

Prof. Ece Olcay Güneş

Personal Information

Email: gunesec@itu.edu.tr

Web: <https://avesis.itu.edu.tr/gunesec>

Address: İTÜ Elektrik-Elektronik Fakültesi, Elektronik ve Haberleşme Mühendisliği Bölümü 34469 Maslak, İstanbul

International Researcher IDs

ScholarID: vrrS2HgAAAAJ

ORCID: 0000-0001-9186-7424

Publons / Web Of Science ResearcherID: AAC-1542-2020

ScopusID: 6503873054

Yoksis Researcher ID: 1702

Education Information

Doctorate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Electronics and Communication, Turkey 1991 - 1998

Postgraduate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Elektronik Ve Haberleşme Mühendisliği Anabilim Dalı, Turkey 1989 - 1991

Undergraduate, Istanbul Technical University, Elektrik-Elektronik Fakültesi, Elektronik Ve Haberleşme Mühendisliği Bölümü, Turkey 1984 - 1988

Foreign Languages

English

Dissertations

Doctorate, Akım taşıyıcılar ve akım taşıyıcı tabanlı aktif elemanlarla transfer fonksiyonlarının gerçekleştirilmesi, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Elektronik Ve Haberleşme Mühendisliği Anabilim Dalı, 1998

Postgraduate, Akım taşıyıcılı devrelerin analizi ve sentezi, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Elektronik Ve Haberleşme Mühendisliği Anabilim Dalı, 1991

Research Areas

Electrical and Electronics Engineering, Electronic, Circuit Theory, Electronic Circuits, Engineering and Technology

Academic Titles / Tasks

Professor, Istanbul Technical University, Elektrik-Elektronik, Elektronik Ve Haberleşme Mühendisliği, 2006 - Continues
Associate Professor, Istanbul Technical University, Elektrik-Elektronik, Elektronik Ve Haberleşme Mühendisliği, 2000 - 2006

Assistant Professor, Istanbul Technical University, Elektrik-Elektronik, Elektronik Ve Haberleşme Mühendisliği, 1998 - 2000

Research Assistant, Istanbul Technical University, Elektrik-Elektronik, Elektronik Ve Haberleşme Mühendisliği, 1990 - 1998

Academic and Administrative Experience

Deputy Head of Department, Istanbul Technical University, Elektrik-Elektronik, Elektronik Ve Haberleşme Mühendisliği, 2023 - 2026

Program Koordinatörü, Istanbul Technical University, Lisansüstü Eğitim Enstitüsü, Elektronik ve Haberleşme Mühendisliği, 2013 - 2022

İstanbul Teknik Üniversitesi, Elektrik-Elektronik Fakültesi, Elektronik Ve Haberleşme Mühendisliği Bölümü, 2010 - 2013

İstanbul Teknik Üniversitesi, Elektrik-Elektronik Fakültesi, Elektronik Ve Haberleşme Mühendisliği Bölümü, 2006 - 2009

İstanbul Teknik Üniversitesi, Elektrik-Elektronik Fakültesi, Elektronik Ve Haberleşme Mühendisliği Bölümü, 2001 - 2003

Courses

DEVRE SENTEZİ, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2007 - 2008, 2006 - 2007

Advising Theses

Güneş E. O., Ai-based visual odometry implementation on an embedded system, Postgraduate, O.BÜYÜKSOLAK(Student), 2023

Güneş E. O., PERFORMANCE AND RELIABILITY OPTIMIZATION OF HIGH PERFORMANCE MOTOR DRIVERS, Postgraduate, O.ÖRGÜT(Student), 2023

Güneş E. O., Stochastic Bitstream-Based Vision and Learning Machines, Doctorate, S.AYGÜN(Student), 2022

Güneş E. O., DESIGN OF A MICROPROCESSOR-BASED EMBEDDED FAULT DIAGNOSTIC SYSTEM AND AN FPGA-BASED IMPROVEMENT PROPOSAL, Postgraduate, O.BEKAR(Student), 2022

