

## Special Issue on Antennas for Emerging 5G Systems

# CALL FOR PAPERS

5G will support significantly faster mobile broadband speeds and extensive mobile data usage, as well as enabling the full potential of the Internet of Things. From virtual reality and autonomous cars, to the industrial internet and smart cities, 5G will be at the heart of the future of communications. Like conventional bands, 5G applications will have to utilize higher frequency bands in the millimeter-wave region to enable wider bandwidth and higher data rates. The higher frequencies, wider bandwidths, and the need for beamforming, beam steering, and multiple beams are significant challenges to antenna designers. Low-profile efficient antennas to ensure reliable and interference-free communications are needed, but requirements for increased power, larger bandwidth, higher gain, and insensitivity to the presence of the human user further complicate the antenna and propagation aspects. This indicates the need for novel ideas and very innovative solutions in antenna design.

We invite researchers to contribute original research articles as well as review articles that seek to address the issues of antenna design for portable 5G applications.

Potential topics include but are not limited to the following:

- Antenna design: techniques and measurement for 5G systems
- Multiple antennas for advanced transceivers of 5G systems
- Massive MIMO systems for the next generation
- Multiband antenna operation for 5G Systems
- Reconfigurable antennas and devices for the next generation
- Channel modelling and wave propagation for 5G mobile communications
- Antennas for 5G applications as (e.g., device-to-device communications, spectrum cognition, and transportation)

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/ijap/aegs/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

### Lead Guest Editor

Khalil H. Sayidmarie, Ninevah University, Mosul, Iraq  
*kh.sayidmarie@uoninevah.edu.iq*

### Guest Editors

Neil J. McEwan, University of Bradford, Bradford, UK  
*n.j.mcewan@bradford.ac.uk*

Peter Excell, Wrexham Glyndwr University, Wrexham, UK  
*p.excell@glyndwr.ac.uk*

Raed A. Abd-Alhameed, Bradford University, Bradford, UK  
*r.a.a.abd@bradford.ac.uk*

Chan H. See, Bolton University, Bolton, UK  
*chsl@bolton.ac.uk*

### Submission Deadline

Friday, 31 August 2018

### Publication Date

January 2019