



## AI-Enabled Cognitive Radio Networks

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### Message from the Guest Editor

The unprecedented surge in data traffic experienced over the last decade has stretched the telecommunications wireless networks to their capacity, and, thus, making more efficient ways of spectrum utilization increasingly necessary. Recently, the integration of artificial intelligence (AI) technologies in communications networks has revolutionized how networks are managed. The adoption of AI promises self-adaptive and reconfigurable networks able to provide reliability, energy and spectrum efficiency, etc. AI is expected to be a cornerstone of future cognitive radio and spectrum sharing solutions.

This Special Issue targets novel research contributions on AI-Enabled Cognitive Radio Networks. Specific topics of interest include, but are not limited to the following:

- Challenges and issues in designing AI-enabled cognitive radio networks and communications
- Cross-layer design and optimization of AI-enabled cognitive radio networks
- Machine learning, deep learning or (Deep) reinforcement learning algorithms for spectrum access
- Traffic and/or interference prediction for spectrum sharing
- AI-based algorithms to improve wireless communications systems coexistence
- ...





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