

Mutaz M. Ryalat

CONTACT INFORMATION Mechatronics Engineering Department *Voice:* +962 6 429 4444 (ext:4511)
School of Applied Technical Sciences *Fax:* +962 6 430 0215
German Jordanian University *E-mail:* mutaz.ryalat@gju.edu.jo
P.O.Box 35247, Amman 11180, Jordan *WWW:* www.gju.edu.jo/content/faculty-directory-1095

SUMMARY Mutaz Ryalat was born in Amman, Jordan. He received the B.Sc degree in mechatronics engineering from the University of Jordan, Amman, Jordan, in 2005 and the M.Sc. degree in mechatronics engineering from Loughborough University, Loughborough, UK, in 2007, and the Ph.D degree in nonlinear and robust control from the University of Southampton, Southampton, UK, in 2015. He is currently an Assistant Professor in the mechatronics engineering department at the German-Jordanian University, Ammann, Jordan. His research interests are focused on nonlinear and robust control of mechanical/ electromechanical systems, Hamiltonian systems, mechatronics system design, robotic systems and automotive. He serves as an active reviewer for a number of journals and conferences in the area of control engineering.

RESEARCH INTERESTS Nonlinear and robust control of mechanical/ electromechanical systems, Hamiltonian systems, mechatronics system design, robotic systems and automotive.

EDUCATION **University of Southampton**, Southampton, UK
Ph.D., September 2015
• Thesis Topic: “Design and Implementation of Nonlinear and Robust Control for Hamiltonian Systems: The Passivity-Based Control Approach”
• Supervisor: Dr. Dina Shona Laila

Loughborough University, Loughborough, UK
M.Sc, Mechatronics Engineering, December, 2007
• Thesis Topic: “Control of a Rotary Table for the SPIDER[®]: a Synchro-Drive Grass Mower Mobile robot”
• Supervisor: Prof. Rob Parkin

UNIVERSITY OF JORDAN, Amman, Jordan
B.Sc, Mechatronics Engineering, June, 2005

HONORS AND SCHOLARSHIPS Scholarship to pursue graduate studies provided by the German Jordanian University, school of technological sciences, (2011)

EXPERIENCE **German Jordanian University** , Amman, Jordan
Head of Mechatronics Engineering Department **February, 2017 - present**
Assistant Professor **September, 2015 - present**

University of Southampton, Southampton, UK
Teaching Assistant **September, 2011 - August,2015**

German Jordanian University , Amman, Jordan
Teaching Assistant **September, 2010 - August,2011**

- COMPUTER SKILLS
- Numerical Analysis and Visualization Packages: MATLAB[®], SIMULINK[®], MAPLE[®], LabVIEW[®].
 - Desktop Editing and Productivity Software: T_EX(L^AT_EX, B_IB_TE_X, P_STricks), Microsoft Office (common Windows database, spreadsheet, and presentation software).
 - Operating Systems: Windows.

- PUBLICATIONS
- N. Almtireen and H. ElMoaqet, M. Ryalat, "Linearized Modelling and Control for a Twin Rotor System," Automatic Control and Computer Sciences, 2018, (in-print).
 - M. Ryalat, D. S. Laila, N. Almtireen and H. ElMoaqet, "A Novel Dynamic IDA-PBC Controller for Electrostatic MEMS Devices," 2018 Annual American Control Conference (ACC), Milwaukee, WI, 2018, pp. 2952-2957.
 - M. Ryalat and D. S. Laila, "A Robust IDA-PBC Approach for Handling Uncertainties in Underactuated Mechanical Systems," in IEEE Transactions on Automatic Control, vol. 63, no. 10, pp. 3495-3502, Oct. 2018.
 - H. ElMoaqet, Z. Almuwaqat, M. Ryalat and N. Almtireen, "A new algorithm for short term prediction of persistent atrial fibrillation," 2017 IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies (AEECT), Aqaba, 2017, pp. 1-6.
 - M. Ryalat and D. S. Laila, "A simplified IDA-PBC design for underactuated mechanical systems with applications", European Journal of Control, Volume 27, 2016, Pages 1-16.
 - M. Ryalat, D. S. Laila and M. M. Torbati, "Integral IDA-PBC and PID-like control for port-controlled Hamiltonian systems," 2015 American Control Conference (ACC), Chicago, IL, 2015, pp. 5365-5370.
 - M. Ryalat and D. S. Laila, "IDA-PBC for a class of underactuated mechanical systems with application to a rotary inverted pendulum," 52nd IEEE Conference on Decision and Control, Florence, 2013, pp. 5240-5245.