CALL FOR PAPERS - SPECIAL SESSION

"Neuromorphic photonic and photonic computing for control and information technology"

for CODIT 2025
July 15-18, 2025 ▪ Split, Croatia

Session Co-Chairs:

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Session description:

This special session deals with the problem of achieving enormous data processing capability with high velocity and low energy consumption for next-generation circuits in IoT, autonomous systems, and automation. The solution lies in the compatibility of this scenery with neuromorphic photonic technology. It exhibits a multi-input characteristic with low energy consumption and high data processing capability, and importantly, it naturally incorporates Artificial Intelligence (IA) and Deep Learning (DL) concepts into its morphology. This natural integration reassures us of the technology's adaptability and potential for future advancements.

The goal is to bring together researchers in photonics and system control, considering its applications for signal processing, autonomous systems, and IoT, as well as emerging trends and innovations for future neuromorphic systems.

The topics of interest include, but are not limited to:

Artificial intelligence

Imaging

Frequency modulation

Optical computing

Photonic integrated circuit

Machine learning

Neural networks

Neuromorphic computing

Quantum computation.

Silicon photonics

Spatial light modulators