

## **Assoc. Prof. A F M SHAHEN SHAH**

### **Personal Information**

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### **International Researcher IDs**

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Publons / Web Of Science ResearcherID: R-5735-2017

ScopusID: 57188670758

Yoksis Researcher ID: 325995

### **Biography**

**A. F. M. Shahen Shah** (Senior Member, IEEE) received the B.Sc. degree in electronics and telecommunication engineering from Daffodil International University, Bangladesh, in 2009, the M.Sc. degree in information technology from the University of Dhaka, Bangladesh, in 2011, and the Ph.D. degree in electronics and communication engineering from Yildiz Technical University, Turkey, in 2020. He is currently an Associate Professor with the Department of Electronics and Communication Engineering at Yildiz Technical University, Turkey. For his Ph.D. work, Dr. Shahen won a gold medal at the 32nd International Invention, Innovation & Technology Exhibition (ITEX 2021). He has authored a book. He has published a good number of research papers in international conferences and journals. His current research interests include wireless communication, artificial intelligence, 6G, blockchain, and cross-layer design, etc. He is a senior member of IEEE since 2019. Dr. Shahen is also a life member of the Institution of Engineers, Bangladesh (IEB). He has been a TPC member for several IEEE conferences and a regular reviewer for various IEEE journals. He is currently serving as an Editor of the Open Transportation Journal (Bentham) and Associate Editor of the Journal of Cyber Security Technology (Taylor & Francis).

### **Education Information**

Doctorate, Yildiz Technical University, Faculty Of Electrical & Electronics, Electronics And Communication Engineering, Turkey 2016 - 2020

Postgraduate, University of Dhaka, Institute of Information Technology (IIT), Information Technology, Bangladesh 2010 - 2011

Undergraduate, Daffodil International University, Engineering , Electronics and Telecommunication Engineering , Bangladesh 2006 - 2009

### **Foreign Languages**

Bengali, C2 Mastery

English, C1 Advanced

Turkish, C1 Advanced

## Dissertations

Doctorate, Designing and performance analysis of efficient and reliable medium access control protocols for vehicular ad hoc networks, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, 2020  
Postgraduate, Cooperative Communication in Wireless Networks, University of Dhaka, 2011

## Research Areas

Communication Engineering, Communication Networks, Wireless Communication, Performance Modelling and Evaluation, Communications and Network Protocols, Network Architecture, Artificial Intelligence, Computer Learning and Pattern Recognition

## Academic Titles / Tasks

Associate Professor, Yildiz Technical University, Faculty Of Electrical & Electronics, Electronics And Communication Engineering, 2023 - Continues  
Assistant Professor, Yildiz Technical University, Faculty Of Electrical & Electronics, Electronics And Communication Engineering, 2021 - 2023  
Assistant Professor, Istanbul Gelisim University, Faculty Of Engineering-Architecture, Department Of Electrical And Electronic Engineering, 2020 - 2021

## Courses

Signals and Systems , Undergraduate, 2022 - 2023  
Next Generation Wireless Communication Systems, Doctorate, 2021 - 2022  
Principles of Digital Communication Systems , Undergraduate, 2022 - 2023  
Probability Theory, Undergraduate, 2021 - 2022  
Digital Signal Processing, Undergraduate, 2021 - 2022  
Communication 1, Undergraduate, 2021 - 2022  
Cellular Communication Systems 1, Undergraduate, 2021 - 2022  
Cellular Communication System Planning and Optimization, Doctorate, 2021 - 2022

## Advising Theses

Shah A. F. M. S., Designing an effective MIMO antenna for 5G, Postgraduate, D.JASIM(Student), 2023  
Shah A. S., Performance comparison of PEGASIS, HEED, and LEACH protocols in wireless sensor networks, Postgraduate, K.HAMEEDAH(Student), 2022  
Shah A. S., Designing and Implementation of electronic Device controlled IoT for COVID 19 patients monitoring through secured communication system, Postgraduate, A.Hussein(Student), 2021  
Shah A. S., Yeni Nesil Haberleşme Sistemleri İçin Çoklu Erişim Tekniklerinin Performans Değerlendirilmesi ve Karşılaştırılması, Postgraduate, A.Nidham(Student), 2021

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **A self-learning deep neural network for classification of breast histopathological images**  
Abdulaal A. H., Valizadeh M., Amirani M. C., SHAH A. F. M. S.  
Biomedical Signal Processing and Control, vol.87, 2024 (SCI-Expanded)

