Pietro Pustina

Updated December 1, 2021

Email 1: pustina@diag.uniroma.it
Email 2: pietro.pustina@gmail.com
Phone: (+39) 3922048360 **Citizenship**: Italian

Education

Sapienza University of Rome — Rome, Italy
PhD in Automatic Control, Bioengineering, and Operations Research — November 2021 – ongoing
Tutor : Prof. Alessandro De Luca

TU Delft — Delft, Netherlands
Visiting student at the CoR department — August 2021 – December 2021
Tutor: Prof. Cosimo Della Santina

Sapienza University of Rome — Rome, Italy
MA in Control Engineering — September 2019 – October 2021
Final grade: 110/110 cum laude
GPA: *30/30*
Thesis title : *Feedback Control of Elastically Decoupled Underactuated Soft Robots*
Thesis tutors : Prof. Alessandro De Luca, Prof. Cosimo Della Santina

Università degli Studi Roma Tre — Rome, Italy
BA in Computer Engineering — September 2016 – July 2019
Final grade : 110/110 cum laude
GPA: *29,836/30*
Thesis title : *Sviluppo di un'interfaccia C/C++ per stampanti 3D*
Tutor : Prof. Francesco Riganti Fulginei

Honors and scholarships

International Thesis Scholarship — 2021
Faculty of Information Engineering, Computer Science, and Statistics
Sapienza University of Rome

First place in the Student Honor Program for Control Engineering — 2021
Tutors : Prof. Alessandro Di Giorgio, Dr. Francesco Liberati

Wanted the Best Scholarship — 2019
Sapienza University of Rome

Lazio DiSCo Scholarship — 2019

Merit Scholarship — 2017
Università degli Studi Roma Tre

Professional experiences

Enry's Island, Pescara, Italy

Front-end web developer Summer 2019

Personal assistant for blind man, Rome, Italy
2017-Winter 2020

Sicurezza Attiva srl, Rome, Italy
Alarm installer Summer 2016 - Summer 2019

University projects

Nonlinear state observers for robots with elastic joints, course of Robotics 2
The goal of the project was to study observers for robots with elastic joints. Emphasis was given to the extension of a Luenberger-like observer from SISO to MIMO nonlinear plants. Then, the theoretical results have been validated on flexible joint robots.

Strategies for robust gait generation in humanoid robots, course of Autonomous and Mobile Robotics
The goal of the project was to study, compare and implement, adopting as dynamic model for a biped walking robot the linear inverted pendulum, different MPC schemes for robust gait generation.

Running Gait Generation for Humanoids: A Biologically Inspired Approach, course of Underactuated Robots
The goal of the project was to study a running generator for humanoids based on observations of human run and implement the algorithm on MATLAB/Simulink.

Skills

Programming
Proficient in: MATLAB/Simulink, C, Python, Java, Javascript
Familiar with: C++, Julia, PHP, HTML/CSS, OCaml, SQL, C#, YAML

Markup languages and formats
Latex, HTML/CSS, XML, JSON

Operating systems
Proficient in: Debian GNU/Linux
Familiar with: Windows

Software and Frameworks
Proficient in: LibreOffice, MQTT, Xamarin, Bootstrap, Eclipse, FreeNAS, Home Assistant

Familiar with: Wireshark

CAD modeling
Familiar with: Fusion 360

Languages
Italian (mother tongue)
English (fluent)