

Asst. Prof. Ali GÖRÇİN

Personal Information

Email: agorcin@yildiz.edu.tr

Web: <https://avesis.yildiz.edu.tr/agorcin>

International Researcher IDs

ORCID: 0000-0003-4981-0488

Yoksis Researcher ID: 235120

Education Information

Doctorate, University of South Florida, Electrical Engineering, Communications, United States Of America 2007 - 2013

Postgraduate, Istanbul Technical University, Savunma Teknolojieri, Bilişim, Turkey 2000 - 2003

Undergraduate, Istanbul Technical University, Elektrik Elektronik Fakültesi, Elektronik Ve Haberleşme Mühendisliği, Turkey 1996 - 2000

Research Areas

Electrical and Electronics Engineering, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Yildiz Technical University, Faculty Of Electrical & Electronics, Electronics And Communication Engineering, 2018 - Continues

Assistant Professor, Yildiz Technical University, Faculty Of Electrical & Electronics, Electronics And Communication Engineering, 2016 - 2018

Courses

İşaret ve Sistemler, Undergraduate, 2016 - 2017

Haberleşme 1, Undergraduate, 2015 - 2016

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Measurement-Based Large Scale Statistical Modeling of Air-to-Air Wireless UAV Channels via Novel Time-Frequency Analysis**
Ede B., Kaplan B., Kahraman I., Kesir S., Yarkan S., Ekti A. R., Baykas T., GÖRÇİN A., Çırpan H. A.
IEEE Wireless Communications Letters, vol.11, pp.136-140, 2022 (SCI-Expanded)
- II. **Hierarchical Dirichlet Process Based Gamma Mixture Modeling for Terahertz Band Wireless Communication Channels**
Karakoca E., Karabulut Kurt G. Z., Gorcin A.
IEEE ACCESS, vol.10, pp.84635-84647, 2022 (SCI-Expanded)
- III. **Spectrum Sensing and Signal Identification With Deep Learning Based on Spectral Correlation**

Function

Tekbyk K., Akbunar O., Ekti A. R., Gorcin A., Karabulut Kurt G. Z., Qaraqe K. A.

IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, vol.70, no.10, pp.10514-10527, 2021 (SCI-Expanded)

- IV. **Modeling and Analysis of Short Distance Sub-Terahertz Communication Channel via Mixture of Gamma Distribution**
Tekbyk K., Ekti A. R., Karabulut Kurt G. Z., Gorcin A., Yarkan S.
IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, vol.70, no.4, pp.2945-2954, 2021 (SCI-Expanded)
- V. **Detection, Identification, and Direction of Arrival Estimation of Drone FHSS Signals With Uniform Linear Antenna Array**
Kaplan B., Kahraman I., Ekti A. R., Yarkan S., Gorcin A., Ozdemir M. K., Çırpan H. A.
IEEE ACCESS, vol.9, pp.152057-152069, 2021 (SCI-Expanded)
- VI. **A Holistic Investigation of Terahertz Propagation and Channel Modeling toward Vertical Heterogeneous Networks**
Tekbiyik K., Ekti A. R., Kurt G. K., Gorcin A., Yanikomeroglu H.
IEEE COMMUNICATIONS MAGAZINE, vol.58, no.11, pp.14-20, 2020 (SCI-Expanded)
- VII. **Terahertz band communication systems: Challenges, novelties and standardization efforts**
Tekbiyik K., Ekti A. R., Kurt G. K., Görçin A.
Physical Communication, vol.35, 2019 (SCI-Expanded)
- VIII. **Multi-Dimensional Wireless Signal Identification Based on Support Vector Machines**
Tekbiyik K., Akbunar O., Ekti A. R., Gorcin A., Kurt G. K.
IEEE ACCESS, vol.7, pp.138890-138903, 2019 (SCI-Expanded)
- IX. **Exploiting Sparsity Recovery for Compressive Spectrum Sensing: A Machine Learning Approach**
Nazzal M., Ekti A. R., GÖRÇİN A., Arslan H.
IEEE ACCESS, vol.7, pp.126098-126110, 2019 (SCI-Expanded)
- X. **An OFDM Signal Identification Method for Wireless Communications Systems**
Gorcin A., ARSLAN H.
IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, vol.64, no.12, pp.5688-5700, 2015 (SCI-Expanded)
- XI. **Signal Identification for Adaptive Spectrum Hyperspace Access in Wireless Communications Systems**
Gorcin A., Arslan H.
IEEE COMMUNICATIONS MAGAZINE, vol.52, no.10, pp.134-145, 2014 (SCI-Expanded)
- XII. **A Two-Antenna Single RF Front-End DOA Estimation System for Wireless Communications Signals**
Gorcin A., Arslan H.
IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, vol.62, no.10, pp.5321-5333, 2014 (SCI-Expanded)