- II. **Acne Vulgaris Detection and Classification: A Dual Integrated Deep CNN Model**  
Islam M. B., Junayed M. S., Sadeghzadeh A., Anjum N., Ahsan A., Shah A. F. M. S.  
INFORMATICA : JOURNAL OF COMPUTING AND INFORMATICS, vol.47, no.4, pp.577-592, 2023 (SCI-Expanded)
- III. **Influence of Channel Fading and Capture for Performance Evaluation in Vehicular Communications**  
Shah A. F. M. S., Karabulut M. A., İlhan H., Tureli U.  
CANADIAN JOURNAL OF ELECTRICAL AND COMPUTER ENGINEERING, vol.46, no.4, pp.322-332, 2023 (SCI-Expanded)
- IV. **Internet of Things and Wireless Sensor Networks for Smart Agriculture Applications- A Survey**  
Mowla M. N., Mowla N., Shah A. F. M. S., Rabie K., Shongwe T.  
IEEE ACCESS, vol.11, pp.1-40, 2023 (SCI-Expanded)
- V. **Inspecting VANET with Various Critical Aspects – A Systematic Review**  
Karabulut M. A., Shah A. F. M. S., İlhan H., Pathan A. K., Atiquzzaman M.  
AD HOC NETWORKS, vol.150, pp.1-18, 2023 (SCI-Expanded)
- VI. **The impact of cooperative unmanned aerial vehicles communication under Nakagami-m fading channel**  
Karabulut M. A., Shah A. F. M. S.  
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.38, no.4, pp.2095-2106, 2023 (SCI-Expanded)
- VII. **On the Vital Aspects and Characteristics of Cryptocurrency – A Survey**  
Shah A. F. M. S., Karabulut M. A., Akhter A. F. M. S., Mustari N., Pathan A. K., Rabie K., Shongwe T.  
IEEE ACCESS, vol.11, no.1, pp.1, 2023 (SCI-Expanded)
- VIII. **Architecture of Emergency Communication Systems in Disasters through UAVs in 5G and Beyond**  
Shah A. F. M. S.  
DRONES, vol.7, no.1, pp.1-16, 2023 (SCI-Expanded)
- IX. **A Novel MIMO-OFDM Based MAC Protocol for VANETs**  
Karabulut M. A., Shah A. S., İlhan H.  
IEEE TRANSACTIONS ON INTELLIGENT TRANSPORTATION SYSTEMS, vol.23, no.11, pp.20255-20267, 2022 (SCI-Expanded)
- X. **A Blockchain-Based Emergency Message Transmission Protocol for Cooperative VANET**  
Ahmed M., Moustafa N., Akhter A. F. M. S., Razzak I., Anwar A., Shah A. F. M. S., Zengin A.  
IEEE TRANSACTIONS ON INTELLIGENT TRANSPORTATION SYSTEMS, vol.23, no.10, pp.19624-19633, 2022 (SCI-Expanded)
- XI. **Optimizing Vehicular Safety Message Communications by Adopting Transmission Probability With CW Size**  
Shahen Shah A. S., Karabulut M. A., İlhan H., Tureli U.  
IEEE ACCESS, vol.10, pp.118849-118857, 2022 (SCI-Expanded)
- XII. **Blockchain in Vehicular Ad hoc Networks: Applications, Challenges and Solutions**  
Zengin A., Shah A. S., Anwar A., Akhter A. F. M. S., Ahmed M., Pathan A. S. K.  
INTERNATIONAL JOURNAL OF SENSOR NETWORKS, vol.1, pp.1-21, 2022 (SCI-Expanded)
- XIII. **An efficient end-to-end deep neural network for interstitial lung disease recognition and classification**  
Junayed M. S., Jeny A. A., Islam M. B., Ahmed I., Shah A. S.  
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.30, pp.1235-1250, 2022 (SCI-Expanded)
- XIV. **ScarNet: Development and Validation of a Novel Deep CNN Model for Acne Scar Classification with a New Dataset**  
Junayed M. S., Islam M. B., Jeny A. A., Sadeghzadeh A., Biswas T., Shah A. S.  
IEEE Access, vol.9, no.1, pp.1-13, 2021 (SCI-Expanded)
- XV. **A Secured Message Transmission Protocol for Vehicular Ad Hoc Networks**  
Akhter A. F. M. S., Shah A. S., Çavuşoğlu U., Zengin A.  
Cmc-Computers Materials & Continua, vol.68, no.1, pp.229-246, 2021 (SCI-Expanded)

