Call for Contributions

Note: Onsite and Online Options
In order to accommodate a large number of situations, we are offering the option for either physical presence or virtual participation. We would be delighted if all authors manage to attend in person, but are aware that special circumstances are best handled by having flexible options.

Submission:

1. Inform the Chair: with the Title of your Contribution
2. Submission URL:
https://www.iariasubmit.org/conferences/submit/newcontribution.php?event=CLOUD+COMPUTING+2020+Special
Please select Track Preference as **NCSIoT**

Special track

NCSIoT: Novel Cloud Approaches for Securing IoT Devices

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along with

CLOUD COMPUTING 2020, The Eleventh International Conference on Cloud Computing, GRIDs, and Virtualization
October 25 - 29, 2020 - Nice, France
https://www.iaria.org/conferences2020/CLOUDCOMPUTING20.html

The proliferation of Internet of Things (IoT)-devices in society at large demands a renewed focus on securing and maintaining such systems. IoT-based systems are predicted to have a great impact on future business and the resilience of such systems must be guaranteed. This can be achieved by prevention, detection, response and mitigation of combined physical and cyber threats to IoT infrastructure.

The objective of the call is to identify novel approaches for improving resilience in the evolving IoT domain. Such approaches can identify building blocks on a system or a device level. These building blocks can include intelligent security that actively and automatically adapts its own security. Introducing cryptographic-based building blocks that strive to ensure that distributed IoT networks remain in healthy condition throughout their lifecycle are of great importance. By supporting values of openness, automation, decentralization, inclusiveness and protection of privacy we can introduce novel means that reduces the threat of surveillance and theft, while also improving the level of trust for IoT technology.

In order to be agnostic in terms of sought solution implementations, this call extends the definition of cloud to include distributed cloud solutions. Traditional cloud architectures rely mainly on a conceptually centralized service provision model, while distributed clouds, e.g. based on distributed ledger technology (e.g., blockchain technologies) originate from a peer-to-peer and a completely distributed approach. The emergence of distributed clouds that are cryptographically secured through distributed ledgers may provide infrastructure for IoT

solutions that provide more transparent and accessible services, more intelligence, greater involvement and participation.

Topics include, but not limited to:
- Security solutions and architectures for IoT
- Analytics-based methods for intelligent supervision
- Blockchain-based IoT management
- Footprint reducing micro- and uni-kernels for IoT devices
- Physically-defined digital fingerprinting (i.e. physically unclonable functions) for IoT nodes
- Physical and cyber threats and mitigations to IoT infrastructure
- Identity management and key-recovery protocols for IoT-networks
- Privacy-preserving data sharing
- Secure machine-to-machine communication
- Development of distributed clouds for supporting IoT installations
- Cryptographic protocols and software architectures for distributed data processing
- Security standards and protocols for IoT

Important Datelines
>Inform the Chair: As soon as you decide to contribute
>Submission: August 1, 2020
>Notification: August 21, 2020
>Registration: September 1, 2020
>Camera-ready: September 1, 2020

Contribution Types
- Regular papers [in the proceedings, digital library]
- Short papers (work in progress) [in the proceedings, digital library]
- Posters: two pages [in the proceedings, digital library]
- Posters: slide only [slide-deck posted on www.iaria.org]
- Presentations: slide only [slide-deck posted on www.iaria.org]
- Demos: two pages [posted on www.iaria.org]

Paper Format
- See: http://www.iaria.org/format.html
- Before submission, please check and comply with the editorial rules: http://www.iaria.org/editorialrules.html

Publications
- Extended versions of selected papers will be published in IARIA Journals: http://www.iariajournals.org
- Print proceedings will be available via Curran Associates, Inc.: http://www.proceedings.com/9769.html
- Articles will be archived in the free access ThinkMind Digital Library: http://www.thinkmind.org

Paper Submission
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Registration
- Each accepted paper needs at least one full registration, before the camera-ready manuscript can be included in the proceedings.
- Registration fees are available at http://www.iaria.org/registration.html

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