2020 GSA Forum

2020 GSA Forum Themes

The GSA Forum is a platform that offer members and non-members to provide articles to gain exposure to our 20,000+ viewers. This is a quarterly on-line portal for semiconductor ecosystem related articles located on the GSA website – GSA Forum.

2020 Quarterly Forum Theme Calendar:

Q1 (Release February 3) – *Cybersecurity*

Much has been said about the potential of IoT. As the reality of delivering the benefits of IoT grows, the initial excitement turns to concern. Challenges around security and privacy have moved beyond technical consideration and have now entered the realm of serious business decision discussions. Security can only be addressed with an utmost sense of end-to-end urgency, focus and a mindset that assumes compromise and high cost at all nodes across the global technology and business value chains. Innovation, both in security technology as well as monetization models, is necessary to enable the highest possible security upfront. The other side of the coin is, of course, comprised of standards, implementation, policies and governance of cybersecurity.

This Q1 Forum will provide a multi-dimensional view of the challenges and opportunities in IoT Security and key areas being addressed as security vulnerabilities are introduced into a network that can create unintended consequences for anything connected to it.

- o Supply Chain Security
- o Endpoint Security
- o Automotive Security
- o Identity
- o Pre-Silicon Security
- o Root of Trust
- o CEO (C-Level Executive) Interviews
    - – Technology, Business, Market Insights
- o Others

Q2 (Release May 4) – *Intelligent Computing – Cloud & Edge*

Domain specific and workload centric custom accelerator chips and server and datacenter system architectures are revolutionizing the computer landscape dominated traditionally by general-purpose CPUs and GPUs. Without the new accelerators, current infrastructure won't be capable of delivering on the compute performance and power efficiency requirements demanded by tasks such as ML, AI, deep neural network training and inference.

On the other hand, to enable and realize the true value of real-time data analysis, edge intelligence pushes processing for data intensive applications away from the core of the cloud to the edge of the network. This radical transformation from the cloud to the edge, edge intelligence, will support trillions of sensors and billions of systems. It will treat data in motion differently from data at rest.

This Q2 Forum will discuss the rapid rise of new accelerator architectures, new market opportunities for workload specific accelerated infrastructure and technology trends at the edge.

- o High Performance Computing
    - – Cloud Computing
    - – Cloud Storage
    - – Connectivity
    - – Advanced Data Centers
- o Edge Intelligence
    - – Edge Computing / Storage
    - – Edge Networks
    - – Edge Devices
- o Emerging Memory Technologies
    - – Near Memory Processing
    - – In Memory Processing
- o Consumer Oriented Technology/Markets – AR/VR, Wearables
- o CEO (C-Level Executive) Interviews
    - – Technology, Business, Market Insights
- o Others

Q3 (Release August 3) – *Ubiquitous Connectivity & Mobility*

The world of mobile wireless communication systems, including 5G and beyond, is bracing to develop systems that can enable groundbreaking mobile applications requiring high-quality, low-latency, massive capacity and connectivity (billions of users, devices, machines and infrastructures). Beyond Smart Homes, Smart Building and Smart Cities, so called Internet-of-Everything (IoE) development will have ever-increasing demands for machine-to-machine communications and predicted 6G trends include ultra-dense cell networks, reconfigurable hardware, millimeter waves for user access, enhanced optical-wireless interface, networked VLC, intelligent networking and technologies to enable full immersive experience for users.

One of the promising use cases of ubiquitous connectivity is Mobility, where vehicles will be connected to each other and with the surrounding environment.

This Q3 Forum will cover technology and business model innovations that can address the demands and expectations for greater global coverage, higher capacities and always-on connectivity for new and future internet services and applications as well as the advancements in Smart Mobility, from ADAS, V2X, Smart Cities, Electrification, and Autonomous Driving technologies.

- o Ubiquitous Connectivity
    - o 5G Wireless Technology
    - o 5G and Beyond

- o 5G use cases, business models
- o Edge networks (LPWAN - Low-Power WAN)
- o Smart Mobility - Automotive Electronics
  - o Sensor Fusion
  - o Autonomous driving
  - o Connectivity (In-vehicle, V2X)
  - o Safety
  - o Electrification
- o CEO (C-Level Executive) Interviews
  - – Technology, Business, Market Insights
- o Others

Q4 (Release November 2) – *Open Source Architectures*

The semiconductor industry is following the inevitable trend toward free and flexible, community supported solutions for the long tail of new applications. When there were a handful of large, concentrated markets with more homogeneous architectures like cell phones, PCs, servers, hard drives, etc., a centralized IP seemed to make sense. But now we are entering a renaissance of semiconductors like nothing the industry has ever seen. We have gone from millions of early computers to hundreds of millions of PCs to billions of phones to tens of trillions of connected IoT devices - anything that can be connected and anything that benefits from being smarter with AI, machine learning, and software will be connected and will get smarter. The massive, virtuous circle of centralized cloud computing and decentralized, intelligent, connected devices working together to make technology more useful, combined with new interfaces (such as voice input) represent a tsunami of new opportunities - all powered by new semiconductors. These new semis need a hugely diverse set of capabilities and in other words, it's getting complex. That complexity favors open source, flexible and adaptable designs.

The Q4 Forum will discuss the changing landscape of chip design and the challenges and opportunities of an open source ecosystem.

- o Open Source Hardware
- o Open Source Collaborations
- o Future of Chip Design
- o Semiconductor IP Landscape
- o CEO (C-Level Executive) Interviews
  - – Technology, Business, Market Insights
- o Others

2020 Editorial Calendar

Q1 - January

- Abstract Deadline: December 27, 2019
- Article Deadline: January 31, 2020

Q2 - April

- Abstract Deadline: March 27, 2020

- Article Deadline: April 24, 2020

Q3 - July

- Abstract Deadline: June 26, 2020
- Article Deadline: July 31, 2020

Q4 - October

- Abstract Deadline: September 25, 2020
- Article Deadline: October 25th, 2020

2020 GSA Forum Article Guidelines

Articles can be fundamental think pieces, whitepapers, technical articles, business insights, etc. which are non-promotional and preferably unpublished. Guidelines for the articles are:

1) Approximately 1,750-2,500 words in length.
2) Up to three tables/charts/figures can be included.
3) Photos and screenshots must be sent as separate high-resolution images.
4) Embed images in the article in the correct locations, and attach a separate, high resolution file (.jpg, .png, .ppt, .xls, .tif, .gif, etc.) of the image (if possible).
5) A title must accompany every figure.
6) When using acronyms, in the first usage, spell out and include the acronym in parentheses immediately following.

   Ex: The company's intellectual property (IP) for the field-programmable gate arrays (FPGAs) was recognized as the industry's best. The fabless company's FPGA team developed the IP design in two weeks.)

7) Include a brief bio of author(s) to be published with article.
8) Articles should not be self-promotional.
9) All materials should be sent in a Word document format.
10) Provide a title image/graphic that will represent the context of the article (optional).

2020 GSA Forum Contact

If you would like to take advantage of this opportunity, please submit your abstract of the article (up to 500 words) to Shungo Saito (ssaito@gsaglobal.org) for consideration. GSA will review, advise on full article submittal and schedule of the release.