

Call for Contributions for

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=UBICOMM+2020+Special>

Please select Track Preference as **ROAD2DN**

Special track

ROAD2DN: Resource Optimization and Allocation in Device-to-Device Networks

Chair and Coordinator

Dr. Oladayo Bello, Johns Hopkins University, USA

oladayo@ieee.org

along with

UBICOMM 2020, The Fourteenth International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies

<http://www.iaria.org/conferences2020/UBICOMM20.html>

October 25-29, 2020 - Nice, French Riviera, France

To ensure QoS and fairness in communication networks, scalable Resource Optimization and Allocation is vital. However, resource optimization and allocation challenges are unique in every communication network paradigm/standard. Therefore, a one-size-fits-all model cannot be applied in all use cases. Every new paradigm creates new communication deployment scenarios that introduce new complexities. In addition, new services (for example remote surgery, virtual medical visit, cloud gaming, real-time inventory, coordinated driving) and new devices adds to such complexities. Consequently new challenges are presented to the methods utilized for performing resource optimization and allocation.

These complexities, which may be unique to different network paradigm needs to be integrated into the design and development of RO and A models. Therefore, it is desirable to to develop RO and A models and algorithms that are tailored and caters for the uniqueness of communication use cases and network deployment scenario and service. In short, it is important that RO and A models evolve with the changes in communication network standards.

D2D networks have the potential to facilitate the intelligent connection of everything and everyone. It is envisaged that it will be an ubiquitous communication network model given its benefits, which includes capacity expansion, seamless Interworking, ease and low cost of setup and tear down, advantages for remote, mission-critical, emergency and humanly-unreachable scenarios/situations that requires ultra-reliable low latency communication. However, as D2D communication network standards evolve and new ones are developed, so must Resource Optimization and Allocation models. Thus it is essential to pay attention to how network resources are optimized and allocated in order to ensure robust and quality services in D2D networks. These models and algorithms will be leveraged for the design of new Network layer communication protocols that will be utilized in different use cases and scenarios in different D2D network standards to facilitate the delivery of expected performance such as low latency, high throughput and reliability.

ROAD2DN seeks original research contributions that are developing or have developed Models and algorithms for solving Resource Optimization and Allocation challenges in D2D communication in the following, but not limited to

1. IoT in Healthcare Services
2. IoT for Medical Wearables
3. IoT in Retail Services
4. IoT in Power Grid
5. Vehicle-to-Vehicle communication
6. IoT in Underwater Environment
7. IoT for Industrial Automation
8. IoT for Home Automation
9. IoT in Agricultural Services
10. IoT in 5G network
11. IoT for Intelligent Transportation Systems.

Algorithms maybe based on models such as (but not limited to) Evolutionary models, Biological models, Linear and Non-linear models and Stochastic models.

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

Note: These deadlines are somewhat flexible, providing arrangements are made ahead of time with the chair.

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> [both LaTeX and .doc templates]
- Before submission, please check and comply with the editorial rules: <http://www.iaria.org/editorialrules.html>
- More information on camera ready preparations will be posted after the paper notifications are sent out.

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.iaia.org/registration.html>

Contacts

Oladayo Bello: oladayo@ieee.org

UBICOMM Logistics: steve@iaia.org