



# New RAN TEchniques for 5G UltrA-dense Mobile networks - TeamUp5G

## Online talk

“MAC and Routing layer Protocols for Industrial IoT”

Thursday, January 23, 2020 (11:00 CET)

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### Abstract :

With the large adoption of small and smart objects, the Internet of Things aims to provide a large and universal access to a very heterogeneous set of devices. Specifically, the Industrial Internet of Things (IIoT) aims to connect time-critical devices, for industrial applications. These environments rely on wireless infrastructures, able to provide low end-to-end delays, and high-reliability. The slow channel hopping MAC approaches propose to combat external interference (e.g. Wi-Fi, Bluetooth) by exploiting the whole radio spectrum. For industrial applications, they also rely on a strict schedule of the transmissions: a device knows when it has to receive or transmit a frame, and when it can turn its radio off to save energy. In this talk, a panorama of the existing challenges and solutions for these channel hopping networks will be presented.

**Bio:**

Georgios Z. Papadopoulos (MIEEE) serves as an Associate Professor at the IMT Atlantique in Rennes, France. Previously, he was a Postdoctoral Researcher at the University of Bristol. He received his Ph.D. from University of Strasbourg, in 2015 with honors, his M.Sc. in Telematics Engineering from University Carlos III of Madrid in 2012 and his B.Sc. in Informatics from Alexander T.E.I. of Thessaloniki in 2011.

Dr. Papadopoulos has participated in various international and national (FP7 RERUM, FIT Equipex) research projects. He has received the prestigious French national ANR JCJC 2017 grant for young researchers. He has been involved in the organization committee of many international events (IEEE ISCC'20, IEEE DIPI'19, AdHoc-Now'18, IEEE CSCN'18, GIIS'18, IEEE ISCC'17). Moreover, he has been serving as Editor for Wireless Networks journal and Internet Technology Letters, as well as Guest Editor for Computer Communications journal. He is author of more than 50 peer-reviewed publications in the area of computer communications, networks and security. His research interests include Industrial IoT, 6TiSCH, 6lo, LPWAN, Wireless Battery Management System, Smart Grid and Moving Target Defense.

Dr. Papadopoulos has received the Best Ph.D. Thesis Award granted by the University of Strasbourg and he was a recipient of two Best Paper Awards (IFIP Med-Hoc-Net'14 and IEEE SENSORS'14).