

Final Editorial as Editor-in-Chief

I HAVE had the great honor to serve as Editor-in-Chief (EiC) of the IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATIONS (TAP) for just over 6 years. As described more fully below, I worked with a great team of Track Editors, Associate Editors, Reviewers, and Authors, and together we have raised the profile of TAP and achieved unprecedented performance.

Impact of the TAP

One of the most important measures of the impact and success of TAP is the number of articles read and cited. TAP articles are among the most downloaded of all IEEE publications. According to the download statistics of IEEE Xplore, TAP ranks 3rd in 2021 out of 389 publications when non-subscription IEEE ACCESS is included, and ranks 2nd for publications requiring a subscription, see Table I for the data for the past three years.

Increased Bibliometric Measures

TAP has set unprecedented performance in all bibliometric measures considered by IEEE in both the Engineering, Electrical & Electronic category and the Telecommunications category. While the trend of other publications in these two categories is a decreasing impact factor, in 2021, TAP's 2-year impact factor reached its highest value, as shown in Fig. 1 and the 5-year impact factor reached an all-high value of 5.005, as shown in Fig. 2. Other bibliographic measures such as the normalized eigenfactor and the article influence score have also improved.

Increase in Published Articles

During my tenure as EiC, more than 25 500 articles were processed. During that same period, we increased the number of peer-reviewed journal articles published by TAP to almost 6500. In 2022, articles published and awaiting publication will total approximately 1290 articles.

Exceptional Editorial Board

All these metrics showing great improvement are the results of the excellent work of the Editorial Board consisting of the EiC, the Track Editors, and the Associate Editors (the names of which are published on the inside cover of each issue), who have worked tirelessly to improve the policies

of TAP [1] and streamline the publication process [2]. Over my two terms as EiC, I have worked with 15 exceptional Track Editors, 93 dedicated Associate Editors, and 36 renowned Guest Editors of Special Issues. To help advertise the activities of TAP and increase membership, we introduced the Associate Editor for Communications and Membership [3]. I actively recruited a diverse Editorial Board and exponentially increased the number of women (currently 17 and 4 additional completed their service) and significantly increased the geographical distribution of the Board.

It is important to recognize the people who have assisted TAP become what it is and, accordingly, we recognize the top 200 reviewers and host a lunch for all reviewers at the annual meeting. I also extend a very special thank you to all the authors, who have submitted articles for publication.

Current Editorial Process

The significant increase in the number of published articles in TAP resulted from an increase in number of quality articles submitted to TAP that had to be peer-reviewed in a timely manner. In 2016, my predecessor, Prof. Leung, introduced the role of the Track Editor [4], a person hierarchically between the EiC and the Associate Editors, that oversees manuscripts belonging to a broad area of interest. The introduction of the Track Editors was completed at the very beginning of my term. I further refined the process to empower all final decisions to be made directly by the Track Editors. Now, when an article is submitted that is within the technical scope of the journal, the EiC assigns the article to a Track Editor, who is responsible for assigning an Associate Editor. The Associate Editor obtains a minimum of two reviews and recommends a decision to the Track Editor, who makes the final decision. The EiC handles all appeals from final decisions.

Special Issues

To address "hot topics" and upcoming developments and trends, we have published or will publish various special issues:

1) "Antennas and Propagation Aspects of 5G Communications," guest edited by Duixian Liu, Wonbin Hong, Theodore S. Rappaport, Cyril Luxey, and Wei Hong [5]

2) "Radio Wave Propagation (Parts I and II)," guest edited by Tapan K. Sarkar, Guido Lombardi, Vikass Monebhurrin, and Monai Krairiksh [6, 7]

3) "Wireless Real-time Health Monitoring Technology for Personalized Medicine," guest edited by Gianluca Lazzi, Raphael Lee, and Konstantina S. Nikita [8]

Color versions of one or more figures in this article are available at <https://doi.org/10.1109/TAP.2022.3209578>.

