

## Call for special session: AI-Enabled Hardware and System-on-Chip

The 5th International Conference on Multimedia Analysis and Pattern Recognition - MAPR 2022 cordially invites the researchers to submit your research articles for the special session: AI-Enabled Hardware and System-on-Chip.

### Aims and Scope

Recently, multimedia analysis and pattern recognition algorithms, especially deep neural networks have played a critical role in the emergence of commercial AI applications. Deep neural networks were successfully implemented thanks to the increased computational capacity of modern computing hardware. AI-enabled Hardware and System-on-Chip is a new generation of hardware custom built for pattern recognition and multimedia analysis applications. AI-enabled Hardware and System-on-Chip will emerge at both data centers and the edge. AI accelerators for many AI applications are required on hardware to enhance and enable simultaneous computations. AI-related chips rely on hybrid CPU and Accelerator like CPU-GPU, CPU-DSP, CPU-GPU-FPGA and CPU-ASIC will constitute a significant portion of future demand to obtain high performance.

The scope of this session is limited to the following:

- AI for System-on-chip and LSI Design
- Processing hardware accelerators-based SoC
- High Speed and Low Power Circuits and Systems
- Low-power hardware design for low-power IoT systems
- Chip Security, Multiple Security Sensors and Intelligent Sensors for IoT Systems
- Computer Architecture, Simulation and Modeling
- Autonomous Mobile and Intelligent Robots

### IMPORTANT DATES

- **Paper submission deadline: July 25, 2022**
- **Acceptance notification: August 29, 2022**
- **Camera ready: September 13, 2022**
- **Conference dates: October 13-14, 2022**

### PAPER SUBMISSION AND PUBLICATION

Authors are invited to submit their papers with 6-page length including text, references, tables and figures in the IEEE standard template. Special session submissions are anonymous, and must conform to the instructions for double-blind review. The papers are submitted electronically through EasyChair. Accepted papers will be submitted for inclusion into IEEE Xplore.

The papers are submitted electronically through EasyChair

<https://easychair.org/my/conference?conf=mapr2022> - Special Session: AI-Enabled Hardware and System-on-Chip

### CONTACT INFORMATION

Inquiries about the conference should be directed to: [mapr@uit.edu.vn](mailto:mapr@uit.edu.vn)

#### Technical Program Committee:

Minh Son NGUYEN (UIT, VN) - Special Section Chair  
Duc Lung VU (UIT, VN)  
Duy DOAN (UIT, VN)  
Tri Nhut DO (UIT, VN)  
Quoc Hung PHAM (UIT, VN)  
Truong Son NGUYEN (HCMUTE, VN)

My Ha LE (HCMUT, VN)  
Thanh Hai NGUYEN (HCMUTE, VN)  
Ngoc Son PHAM (HCMUTE, VN)  
Trong Hai NGUYEN (HUTECH, VN)  
Trung Duy TRAN (PTIT, VN)  
Bich Hien VO (VGU, VN)  
Chi Nhan NGUYEN (HCMUS, VN)  
Duc Hung LE (HCMUS, VN)  
Van Hung Cao (New Brunswick, Canada)  
Quoc Huy PHAN (Queen Mary, UK)  
Jae Young Hur (Jeju National University, Korea)  
Min Kyeong Sik (KookMin University, Korea)