

## Asst. Prof. CEMALEDDİN ŞİMŞEK

### Personal Information

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### International Researcher IDs

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### Education Information

Doctorate, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Elektrik Elektronik Mühendisliği, Turkey 2008 - 2017

Postgraduate, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Elektrik Elektronik Mühendisliği, Turkey 2005 - 2008

Undergraduate, Karadeniz Technical University, Mühendislik Fakültesi, Elektrik Elektronik Mühendisliği, Turkey 2001 - 2005

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, Low Complexity Early Stopping Structure For Belief Propagation Decoder, Karadeniz Technical University, -, Elektronik Mühendisliği, 2017

Postgraduate, Kanalın Birim Vurus Tepkesine Dayalı Yer Bulma Yöntemi, Karadeniz Technical University, -, Elektronik Mühendisliği, 2008

### Research Areas

Information Systems, Communication and Control Engineering, Communication Engineering, Information Theory, Error Corrector Codes, Signal Processing, Signal Processing for Communication, Computer Sciences, Equipment, Processor Architectures, Electrical and Electronics Engineering, Electronic, Engineering and Technology

### Academic Titles / Tasks

Karadeniz Technical University, Of Teknoloji Fakültesi, Elektronik Haberleşme Mühendisliği, 2018 - Continues

Assistant Professor, Gumushane University, Mühendislik Ve Doğa Bilimleri Fakültesi, Elektrik Elektronik Mühendisliği, 2017 - 2018

Research Assistant, Gumushane University, Mühendislik Ve Doğa Bilimleri Fakültesi, Elektrik Elektronik Mühendisliği, 2013 - 2017

Research Assistant, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Elektrik Elektronik Mühendisliği, 2005 - 2013

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

- I. **Additive manufacturing of PEEK-based continuous fiber reinforced thermoplastic composites with high mechanical properties**  
Vatandas B. B., UŞUN A., Yıldız N., Simsek C., CORA Ö. N., ASLAN M., GÜMRÜK R.  
COMPOSITES PART A-APPLIED SCIENCE AND MANUFACTURING, vol.167, 2023 (SCI-Expanded)
- II. **Demonstration of better superconducting performance in a solder with low lead content**  
Aksoy C., Cakir B., Koparan E. T., Simsek C., Tıraşoğlu E., Speller S., Grovenor C. R. M., Küçükömeroğlu T., Yanmaz E.  
SUPERCONDUCTOR SCIENCE & TECHNOLOGY, vol.36, no.1, 2023 (SCI-Expanded)
- III. **Low-Complexity Early Termination Method for Rateless Soft Decoder**  
ALBAYRAK C., Simsek C., TÜRK K.  
IEEE COMMUNICATIONS LETTERS, vol.21, no.11, pp.2356-2359, 2017 (SCI-Expanded)
- IV. **Simplified Early Stopping Criterion for Belief Propagation Polar Code Decoders**  
Şimşek C., Türk K.  
IEEE Communications Letters, vol.20, pp.1515-1518, 2017 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Karanfil, Nane ve Sarımsak Yağlarının Elektronik Burun ile Tespiti**  
Tozlu B. H., Şimşek C., Aydemir Ö.  
Journal of Investigations on Engineering and Technology, vol.3, no.2, pp.68-72, 2020 (Peer-Reviewed Journal)
- II. **ON LINE MONITORING OF THEAFLAVINS AND THEARUBIGINS RATIO IN TURKISH BLACK TEA USING ELECTRONIC NOSE**  
TOZLU B. H., OKUMUŞ H. İ., ŞİMŞEK C., AYDEMİR Ö.  
International Journal of Engineering and Applied Sciences, 2015 (Peer-Reviewed Journal)
- III. **On Line Monitoring Of Theaflavins And Thearubigins Ratio In Turkish Black Tea Using Electronic Nose**  
TOZLU B. H., OKUMUŞ H. İ., ŞİMŞEK C., AYDEMİR Ö.  
International Journal of Engineering and Applied Sciences, 2015 (Peer-Reviewed Journal)
- IV. **Online quality classifying with electronic nose for black tea production**  
TOZLU B. H., OKUMUŞ H. İ., ŞİMŞEK C.  
International Journal of Academic Research, vol.6, no.4, pp.165-170, 2014 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Preliminary Results on Ex-situ Joint Techniques of Superconducting MgB<sub>2</sub> wires for Industrial Applications**  
AKSOY C., YETİŞ H., KARABOĞA F., ŞİMŞEK C., AKDOĞAN M., BELENLİ İ.  
International Conference on Condensed Matter and Materials Science-2019 (ICMMS-19), 14 October 2019
- II. **Bit error rate analysis for color shift keying modulation Renk kaydirmalı anahtarlama modülasyonu için bit hata oranı analizi**  
TUĞCU E., ALBAYRAK C., YAZGAN A., ŞİMŞEK C., TÜRK K.  
26th IEEE Signal Processing and Communications Applications Conference, SIU 2018, İzmir, Turkey, 2 - 05 May 2018, pp.1-4
- III. **Channel measurement of visible light communication for indoor environment Kapalı mekanlarda görünür ışıklı haberleşme için kanal ölçümü**  
Albayrak C., Şimşek C., Tuğcu E., Yazgan A., Erdöl H., Türk K.  
26th IEEE Signal Processing and Communications Applications Conference, SIU 2018, İzmir, Turkey, 2 - 05 May 2018, pp.1-4

