

Call for Participation, Papers and Submissions for the 3rd IEEE IoT Vertical and Topical Summit January 26th -27st, 2020 as part of RWW2020



IEEE
Internet of Things



A Multi-Society Initiative

Organized by
IEEE IoT Initiative and the IEEE MTT Society

“The Internet of Things (IoT) and the mmWave Frontier” Instructions for Submissions can be found below

The 3rd IoT Vertical and Topical Summit at RWW2020 will address the important role that mmWaves play in the IoT ecosystem. The theme for the Summit is: “IoT and the mmWave Frontier” and is motivated by increases in deployment and the attention from regulators to new allocations of licensed and unlicensed mmWave spectrum. The Summit is a day and a half event designed to foster the dialog between participants from industry, the public sector, and the research community, in a highly interactive setting, to explore mmWave solutions (from 30GHz to 300GHz as well as the adjacent spectrum from 6GHz to 30GHz and 300GHz to 1,000GHz) and applications for IoT with a focus on the opportunities and challenges for adoption. This includes electromagnetic-waves used as a technology for: (i) Communications; (ii) Sensors; and (iii) Manufacturing/Industrial Processes.

The Internet of Things has seen significant growth and continued investment in the last two years and according to MarketWatch is projected to achieve a greater than 20% CAGR in the next eight years, capping out a decade of consistently accelerating adoption.

“May 20, 2019 (WiredRelease via COMTEX) -- The global internet of things (IoT) market is estimated to value US\$ 847.0 Bn in 2016 and is projected to register a CAGR of over 21% in terms of value during the forecast period 2017-2026. The Internet of Things (IoT) is a system of interrelated computing devices, mechanical and digital machines, objects, animals or people that are provided with unique identifiers and ability to transfer data over a network without requiring human-to-human or human-to-computer interaction.”

The “mmWave Frontier” has a key role in satisfying the challenging requirements for many of the applications that are emerging as part of IoT landscape. The specific characteristics that are inherent to devices in the “expanded” mmWave spectrum include: (i) ultrahigh bandwidth; (ii) beam forming; (iii) miniaturization; and (iv) power efficiency. They play a significant role in many facets of IoT which include among other applications:

- The delivery of broadband as an access technology significantly impacting the economics of the “Last Mile” problem.
- The ability to deliver broadband in rural areas greatly improving the consumer experience and viability for communities in sparsely populated and underserved areas and at the same time enabling the digitization of industries such as Agriculture, Mining, Energy Production, and Transportation in rural settings.
- The enablement of high band width Satellite communications arrays in LEO, MEO, and GEO orbits as part of infrastructure for IoT with an emphasis on both fixed and mobile applications.
- Sensors providing high resolution and low latency data for IoT applications such as Mapping and Geographic Information Systems, Automotive, Agriculture, Smart Utilities, Logistics and Industrial uses.
- As an essential component of 5G evolution.

There are four specific aspects that the Summit will consider:

- State of the art mmWave technologies, phenomenology, and performance characteristics important for mmWave solutions.
- Exploratory use cases and differentiated IoT solutions and applications that rely on mmWave technologies.
- Lessons learned from deployments, demonstrations, and experiments exploiting mmWave technologies.
- The choices of policy, regulatory regimes, and legal aspects of operating in the mmWave and adjacent bands.

The draft program below is an outline of what the Summit will cover.

| Sunday January 26th | Program |
|------------------------|--|
| 01:30pm- 03:30pm | <ul style="list-style-type: none"> • The role of mmWave technologies in IoT solutions and infrastructure • Overview of mmWave technologies and components • Interactive Panel Discussion |
| 03:30pm- 04:00pm | Coffee Break |
| 04:00pm- 06:00pm | <ul style="list-style-type: none"> • IoT and mmWaves for automotive, transportation, and logistics • IoT and mmWaves for industrial applications • IoT and mmWaves for applications in rural and sparsely populated areas • Interactive panel discussion |

