

Technical Committee on Biomimetic Machines

Biomimetic Intelligence and Robots

Machines and robots that mimic the biology intelligence

1. Goal

The main objective of this technical committee is to study about biomimetic machines, next-generation mechatronics instruments, and next-generation robots (such as service robots, ubiquitous robots, surgery-assist robots, etc.) by applying biologically inspired technologies that mimic the behavior and intelligence of biology.

2. Problem

It is possible to improve the cooperation and affinity between machine (or robot) and human, if a mechanical system will be constructed so as to expect an emergence of biomimetic functions mimicking any biology for control and interface systems to be implemented. These machines are called here as "biomimetic machines."

3. Strategy

Concrete related themes are the development of biomimetic perception, the new development of biomimetic control, the research and development of biomimetic robots, etc. It is also closely related to the research on artificial life, nonholonomic robot systems, or underactuated robot systems.

4. Activity Plan

Two or three workshops per one year, visiting to research places, cooperative events with other societies, etc.

