COVID-19 Update: The COVID-19 pandemic has altered our research community in countless ways. How we gain knowledge, conduct research, socialize with peers, and interact with the community are all affected. The safety and well-being of the attendees are our top priorities. In view of the uncertainties surrounding the COVID-19 situation, we have decided to change SOCC 2020 into a full virtual event. The conference dates, Sept. 8-11, will remain the same. The paper review and acceptance process will proceed as planned. Please note that we have extended the submission deadline to June 5, which will be a hard deadline. We encourage you to submit your latest unpublished research work to SOCC. Registering your paper will serve as notice of intent to participate and to submit your full paper until June 5. Stay tuned for news on substantially reduced registration fees and other organization details. Thank you for your patience and cooperation as we navigate these new conferencing challenges.

Highlights
* Three-day technical program
* Full day of tutorials
* Panel discussion, Design Track
* Special Sessions, Social Events

“Systems-on-Chip for the next decade”
Multibillion transistor System on Chip (SoC) devices, comprised of RF, analog, optical, digital and Micro-Electro-Mechanical Systems (MEMS), are integral parts of ubiquitous communication, computing, entertainment, medical, logistics and carrier products. Recent advances in systems, deep-submicron and nano process technology are unleashing new opportunities, and also new challenges including managing design and verification complexity, EDA tools, on-chip communication, design reuse, handling inevitable faults, and the efficient integration of emerging MEMS and nano components into next generation SoCs.

For more than 30 years the IEEE International System-on-Chip Conference (SOCC) has been the premier forum for sharing the latest advancements in SoC architecture, systems, logic and circuit design, process technology, test, design tools, and applications. We proudly continue this tradition with the 2020 conference.

Areas of Interest
Papers are invited which address new and previously unpublished results in all areas related to SoC, including but not limited to:

**Circuits and Systems:**
- Biomedical — Wireline & wireless communication — Digital signal processing (DSP)
- Memory systems — Reconfigurable and programmable circuits

**Low Power Design:**
- Green circuits & systems — Low power methodologies — Power/energy/thermal aware architecture design — Multi-domain power/energy management — Energy harvesting

**MPSoC Architectures:**
- On-chip interconnect — Network on Chip (NoC) and multicore architectures — Memory architecture for multicore computing — 3D-IC — Heterogeneous computing — Parallel programming and software models

**Design Methodologies:**
- HW-SW co-design, reconfiguration and debug — System level design methodology and tools — Heterogeneous design flows — Design validation and verification — Design for Testability, test synthesis, embedded test

**Application Specific Design:**
- Embedded computing and Internet of Things (IoT) — High-performance mobile SoCs — Security — Real-time, high reliability and safety SoCs — Imaging and Vision — Cloud Solutions

**Emerging and Evolutionary Solutions:**
- Many-core architectures — General purpose GPU (GPGPU) computing — FPGA accelerated computing — Server on a Chip — Cortical processors — Neuronal and neuromorphic computing — Quantum computing — Futuristic development and optimization tools.

**SoCs for IoT and Intelligent Systems:**
- Evolvable and reconfigurable architectures — Self-healing SoCs — Architectures for intelligent hardware systems — On-chip learning and adaption — Neuromorphic chips — Low-power and low-area SoCs for IoT

Submission of Papers and Workshop/Tutorial/Special Session Proposals

These submissions include:

**Regular and Design Track Papers:**
- Regular Papers: limited to six double-column IEEE formatted pages.
- Design Track Papers: two-page extended abstract.
- All submissions will receive a double-blind peer review. Accepted papers presented at the conference will be included in the SOCC proceedings and will be published in IEEE Xplore®.
- All papers must be submitted through our web site.

**Workshop/Tutorial Proposals:**
- Must include title, one-page abstract/summary, and speaker’s bio. All proposals must be submitted directly to tutorials@ieee-socc.org.

**Special Session Proposals:**
- Must include title, topic rationale, organizer’s short bio, and a list of contributed papers. Submit directly to special sessions@ieee-socc.org

For detailed formatting instructions, submission & publication guidelines, refer to www.ieee-socc.org