

TCCN Committee

IEEE Transactions on Cognitive Communications and Networking

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Editor-in-Chief

**IEEE Transactions on Cognitive Communications
and Networking**



Outline

- Journal scope
- Basic information
- Editorial board
- Special issue
- Discussion Points

Official Scope for IEEE TCCN

The *IEEE Transactions on Cognitive Communications and Networking* (TCCN) is committed to timely publishing of high-quality manuscripts that advance to the state-of-the-art of cognitive communications and networking research. **Cognitive in this context means the applications of perception, learning, reasoning, memory and adaptive approaches in the design of communication systems.** The transactions will consider submissions in the broad area of cognitive communications and networks, with an emphasis on taking holistic and possibly trans-disciplinary approach on design of complex communications systems.

Journal Scope for IEEE TCCN

- **Cognitive → Intelligent**
 - Basic components: perception, learning/reasoning and decision making
- All aspects of **communications and network control** in an intelligent manner
 - From PHY functions to applications
 - ML/AI algorithm → Intelligent system design
- **Special issue/ section**
 - New emerging areas in cognitive and intelligent communications and networking.

Subject Areas

- Cognitive Radio
- Intelligent Communications
- Intelligent Networking
- Intelligent Resource Management

Journal Scope for IEEE TCCN

Topics of interest include (but are not limited to):

- Machine learning and artificial intelligence for communications and networking
- Distributed learning, reasoning and optimization for communications and networking
- Architecture, protocols, cross-layer, and cognition cycle design for intelligent communications and networking
- Information/communications theory and network science for intelligent communications and networking
- Ontologies, languages, and knowledge representation for intelligent communications and networking
- Security and privacy issues in intelligent communications and networking
- Cognitive radio and dynamic spectrum access
- Cognitive technologies supporting software-defined radios, systems and networks
- Emerging services and applications enabled by intelligent communications and networks

Paper Status Summary

(as of May 5, 2019)

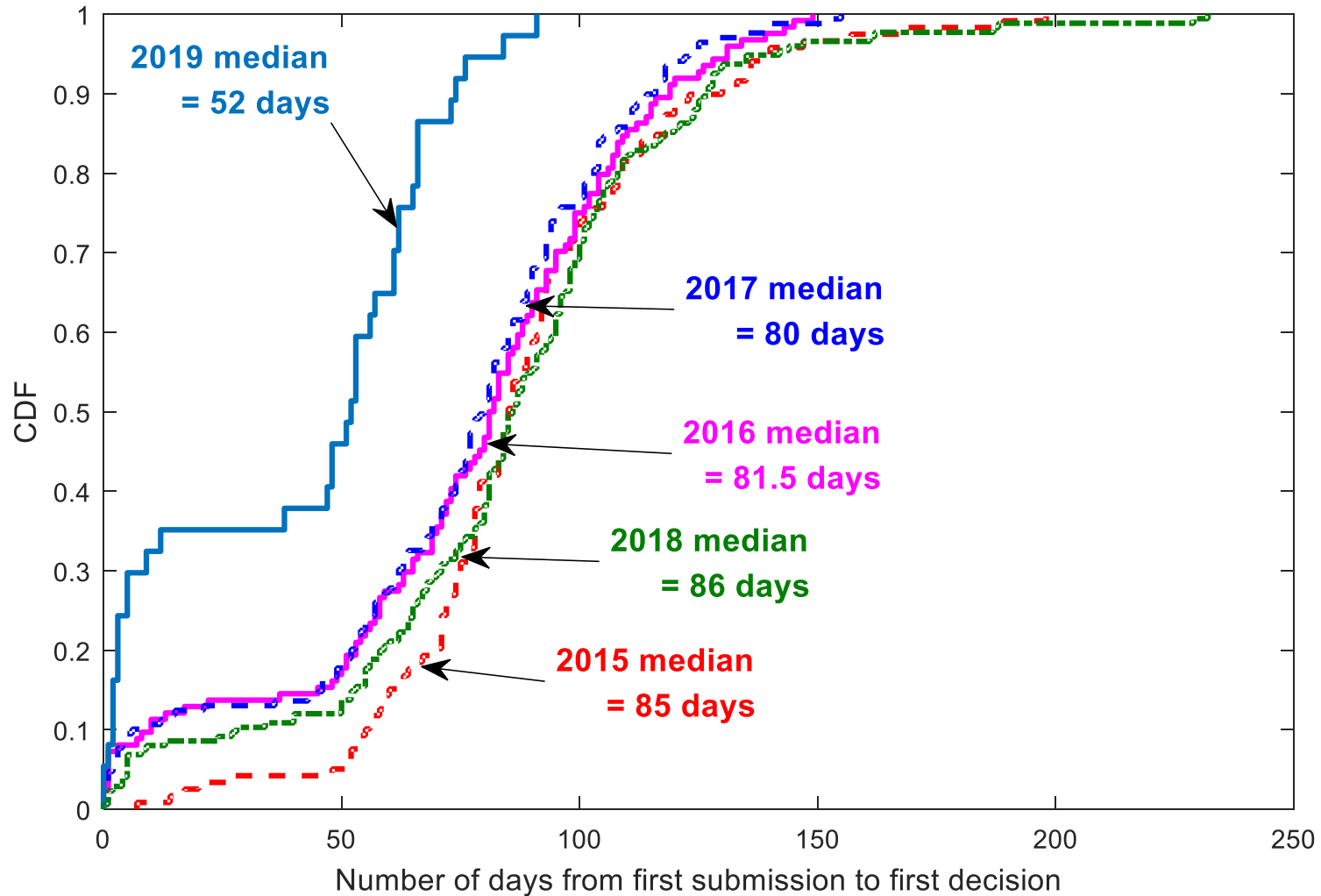
Submitted Year	Submitted	Accepted	Rejected (including EiC reject)	Withdrawn + Revision opt. Exp.	Still in Review Process	Awaiting Revision	Acceptance rate
2015	125	50	61	14	0	0	40.00%
2016	130	48	75	7	0	0	36.92%
2017	177	80	85	12	0	0	45.20%
2018	185	65	67	10	21	26	~35.13%
2019	96	1	29	0	53	12	N/A

