CURRICULUM VITAE

Omar Mehrez

Assistant Professor, Faculty of Eng., Tanta Univ., Tanta, Egypt
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Research Interests: Nonprehensile Manipulation, Dynamic Manipulation, Robot Control, Systems Identification and Control, Unmanned Aerial Vehicles, Hydraulic/Pneumatic Systems

Education

Ph.D. Mechatronics and Robotics Engineering, Egypt-Japan University of Science and Technology (E-JUST), Egypt, 2015.
M.Sc. Mechatronics and Robotics Engineering, Egypt-Japan University of Science and Technology (E-JUST), Egypt, 2012.
B.Sc. Mechanical Power Engineering, Tanta University, Egypt, 2006
Cumulative average grade: Distinction with Honor's Degree.

Employment History

2020-Now	Posetdoctoral fellow, Dept. of Mechanical Systems Engineering, Nagoya University, Japan
2015-2019	Assistant Professor, Dept. of Mechachical Power Engineering, Tanta University, Egypt
2013-2014	Ph.D. Intern, RIKEN-TRI Collaboration Center for Human-Interactive Robot Research, Nagoya, Japan
2012-2015	Ph.D. student, Dept. of Mechatronics and Robotics Engineering, E-JUST, Egypt
2010-2012	M.Sc. student, Dept. of Mechatronics Robotics Engineering, E-JUST, Egypt
2008-2010	Teaching Assitant, Dept. of Mechachical Power Engineering, Tanta University, Egypt
2007-2008	Gas Turbine Engineer, Khalda Petroleum Company, Egypt.

Publications

- Sherif Badr, Omar Mehrez and A. E. Kabeel, "A design modification for a quadrotor UAV: modeling, control and implementation", Journal of Advanced Robotics, Vol. 33, Issue 1- 2019, pp.13-32.
- Omar Mehrez, Zakarya Zyada, Tatsuya Suzuki, Yoshikazu Hayakawa, Ahmed Abo-Ismail and Shigeyuki Hosoe, "Equilibrium Area Analysis for Nonprehensile Manipulation of a Three-Link Object by Two Cooperative Arms in a Plane", Journal of Mechatronics, Vol. 53, Aug. 2018, pp.56-71.
- Omar Mehrez, Zakarya Zyada, Hossam H. Abbas and Ahmed Abo-Ismail 'Non-prehensile manipulation planning of a three-rigid-link object using two cooperative robot arms', Int. J. Modelling, Identification and Control, Vol. 26, No. 1, 2016, pp.19–31.
- Sherif Badr, Omar Mehrez and A. E. Kabeel, "A novel modification for a quadrotor design", Proceeding of IEEE International Conference on Unmanned Aircraft Systems (ICUAS 2016), Arlington, VA, US, 7-10 June.
- Omar Mehrez, Zakarya Zyada, Yoshikazu Hayakawa, Ahmed Abo-Ismail, Tatsuya Suzuki, and Shigeyuki Hosoe "Study of the Friction Effect on the Stability of a Three-Rigid Link Object Manipulated by Two Cooperative Robot Arms", Proceeding of the IEEE International Conference on Systems, Man and Cybernetics (SMC 2014), San Diego, California, US, 5-8 Oct.
- Omar Mehrez, Zakarya Zyada, Hossam Abbas and Ahmed A. Abo-Ismail, "Modeling and Static Analysis of a Multi-Rigid-Link Object for Nonprehensile Manipulation Planning" Proceeding of the

IEEE International Conference on Mechatronics and Automation (ICMA 2013), Takamatsu, Kagawa, Japan, 4-7 Aug.

- Omar Mehrez, Ahmed Ramadan," A Control Strategy for Designing an Intelligent Controller for Highly Dynamic/Perturbed Systems", Proceeding of the IEEE International Conference on Control, Automation and Systems (ICCAS 2012), Jeju Island, Korea, 17-21 Oct.

- Omar Mehrez, Ahmed Ramadan, and Ahmed A. Abo-Ismail, "ANFIS Based Controller for Double Inverted Pendulum System with Payload", Proceeding of the IEEE International Conference on Intelligent Computing and Intelligent Systems (ICIS 2011), Guangzhou, China, 18-20 Nov.

Teaching Experience

Teaching the following courses in Tanta University:

- Hydraulic/Pneumatic Systems Design
- Automatic Control of Mechanical Systems
- Advanced Fluid Mechanics
- Robotics (undergraduate)
- Fluid Power Control (postgraduate)

Assisting in teaching the following courses in Tanta University:

- Fluid Mechanics
- Power Stations
- Turbo-Machines
- Hydraulic Power Systems
- Automatic Control of Mechanical Systems
- Mechanical Vibrations
- Measurements laboratory

Supervising Research Projects

- Supervising M.Sc. students (Mechanical Power section)
- Supervising B.Sc. projects for undergraduate students (Mechanical Power section)

Honors and Awards

- Postdoctoral Fellowship, 2020 (one-year). (*in part* by: Egypt Government Postdoctoral Fellowship, Ministry of Higher Education).
- Research Poject Funding, academic years 2016-2017 and 2017-2018. (Academy of Scientific Research and Technology, Egypt).
- Intern at RIKEN-TRI Collaboration Center for Human-Interactive Robot Research, 2014 (ten-months), Nagoya, Japan.
- Research Scholarship (M.Sc. and Doctoral), 2010 (five years). (Egypt Government Research Scholarship, Ministry of Higher Education).
- Short-Term Travel Grant to Waseda University, Japan, 2011 (two-weeks). (Sponsored by: Kyushu University, Japan).

Technical Skills

- Languages/Tools: C++/C#/PLC
- Simulation Tools: MATLAB and Simulink.
- Drawing Software: AutoCAD / SolidWorks.
- Microcontroller: Arduino/ESP32.

Languages

- Arabic (native),
- English, First foreign language (TOFEL 550)

General Information

Name: Omar Abdel Motaal Mehrez
Date of Birth: January 1, 1985
Place of Birth: Tanat, Egypt
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