

Annuncio di Seminario

Guiding motor learning toward recovery and assistance

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Politecnico di Torino, Aula 7N
Ingresso da Via Pier Carlo Boggio 59**

The ability to learn is perhaps the most important feature of biological and artificial intelligence. It allows us to act in a multitude of environments and to combine sensory information with knowledge that we have acquired from previous experiences.

When we practice a new task we are not only getting better at it: our brains change and acquire knowledge on the physics of the environment and of our bodies. As the motor system is exposed to a new deterministic environment, it forms internal representations that allow us to generate effective motor commands and to predict the sensory consequences of our actions.

Learning is also our first line of defense after suffering an injury that affects one's ability to generate and control movements. It gives us the ability to adapting to the new condition and to recover functionality and independence.

Understanding learning is of critical importance for developing effective approaches to the recovery of motor functions following spinal cord injury and other neurological disorders.

I will present studies and findings that link the understanding of the mechanisms of motor learning to the development of new strategies for neurorehabilitation and of new approaches to the design of human-machine interfaces.

**Partecipazione libera e gratuita.
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