



**NILES
2020**

**The 2nd Novel Intelligent and Leading
Emerging Sciences Conference**

The 2nd Novel Intelligent and Leading Emerging Sciences Conference NILES2020 (24-26 Oct. 2020)

Proposed special session on

"MEMRISTIVE DEVICES, CIRCUITS AND SYSTEMS"

Call for Papers

Recently, memristors have shown considerable potential for a variety of applications in both memory and computation. Memristors were proposed conceptionally for the first time by L. Chua in 1971 grasping the attention of device researchers of this new element that exhibits a pinched hysteric behaviour in the current-voltage plane. The main feature of the memristive elements is the dependency of the current state and the history of the system. In 2008, HP labs announced fabrication such a device. Since then, the researchers across the globe have been designing, optimizing and fabricating different memristive devices such as ReRAMs, PCM and STT-RAM. Also, memristors have been employed in a wide variety of application starting from analog memory device storing multiple states utilizing the memory effect, chaotic circuits where memristors are used as nonlinear devices, logic circuits and enabling new computing paradigms such as in-memory computing.

This special session aims to provide an opportunity for international researchers to share and review of Memristive elements from device physics to the applications.

Track Titles

- Memristor Engineering and Fabrication,
- Memristor Models and Emulators,
- Memristor Characterization,
- Mem-elements: Meminductors and Memcapacitors,
- Memristive Chaotic Oscillators,
- Memristive Analog Circuits,
- Memristive Logic Circuits,
- Memristive Fuzzy Logic
- Resistive Memories,
- Memristive Neuromorphic Networks,
- Memristive Sensors,
- In-Memory Computing Circuits and Systems, and Memristive Brain-Inspired Computing.

Session Organizers

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Special Session Submission deadline: - 25 July 2020

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