Mostafa Rushdi

Postdoc Researcher
Aerospace Engineering

26 October 1991

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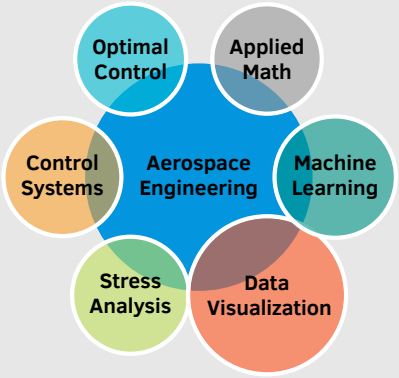
mostafa-rushdi

Skills

Overview



Programming

$0\ LOC \longrightarrow 5000\ LOC$

MATLAB • Simulink • Python • LaTeX

C • C++ • Maple • Fortran

NX Unigraphics • AutoCAD • Ansys

Projects

List - Available upon request.

Biosketch

Mostafa is an energetic, results-oriented, Aeronautical Engineer. He is currently a postdoctoral researcher at the Research Institute for Applied Mechanics (RIAM), Kyushu University. He received a PhD degree at Kyushu University in Fukuoka, Japan, and has completed MSc and BSc degrees in Aeronautical and Aerospace Engineering from Cairo University, Egypt. Mostafa's research interests include guidance, control systems, embedded systems, optimization, and dynamics especially related to renewable energy systems. Recently, he is interested in the hot topics of ML, DL, AI, and data science in general.

Education

2017-2021 **Ph.D., Airborne Wind Energy Systems** Kyushu University, *Japan*
Research on kite systems for energy harvesting, at the department of ESST - IGSES.
Thesis: "AirborneWind Energy Systems: Flight Data Analysis Using System Identification and Machine Learning, and Control of Launching."

2014-2017 **M.Sc., Aeronautical & Aerospace Engineering** Cairo University, *Egypt*
Thesis: "Optimal Aircraft Evasion Trajectory: Analysis and Simulation of the Target-Attacker and the Target-Attacker-Defender Problems."

2009-2013 **B.Sc., Aeronautical & Aerospace Engineering** Cairo University, *Egypt*
Graduation Project: "Micro-Flapping Air vehicle"

Professional Experience

3.2021-present **Postdoctoral Researcher** RIAM, *Kyushu University, Japan*
Working on several projects related to renewable energy using machine learning methods.

4.2019-7.2019 **Intern, Airborne wind energy compony** Kitepower, *Delft, Netherlands*
Working with the company team on dynamic modelling and control of a rigid vetical take off landing aircraft and simulation of the power cycle aimimng to maximize the generated electricity.

4.2015-10.2017 **Teaching Assistant** Future University, *Cairo, Egypt*
Assisted in teaching courses on: Introduction to Embedded systems, PLC, Quality control, Dynamics of rigid bodies, Mechanical Mechanisms, Stress Analysis, Properties of materials.

2012 **Intern, Aeronautical Engineering Labs** EgyptAir, *Cairo, Egypt*
Trained on systems of the commercial passenger jet Airbus 320. Attended workshops on: "Turbofan Engine Overhaul". Tested and validated oxygen cylinders, landing gears, and escape slides.

2011 - 2013 **Intern, Egypt CAN-Sat** Space Systems Technology Laboratory, *Cairo, Egypt*
Developed a circit using an Mbed microcontroller to interface with different sensors: pressure, temperature, accelerometer, gyroscope, GPS sensors, and wireless module XBEE. Also, organized Can-Sat Training Program (CTP2).

Selected Awards

- **Top Mechanical Project Award, CANSAT project**, by the *Egyptian Engineering Day (EED), Cairo Egypt*, 2011.

Publications