Articles Published in Other Journals

- I. **A Neighbor Relation Whitelisting Method for Wireless Cellular Systems**
GÖRÇİN A.
ELECTRICA, vol.20, no.2, pp.189-198, 2020 (ESCI)
- II. **Cognitive Communication Systems for Public Safety**
GÖRÇİN A.
Int. J. of Engg. Research and Science Tech., vol.3, pp.63-76, 2014 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **Location-Aware Cognitive Communication Systems for Public Safety**
GÖRÇİN A., QARAQE K., ÇELEBİ H., ARSLAN H.
in: Telecommunications in disaster areas, Nicola Marchetti, Editor, River Publishers, 2011

Refereed Congress / Symposium Publications in Proceedings

- I. **Measurement-based Channel Characterization for A2A and A2G Wireless Drone Communication Systems**
Erdemir U., Kaplan B., Hökelek I., Görçin A., Çırpan H. A.
97th IEEE Vehicular Technology Conference, VTC 2023-Spring, Florence, Italy, 20 - 23 June 2023, vol.2023-June
- II. **Measurement-based Characterization of Physical Layer Security for RIS-assisted Wireless Systems**
Kesir S., Kayraklık S., Hökelek I., Pusane A. E., Basar E., Görçin A.
97th IEEE Vehicular Technology Conference, VTC 2023-Spring, Florence, Italy, 20 - 23 June 2023, vol.2023-June
- III. **User Pairing and Beamforming Design in mmWave CR-NOMA Networks**
Akyol Ö. F., Başaran S. T., Hökelek I., Görçin A.
2023 International Balkan Conference on Communications and Networking, BalkanCom 2023, İstanbul, Turkey, 5 - 08 June 2023
- IV. **RIDNet Assisted cGAN Based Channel Estimation for One-Bit ADC mmWave MIMO Systems**
Karakoca E., Nayir H., Görçin A., Qaraqe K.
97th IEEE Vehicular Technology Conference, VTC 2023-Spring, Florence, Italy, 20 - 23 June 2023, vol.2023-June
- V. **Measurement-based Modulation Classification in Unlicensed Millimeter-Wave Bands**
Sümen G., Görçin A., Qaraqe K. A.
2023 IEEE Wireless Communications and Networking Conference, WCNC 2023, Glasgow, England, 26 - 29 March 2023, vol.2023-March
- VI. **Feature Attention Based Blind Denoising Network for mmWave Beamspace Channel Estimation**
Karakoca E., Nayir H., GÖRÇİN A., Qaraqe K.
2022 IEEE Globecom Workshops, Rio de Janeiro, Brazil, 04 December 2022
- VII. **A Novel LFM Waveform for Terahertz-Band Joint Radar and Communications over Inter-Satellite Links**
Sümen G., KARABULUT KURT G. Z., GÖRÇİN A.
2022 IEEE Global Communications Conference, Brazil, 4 - 08 December 2022
- VIII. **Angle of Arrival Estimation for Terahertz-enabled Space Information Networks**
Nayir H., KARABULUT KURT G. Z., GÖRÇİN A.
2022 IEEE Future Networks World Forum, 15 November 2022
- IX. **Multi-Channel Learning with Preprocessing for Automatic Modulation Order Separation**
Sümen G., Çelebi B. A., KARABULUT KURT G. Z., GÖRÇİN A., TEDİK BAŞARAN S.
2022 IEEE Symposium on Computers and Communications (ISCC), Greece, 30 June - 03 July 2022
- X. **Measurement-Based Cellular Band Air-to-Ground Channel Modeling for UAVs**
Erkek N. K., Erdemir U., GÖRÇİN A., Balcı E., ÇIRPAN H. A., Halay B.
The 2022 IEEE 96th Vehicular Technology Conference, Londrina, Brazil, 26 - 29 September 2022
- XI. **Hybrid-Field Channel Estimation for Massive MIMO Systems based on OMP Cascaded Convolutional Autoencoder**
Nayir H., Karakoca E., GÖRÇİN A., Qaraqe K.
The 2022 IEEE 96th Vehicular Technology Conference, Londrina, Brazil, 26 - 29 September 2022
- XII. **Comparison of Relay and Reconfigurable Intelligent Surfaces for Millimeter-Wave Communication Systems**
Çelebi B. A., Erdemir U., GÖRÇİN A.
2022 30th Signal Processing and Communications Applications Conference (SIU), Safranbolu, Turkey, 15 May 2022
- XIII. **Measurement based FHSS-type Drone Controller Detection at 2.4GHz: An STFT Approach**
Kaplan B., Kahraman I., Gorcin A., Çırpan H. A., Ekti A. R.
91st IEEE Vehicular Technology Conference, VTC Spring 2020, Antwerp, Belgium, 25 - 28 May 2020
- XIV. **Spectrum Occupancy Prediction Exploiting Time and Frequency Correlations Through 2D-LSTM**
Aygul M. A., Nazzal M., Ekti A. R., Gorcin A., Da Costa D. B., Ates H. F., Arslan H.
91st IEEE Vehicular Technology Conference, VTC Spring 2020, Antwerp, Belgium, 25 - 28 May 2020

