

**IEEE International Workshop on Computer Aided Modelling and Design of  
Communication Links and Networks (CAMAD)**

<https://camad2021.ieee-camad.org/>

**CALL FOR PAPERS**

**Special Session on “Ambient Backscatter Communication for B5G/6G**

**Scope**

With the commercialization of Internet-of-Things (IoT) and mobile Internet (MIT), the future wireless communication network faces a great challenge to support diverse access intelligent devices. The forthcoming sixth-generation (6G) experiences a new paradigm shift from connected things” to “connected intelligence”, which has limitations on spectrum, energy, cost and size. Ambient backscatter communication (AmBC) has been identified as the promising technology to meet the above demands. AmBC is attractive because it does not require a dedicated RF carrier emitter. Instead, AmBC can achieve communication with the aid of the ambient signals of the existing wireless infrastructure and devices, such as frequency radio (RF) towers, television (TV) towers, cellular base stations, and wireless fidelity (Wi-Fi) access points. Therefore, AmBC and RIS have attracted wide range of research from both academia and industry.

**Topics of Interest**

The goal of this Research Topic is to solicit original research papers, bringing together academic researchers and industrialists to report recent research advances in AmBC B5G/6G. The scope, mode, and quality of services can be greatly improved by AmBC enabled B5G/6G network, which has effectively promoted intelligent development and helped use limited resources more efficiently. Considering the future interest in critical B5G/6G-enabled holographic communication, this Special Issue welcomes research that discusses channel modeling, fading performance analysis, transmission scheme design, resource allocation, and communication protocols of AmBC for B5G/6G and to envision new research directions in the emerging fields of research

Themes of interest in this Research Topic include but not limited to the following:

- Modelling and statistical characteristics for AmBC-enabled B5G/6G Mobile Networks
- Waveform design, modulation, and coding for AmBC of B5G/6G Mobile Networks
- Resource allocation for AmBC-enabled B5G/6G Mobile Networks
- Channel state information acquisition for AmBC-enabled B5G/6G Mobile Networks
- Algorithms and protocols design for AmBC-enabled B5G/6G Mobile Networks
- Hardware architectures and designs for AmBC-enabled B5G/6G Mobile Networks
- Machine learning for AmBC and/or RIS enabled wireless networks
- Integration of AmBC and/or RIS with state-of-the-art wireless technologies (e.g., NOMA, massive MIMO, physical layer security, millimeter wave communication, cognitive radio, cooperative communication, energy harvesting)

## Important Dates

<b>Paper Submission Deadline</b>	<b>30 June 2021</b>
<b>Paper Acceptance Notification</b>	<b>24 July 2021</b>
<b>Camera-Ready</b>	<b>31 July 2021</b>
<b>Conference Date</b>	<b>13-15 September 2021</b>

## Submission Guideline

Prospective authors are invited to submit a full paper of not more than six (6) IEEE style pages including results, figures and references. Papers should be submitted via EDAS. Papers submitted to the conference, must describe unpublished work that has not been submitted for publication elsewhere. All submitted papers will be reviewed by at least three TPC members, while submission implies that at least one of the authors will register and present the paper at the conference. Electronic submission will be carried out through the EDAS web site at the following link: <https://edas.info/N28270> All accepted papers will be included in the conference proceedings and IEEE digital library (<http://ieeexplore.ieee.org/>).

## Organizers

Prof. Xingwang Li, Henan Polytechnic University, China

Dr. Yuan Ding, Heriot-Watt University, United Kingdom

Dr. Wali Ullah Khan, University of Luxembourg, Luxembourg