# Special Issue

# Recent Advances in Pneumatic Soft Actuators

## Message from the Guest Editor

We are pleased to invite you to submit your paper(s) to our Special Issue entitled “Recent Advances in Pneumatic Soft Actuators” in *Actuators* (ISSN 2076-0825). Both original research and review articles are welcome. Pneumatic systems have always been attractive due to their simplicity, low cost, high power to weight ratio and high velocities. Recently, there has been a renewed interest in pneumatic soft actuators, as they are intrinsically compliant and therefore naturally suited to reaching confined spaces, dealing with unfamiliar environments, manipulating objects in complex ways and safely interacting with humans. To highlight recent developments and future perspectives, this Special Issue invites contributions from all aspects on pneumatic soft robots, including but not limited to:

- Novel pneumatic soft actuators materials and geometries;
- Novel design and fabrication techniques, including 3D printing;
- Improvement of the actuator service life;
- Modelling and control of soft pneumatic actuators;
- Hybrid pneumatic-electrical actuators.

## Guest Editor

Prof. Dr. João Falcão Carneiro
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## Deadline for manuscript submissions

closed (20 February 2025)

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# About the Journal

## Message from the Editorial Board

We are just entering the Next Wave of Technology (NWT) where actuators will play the same role as the computer chip did for computers/social media approximately four decades ago. Just in the U.S., production of $1 trillion year of electromechanical systems (vehicles, orthotics, manufacturing cells, freight trains, aircraft, etc.) will be impacted by the NWT, all driven by actuators. Five key trends can be found for the future perspectives: “Performance to Reliability”, “Hard to Soft”, “Macro to Nano”, “Homo to Hetero” and “Single to Multi functional”. We invite papers that primarily impact these economic sectors; those illustrating basic scientific principles are also welcome.

## Editors-in-Chief

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