- XVI. **A Blockchain-Based Authentication Protocol for Cooperative Vehicular Ad Hoc Network**  
Akhter A. F. M. S., Ahmed M., Shah A. S., Anwar A., Kayes A. S. M., Zengin A.  
SENSORS, vol.21, no.4, 2021 (SCI-Expanded)
- XVII. **Survey and Performance Evaluation of Multiple Access Schemes for Next-Generation Wireless Communication Systems**  
SHAH A. S., Qasim A. N., KARABULUT M. A., İLHAN H., Islam M. B.  
IEEE ACCESS, vol.9, pp.113428-113442, 2021 (SCI-Expanded)
- XVIII. **A Secured Privacy-Preserving Multi-Level Blockchain Framework for Cluster Based VANET**  
Akhter A. F. M. S., Ahmed M., Shah A. S., Anwar A., Zengin A.  
SUSTAINABILITY, vol.13, no.1, 2021 (SCI-Expanded)
- XIX. **Performance modeling and analysis of the IEEE 802.11 MAC protocol for VANETs**  
Karabulut M. A., Shah A. S., İlhan H.  
Journal Of The Faculty Of Engineering And Architecture Of Gazi University, vol.35, no.3, pp.1575-1587, 2020 (SCI-Expanded)
- XX. **OEC-MAC: A Novel OFDMA Based Efficient Cooperative MAC Protocol for VANETS**  
KARABULUT M. A., Shah A. S., İLHAN H.  
IEEE ACCESS, vol.8, pp.94665-94677, 2020 (SCI-Expanded)
- XXI. **Performance Optimization of Cluster-Based MAC Protocol for VANETs**  
Shah A. S., KARABULUT M. A., İLHAN H., Tureli U.  
IEEE ACCESS, vol.8, pp.167731-167738, 2020 (SCI-Expanded)
- XXII. **RECV-MAC: a novel reliable and efficient cooperative MAC protocol for VANETs**  
Shah A. S., İlhan H., Türeli M. S. U.  
IET COMMUNICATIONS, vol.13, no.16, pp.2541-2549, 2019 (SCI-Expanded)
- XXIII. **CB-MAC: a novel cluster-based MAC protocol for VANETs**  
SHAH A. S., İLHAN H., Tureli U.  
IET INTELLIGENT TRANSPORT SYSTEMS, vol.13, no.4, pp.587-595, 2019 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Multiple Access Schemes for 6G Enabled NTN-Assisted IoT Technologies: Recent Developments, Prospects and Challenges**  
Shah A. F. M. S., Karabulut M. A., Rabie K.  
IEEE Internet of Things Magazine, vol.7, no.1, pp.48-54, 2024 (Peer-Reviewed Journal)
- II. **A Comprehensive Study on Cellular Evolution from 1G to 6G**  
Mustari N., Karabulut M. A., Shah A. F. M. S., Türeli U.  
JOURNAL OF POLYTECHNIC-POLITEKNIK DERGISI, vol.26, pp.1-23, 2023 (ESCI)
- III. **Performance Comparison of PEGASIS, HEED and LEACH Protocols in Wireless Sensor Networks**  
AL - GBURI K. H. A., SHAH A. S.  
Celal Bayar Üniversitesi Fen Bilimleri Dergisi, vol.19, no.1, pp.11-18, 2023 (Peer-Reviewed Journal)
- IV. **Terahertz Communication with MIMO-OFDM in FANETs for 6G**  
Mustari N., Karabulut M. A., SHAH A. F. M. S., Tureli U.  
Open Transportation Journal, vol.17, 2023 (Scopus)
- V. **Reliability estimation for drone communications by using an MLP-based model**  
Shah A. S., Karabulut M. A.  
International Advanced Researches and Engineering Journal, vol.6, no.3, pp.1-7, 2022 (Peer-Reviewed Journal)
- VI. **NM-LEACH: A Novel Modified LEACH Protocol to Improve Performance in WSN**  
Abdulaal A. H., SHAH A. S., Pathan A. K.  
International Journal of Communication Networks and Information Security, vol.14, no.1, pp.1-10, 2022 (Scopus)
- VII. **Optimization of drones communication by using meta-heuristic optimization algorithms**  
Shah A. S., Karabulut M. A.

