Poughkeepsie Chapter of the Association For Computing Machinery

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   aaa          ccccccc       mmmmm   mmmmm
  a   a        cc     cc     mm mm   mm mm
 aa   aa      cc       c     mm  mm mm  mm
aaaaaaaaa     cc             mm   mmm   mm
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aa    aa      cc     cc      mm         mm
aa    aa       ccccccc      mm         mm
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MEETING NOTICE

Free and open to the public

Topic: **Exploiting Emerging Memory Technologies for Hardware Security**
Speaker: **Swaroop Ghosh**

When: **Monday, May 17th, 2021, 7:30 pm**

Where: **In Cyberspace**

Directions: To obtain the URL for this video conference, *you must register to attend through Meetup.com/ACM-Poughkeepsie/*
https://meetup.com/ACM-Poughkeepsie/events/277787670/
Once you've done so, your Zoom link will appear on Meetup's page for this event.

About the Topic: CMOS switches, although universal, fail to meet energy-efficiency, scalability and emerging constraints such as, security. Recent experimental studies have revealed that emerging spintronic, resistive and ferroelectric memory technologies possess many promising features that can not only enable non-Von Neumann compute models but also high-density storage and protection from cybersecurity threats. This talk will describe the novel application of emerging memory technologies in designing hardware security primitives namely, physically unclonable functions, true random number generators, hash functions and cryptographic engines. The application of these technologies in obfuscating sensitive IPs and side channel signatures will also be described.

About the Speaker: Swaroop Ghosh received a B.E. from the Indian Institute of Technology, Roorkee, and Ph.D. degree from Purdue University. He is an Associate Professor at Pennsylvania State University. His research interests include quantum computing, emerging memory technologies and hardware security.

Dr. Ghosh served as Associate Editor of the IEEE Transactions On Circuits and Systems I, IEEE Transactions On Computer-Aided Design, and Senior Editorial Board member of IEEE Journal of Emerging Topics on Circuits and Systems (JETCAS). He served as Guest Editor of the IEEE JETCAS and IEEE Transactions on VLSI Systems. He has also served in the technical program committees of more than 25 ACM/IEEE conferences. He served as General Chair, Conference Chair, and Program Chair of of ISQED and DAC Ph.D. Forum, and track co-Chair in DAC, CICC, ISLPED, GLSVLSI, VLSID and ISQED.

Dr. Ghosh is a recipient of Intel Technology and Manufacturing Group Excellence Award, Intel Divisional Award, two Intel Departmental Awards, USF Outstanding Research Achievement Award, College of Engineering Outstanding Research Achievement Award, DARPA Young Faculty Award (YFA), ACM SIGDA Outstanding New Faculty Award, YFA Director's Fellowship, Monkowsky Career Development Award, Lutron Spira Teaching Excellence Award, Dean's Certificate of Excellence and Best Paper Award in American Society of Engineering Education (ASEE) annual conference. He is a Senior member of the IEEE and the National Academy of Inventors (NAI), Associate Member of Sigma Xi and Distinguished Speaker of the ACM.

Cost: **Our meeting is Free and open to the public**
Dinner: **Because our meeting is virtual, we will not hold our normal dinner beforehand at the Palace Diner.**

We thank Marist College for providing web conferencing service.

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