- IV. **Performance of Visible Light Communication with Colour Shift Keying Modulation and Polar Code**  
ŞİMŞEK C., TUĞCU E., ALBAYRAK C., YAZGAN A., TÜRK K.  
41st International Conference on Telecommunications and Signal Processing (TSP), Athens, Greece, 4 - 06 July 2018, pp.750-753
- V. **Bit Error Rate Analysis for Color Shift Keying Modulation**  
TUĞCU E., ALBAYRAK C., YAZGAN A., ŞİMŞEK C., TÜRK K.  
26th IEEE Signal Processing and Communications Applications Conference (SIU), İzmir, Turkey, 2 - 05 May 2018
- VI. **Experimental Channel Measurement for Indoor Office Visible Light Communication**  
YAZGAN A., ŞİMŞEK C., ALBAYRAK C., TUĞCU E., TÜRK K.  
41st International Conference on Telecommunications and Signal Processing (TSP), Athens, Greece, 4 - 06 July 2018, pp.746-749
- VII. **Channel Measurement of Visible Light Communication for Indoor Environment**  
ALBAYRAK C., ŞİMŞEK C., TUĞCU E., YAZGAN A., ERDÖL H., TÜRK K.  
26th IEEE Signal Processing and Communications Applications Conference (SIU), İzmir, Turkey, 2 - 05 May 2018
- VIII. **Increasing the Electrical Vehicle Efficiency with Genetic Algorithm**  
EROĞLU H., OĞUZ Y., KAPLAN E., GÜL F., ŞİMŞEK C.  
IATS 2017, Elazığ, Turkey, 19 - 22 October 2017
- IX. **Hardware Optimization for Belief Propagation Polar Code Decoder with Early Stopping Criteria Using High-Speed Parallel-Prefix Ling Adder**  
ŞİMŞEK C., TÜRK K.  
40th International Conference on Telecommunications and Signal Processing (TSP), Barcelona, Spain, 5 - 07 July 2017, pp.182-185
- X. **Sign Alterations of LLR Values Based Early Termination Method for LT BP Decoder**  
ALBAYRAK C., Simsek C., TÜRK K.  
25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017
- XI. **Hardware Friendly Early Stopping Structure For Polar Code**  
ŞİMŞEK C., ALBAYRAK C., TÜRK K.  
25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017
- XII. **Simplified minLLR Early Stopping Criterion for Belief PropagationBased Polar Code Decoders**  
Şimşek C., Türk K.  
International Conference on Advanced Technology & Sciences (ICAT'16), Konya, Turkey, 1 - 03 September 2016
- XIII. **Selecting Suitable Sensor on Building an Electronic Nose**  
TOZLU B. H., OKUMUŞ H. İ., ŞİMŞEK C.  
7th International Conference on Sensors and Signals (SENSIG 15), 12 - 14 December 2015
- XIV. **Low complexity, losless ECG data compression algorithms for wireless sensor network Kablosuz algılayıcı aĝları için düşük karmaşıklıklı, kayıpsız EKG veri sıkıştırma algoritmaları**  
ŞİMŞEK C., KAYA İ., ALBAYRAK C.  
2013 21st Signal Processing and Communications Applications Conference, SIU 2013, Haspolat, Turkey, 24 - 26 April 2013
- XV. **Low Complexity, Losless ECG Data Compression Algorithms for Wireless Sensor Network**  
ŞİMŞEK C., KAYA İ., ALBAYRAK C.  
21st Signal Processing and Communications Applications Conference (SIU), CYPRUS, 24 - 26 April 2013
- XVI. **Neural Network Based Learning and RF Probing Measurements using Non-Specific Mode Wave Guide**  
ÇAKIR O., TUĞCU E., ŞİMŞEK C., YAZGAN A., KAYA İ.  
International Symposium on Innovations in Intelligent Systems and Applications, Trabzon, Turkey, 29 June - 01 July 2009, vol.4, pp.342-348

## Supported Projects

Cora Ö. N., Uşun A., Şimşek C., Gümrük R., TUBITAK Project, Eriyik Yığma Yöntemi(FDM) Esas Alan Üç Boyutlu Yazıcı

Teknolojisi ile Yüksek Mekanik Özelliklere Sahip Sürekli Elyaf Takviyeli Termoplastik Kompozit Malzeme Üretimi, 2021 - 2023

Gümrük R., Cora Ö. N., Aslan M., Şimşek C., TÜBİTAK Project, Eriyik Yigma Yöntemini Esas Alan Üç Boyutlu Yazıcı Teknolojisi ile Yüksek Mekanik Özelliklere Sahip Sürekli Elyaf Takviyeli Termoplastik Kompozit Malzeme Üretimi, 2021 - 2023

AKSOY C., SAVAŞKAN B., ŞİMŞEK C., TIRAŞOĞLU E., TAYLAN KOPARAN E., ÇAKIR B., KÜÇÜKÖMEROĞLU T., GÜNER B., YEŞİLBAĞ Ö., Project Supported by Higher Education Institutions, Sürekli Akım Modunda çalışan Süperiletken Mıknatıslar için lehim eklem Üretimi ve Karakterizasyonu, 2020 - 2022

ŞİMŞEK C., GÜMRÜK R., UŞUN A., Project Supported by Higher Education Institutions, 3B Yazıcılarda sürekli elyaf takviyeli kompozit baskı yapabilen ekstrüder, 2019 - 2021

## Metrics

Publication: 25

Citation (WoS): 30

Citation (Scopus): 42

H-Index (WoS): 4

H-Index (Scopus): 4

## Non Academic Experience

Biyo Tek. Müh. ve Danş. Hiz. Yaz. Bil. Yay. AR-GE Mak. San. Tic. Ltd. Şti.  
Cenk ALBAYRAK A.Ş.