abdelfatah M. Mohamed**, B. Vestgaard, and I. Busch-Vishniac, "An Experimental Comparison Between Q-parameterization, H_∞ Synthesis And Servo Control System Designs," *Proceedings of The American Control Conference*, pp. 2947-2957, June 29-July 1, 1994, Baltimore Maryland.
58. **Abdelfatah M. Mohamed** and F. P. Emad, "A Comparison Between Current and Flux Control In Magnetic Bearing Systems," *Proceedings of The American Control Conference*, pp. 2356-2362, June 2-4 1993, San Francisco, CA. Accepted for publication in the *2nd IEEE Conference on Control Applications*, Vancouver, British Columbia, Canada Sept. 1993.
59. **Abdelfatah M. Mohamed**, " Robust controller Design for the Benchmark Problem using the Q-parameterization Theory," *Proceedings of the 1993 IEEE conference on Aerospace Control Systems*, pp. 324-328, May 25-27 1993, Thousands Oaks, CA. Accepted for publication in the *2nd IEEE Conference on Control Applications*, Vancouver, British Columbia, Canada Sept. 1993.
60. **Abdelfatah M. Mohamed** and I. Busch-Vishniac, " Robust H_∞ Controller Design Of Two-Link Robots," *Proceedings of the 1993 IEEE conference on Aerospace Control Systems*, pp. 523-528, May 25-27 1993, Thousands Oaks, CA.
61. **Abdelfatah M. Mohamed**, B. Vestgaard, and I. Busch-Vishniac, "Robust H_∞ Control System Design Of A New 3-DOF Magnetic Micro-Levitation Robot," *Proceedings of the 7th ASPE Annual conference*, pp. 189-192, October 1992, Orlando, FL.
62. **Abdelfatah M. Mohamed** and F. P. Emad, "Nonlinear Oscillations In Magnetic Bearing Systems," *Proceedings of the 28th Conference on Decision and Control*, pp. 548-553, December 1989, Tampa, FL.
63. **Abdelfatah M. Mohamed** and F. P. Emad, "Conical Magnetic Bearings with Radial and Thrust Control," *Proceedings of the 28th Conference on Decision and Control*, pp. 554-561, December 1989, Tampa, FL.
64. Invited to present a paper in the *SIAM Conference "Control in the 90's"* in a minisymposium entitled "Optimization-Based Design of Control Systems." May 1989, San Francisco, CA. Co-authored with F. Emad.

Book Chapter:

- 1- Tamer F. Megahed, Mohamed G.A. Nassef, Omar Abdel-Rahim, Eid A. Gouda, **Abdelfatah M. Mohamed**, "Electromagnetic Assessment of Wind Turbines," Reference Module in Earth Systems and Environmental Sciences, Elsevier, <https://doi.org/10.1016/B978-0-323-93940-9.00082-7>