Special Issue on
Advancement in Robotics and Bioinspiration

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Scope of the Special Issue:

Biomimetics/Bioinspiration approach incorporates materials and techniques drawn from naturally made substances, and resemble biological systems in structure and/or function as necessary. Making biologically inspired intelligent robots requires understanding the biological models as well as advancements in: analytical modeling, graphic simulation and the physical implementation of the related technology.

The evolving, emerging, interdisciplinary field of Bioinspired Robots focuses on making nature as a model of inspiration that would immensely: Help conscious abstraction of new principles and ideas, Foster innovative design collections, Find out new techniques and functionalities, Seek new paradigms and methods, Develop new materials and actuators at nature’s scale, Design new streams of intelligent machines, robots, systems, devices, algorithms, etc.
Due to the importance of this evolving field, the special issue tries to invite quality contributions in the field of robots and bioinspiration. Priority topics include, but not limited to the following:

- Biologically inspired robotics: Mobile robots and mobility, Snake robots, Flying robots, underwater robots, etc.
- Biomimetic Structures and Mechanisms in Bioinspired Robots
- Biomechatronics and Robotics
- Biomimetics and Humanoid robots: Structure, Control, Sensing, Navigation, etc.
- Biosensing and Robotics
- Biorobotics and Human Modeling
- Biomechanics and Robotics
- Biomimetics and Biomedical Robots
- Bioinspiration and Emerging Actuators Technologies for Robotics
- Bioinspiration and Smart MEM/NEM Materials for Robots: MEM/NEM robotics, MEMS/NEM Fabrication, MEM/NEM manipulation, MEM/NEM sensing.
- Robotics and Bioinformatics
- Bioinspired Behaviors and Robotics: Control, Navigation, Sensing
- Learning Techniques and Robotics
- Evolutionary Robotics
- Bioinspired Computation, Computational Intelligence and Robotics
- Cognitive development in Robots
- Bioinspiration and multi Robotics Systems
- Human-robot interaction, Haptics and Teleoperation