

Special Interest Groups (SIG) on Social Behaviour Driven Cognitive Radio Networks

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IEEE ComSoc SIG on Social Behaviour Driven
Cognitive Radio Networks

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Finished activities:

➤ Finished Activities---19 items (10 Special Issues + 9 Workshops)

1. Special Issue: IEEE ACCESS (2016.11)
2. IEEE SPAWC 2017 (2017.07)
3. Special Issue: IEEE JSAC (2017.08)
4. International School on 5G Systems (2017.10)
5. Special Issue: IEEE Access (2017.10)
6. Special Issue: IEEE Com. Mag. (2017.12)
7. Special Issue: IET Communications (2018.01)
8. Special Issue: IEEE Access (2018.01)
9. IEEE BTS Young Professionals 2018 (2018.04)
10. IEEE INFOCOM 2018 Workshop (2018.04)
11. EUROPEAN WIRELESS 2018 (2018.05)
12. IEEE HotICN 2018 (2018.08)
13. IEEE/CIC ICC 2018 (2018.08)
14. Special Issue: MONET Journal (2018.10)
15. Special Issue: IEEE ACCESS (2018.12)
16. Special Issue: IEEE JSAC (2018.12)
17. IEEE GLOBECOM 2018 (2018.12)
18. Special Issue: IEEE Access (2018.12)
19. IEEE INFOCOM 2019 (2019.04)



Ongoing Activities

➤ Ongoing Activities—**3** items

(**2** Special Issues + **1** Workshop)

1. IEEE ICC Workshop 2019 (2019.05)
2. Special Issue: MONET Journal (2019.05)
3. Special Issue: IEEE Wireless Communications (2019.10)



IEEE Wireless Communications



IEEE ICC[®]

IEEE International Conference on Communications
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*Thank you !
Welcome!*

SIG on Social Behaviour Driven Cognitive Radio Networks

Scope and Objectives

In the last two decades, cognitive radios have emerged as an efficient way to improve spectrum utilization and provide more flexibility in networking. A significant change in cognitive radio networks (CRNs) recently is putting social behaviour in the loop. Many social behaviours can be sensed and even predicted by the machine learning and artificial intelligence (AI) based smart applications. In this context, the social behaviour is a new driven force for better performance in CRNs. In addition, emerging smart applications can strongly affect social behaviour, which will be a new driven force for proposing new applications in CRNs as well. In this social behaviour driven CRNs, critical technical problems should be solved to realize the potential benefits, e.g., how to efficiently formulate and utilize human-device interactions to boost communication performance since the device holder are supposed to be mobile regularly, and how to facilitate the benefits of considering social behaviours and application characteristics from utilizing the devices' capability of caching and computing. Another major challenge is how to sense and understand social behaviours and application characteristics. In this SIG group, we provide a platform on the development of social behaviour driven CRNs to exploit and explore new dimensions.

Chair

Dr. Li Wang, BUPT, China

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