| Monday January 27th | Program |
|------------------------|---|
| 08:00am- 10:00am | <ul style="list-style-type: none"> • Keynote: mmWave technologies, components and design • Keynote: mmWave enduser devices, components and design • Interactive Panel Discussion |
| 10:00am- 10:30am | Coffee Break |
| 10:30am- 12:30pm | <ul style="list-style-type: none"> • mmWaves for satellite based IoT communications and services. • mmWaves for satellite based Sensor for IoT systems and services. • mmWaves for IoT as part of 5G services • Interactive Panel Discussion |
| 12:30pm- 01:30pm | Box Lunch with Invited Speaker |
| 01:30pm- 3:30pm | <ul style="list-style-type: none"> • Policy, regulations, and legal aspects of mmWave systems for IoT - moderated panel discussion and presentations |
| 03:30pm- 04:00pm | Coffee Break |
| 04:30pm- 06:00pm | <ul style="list-style-type: none"> • Advanced Communications Systems and Components Industrial Applications • Advanced Sensor Systems and Components for Small Satellites • Experience, demonstrations and results from mmWave deployments • Wrap-up and summary discussion |

The majority of the presentations for the Summit are chosen by invitation and address current issues important to IoT and the theme of the Summit. In this call for submissions, we are seeking the following items:

- Suggestions for speakers to present on the subjects identified above.
- Suggestions for assisting in organizing panels or round-tables on specific subtopics and in identifying panel participants.
- Suggestions for other formats that will help the Summit be more interactive and meaningful to the audience.
- Submission of papers to accompany presentations at the Summit. These will be fully peer reviewed as indicated in the instructions below. The choice of presenters will be made by the Summit Chairs, based on relevance to the Summit. Selection of a presenter does not guarantee the acceptance of papers for publication.

The majority of the presentations are by invitation. However, we will also accommodate a limited number of original and novel submitted papers. These will be fully peer reviewed, and the accepted papers will be published in IEEE Xplore. If you wish to submit a paper, please

follow the instructions below. The deadline for submission is September 22, 2019. Please note that we may ask you to participate as a presenter if we conclude that the material is highly relevant to the summit, but your paper was not accepted for publication. We expect that all the presentations will be posted on the Summit Website after the event. The programs and presentations from previous Summits can be found at:

<http://sites.ieee.org/rww-2018/program/> - Anaheim CA at RWW2018

<http://rww2019.iot.ieee.org/program/> - Orland FL at RWW2019

How to Submit a Paper:

The RWW Late News submission site is live and open to IoT Summit speakers (must include the 145 redirect key):

<https://www.mpassociates.com/ml/account/login.aspx?redirectkey=145>

Click 'ADD NEW SUBMISSION' and complete the series of questions on list of participants in the paper, then select 'ENTER YOUR SUBMISSIONS', and complete the next page. Note that in #4 TOPIC AREA, IoT Summit participants should select 7. IoT/IoS Summit

Upload your abstract or full paper (three page limit) and then answer the questions in 7 and 8.

Finally, click SUBMIT.

Authors must contact the IoT Summit organizers (below) to let them know of your intent to have your paper published in IEEE Xplore by the close of the Late New website (22 September 2019).

Important Dates for Paper Submissions

Paper Submission Due Date: **September 22nd, 2019**

Acceptance Notification: **October 1st, 2019**

Camera-ready Submission: **October 15th, 2019**

Contacts for Vertical & Topical Summit Proposals and Papers

Adam Drobot, OpenTechWorks, USA adam.drobot@opentechworks.com

Charlie Jackson, Northrop Grumman, Charles.M.Jackson@ngc.com

Robert Caverly, Villanova University, rcaverly@villanova.edu

Summary of Papers Submission Requirements

The **total length of your paper summary must not exceed three pages** (see [Statement of Compliance](#)). The **maximum pdf file size is 4.0 Mb**; larger files will be arbitrarily reduced.

