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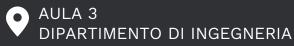DI INGEGNERIA

FROM CONSTRAINTS TO OPPORTUNITIES: EFFICIENT VISUAL TASK LEARNING FOR HUMANOID ROBOTICS

29/04/2022, ore 11:30

Relatore

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Abstract

Reliable visual perception and efficient adaptation to novel conditions are priority skills for humanoids that function in ever-changing environments. The vast advancements in latest computer vision research, brought by deep learning methods, are appealing in a robotic setting. However, their adoption in applied domains is not straightforward since adapting them to new tasks is strongly demanding in terms of annotated data, optimization time and computational resources. These requirements do not generally meet current robotics constraints. In past and current work, we proposed techniques to overcome some of these issues by exploiting opportunities coming from humanoid robotic platforms (like e.g. their embodiment in the environment and their sensors). During this presentation, I will provide an overview of our latest work on this topic.

Link Teams: https://bit.ly/3K8xwyb

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