- XV. **Robust and Fast Automatic Modulation Classification with CNN under Multipath Fading Channels**
Tekbiyik K., Ekti A. R., Gorcin A., Kurt G. K., Kececi C.
91st IEEE Vehicular Technology Conference, VTC Spring 2020, Antwerp, Belgium, 25 - 28 May 2020
- XVI. **Measurement Based Statistical Channel Characterization of Air-to-Ground Path Loss Model at 446MHz for Narrow-Band Signals in Low Altitude UAVs**
Ede B., Yarkan S., Ekti A. R., Baykas T., Çırpan H. A., Gorcin A.
91st IEEE Vehicular Technology Conference, VTC Spring 2020, Antwerp, Belgium, 25 - 28 May 2020
- XVII. **Compressed Spectrum Sensing Using Sparse Recovery Convergence Patterns through Machine Learning Classification**
Nazzal M., Hasekioglu O., Ekti A. R., GÖRÇİN A., Arslan H.
30th IEEE Annual International Symposium on Personal, Indoor and Mobile Radio Communications, PIMRC 2019, İstanbul, Turkey, 8 - 11 September 2019
- XVIII. **Statistical Channel Modeling for Short Range Line-of-Sight Terahertz Communication**
Tekbiyik K., Ulusoy E., Ekti A. R., Yarkan S., Baykas T., Gorci A., Kurt G. K.
30th IEEE Annual International Symposium on Personal, Indoor and Mobile Radio Communications, PIMRC 2019, İstanbul, Turkey, 8 - 11 September 2019
- XIX. **Sparse coding for transform domain-based sparse OFDM channel estimation**
Nazzal M., Aygul M. A., Gorcin A., Arslan H.
27th Signal Processing and Communications Applications Conference, SIU 2019, Sivas, Turkey, 24 - 26 April 2019
- XX. **On the Investigation of Wireless Signal Identification Using Spectral Correlation Function and SVMs**
Tekbiyik K., Akbunar O., Ekti A. R., Kurt G. K., Gorcin A.
2019 IEEE Wireless Communications and Networking Conference, WCNC 2019, Marrakush, Morocco, 15 - 19 April 2019
- XXI. **Dictionary Learning-Based BeamSpace Channel Estimation in Millimeter-Wave Massive MIMO Systems with a Lens Antenna Array**
Nazzal M., Aygul M. A., GÖRÇİN A., Arslan H.
15th IEEE International Wireless Communications and Mobile Computing Conference (IEEE IWCMC), Tangier, Morocco, 24 - 28 June 2019, pp.20-25
- XXII. **Statistical Modeling of Propagation Channels for Terahertz Band**
Ekti A. R., Boyaci A., Alparslan A., Unal I., Yarkan S., Gorcin A., Arslan H., Uysal M.
IEEE Conference on Standards for Communications and Networking (CSCN), Helsinki, Finland, 18 - 20 September 2017, pp.275-280
- XXIII. **Hybrid Automatic Neighbor Relations for 5G Wireless Networks**
GÖRÇİN A., Cotanis N.
International Symposium on Wireless Communication Systems (ISWCS), Bologna, Italy, 28 - 31 August 2017, pp.175-180
- XXIV. **An autoregressive approach for spectrum occupancy modeling and prediction based on synchronous measurements**
GÖRÇİN A., ÇELEBİ H., Qaraqe K., ARSLAN H.
2011 IEEE 22nd International Symposium on Personal, Indoor and Mobile Radio Communications, 11 September - 14 November 2011
- XXV. **Template Matching for Signal Identification in Cognitive Radio Systems**
Gorcin A., Arslan H.
IEEE Military Communications Conference (MILCOM), Florida, United States Of America, 29 October - 01 November 2012
- XXVI. **Identification of OFDM Signals Under Multipath Fading Channels**
Gorcin A., ARSLAN H.
IEEE Military Communications Conference (MILCOM), Florida, United States Of America, 29 October - 01 November 2012
- XXVII. **Reconfigurable filter implementation of a matched filter based spectrum sensor for cognitive radio systems**

