

Mohab Mahdy Helmy Atanasious

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EDUCATION

PhD in Automatic Control, Bioengineering and Operations Research Rome, DIAG, Sapienza University of Rome

November 2023 - ongoing Automatic Control Curriculum

Supervisor: Prof. Francesco Delli Priscoli

Master's degree in Control Engineering, Sapienza University of Rome

September 2021 - October 2023 Grade: 110/110 cum laude

Thesis: Deep Reinforcement Learning-based Automatic Augmentation for Medical Image

Classification

Bachelor's degree in Computer Science and Control engineering (Ingegneria Informatica e Automatica), Sapienza University of Rome

September 2018 - July 2021 Grade: 110/110 cum laude

Thesis: Control of Energy Storage Systems for Plug-in

Electric Vehicle

Technical diploma in Electrical Engineering and Electronics, Salesian Institute "Don Bosco"

September 2013 - June 2018

Grade: 100/100

Final project: A home automation project in which all the appliances of a house are controlled by a website

(outdoor control).

COMPUTER SKILLS

- Programming Language: Python, C, Java, JavaScript, PHP, MySQL, Matlab, Simulink and Julia
- Engineering Software: CAD 2D, PLC programming (LAD, FBD), WinCC (HMI Displays programming)

LANGUAGES

Arabic: NativeItalian: C1

• English: B2 (Cambridge certificate)

ACADEMIC PROJECTS

- Control of the image augmentation process for medical image classification by using Reinforcement Learning
- Dynamics dimension reduction of the insulin-glucose system in the pancreas by making use of DMD
- Dynamic control of 2R manipulator by using Reinforcement learning trained on the data of MPC
- Robust dynamic Control of 2R manipulator by using robust MPC and multi-scenario closed-loop prediction
- · Visual Servoing with dVRK simulator
- Planning humanoid motions on uneven ground using the gravito-inertial wrench cone
- Control of Energy Storage Systems in a service area for recharging Plug-in Electric Vehicles
- · Web app for the use of real-time survey
- · Website for car renting service
- Control of the appliances of a smart home by a website (outdoor control)

OTHER

- Volunteering as a tutor for the MEMO project of the Sant'Anna School of Advanced Studies
- Winning one of the 10 scholarships in the College of Merit "Villa Nazareth" for the whole study duration
- Tutor for Engineering students in the College of Merit "Villa Nazareth"
- Creator and manager of the website of the catering service at Villa Nazareth
- Teaching how to do cyber-physical projects (smart home, remotely controlled cars, etc.) by using microcontrollers (Arduino, esp8266, esp12E, etc.) to students aged 10 to 15 years old.
- Volunteering as a lab. Tech. at the Galileo Galilei Technical Institute of Rome