

ABOUT THE PAPER AWARDS

Award for Advances in Communication

Papers that open new lines of work, envision bold approaches to communication, formulate new problems to solve, and essentially enlarge the field of communications engineering. Given to an outstanding paper published in any IEEE Communications Society publication in the previous 15 calendar years.

Best Survey Paper Award

This award honors the author(s) of an especially meritorious paper published in a ComSoc owned journal dealing with a subject related to the Society's technical scope.

Best Tutorial Paper Award

Given to an outstanding tutorial paper published in any IEEE Communications Society magazine or journal in the previous five calendar years.

Fred W. Ellersick Prize

Publication of an original paper in any IEEE Communications Society magazine in the previous 3 calendar years.

Heinrich Hertz Award for Best Communications Letter

This award is given to an outstanding manuscript published in any letter journal financially sponsored or co-sponsored by the IEEE Communications Society during the previous three calendar years which opens new lines of research, envisions bold approaches to communication, formulates new problems to solve, and essentially enlarges the field of communications engineering.

Leonard G. Abraham Prize

Publication of an original paper published in the *IEEE Journal on Selected Areas in Communications* in the previous three calendar years.

Outstanding Paper Award

To honor the author(s) of an outstanding technical paper in the areas of interest and scope of the IEEE Communications Society (ComSoc).

Stephen O. Rice Prize

Publication of an original paper published in the *IEEE Transactions on Communications* in the previous three calendar years.

Young Author Best Paper Award

Author(s) of an original paper in a subject related to the Society's technical scope and appearing in one of the Society's solely owned or jointly owned transactions or journals in the previous three calendar years and who, upon the date of submission of the paper, is (are) less than 30 years of age.

Marconi Prize Paper Award in Wireless Communications

Author(s) of an original paper in the field of wireless communications, published in the *IEEE Transactions on Wireless Communications* in the previous three calendar years, are eligible for the Award.

For more information, please visit: www.comsoc.org/about/awards

IEEE COMMUNICATIONS SOCIETY — AWARDS 2022 —

IEEE ICC // SEOUL, SOUTH KOREA // 17 MAY 2022



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Introductory Remarks

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IEEE Fellows

Sumei Sun, *ComSoc Fellow Committee Chair*

IEEE Communications Society Paper Awards

Xuemin (Sherman) Shen, *President*

Journal of Communications & Networks Best Paper Award

Xuemin (Sherman) Shen, *President*

IEEE ICC 2022 Honorary & General Chair

Nelson Fonseca, *VP Conferences*

Concluding Remarks

Xuemin (Sherman) Shen, *President*

2022 IEEE Fellows



Bruno Clerckx

For contributions to multi-antenna communications and wireless power transmission



Kang-Won Lee

For contribution to development of SDN and virtualization technologies for 5G wireless networks

2022 Paper Awards

Award for Advances in Communication Sensing-Throughput Tradeoff for Cognitive Radio Networks

IEEE Transactions on Wireless Communications, vol. 7, no. 4, pp. 1326-1337, April 2008

Ying-Chang Liang, Yonghong Zeng, Edward C.Y. Peh, and Anh Tuan Hoang

Best Survey Paper Award

A Survey of Indoor Localization Systems and Technologies

IEEE Communications Surveys & Tutorials, vol. 21, no. 3, pp. 2568-2599, Third Quarter 2019

Faheem Zafari, Athanasios Gkelias, and Kin K. Leung

Best Tutorial Paper Award

When Entanglement Meets Classical Communications: Quantum Teleportation for the Quantum Internet

IEEE Transactions on Communications, vol. 68, no. 6, pp. 3808-3833, June 2020

Angela Sara Cacciapuoti, Marcello Caleffi, Rodney Van Meter, and Lajos Hanzo

Fred W. Ellersick Prize

Deep Learning in Physical Layer Communications

IEEE Wireless Communications, vol. 26, no. 2, pp. 93-99, April 2019

Zhijin Qin, Hao Ye, Geoffrey Ye Li, and Biing-Hwang (Fred) Juang

Fred W. Ellersick Prize

A Vision of 6G Wireless Systems: Applications, Trends, Technologies, and Open Research Problems

IEEE Network, vol. 34, no. 3, pp. 134-142, May 2020

Walid Saad, Mehdi Bennis, and Mingzhe Chen

Heinrich Hertz Award for Best Communications Letter

Intelligent Reflecting Surface-Enhanced OFDM: Channel Estimation and Reflection Optimization

IEEE Wireless Communications Letters, vol. 9, no. 4, pp. 518-522, April 2020

Beixiong Zheng and Rui Zhang

Heinrich Hertz Award for Best Communications Letter

Cascaded Channel Estimation for Large Intelligent Metasurface Assisted Massive MIMO

IEEE Wireless Communications Letters, vol. 9, no. 2, pp. 210-214, February 2020

Zhen-Qing He and Xiaojun Yuan

Leonard G. Abraham Prize

Intelligent Reflecting Surface Aided MIMO Broadcasting for Simultaneous Wireless Information and Power Transfer

IEEE Journal on Selected Areas in Communications, vol. 38, no. 8, pp. 1719-1734, August 2020

Cunhua Pan, Hong Ren, Kezhi Wang, Maged Elkashlan, Arumugam Nallanathan, Jiangzhou Wang, and Lajos Hanzo

Outstanding Paper Award

Reconfigurable Intelligent Surfaces vs. Relaying: Differences, Similarities, and Performance Comparison

IEEE Open Journal of the Communications Society, vol. 1, pp. 798-807, June 2020

Marco Di Renzo, Konstantinos Ntontin, Jian Song, Fadil Habibi Danufane, Xuewen Qian, Fotis I. Lazarakis, Julien de Rosny, Dinh-Thuy Phan-Huy, Osvaldo Simeone, Rui Zhang, M'rouane Debbah, Geoffroy Lerosey, Mathias Fink, Sergei A. Tretyakov, and Shlomo Shamai (Shitz)

Stephen O. Rice Prize

Optimal 3D-Trajectory Design and Resource Allocation for Solar-Powered UAV Communication Systems

IEEE Transactions on Communications, vol. 67, no. 6, pp. 4281-4298, June 2019

Yan Sun, Dongfang Xu, Derrick Wing Kwan Ng, Linglong Dai, and Robert Schober

Young Author Best Paper Award

Cellular-Enabled UAV Communication: A Connectivity-Constrained Trajectory Optimization Perspective

IEEE Transactions on Communications, vol. 67, no. 3, pp. 2580-2604, March 2019

Shuowen Zhang, Yong Zeng, and Rui Zhang

Young Author Best Paper Award

Federated Learning Over Wireless Fading Channels

IEEE Transactions on Wireless Communications, vol. 19, no. 5, pp. 3546-3557, May 2020

Mohammad Mohammadi Amiri and Deniz Gündüz

Marconi Prize Paper Award in Wireless Communications

Making Cell-Free Massive MIMO Competitive with MMSE Processing and Centralized Implementation

IEEE Transactions on Wireless Communications, vol. 19, no. 1, pp. 77-90, January 2020

Emil Björnson and Luca Sanguinetti

Journal of Communications & Networks Best Paper Award

Age of Information Performance of Multiaccess Strategies with Packet Management

Journal of Communications, vol. 21, no. 3, June 2019 Special Issue

Antzela Kosta, Nikolaos Pappas, Anthony Ephremides, Vangelis Angelakis

Conference Honorary General Chair & General Chair

Byeong Gi Lee

IEEE ICC 2022, *Honorary General Chair*

Dong In Kim

IEEE ICC 2022, *General Chair*

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