- Gholamipour A. H., GÖRÇİN A., ÇELEBİ H., TÖREYİN B. U., Saghir M. A. R., Kurdahi F., Eltawil A.
2011 IEEE International Symposium of Circuits and Systems (ISCAS), 15 - 18 May 2011
- XXVIII. **A framework on wideband sensing and direction finding for location aware public safety cognitive radio**
GÖRÇİN A., ÇELEBİ H., QARAQE K., ARSLAN H.
IEEE 12th Annual Wireless and Microwave Technology Conference, 18 - 19 April 2011
- XXIX. **Empirical results for wideband multidimensional spectrum usage**
QARAQE K., ÇELEBİ H., GÖRÇİN A., AMER E., ARSLAN H., ALOUINI M.
Personal, Indoor and Mobile Radio Communications, 2009 IEEE 20th International Symposium on, 13 - 16 September 2009
- XXX. **RSS-based Location Awareness for Public Safety Cognitive Radio**
GÖRÇİN A.
1st International Conference on Wireless Communication, Vehicular Technology, Information Theory and Aerospace and Electronic Systems Technology, Aalborg, Denmark, 17 - 20 May 2009, pp.466-467
- XXXI. **Public safety and emergency case communications Opportunities from the aspect of cognitive radio**
GÖRÇİN A., ARSLAN H.
IEEE Symposium on New Frontiers in Dynamic Spectrum Access Networks, 14 - 17 October 2008
- XXXII. **A signal identification application for cognitive radio**
GÖRÇİN A., THİAGARAJAN B.
SDR forum technical conference, 5 - 09 November 2007
- XXXIII. **Cognitive Radio and Software Defined Radio: Signal Processing Perspectives**
ARSLAN H., GÖRÇİN A.
IEEE 16th Signal Processing and Communications Applications Conference, Aydın, Turkey, 20 - 22 April 2008, pp.873-877
- XXXIV. **A Feedforward Amplifier Application for 802.11a WLAN Transceiver Architecture**
GÖRÇİN A., PALAMUTÇUOĞLU O.
International Conference on Electrical and Electronics (Eleco), Bursa, Turkey, 03 December 2003, pp.1-3

Metrics

Publication: 49

Citation (WoS): 203

Citation (Scopus): 398

H-Index (WoS): 8

H-Index (Scopus): 11