Güneş E. O., Deep learning based fruit and vegetable recognition for android pos devices, Postgraduate, E.EKİCİ(Student), 2022

Güneş E. O., MULTIPLICATION CIRCUIT BLOCK DESIGN USING REVERSIBLE LOGIC GATES, Postgraduate, B.GÖNÜL(Student), 2022

Güneş E. O., A hardware based gunshot sound detection system, Postgraduate, M.KORAY(Student), 2020

Güneş E. O., Derin öğrenme ile tekstil tipi tanımlama, Postgraduate, G.GÜRGEN(Student), 2019

Güneş E. O., A novel symmetric lattice-based wideband-wide phase range digital phase shifter design, Doctorate, C.AVCI(Student), 2019

Güneş E. O., Design and implementation of a sepic battery charger for automotive pv applications, Postgraduate, E.PINAR(Student), 2018

Güneş E. O., Novel methods for calculating the demagnetization factor of ring-core fluxgate sensors, Doctorate, İ.YAĞLIDERE(Student), 2018

Güneş E. O., Görünür yakın kızılötesi spektrometre tasarımı ve bir uygulama örneği, Postgraduate, Ö.AKGÜL(Student), 2016

Güneş E. O., SMART CARD AND BIOMETRIC BASED GENERAL PURPOSE ACCESS CONTROL SYSTEM DESIGN, Postgraduate, S.Aygün(Student), 2015

Güneş E. O., OTONOM ROBOT VE KONTROL BİRİMİ TASARIMI, Postgraduate, H.Durmuş(Student), 2015

Güneş E. O., TEMEL GÖRÜNTÜ İŞLEME ALGORİTMALARININ FPGA ÜZERİNDE GERÇEKLENMESİ, Postgraduate, M.Mert(Student), 2015

Güneş E. O., An Embedded Design and Implementation of a Facial Expression Recognition System, Postgraduate,

Ö.Sümer(Student), 2014

Güneş E. O., Fluxgate Tipi Hassas Magnetik Sensör Tasarımı, Postgraduate, İ.Yağlıdere(Student), 2010

Güneş E. O., Optimization Algorithms for the Multiple Constant Multiplications, Doctorate, L.Aksoy(Student), 2009

Güneş E. O., Yüz Resimlerinden Cinsiyet Tayini, Postgraduate, Ö.Özbudak(Student), 2009

Güneş E. O., Eliptik Eğri Kriptografisinde Skaler Çarpma Bloğunun VHDL ile Tasarımı, Postgraduate, S.Acar(Student), 2005

Güneş E. O., Çok değerli lojik fonksiyonlarının indirgenmesi, Postgraduate, R.DEMİRCİOĞLU(Student), 2005

Güneş E. O., Kombinezonsal Devrelerde Tek Takılı Kalma Hatalar İçin Test Dizisi Üretimi, Postgraduate, L.Aksoy(Student), 2003

Güneş E. O., Sahada Programlanabilir Kapı Dizileri Kullanılarak Sayısal Tasarım Kartı Gerçeklenmesi, Postgraduate, İ.Hakkı(Student), 2002