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TABLE I
DOWNLOAD DATA

JANUARY - DECEMBER 2020			JANUARY - DECEMBER 2021		
RANK	PUBLICATION TITLE	TOTAL USAGE	RANK	PUBLICATION TITLE	TOTAL USAGE
1	IEEE Access	18,531,831	1	IEEE Access	22,063,429.00
2	IEEE Transactions on Power Electronics	3,025,073	2	IEEE Transactions on Power Electronics	3,217,957.00
3	IEEE Transactions on Antennas and Propagation	2,905,555	3	IEEE Transactions on Antennas and Propagation	3,175,382.00
4	IEEE Transactions on Industrial Electronics	2,541,734	4	IEEE Transactions on Industrial Electronics	2,747,212.00
5	IEEE Journal of Solid-State Circuits	1,965,182	5	IEEE Journal of Solid-State Circuits	2,005,468.00
6	IEEE Transactions on Microwave Theory and Techniques	1,603,478	6	IEEE Transactions on Vehicular Technology	1,876,343.00
7	IEEE Transactions on Vehicular Technology	1,567,220	7	IEEE Sensors Journal	1,762,329.00
8	IEEE Antennas and Wireless Propagation Letters	1,389,128	8	IEEE Internet of Things Journal	1,741,509.00
9	IEEE Transactions on Power Systems	1,385,049	9	IEEE Transactions on Microwave Theory and Techniques	1,648,748.00
10	IEEE Transactions on Electron Devices	1,342,161	10	IEEE Transactions on Electron Devices	1,521,877.00
JANUARY - DECEMBER 2019					
RANK	PUBLICATION TITLE	TOTAL USAGE			
1	IEEE Access	8,668,911			
2	IEEE Transactions on Power Electronics	2,240,653			
3	IEEE Transactions on Antennas and Propagation	2,221,636			
4	IEEE Transactions on Industrial Electronics	2,140,387			
5	IEEE Journal of Solid-State Circuits	1,508,224			
6	IEEE Transactions on Microwave Theory and Techniques	1,233,991			
7	IEEE Transactions on Power Systems	1,187,284			
8	IEEE Transactions on Vehicular Technology	1,140,083			
9	IEEE Antennas and Wireless Propagation Letters	1,123,825			
10	IEEE Transactions on Electron Devices	1,045,735			

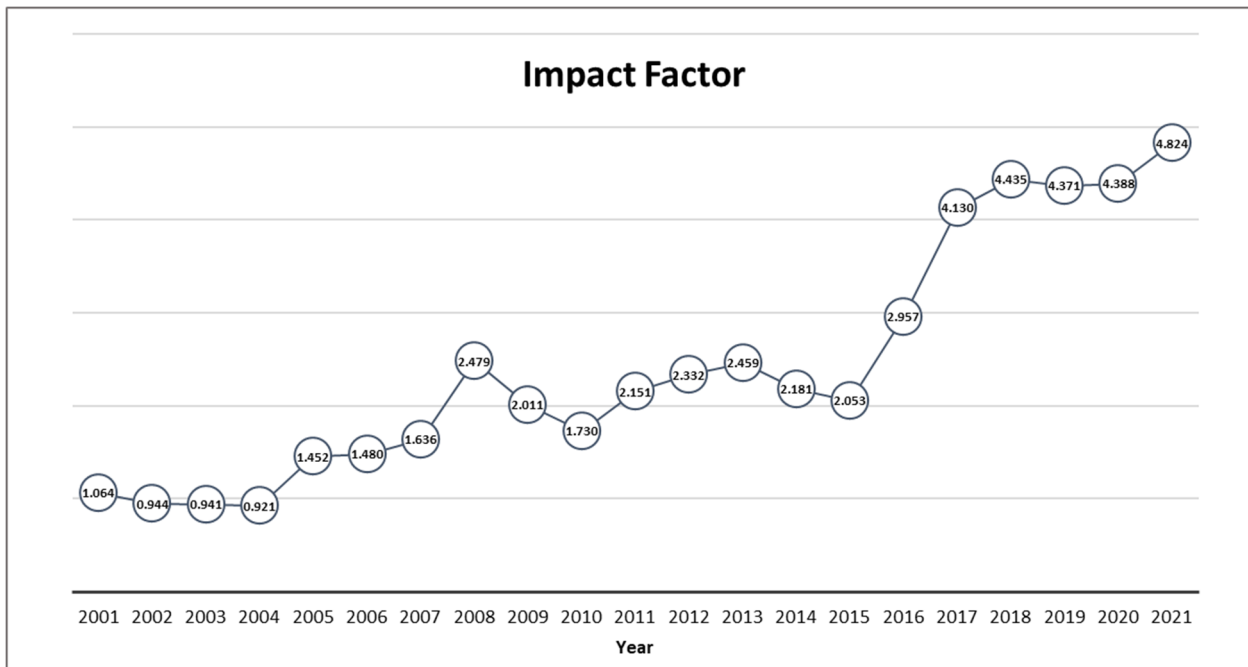


Fig. 1. Impact factor for the Transactions on Antennas and Propagation.

