

Research theme title:

Control Methods for Smart Network

Description:

The PhD scholarship provides for the study, design and development of optimization and control strategies, to be coupled with AI/Machine Learning methodologies, for processes involved in the smart network control. The scholarship, starting from the analysis of the requirements deriving from real needs of end users, will concern both the derivation of abstract/theoretical optimization and control strategies, to be coupled with coupled with AI/Machine Learning methods, which, in compliance with the identified requirements, allow to maximize the efficiency of the entire control system measured with respect to properly identified Key Performance Indicators (KPI); the concrete and personalized engineering of said strategies will be also part of the scholarship. The application areas include (but are not limited) cellular (5G/6G) networks, energy distribution networks, health-related networks/systems, transport networks.

Related Works:

Sutton, Barto: Reinforcement Learning: an Introduction; Kelleher: Deep Learning

Hosting Institution:

University of Rome "La Sapienza"

Contacts:

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Type of scholarship:

DM 118/2023 – Project on PNRR (Italy's Recovery and Resilience Plan)