Sigma Journal of Engineering and Natural Sciences, vol.40, no.1, pp.108-117, 2022 (ESCI)

VIII. **A Survey on Cooperative Communication in Wireless Networks**

Shah A. S., Islam M. S.

International Journal of Intelligent Systems and Applications (IJISA), vol.6, no.7, pp.66-78, 2014 (Peer-Reviewed Journal)

IX. **CSCM: A Contention Sensitive Routing Metric for Efficient Cooperative Communication in Multi-Hop Wireless Networks**

Shah A. F. M. S., Islam M. S.

International Journal on Internet and Distributed Computing Systems, vol.2, no.2, pp.157-163, 2012 (Peer-Reviewed Journal)

X. **High Performance Analysis of Frequency Reuse Schemes in Cellular Mobile Environment**

Haque A. F., Shah A. F. M. S., Hannan M. A., Jahan N., Ahmed J. U., Saleh M. A.

International Journal of Latest Trends in Computing, vol.2, no.1, pp.29-34, 2011 (Peer-Reviewed Journal)

## Books & Book Chapters

I. **DF based cooperative UAVs communication with co-channel interference**

Karabulut M. A., Shah A. F. M. S.

in: International Research in Engineering Sciences, Assoc. Prof. Dr. Alper BİDECI, Editor, Platanus Publishing, Ankara, pp.290-303, 2023

II. **Industry 5.0: A Study on Supporting Technology Systems, Applications, and Future Directions**

Shah A. S., Karabulut M. A.

in: International Academic Research and Reviews in Engineering, Prof. Dr. Coşkun ÖZALP, Doç. Dr. Selahattin BARDAK, Doç. Dr. Ertuğrul HÜRDOĞAN, Editor, Serüven Publishing, Ankara, pp.153-168, 2023

III. **Cooperative Communication In Wireless Networks**

Shah A. S., Islam M. S., Alam M. S.

LAMBERT Academic Publishing, Saarbrücken, 2013

## Refereed Congress / Symposium Publications in Proceedings

I. **Mission-Critical Internet of Things on the 6G Network: Services and Apps with Networking Architecture**

Shah A. F. M. S., Karabulut M. A., Rabie K.

IEEE 98th Vehicular Technology Conference (VTC2023-Fall), Kowloon, Hong Kong, 10 - 13 October 2023, pp.1-5

II. **Analyzing IEEE 802.11ax: The Standard for The Next Generation WLANs**

Shah A. F. M. S., Karabulut M. A.

The 16th International Scientific Research Congress - Science and Engineering (UBAK), Ankara, Turkey, 11 - 12 March 2023, pp.53-60

III. **OFDMA Based UAVs Communication for Ensuring QoS**

KARABULUT M. A., SHAH A. S., ISLAM M. B., Rana M. E.

International Conference on Advances and Applications of Artificial Intelligence & Machine Learning (ICAAAIML-2021), India, 30 October 2021

IV. **A Survey From 1G to 5G Including the Advent of 6G: Architectures, Multiple Access Techniques, and Emerging Technologies**

Shah A. S.

IEEE 12th Annual Computing and Communication Workshop and Conference (CCWC), Nevada, United States Of America, 26 - 29 January 2022, pp.1117-1123

V. **Deep Convolutional Neural Networks-Based Sign Language Recognition System**

Yemenoğlu İ. H., Shah A. S., İlhan H.

The 12th Annual IEEE Information Technology, Electronics and Mobile Communication Conference (IEEE IEMCON 2021), Vancouver, Canada, 27 - 30 October 2021, pp.1-4