Designed Lessons

Güneş E. O., Postgraduate, 2020 - 2021

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Agile Simulation of Stochastic Computing Image Processing with Contingency Tables**
Aygün S., Najafi M. H., Imani M., Güneş E. O.
IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, vol.42, no.10, pp.3474-3478, 2023 (SCI-Expanded)
- II. **Utilization of Contingency Tables in Stochastic Computing**
Aygün S., Güneş E. O.
IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS II-EXPRESS BRIEFS, vol.69, no.6, pp.2942-2946, 2022 (SCI-Expanded)
- III. **Automated optimization for broadband flat-gain antenna designs with artificial neural network**
Mir F., Kouhalvandi L., Matekovits L., Güneş E. O.
IET MICROWAVES ANTENNAS & PROPAGATION, vol.15, no.12, pp.1537-1544, 2021 (SCI-Expanded)
- IV. **Efficient and robust bitstream processing in binarised neural networks**
Aygün S., Güneş E. O., De Vleeschouwer C.
ELECTRONICS LETTERS, vol.57, no.5, pp.219-222, 2021 (SCI-Expanded)
- V. **A symmetric lattice-based wideband wide phase range digital phase shifter topology**
Avcı C., Güneş E. O., Yarrnan B. S.
INTERNATIONAL JOURNAL OF CIRCUIT THEORY AND APPLICATIONS, vol.47, no.8, pp.1269-1292, 2019 (SCI-Expanded)
- VI. **A Novel Method for Calculating the Ring-Core Fluxgate Demagnetization Factor**
Yağlıdere I., Güneş E. O.
IEEE TRANSACTIONS ON MAGNETICS, vol.54, no.2, 2018 (SCI-Expanded)
- VII. **Design of a high performance mutually coupled circuit**
Güneş E. O., ZEKE A., Toker A.
ANALOG INTEGRATED CIRCUITS AND SIGNAL PROCESSING, vol.66, no.1, pp.81-91, 2011 (SCI-Expanded)
- VIII. **Search algorithms for the multiple constant multiplications problem: Exact and approximate**
Aksoy L., Güneş E. O., Flores P.
MICROPROCESSORS AND MICROSYSTEMS, vol.34, no.5, pp.151-162, 2010 (SCI-Expanded)
- IX. **A new low voltage CMOS differential OTRA for sub-micron technologies**
Duruk A., Gunes E. O., Kuntman H.
AEU-INTERNATIONAL JOURNAL OF ELECTRONICS AND COMMUNICATIONS, vol.61, no.5, pp.291-299, 2007 (SCI-Expanded)

- X. **Evolutionary local search algorithm for the satisfiability problem**
AKSOY L., Gunes E. O.
ARTIFICIAL INTELLIGENCE AND NEURAL NETWORKS, vol.3949, pp.185-193, 2006 (SCI-Expanded)
- XI. **On the realization of oscillators using state equations**
Gunes E. O., Toker A.
AEU-INTERNATIONAL JOURNAL OF ELECTRONICS AND COMMUNICATIONS, vol.56, no.5, pp.317-326, 2002 (SCI-Expanded)
- XII. **Derivation of low-sensitivity current-mode CCII-based filters**
Ozoguz S., ACAR C., Toker A., GUNES E. O.
IEE Proceedings: Circuits, Devices and Systems, vol.148, no.3, pp.115-120, 2001 (SCI-Expanded)
- XIII. **Insensitive current-mode universal filter with low component spread using dual-output current conveyors**
Gunes E. O., Ozoguz S., Toker A.
AEU-INTERNATIONAL JOURNAL OF ELECTRONICS AND COMMUNICATIONS, vol.54, no.2, pp.127-132, 2000 (SCI-Expanded)
- XIV. **Insensitive current-mode universal filter with minimum components using dual-output current conveyors**
Gunes E. O., Toker A., Ozoguz S.
Electronics Letters, vol.35, no.7, pp.524-525, 1999 (SCI-Expanded)
- XV. **Realization of voltage/current-mode filters using four-terminal floating nullors**
Gunes E., Anday F.
MICROELECTRONICS JOURNAL, vol.30, no.3, pp.211-216, 1999 (SCI-Expanded)
- XVI. **nth-order allpass voltage transfer function synthesis using commercially available active components**
Gunes E. O., Anday F.
Microelectronics Journal, vol.30, no.9, pp.895-898, 1999 (SCI-Expanded)
- XVII. **Realization of voltage and current-mode transfer functions using unity-gain cells**
Gunes E., Anday F.
INTERNATIONAL JOURNAL OF ELECTRONICS, vol.83, no.2, pp.209-213, 1997 (SCI-Expanded)
- XVIII. **CFA based fully integrated nth-order lowpass filter**
Gunes E., Anday F.
ELECTRONICS LETTERS, vol.33, no.7, pp.571-573, 1997 (SCI-Expanded)
- XIX. **Universal filter with three inputs using CCII+**
Özoğuz S., Güneş E. O.
Electronics Letters, vol.32, no.23, pp.2134-2135, 1996 (SCI-Expanded)
- XX. **Realisation of current-mode universal filter using CFCCIIpS**
Gunes E. O., Anday F.
ELECTRONICS LETTERS, vol.32, no.12, pp.1081-1082, 1996 (SCI-Expanded)
- XXI. **Realisation of current-mode low pass filters using CFCCIIIs**
Gunes E., Anday F.
ELECTRONICS LETTERS, vol.31, no.25, pp.2161-2162, 1995 (SCI-Expanded)
- XXII. **REALIZATION OF NTH-ORDER VOLTAGE TRANSFER-FUNCTION CCII+**
GUNES E. O., ANDAY F.
ELECTRONICS LETTERS, vol.31, no.13, pp.1022-1023, 1995 (SCI-Expanded)
- XXIII. **Realisation of nth order Voltage Transfer Function Using CCII**
Güneş E. O., ANDAY A. F.
ELECTRONICS LETTERS, vol.31, no.13, pp.1022-1023, 1995 (SCI-Expanded)
- XXIV. **REALIZATION OF NTH-ORDER TRANSFER-FUNCTIONS USING CURRENT CONVEYORS**
ANDAY F., GUNES E.
INTERNATIONAL JOURNAL OF CIRCUIT THEORY AND APPLICATIONS, vol.20, no.6, pp.693-696, 1992 (SCI-Expanded)

