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Special Session on
Integrated sensing and communications for 6G

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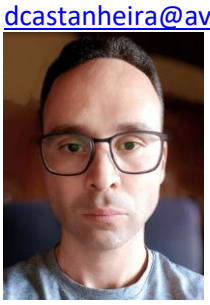

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Scope of the session

RADAR sensing and wireless communications are the most common radio functionalities used by both civilian and military applications. Traditionally, these systems have been designed and developed in isolation from each other. However, the independent design of these systems wastes valuable spectral resources. Therefore, the spectrum shortage combined with the emergence of novel applications requiring both functionalities, has inspired the research on the topic of *integrated sensing and communications* with the aim of integrating both functionalities in the same platform. This need will increase with 6G, which aims to support the convergence of the digital, physical, and personal domains. This requires expanding the functionalities of 5G, to include the integration of radio sensing and communications in support of both hardware-and spectrum-sharing.

Prospective authors are invited to submit original and unpublished work on the following research topics related to this Special Session including but not limited to:

- *Novel waveforms for joint communications and sensing*
- *Joint transmit and receive beamforming design for joint communications and sensing*
- *Network Synchronization schemes*
- *Hybrid analog-digital beamforming and sub-arrayed MIMO*
- *Millimeter wave joint communications and sensing*
- *Massive MIMO for joint communications and sensing*
- *Efficient Clutter Suppression techniques*
- *Joint communication and sensing in context of cell-free networks*