

## **"Security constrains and spectrum vulnerabilities at the beginning of 5G era"**

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*Description:* A lot of changes and transformations in wireless communication will come together with the start of the operational period of the 5G communication networks. Parts of them are related to the specific issues of the RF spectrum usage and their impact on the communication security. There are some traditional issues regarding the third-party interception of the transmitted radio signal (RFID, WiFi, other wireless networks). Despite some measures to ensure the confidentiality of the transmitted data, some hidden information may be detected. Also there are some specific 5G requirements regarding to RF spectrum sharing, related to the expected users' densification due to the fast increasing of IoT RF connections and, not at the end, to the RF spectrum usage of different classes of vehicles, including drones and automat vehicles. Not at the end, the development of 5G applications rises new security constrains (e.g. the effect of data volume increase and its mass usage with access via communications networks, the effect of digitalization with distributed access via 5G networks, etc).