4) “Metamaterials and Metasurfaces—Historical Context, Recent Advances, and Future Directions,” guest edited by Ashwin K. Iyer, Andrea Alù and Ariel Epstein [9]

5) “Antennas and Propagation Aspects of In-Band Full-Duplex Applications,” guest edited by Danilo Erricolo, Dejan S. Filipovic, Katsuyuki Haneda and Zhijun Zhang [10]

6) “Artificial Intelligence in Radio Propagation for Communications,” guest edited by Ruisi He, Buon Kiong Lau, Claude Oestges, Katsuyuki Haneda and Bo Liu [11]

7) “Machine Learning in Antenna Design, Modeling, and Measurements,” guest edited by Francesco Andriulli, Pai-Yen Chen, Danilo Erricolo and Jian-Ming Jin [12]

8) “Artificial Intelligence: New Frontiers in Real-Time Inverse Scattering and Electromagnetic Imaging,” guest edited by Manuel Arrebola, Maokun Li, and Marco Salucci [13]

9) “Low-Cost Wide-Angle Beam-Scanning Antennas,” guest edited by Steven Gao, Y. Jay Guo, Safieddin (Ali) Safavi-Naeini, Wonbin Hong, and Xuexia Yang [A1]

10) “Smart Electromagnetic Environment,” guest edited by Fan Yang, Danilo Erricolo, and Andrea Massa [to appear in the Oct. 2022 issue]

11) “Frontiers in Computational Electromagnetics,” guest edited by Branislav M. Notaroš, Francesco Andriulli, and Hakan Bagci [to appear in the future]

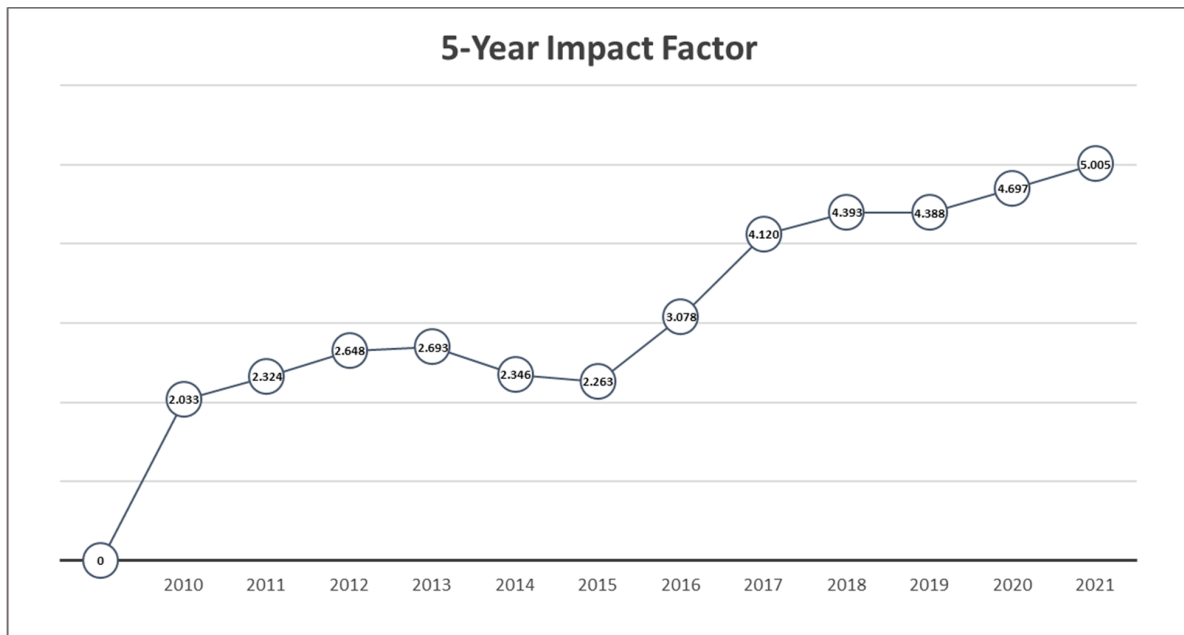


Fig. 2. 5-year impact factor for the Transactions on Antennas and Propagation.

CONCLUSIONS

As my term as EiC ends on September 30, 2022, I thank everyone who has contributed to making TAP so successful. Unfortunately, I cannot list everyone who has raised TAP's profile, including the Track Editors, Associate Editors, thousands of reviewers, thousands of authors, and those who have downloaded and cited the articles published. I specifically would like to thank the Administrative Committee of the IEEE Antennas and Propagation Society for entrusting me with the opportunity to serve as EiC of the society's flagship publication. I also would like to recognize Dr. Trevor Bird and Prof. Kwok Wa Leung, my two predecessors, for their invaluable support and advice. I also am grateful for the support and guidance of Dr. W. Ross Stone for the review of TAP that occurs every five years by the Periodicals Review and Advisory Committee, and the Antennas and Propagation Society Treasurers Dr. Donald McPherson and Dr. Michael Shields. A very special thank you to Editorial Assistant Ms. Sunny Tse, the IEEE Production Editors Ms. Dawn Menendez and Ms. Sharon M. Turk, and IEEE Scholar One Manuscript Central representative Ms. Sonal Parikh because without you TAP could not have been published.

I want to express my heartfelt gratitude for the over 6 years I served as EiC. I look forward to the leadership of Prof. Konstantina S. Nikita, the EiC of TAP who will start her term on October 1, 2022.

Sincerely,

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APPENDIX: RELATED ARTICLES