



Artificial Muscles for Biorobotics: Study, Application and Future Perspectives

Guest Editors:

Prof. Dr. Carlo Ferraresi

Department of Mechanical and
Aerospace Engineering DIMEAS,
Politecnico di Torino, 10129
Turin, Italy

Dr. Giovanni Gerardo Muscolo

Department of Engineering for
Innovation Medicine, Section of
Engineering and Physics,
University of Verona, 37134
Verona, Italy

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Message from the Guest Editors

Dear Colleagues,

The first examples of artificial muscles can be traced back to the 1950s, with the invention of the McKibben pneumatic muscle. This type of actuator, thanks to its intrinsic flexibility and biomimetics, immediately found numerous applications in the fields of biomechanics and soft robotics. In recent years, the evolution of materials technology has led to the creation of new examples of artificial muscles, which can exploit novel pneumatic actuator shapes, as well as shape memory alloys or new dielectric elastomers. All this, together with the use of original control techniques, has led to amazing developments in the biorobotics field—that is, the creation of robotic devices interacting with biological organisms, or able to imitate them (biomimetic robotics).