- VI. **Machine Vision-based Expert System for Automated Cucumber Diseases Recognition and Classification**  
Jeny A. A., Junayed M. S., Islam M. B., Imani H., Shah A. S.  
IEEE International Conference on INnovations in Intelligent SysTems and Applications (INISTA), Kocaeli, Turkey, 25 - 27 August 2021, pp.1-6
- VII. **Improvement of performance with MIMO Enabled MAC Protocol for VANETs**  
Karabulut M. A., Shah A. S., İlhan H.  
IEEE The Innovations in Intelligent Systems and Applications Conference (ASYU), İstanbul, Turkey, 15 - 17 October 2020, pp.1-4
- VIII. **Performance of the CR-MAC with Channel Fading and Capture Effect under Practical Traffic Scenarios for VANETs**  
Karabulut M. A., Shah A. S., İlhan H.  
IEEE 10th Annual Ubiquitous Computing, Electronics Mobile Communication Conference (UEMCON), New York, United States Of America, 10 - 12 October 2019, pp.647-652
- IX. **Performance and Complexity Analysis of MAC Protocol for VANETs**  
Shah A. S., İLHAN H., TÜRELİ M. S. U.  
2019 IEEE 10th Annual Information Technology, Electronics and Mobile Communication Conference (IEMCON), Vancouver, BC, Canada, 17 - 19 October 2019
- X. **Designing and Analysis of IEEE 802.11 MAC for UAVs Ad Hoc Networks**  
Shah A. S., İlhan H., Türeli M. S. U.  
IEEE 10th IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference (UEMCON), New York, United States Of America, 10 - 12 October 2019, pp.934-939
- XI. **Performance Optimization by Using Artificial Neural Network Algorithms in VANETs**  
Karabulut M. A., Shah A. S., İlhan H.  
IEEE 42nd International Conference on Telecommunications and Signal Processing (TSP), Budapest, Hungary, 1 - 03 July 2019, pp.633-636
- XII. **Modeling and Performance Analysis of the IEEE 802.11 MAC for VANETs under Channel Fading and Capture Effect**  
Shah A. S., İlhan H., Türeli M. S. U.  
IEEE International Symposium on INnovations in Intelligent SysTems and Applications (INISTA), Sofija, Bulgaria, 3 - 05 July 2019, pp.1-6
- XIII. **CoMACAV: Cooperative MAC protocol for autonomous vehicles**  
Karabulut M. A., Shah A. S., İlhan H.  
IEEE International Symposium on Innovations in Intelligent Systems and Applications (INISTA), Sofija, Bulgaria, 3 - 05 July 2019, pp.1-5
- XIV. **Modeling and Performance Analysis of the IEEE 802.11 MAC for VANETs under Capture Effect**  
Shah A. S., İlhan H., Türeli M. S. U.  
IEEE Wireless and Microwave Technology Conference (WAMICON), Florida, United States Of America, 8 - 09 April 2019, pp.1-5
- XV. **CR-MAC: Cooperative relaying MAC protocol for VANETs**  
Karabulut M. A., Shahan Shah A. S., İlhan H.  
2019 Scientific Meeting on Electrical-Electronics and Biomedical Engineering and Computer Science, EBBT 2019, İstanbul, Turkey, 24 - 26 April 2019
- XVI. **Modeling and Performance Analysis of the IEEE 802.11p MAC for VANETs**  
SHAH A. S., İLHAN H., TÜRELİ M. S. U.  
42nd International Conference on Telecommunications and Signal Processing (TSP), Budapest, Hungary, 1 - 03 July 2019, pp.393-396
- XVII. **Performance analysis of the IEEE 802.11p for different packet length in VANETs**  
Toker O., Shah A. S., TÜRELİ M. S. U.

10th International Multi-Conference on Complexity, Informatics and Cybernetics, IMCIC 2019, Florida, United States Of America, 12 - 15 March 2019, vol.1, pp.171-176

**XVIII. Performance Modeling and Analysis of the IEEE 802.11 EDCAF for VANETs**

Shah A. F. M. S., Karabulut M. A., İlhan H.

Intelligent Systems Conference (IntelliSys 2018), London, England, 6 - 07 September 2018, pp.34-46

**XIX. The Performance of the IEEE 802.11 DCF for Different Contention Window in VANETs**

Karabulut M. A., Shahan Shah A. S., İlhan H.

41st International Conference on Telecommunications and Signal Processing, TSP 2018, Athens, Greece, 4 - 06 July 2018

**XX. The IEEE 802.11p Performance for Different Packet Length and Arrival Rate in VANETs**

Toker O., SHAH A. S., TÜRELİ M. S. U.

The 14th Advanced International Conference on Telecommunications (AICT), Barcelona, Spain, 22 - 26 July 2018

**XXI. qCB-MAC: QoS Aware Cluster-Based MAC Protocol for VANETs**

SHAH A. S., İLHAN H., TÜRELİ M. S. U.

Computing Conference 2018, England, 10 July 2018

**XXII. The effect of contention window size of the IEEE 802.11 dcf for VANETs VANET'ler için IEEE 802.11 DCF'in çekişme penceresi boyutu üzerindeki etkisi**

Karabulut M. A., Shah A. S., İlhan H.

