

2021 NSF Workshop on Processing-In-Memory Technology

Sept. 2020, Virtual Pilot Talks
Mar. 2021, In-Person Participated Workshop
George Mason University, Fairfax, VA

Committees

Sharon Hu, University of Notre Dame,

Thrust Leader of **Circuit**

Yiran Chen, Duke University

Thrust Leader of **Architecture**

Partha Pratim Pande. Washington State University

Thrust Leader of Systems

Ulf Schlichtmann, Technical University of Munich

Thrust Leader of **Applications**

Xiang Chen, George Mason University

Local Chair

Pilot Talk Speakers

Kaushik Roy, Purdue University

TBD,

Workshop Organization

During the past months, the academic communication and technique exchange is highly disturbed due to the COVID-19. The workshop is consisted of:

Pilot Talks Online

6 pilot talks will be given online during the six months before the workshop.

In-Person Participated Workshop

The in-person participated workshop will be held at George Mason University.



In the recent decade, background...

www.nsf-pim.com

This workshop on Processing-In-Memory (PIM) Technology (PIMT) will provide a forum for leading experts in the relevant research thrusts of Processing-In-Memory (PIM) technology, specifically **circuit, architecture, systems, and applications**. This will enable researchers to brainstorm the latest research progress and discuss their visions of the critical challenges that need to be addressed in the near future.

Workshop Thrusts

PIM Circuit: Circuits serve as the foundation of the PIM technology. By exploring novel circuit designs for memory units and peripheral components, the workshop will identify the key technology challenges and effective solutions to unleash the huge potential of PIM technology.

PIM Architecture: PIM is one approach to overcoming the conventional von-Neumann bottleneck, which is a limitation on throughput caused by the latency inherent in the standard computer architecture. This workshop will provide grand insights into the architecture revolution with PIM technology.

PIM System: The workshop will also address dedicated PIM system analysis, design, and implementation issues. Specifically, the workshop will investigate new compilers, programming models, system architectures, etc.

PIM Applications: New application design and optimization opportunities will be investigated with PIM technology (e.g., artificial intelligence, internet of things, etc.). Through sighted talks and interdisciplinary discussions, the workshop will synthesis the vision for the PIM application trend for the near future.

Call for Participation

This workshop is looking forward to wide participation from both academics and industries.

Pilot Talks Online

The online session of this workshop will open to the public online. Please follow the online schedule and subscribe to our email thread to get the on-time notification.

In-Person Participated Workshop

The in-person participated workshop will be held at George Mason University and by invitation only. Despite of invited speakers and panelists, participants are required to [apply online](#).

Important Dates

First Pilot Talks:

Sept. 11th, 2020

Application for Workshop Open: Early Jan , 2021

Early Feb, 2021

Application Deadline:

Middle Feb , 2021

Applicant Notification:

Early Mar. 2021

Workshop Days: