Applicant Application Review

Full Name: Mohamed Alkalla

Personal Informations

Name:	Mohamed Alkalla
Gender :	1
Nationality :	Egyptian
Date of Birth :	1986-01-01
Country :	Egypt
City :	Mansoura
Address :	5 Almasjid Alkabeer, MetTaher, Meniat AlNasr, Dakahlia
ID Type :	28601011248054
Marital status :	Done
Mobile Number :	01069479448
Home Number :	0503491765
Email :	m.alkalla@surrey.ac.uk

Education Information

Academic Degree :	Ph.D.
Academic Study :	Egypt-Japan University of Science and Technology, Mechatronics and Robotics Engineering
Academic Grade :	3.83
Data Gained :	2017-02-27
From :	2014-02-14
To :	2017-02-27
Academic Degree :	Master of Science
Academic Study :	Mansoura University, Faculty of Engineering, Production Engineering and Mechanical Design
Academic Grade :	Excellent
Data Gained :	2013-07-29
From :	2009-03-01
To :	2013-05-15
Academic Degree :	Bachelor of Production Engineering and Mechanical Design
Academic Study :	Mansoura University, Faculty of Engineering, Production Engineering and Mechanical Design
Academic Grade :	Excellent, First Place with Honour, 85.8%
Data Gained :	2007-07-08
From :	2002-09-20

To :	2007-06-08

📞 careers[0] Information

Emp Name :	Surrey Space Centre, University of Surrey, UK
Emp Address :	388 Stag Hill, Guildford, GU2 7XH, UK
Emp Title :	Research Fellow
Emp Description :	The job duties are: undertaking research theme of extraterrestrial light-weight drill system, joining the team in use-case project, having a partnership with other universities and industries.
From :	2018-08-06
To :	2020-07-14
Emp Name:	Production Engineering and Mechanical Design Dept., Mansoura University
Emp Address :	25 Algomhoria street, Dakahlia Governorate 35516, Egypt
Emp Title :	Lecturer
Emp Description :	I’ve been teaching the following courses: 1. Engineering and Mechanical Drawing 2. Machine Design (Norton’s Handbook) 3. Design of Machinery (Norton’s Handbook) 4. Mechanics of Material (Hibbeler’s Handbook) 5. Optimum Design (Arora’s Handbook) 6. Robot Dynamics and Control (Spong’s Handbook) During my lectureship, I’ve supervised many graduation projects for bachelor students.
From :	2017-03-01
To :	2018-08-04
Emp Name :	University of Science and Technology at Zewail City of Science and Technology
Emp Address :	Ahmed Zewail Road, October Gardens, 6th of October City, Giza, Egypt
Emp Title :	Adjunct Assistant Professor
Emp Description :	Teaching the following courses for undergraduate students: 1. Statics 2. Mechanics of Material
From :	2017-09-20
To :	2018-01-30

🏛 Qualifications & Traninng

Diploma :	Graduate Certificate in Learning and Teaching
Study :	University of Surrey
Grade :	Module 1 Successfully completed
Course :	Module 1 of Graduate Certificate in Learning and Teaching, from Higher Education UK
Conent :	

Organizing Body :	Higher Education Department, University of Surrey, UK
Data Gained :	2020-06-16
Data Attend :	2020-01-15
Diploma :	
Study :	
Grade :	
Course :	
Conent :	
Organizing Body :	
Data Gained :	
Data Attend :	

🏛otherqualification[0]

