Call for Papers

Themed Series of APSIPA Trans. on Signal and Information Processing on
"Recent Developments in Object Detection Technologies for Mobile/Edge Devices"

Introduction

Edge AI technologies are widely used in industry, medical care, agriculture, retail, warehousing, and detection. They allow mobile/edge devices to process data received from sensors in real time, thereby improving response speed, reducing latency, and lowering network bandwidth requirements. Object detection is one of the most critical technologies among them. Object detection on mobile/edge devices emphasizes low power consumption so the devices can operate longer. In addition, with the recent development of embodied intelligence, computer vision techniques play an essential role in robotic systems. In such applications, there is a demand for open-world/vocabulary object detection and attack/defense concerning object detection technologies. This theme series welcomes researchers and practitioners to submit their recent work on object detection technologies for mobile/edge devices.

Topics of Interest

We invite researchers to submit original research articles or reviews that address the following topics (but are not limited to):

- Low-power object detection techniques
- Object detection inference acceleration
- Low power/latency object detection neural architectures
- Application of object detection to mobile/edge devices
- Object detection streaming perception on mobile/edge devices
- Object detection attack and defense on mobile/edge devices
- Object detection, segmentation, and tracking on mobile/edge devices
- Multimodal object detection technology on mobile/edge devices
- Open world/vocabulary object detection Edge AI
- Mobile/edge device/chip design for object detection

Each paper submitted to this series will be reviewed using the first-come-first-serve principle. The target of the first round of decision-making is 5 weeks, and the period of the first round of revision is 2 weeks. The paper will be accepted between 8-12 weeks (depending on 1 or 2 revisions). Once the submission window has closed, accepted papers ready for publication will be published online. The series will be accompanied by an editorial written by the guest editorial team. If a paper cannot be accepted within the publication window, it will be considered as a regular paper..

Submission Information

For submission instructions, please refer to:
https://nowpublishers.com/Journal/AuthorInstructions/SIP.

Submission Window: **July 1, 2025, to August 1, 2025**

If you have any further questions, please contact kinyiu@iis.sinica.edu.tw.

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