Luca Arleo

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Education

PhD in Biorobotics
10/2020 – present
The BioRobotic Institute, Sant'Anna School of Advanced Studies - Pontedera, Italy
Member of the Soft Mechatronics for Biorobotics Lab

MS in Mechanical Engineering
09/2017 – 02/2020
Polytechnic of Bari - "Magna Grecia" Interdepartmental Centre - Taranto, Italy
Thesis - Soft Robotics: additive manufacturing of a multidirectional manipulator
Final grade*: 110/110 and praise*

BS in Mechanical Engineering
09/2014 – 09/2017
Polytechnic of Bari - "Magna Grecia" Interdepartmental Centre - Taranto, Italy
Thesis – Development of an electrodynamic shaker for anti-icing surfaces characterization
Final grade*: 107/110*

Curricular activities

Academic papers:

L. Arleo *et al*.,"Layer Jamming for Variable Stiffness Shoes," in IEEE Robotics and Automation Letters, vol. 7, no. 2, pp. 4181-4187, April 2022

L. Arleo *et al*.,"Design methodology for the development of variable stiffness devices based on layer jamming transition." Engineering Research Express 3.3 (2021): 035033.

L. Arleo *et al*., "I-support soft arm for assistance tasks: a new manufacturing approach based on 3D printing and characterization". Prog Addit Manuf 6, 243–256 (2021).

G. Percoco, L. Arleo *et al.*, "Analytical model to predict the extrusion force as a function of the layer height, in extrusion based 3D printing", Additive Manufacturing, Volume 38, 2021, 101791, ISSN 2214-8604.

G. Stano, L. Arleo, *et al.*,"Additive Manufacturing for Soft Robotics: Design and Fabrication of Airtight, Monolithic Bending PneuNets with Embedded Air Connectors", Micromachines 2020, 11, 485.

Research Fellow
04/2020 – 09/2020
The BioRobotic Institute, Sant'Anna School of Advanced Studies - Pontedera, Italy
Research activity conducted at the *Soft Mechatronics for Biorobotics Lab.*

Languages

Italian (Native speaker)

English