Research Fellowships :	2016, Visiting Research Fellow, Waseda University, Prof. Shuji Hashimoto Lab, Japan. 2018 - Now, Research Fellow, Surrey Space Centre, University of Surrey, UK.
Scientific Committees :	Member of ASME, IEEE and RAS scientific societies
list of Publications :	1. Fanni, M., Shabara, M., Alkalla, M. G., “Topology optimization of High-Speed Flexible Robot Arms”, Mansoura Engineering Journal, MEJ, vol. 38, No. 1, March 2013. 2. Fanni, M., Shabara, M., Alkalla, M. G., “A Comparison between Different topology optimization methods”, Mansoura Engineering Journal, MEJ, vol. 38-Issue, December 2013. 3. Mohamed G. Alkalla, Mohamed A. Fanni, Abdel-Fatah Mohamed “Versatile Climbing Robot for Vessels Inspection” in the proceeding: IEEE International Conference of Control, Automation and Robotics (ICCAR), pp: 18-23, Singapore, 2015. 4. Mohamed G. Alkalla, Mohamed A. Fanni, Abdel-Fatah Mohamed “A Novel Propeller–type Climbing Robot for Vessels Inspection” in proceeding: AIM2015, IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp: 1623-1628, Korea, 2015. 5. M. G. Alkalla, M. A. Fanni, A. M. Mohamed, and S. Hashimoto, “Teleoperated propeller-type climbing robot for inspection of petrochemical vessels” Industrial Robot: An International Journal, vol. 44, no. 2, pp. 166–177, 2017. [Online]. Available: http://dx.doi.org/10.1108/IR-07-2016-0182 6. Mohamed Fanni, Mohamed G. Alkalla, Abdelfatah M., “Propeller Type Skid Steering Climbing Robot Based on A Hybrid Actuation System” International Journal of Robotics and Automation, ACTA press, 33 (3), May 2018. 7. Mohamed G. Alkalla, Mohamed A. Fanni, Abdelfatah Mohamed, Shuji Hashimoto, Hideyuki Sawada, Takanobu Miwa & Amr Hamed (2019) EJBot-II: an optimized skid-steering propeller-type climbing robot with transition mechanism, Advanced Robotics, 33:20, 1042-1059, DOI: 10.1080/01691864.2019.1657948 8. M. G. Alkalla, Y. Gao and A. Bouton, "Customizable and Optimized Drill Bits Bio-inspired from Wood-Wasp Ovipositor Morphology for Extraterrestrial Surfaces" 2019 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM), Hong Kong, China, 2019, pp. 430-435. DOI: 10.1109/AIM.2019.8868816 9. Mohamed G. Alkalla & Mohamed A. Fanni, (2019), “Integrated structure/control design of high-speed flexible robot arms using topology optimization”, Mechanics Based Design of Structures and Machines, DOI:10.1080/15397734.2019.1688170 10. Mohamed G. Alkalla, Mahmoud Helal, Ahmed Fouly, “Superposition of Topology-Optimization Layouts Method for Non-Concurrent Loads: Application on Engine’s Connecting Rod”, Accepted with minor revision in International Journal for Numerical Methods in Engineering, (May 2020). 11. Craig Pitcher, Mohamed Alkalla, Xavier Pang, Yang Gao, “Development of the Third Generation of the Dual-Reciprocating Drill” Accepted for publication in the special issue of Biomimetics (Biomimetics from Concept to Reality), ISSN 2313-7673, 9th July 2020. 12. Ahmed Fouly, Mohamed Alkalla, “Effect of Low nanosized alumina Loading Fraction on the Physicomechanical and Tribological Behavior of Epoxy” Accepted for publication in Tribology International Journal, Elsevier, 6th July 2020.

Conferences Attended :	18 July 2019, FAIR-SPACE-Workshop, 3rd workshop of Future Artificial Intelligence and Robotics for Space (FAIR-SPACE) Hub, University of Liverpool, UK. 8–12 July 2019, AIM, IEEE/ASME International Conference on Advanced Intelligent Mechatronics, Hong Kong. 12 March 2019, ROBOTICS AND ARTIFICIAL INTELLIGENCE INDUSTRY SHOWCASE, Manchester, UK. 18 January 2019, FAIR-SPACE-Workshop, 1st workshop of Future Artificial Intelligence and Robotics for Space (FAIR-SPACE) Hub, Imperial College London, UK. 20–24 July 2016, ACIRS, IEEE Asia-Pacific Conference on Intelligent Robot Systems, Tokyo, Japan. 14–19 July 2015, AIM, IEEE/ASME International Conference on Advanced Intelligent Mechatronics, Busan, Korea. 20–22 May 2015, ICCAR, IEEE International Conference on Control, Automation and Robotics, Nanyang Technological University, Singapore. 22–26 March 2015, E–J Workshop, 1st Egypt–Japan Workshop on Practical Education for Mechatronics and Robotics, E-JUST, Alexandria, Egypt.
Patents :	April 2019, UKIPO Patent, Design of Dual Reciprocation & Oscillation Drill (DROD) has been submitted for a patent at the UK Intellectual Property Office (UKIPO) with application number 2005716.2, UK. November 2016, WIPO TROPHY, World Intellectual Property Organization, The Best Young Inventor from the Academy of Scientific Research & Technology, in the 3rd Cairo International Exhibition of Innovation for EJBot climbing robot project, Egypt.
Research Grants (Awarded As PI) :	None
Contributed As Co-Pi :	None
Supervision of Postgraduate Students :	No direct supervision, instead, partnership and mutual research work with different colleagues (Research Fellows) at the University of Surrey and other universities (members of FAIR-SPACE HUB in the UK)

🏛References Employer

Name :	Mohamed Fanni
Position :	Professor, Mechatronics and Robotics Engineering, E-JUST
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Name :	
Position :	Professor Emeritus, Applied Physics Department, Former Senior Vise President for Academic Affairs and Provost, Waseda University,
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Name :	Yang Gao
Position :	Associate Dean (International), Professor of Space Autonomous Systems
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