Articles Published in Other Journals

- I. **1.5 Bit/Stage, 12-Bit Pipeline ADC Design with Foreground Calibration**
AYGÜN S., KOUHALVANDİ L., GÜNEŞ E. O.
International Journal of Advancement in Electronics and Electrical Engineering, pp.1-5, 2018 (Peer-Reviewed Journal)
- II. **Bulut Sistemler için Önerilen Biyometri Tabanlı Güvenlik Sistemine Genel Bakış**
AYGÜN S., AKÇAY M., GÜNEŞ E. O.
Uluslararası Bilgi Güvenliği Dergisi, vol.1, no.2, 2016 (Peer-Reviewed Journal)
- III. **Design and Simulation of a Low Power RF Front End for Short Range Outdoor Applications**
AMİN H. Y., PİRİ F., GÜNEŞ E. O.
International Journal of Mechatronics Electrical and Computer Technology (IJMEC), vol.15, no.8, pp.2571-2576, 2015 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **Bit-Stream Processing with No Bit-Stream: Efficient Software Simulation of Stochastic Vision Machines**
Aygün S., Najafi M. H., Imani M., Güneş E. O.
33rd Great Lakes Symposium on VLSI, GLSVLSI 2023, Tennessee, United States Of America, 5 - 07 June 2023, pp.273-279
- II. **Reconvergent Path-aware Simulation of Bit-stream Processing**
Aygün S., Najafi M. H., Imani M., Güneş E. O.
33rd Great Lakes Symposium on VLSI, GLSVLSI 2023, Tennessee, United States Of America, 5 - 07 June 2023, pp.225-226
- III. **AI-Based Visual Odometry Implementation on an Embedded System**
Büyüksolak O., Güneş E. O.
10th International Conference on Electrical and Electronics Engineering, ICEEE 2023, İstanbul, Turkey, 8 - 10 May 2023, pp.47-51
- IV. **Detection of Incipient Inter-Turn Short-Circuit Faults by Artificial Intelligence Classifiers**
Örgüt O., Şahin I., Güneş E. O.
24th European Conference on Power Electronics and Applications, EPE 2022 ECCE Europe, Hannover, Germany, 5 - 09 September 2022
- V. **Deep Neural Network Based Digital Predistorter of Power Amplifiers**
Daylak F., Güneş E. O., Bayat O., Özoğuz İ. S.
13th International Conference on Electrical and Electronics Engineering, ELECO 2021, Virtual, Bursa, Turkey, 25 - 27 November 2021, pp.408-410
- VI. **Inspecting Distortion in the Power Amplifiers with the aid of Neural Networks**
Güneş E. O., Aygün S., Kouhalvandi L., Özoğuz İ. S.
IEEE/ICACT2020, 22nd International Conference on Advanced Communications Technology (ICACT2020), Pyeongtaek, South Korea, 16 - 19 February 2020, pp.1-6
- VII. **A cost-effective real-time PCR panel for rapid assessment of genetic obesity risk**
ZEYBEK Ş. Ü., Kolukırcık M., GÜNEŞ E. O., KIRCI M., Özgümüş Girgin G., ERGEN H. A., YAYLIM İ., GÜROL A. O., Aksakal N., Ketre Kolukırcık C. Z.
7th International Congress of Molecular Medicine, 5 - 07 September 2019
- VIII. **Algorithms for Speeding-Up the Deep Neural Networks For Detecting Plant Disease**
KOUHALVANDİ L., GÜNEŞ E. O., ÖZOĞUZ İ. S.
Agro-Geoinformatics 2019, İstanbul, Turkey, 17 - 19 July 2019
- IX. **Petri nets based procedure of hardware/software codesign of an urban agriculture monitoring system**