Number of Submissions: Nov. 5, 2018 – May 5, 2019 (as of May 5, 2019)

Manuscript type	Original	Revised	Total
Special Issue: Coexisting Radio and Optical Wireless Deployments	13	1	14
Special Issue: Deep Reinforcement Learning for Future Wireless Communication Networks	29	0	29
Special Issue: Evolution of Cognitive Radio to AI-enabled Radio and Networks	5	0	5
Special issue: Energy-Harvesting Cognitive Radio Networks	0	12	12
Special issue: invited papers from DySPAN 2018	14	13	27
Special issue: invited papers from the GLOBECOM 2018 Cognitive Radio and Networks Symposium	8	5	13
Transactions Paper Submissions	78	49	127
Total	147	80	227

TCCN Statistics

From First Submission to First Decision (as of May 5, 2019)



TCCN Statistics in 2015 - 2018

Average number of days in review

- **Average number of days from first submission to first decision:**
 - **2015: 88.28 days; std: 30.95 days**
 - **2016: 76.36 days; std: 36.43 days**
 - **2017: 74.55 days; std: 34.88 days**
 - **2018: 84.59 days; std: 39.23 days**
 - **2019: 40.81 days; std: 29.54 days** **Faster than before!**
- **Average number of days from first submission to final decision:**
 - **2015: 162.16 days; std: 97.75 days**
 - **2016: 133.07 days; std: 89.81 days**
 - **2017: 136.69 days; std: 95.33 days**
 - **2018: 133.37 days; std: 81.70 days**

Editorial Board

- **Subject Areas:**
 - Cognitive Radio
 - Intelligent Communications
 - Intelligent Networking
 - Intelligent Resource Management
- **1 EiC + 28 ED + 1 Admin.**
 - 7 in cognitive radio
 - 7 in intelligent communications
 - 7 in intelligent networking
 - 7 in intelligent resource management

2019 Editorial Board

- Cognitive Radio

- Daniel Benevides da Costa
- Danijela Cabric
- Octavia A. Dobre
- Oliver Holland (Industry)
- Tamer El Batt
- Yonghong Zeng (Industry)
- Yue Gao

- Intelligent Communications

- Dinh Thai Hoang
- Dong In Kim
- Feifei Gao
- Guoru Ding
- Riku Jäntti
- Timothy O'Shea
- Zhijin Qin

2019 Editorial Board

- Intelligent Networking
 - Allen MacKenzie
 - Dusit Niyato
 - Jiajia Liu
 - K.P. (Suba) Subbalakshmi
 - Kai Zeng
 - Min Chen
 - Ning Zhang
- Intelligent Resource Management
 - Andrea Zanella
 - Jianwei Huang
 - Kae Won Choi
 - Li-Chun Wang
 - Qian Zhang
 - Tao Chen (Industry)
 - Walid Saad

Special Issues in TCCN

- **Closed Special Issues**

- Energy-Harvesting Cognitive Radio Networks (19 submissions)
- Coexisting Radio and Optical Wireless Deployments (13 submissions)
- Deep Reinforcement Learning for Future Wireless Communication Networks (29 submissions)

- **Current Special Issues**

- Evolution of Cognitive Radio to AI-enabled Radio and Networks
- Intelligent Resource Management for 5G and Beyond
- Deep Learning for Physical Layer Communications (In preparation)
- AI-enabled Communication and Network Security (In preparation)
- ...

- **Special Issues for Conferences**

- ICC, GLOBECOM, DySPAN
- ...

- **You're welcome to propose special issues!**

Current Special Issue: Evolution of Cognitive Radio to AI-enabled Radio and Networks

- **Topics:**

- This special issue will bring together leading researchers and developers from to present their research on AI-enabled Radio networks which include network framework and algorithms, network modeling and architecture, as well as AI algorithms inspired control problems in different layers, addressing various challenges related to the analysis and design for future wireless networks.

- **Important Date**

- Submission Deadline: **1 June 2019**
- Publication Date: First Quarter 2020

- **Guest Editor Team:**

- Yue Gao, Ekram Hossain, Geoffrey Ye Li, Kevin Sowerby, Carlo Regazzoni, Lin Zhang

- **For more information**

- <https://www.comsoc.org/publications/journals/ieee-tccn/cfp/evolution-cognitive-radio-ai-enabled-radio-and-networks>

Current Special Issue: Intelligent Resource Management for 5G and Beyond

- **Topics:**

- This special issue is devoted to the most recent developments and research outcomes addressing the related theoretical and practical aspects on intelligent resource management for 5G and beyond, and it also aims to provide worldwide researchers and practitioners an ideal platform to innovate new solutions targeting at the corresponding key challenges.

- **Important Date**

- Submission Deadline: **1 August 2019**
- Publication Date: Second Quarter 2020

- **Guest Editor Team:**

- Yulei Wu, Dimitra Simeonidou, Cheng-Xiang Wang, Richard Yu, Sunghyun Choi, Guoliang Xue, Adlen Ksentini

- **For more information:**

- <https://www.comsoc.org/publications/journals/ieee-tccn/cfp/intelligent-resource-management-5g-and-beyond>

Discussion Points

- SCI-Index
- Special issue
- Invited paper
- Publicity
- ...