



IEEE International Symposium on Personal, Indoor and Mobile Radio
Communications

8-11 September 2019 // Istanbul, Turkey

CALL FOR PAPERS – SPECIAL SESSION S7 “5G for Tactical and First Responder Networks”

5G will represent a clear paradigm shift in communications and connectivity. Not only is 5G evolutionary (providing higher bandwidth and lower latency than current-generation technology), more importantly, 5G is revolutionary—because it is expected to enable fundamentally new applications with much more stringent requirements in latency and bandwidth. 5G should help solve the last-mile problem and provide broadband access to the next billion users globally at much lower cost because of its use of new spectrum and its improvements in spectral efficiency.

Today, several standards organizations and forums, namely IEEE, 3GPP, and ITU, are working on defining the architecture and standardizing various aspects of 5G technologies. However, few works explore the issue on how 5G technologies can be useful to tactical and first responder networks. Nevertheless, the issue is extremely relevant, as it is of outmost importance to investigate how tactical and first responder communities can take advantage of 5G technologies to support massive bandwidth, massive sensing, and massive control type applications.

The focus of the special session is to discuss the vertical application of 5G technologies for tactical and first responder networks and related opportunities and challenges. The session will thus provide a platform to bring together 5G experts from industry, academia, and the standards, regulator, and defense communities to discuss various 5G-specific use cases and requirements.

Motivated by this background, this special session solicits contributions in line with, but not necessarily limited to, the following topics:

- 5G slicing for tactical and first responders’ networks
- Use cases for 5G usage in tactical and first responders’ networks
- Fast deployment of 5G technology for emergency/tactical scenarios
- Requirements for first responder/tactical communications
- Self-configuration of 5G Service Based Architecture for emergency / tactical scenarios
- Ultra reliable communications
- Seamless integration of tactical / first responders’ networks within 5G
- Integration of UAVs and other aerial/water/ground platforms in 5G networks
- Existing projects / platforms for tactical and first responder networks
- Standards and protocols for tactical and first responders’ applications

Key Dates:

- Deadline for paper submission: **21 May 2019**
- Paper acceptance notification: **21 June 2019**
- Final papers due: **5 July 2019**

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