

Signal Processing for Millimeter-Wave Communications

General Chairs:

Hani Mehrpouyan, *Boise State University*

Technical Program Chairs:

David Matolak, *University of South Carolina*
Ismail Guvenc, *North Carolina State University*

Wireless systems are increasingly supporting larger and more diverse applications. To meet this demand, cellular providers need to have access to more bandwidth, which is their primary capital expenditure. They could reduce such costs—and introduce potentially far reaching improvements to cellular access, affordability, and coverage—by making better use of available spectrum in the 30–300 GHz millimeter-wave band. The aim of the millimeter wave symposium of GlobaSIP is to provide a forum that brings together scientists and researchers to present their cutting-edge innovations in all aspects of the field. Papers on practical applications and R&D results from industry and academic/industrial collaborations are particularly encouraged. Topics include but are not limited to:

- Signal processing for the physical layer of millimeter-wave systems.
- Resource management for dense millimeter-wave networks
- Channel measurements and modeling at millimeter-wave frequencies
- Interference models for millimeter-wave communications
- Millimeter-wave for unmanned aerial vehicles, i.e. air-to-ground and air-to-air communications.
- MAC layer design for millimeter-wave networks
- Application of machine learning in managing and enabling millimeter-wave networks
- Positioning and localization for millimeter-wave systems
- Reconfigurable and smart antennas and their application in millimeter-wave communication systems
- Backhauling for millimeter-wave systems
- Beamforming and beamsteering for millimeter-wave Systems
- Fundamental performance bounds of millimeter wave networks

Paper Submission: Prospective authors are invited to submit full-length papers (up to 4 pages for technical content including figures and possible references, and with one additional optional 5th page containing only references) and extended abstracts (up to 2 pages, for paper-less industry presentations and Ongoing Work presentations) via the GlobalSIP 2018 conference website. Manuscripts should be original (not submitted/published anywhere else) and written in accordance with the standard IEEE double-column paper template. The accepted abstracts will not be indexed in IEEE Xplore, however the abstracts and/or the presentations will be included in the IEEE SPS SigPort. Accepted papers and abstracts will be scheduled in lecture and poster sessions.

Important Dates:

- **June 17, 2018:** Paper submission due
- **Aug. 7, 2018:** Notification of Acceptance
- **Aug. 22, 2018:** Camera-ready paper due.

For inquiries please contact: Hani Mehrpouyan (hani.mehr@ieee.org), David Matolak (matolak@cec.sc.edu), Ismail Guvenc (iguvcnc@ncsu.edu)