26th IEEE Signal Processing and Communications Applications Conference, SIU 2018, İzmir, Turkey, 2 - 05 May 2018, pp.1-4

**XXIII. Performance modeling and analysis of the IEEE 802.11 DCF for VANETs**

Karabulut M. A., Shahan Shah A. S., İlhan H.

9th International Congress on Ultra Modern Telecommunications and Control Systems and Workshops, ICUMT 2017, Munich, Germany, 6 - 08 November 2017, pp.346-351

**XXIV. On-Line Energy Management Strategy for Hybrid Electric Vehicle Based on AMPC**

Jun M., SHAH A. S., BAYSAL M., İLHAN H.

IEEE 10th International Conference on Electrical and Electronics Engineering (ELECO), Bursa, Turkey, 30 November - 02 December 2017

**XXV. Modeling and Performance Analysis of the IEEE 802.11P Enhanced Distributed Channel Access Function for Vehicular Network**

SHAH A. S., Mustari N.

Future Technologies Conference (FTC), San-Francisco, Costa Rica, 6 - 07 December 2016, pp.173-178

**XXVI. A New Cooperative MAC Protocol for The Distributed Wireless Networks**

Shah A. S., Alam M. S., Showkat S. A.

IEEE Region 10 Conference (Tencon), Macau, China, 1 - 04 November 2015, pp.1-6

## Supported Projects

Shah A. F. M. S., İlhan H., TUBITAK Project, Designing Cluster-based Cooperative Massive MIMO enabled Hybrid MAC Protocol for Reliable and Efficient UAVs Communication in 5G and beyond through Artificial Intelligence, 2023 - 2026

Shah A. F. M. S., İlhan H., Project Supported by Higher Education Institutions, Real-Time Turkish Sign Language Recognition System Based on Deep Learning, 2023 - 2025

İlhan H., TUBITAK Project, An efficient and reliable cooperative MAC protocol for mobility aware cluster-based VANETs, 2019 - 2020

İlhan H., Shah A. S., Project Supported by Higher Education Institutions, Novel cooperative MAC protocols for vehicular networks, 2018 - 2020

## Activities in Scientific Journals

OPEN TRANSPORTATION JOURNAL, Editor, 2023 - Continues  
Journal of Cyber Security Technology, Editor, 2023 - Continues

## **Memberships / Tasks in Scientific Organizations**

Institute of Electrical and Electronics Engineers (IEEE), Member, 2017 - Continues, United States Of America  
Institution of Engineers Bangladesh (IEB), Member, 2014 - Continues, Bangladesh

## **Scientific Refereeing**

CONCURRENCY COMPUTATION PRACTICE AND EXPERIENCE, Journal Indexed in SCI-E, January 2022  
IEEE INTERNET OF THINGS JOURNAL, Journal Indexed in SCI-E, January 2022  
ELECTRONICS (Basel), Journal Indexed in SCI-E, January 2022  
WIRELESS NETWORKS, Journal Indexed in SCI-E, January 2022  
APPLIED SCIENCES, Journal Indexed in SCI-E, January 2022  
DRONES, Journal Indexed in SCI-E, January 2022  
SENSORS, Journal Indexed in SCI-E, January 2022  
ENTROPY, Journal Indexed in SCI-E, January 2022  
IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS, Journal Indexed in SCI-E, January 2021  
IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, Journal Indexed in SCI-E, January 2021  
IEEE COMMUNICATIONS LETTERS, Journal Indexed in SCI-E, January 2021  
IEEE ACCESS, Journal Indexed in SCI-E, January 2020  
IET COMMUNICATIONS, Journal Indexed in SCI-E, January 2020  
IET SOFTWARE, Journal Indexed in SCI-E, January 2019  
IET INTELLIGENT TRANSPORT SYSTEMS, Journal Indexed in SCI-E, January 2019

## **Metrics**

Publication: 63  
Citation (WoS): 146  
Citation (Scopus): 314  
H-Index (WoS): 7  
H-Index (Scopus): 11

## **Scholarships**

Scholar, TUBITAK, 2019 - 2020  
Turkey Government Scholarship, Other International Organizations, 2015 - 2020

## **Awards**

Shah A. S., Karabulut M. A., İlhan H., Türeli M. S. U., GOLD MEDAL, The 32Nd International Invention, Innovation & Technology Exhibition (Itex) 2021, Aralık 2021 , December 2021