Manuscript Format (see [Sample Manuscript here](#)):

- Use U.S. Letter (8.5"x11") format and please stay within the following margins: top: 0.75", bottom: 1.125", sides: 0.75" (note: available space slightly increased from IEEE template).
- Use two columns per page for your text (with 0.25" gutter between columns).
- Capitalize only initial letters in title and author information.
- Center title across the page in boldface type; skip one line between title and authors.
- Center all author name(s) below title; if required, reference affiliations with superscripts 1,2, ..
- Center all affiliation name(s) below all author name(s).
- Include phone and email for the corresponding author.
- Skip one line before Abstract and start your Abstract in the first column, use boldface type.
- Index terms should be listed next; keywords can be found at the [IEEE keyword list](#) .
- Use single space for the body text with standard fonts (e.g. Times New Roman) and font size of at least 10 point.
- Embed all figures and captions within the text.
- Ensure legibility; simplify all figures and tables and maintain uniformity of style throughout.

In order to complete your submission to RWW2020, you will be asked to provide the following information to an on-line form (submission form link below):

- The title of your submission
- Name, Address, Affiliation, Email, and Phone/Fax number for the corresponding author and co-authors
- Topical category (select from a pull-down menu)
- The abstract of your submission (150 word limit)
- The preferred format of your presentation: Oral or Poster
- To enter Student Paper Competition or not (see also Student Paper Competition rules)
- To be considered in Demo Track and to Present Your Work in Live Demonstration (one page abstract)

During the submission process, you will be asked on:

- Statement of Clearance Approval
- Statement of Copyright Assignment
- Statement of Exclusivity
- Statement of Compliance
- Statement of Obligation
- Statement of Registration Requirement
- Statement of Presentation Requirement

STATEMENT OF CLEARANCE APPROVAL: (1) the information contained in any materials submitted to the IEEE in connection with the Work is not restricted by U.S.

International Traffic in Arms Regulations (ITAR) or any other applicable U.S. export control laws; (2) any and all necessary authorization(s) from the undersigned's employer(s) for the disclosure of the information discussed in the Work have been obtained and will be retained by the authors; and (3) the foregoing applies to all future versions of the Work, whether edited by the undersigned, an assistant, co-author or any person working with the undersigned. (4) For jointly authored Works, I agree to act as the authorized agent for the other authors.

STATEMENT OF COPYRIGHT ASSIGNMENT: If this submission is accepted for presentation at RWW2020, I/we, the authors, understand that the copyright for this material must be assigned to the IEEE prior to publication.

STATEMENT OF EXCLUSIVITY: Neither this material nor essentially similar material has been submitted to any other publication or meeting, and will not be until disposition is received from RWW2020.

STATEMENT OF COMPLIANCE: If my/our submission does not comply with the letter and spirit of the guidelines found in the Call for Papers and the Summary Submission Author's Guide, then our submission may be arbitrarily truncated or rejected without review.

STATEMENT OF OBLIGATION: If this submission is accepted for presentation at RWW2020, we are obligated to submit, by 30 October 2019, a .pdf version of this paper suitable for uploading onto IEEE Xplore. I/we understand that if we do not meet this deadline our presentation may be deleted from RWW2020.

STATEMENT OF REGISTRATION REQUIREMENT: If this Summary is accepted for presentation at RWW2020, I/we, the author(s), understand that at least one of the authors has to complete a full registration for RWW2020.

STATEMENT OF PRESENTATION REQUIREMENT: If our paper is accepted for presentation, I and my co-authors further understand that if no one is available to present at the conference, the conference organizers reserve the right to exclude the manuscript from the final conference record and from inclusion in the conference proceedings submitted to the IEEE Xplore® digital library.

You may wish to check these items before proceeding.

By the submission deadline (please do not ask for an extension!):

- Upload your pdf file (3 pages, 4.0 Mbytes max.)
- In order to submit your paper to the correct conference, please click on the RWW 2020 Summary Submission Site link below and select the conference of your interest.

[Click here to start your submission](#)

If you have any questions, please contact the chairs well in advance of the deadline.