YAZGAÇ B. G., DURMUŞ H., KIRCI M., GÜNEŞ E. O., VARLI H. B.

2019 8th International Conference on Agro-Geoinformatics (Agro-Geoinformatics), Istanbul, Turkey, 16 - 19 July 2019

- X. **Sensor Fusion for IoT-based Intelligent Agriculture System**
AYGÜN S., GÜNEŞ E. O., SUBAŞI M. A., ALKAN S.
2019 8th International Conference on Agro-Geoinformatics (Agro-Geoinformatics), Istanbul, Turkey, Turkey, 16 - 19 July 2019
- XI. **Integration of the Mobile Robot and Internet of Things to Collect Data from the Agricultural Fields**
DURMUŞ H., GÜNEŞ E. O.
2019 8th International Conference on Agro-Geoinformatics (Agro-Geoinformatics), Istanbul, Turkey, Turkey, 16 - 19 July 2019
- XII. **Design and Implementation of Novel and Compact 2-bit Wide Band Digital Phase Shifter**
AVCI C., GÜNEŞ E. O., YARMAN B. S. B.
Mediterranean Microwave Symposium 2018, 31 October - 02 November 2018
- XIII. **Less data for face and iris biometric traits: An approximation for feature extraction**
Aygin S., Cavus G., Gines E. O.
6th Workshop on Advances in Information, Electronic and Electrical Engineering, AIEEE 2018, Vilnius, Lithuania, 8 - 10 November 2018
- XIV. **Design and Implementation of a Novel and Compact 2-Bit Wide Band Digital Phase Shifter**
Avci C., Güneş E. O., Yarman B. S.
18th Mediterranean Microwave Symposium (MMS), İstanbul, Turkey, 31 October - 02 November 2018, pp.135-138
- XV. **An improved 2 stage opamp with rail-to-rail gain-boosted folded cascode input stage and monticelli rail-to-rail class AB output stage**
Kouhalvandi L., Aygün S., Güneş E. O., Kirci M.
24th IEEE International Conference on Electronics, Circuits and Systems, ICECS 2017, Batumi, Georgia, 5 - 08 December 2017, pp.542-545
- XVI. **Karatsuba Ofman Multiplication Implementation on SystemC for Diffie-Hellman Key Exchange Algorithm**
AYGÜN S., KOUHALVANDI L., ÖRS YALÇIN S. B., GÜNEŞ E. O.
4th International Conference on Knowledge-Based Engineering and Innovation (KBEI-2017), Tahrán, Iran, 22 December 2017, pp.1-4
- XVII. **1.5 Bit/Stage, 12-Bit Pipeline ADC Design with Foreground Calibration**
Aygün S., Kouhalvandi L., Güneş E. O.
The Sixth International Conference on Advances in Computing, Electronics and Communication - ACEC 2017, Roma, Italy, 9 - 10 December 2017, pp.1-5
- XVIII. **DESIGN OF A HIGH GAIN TELESCOPIC-CASCODE OPERATIONAL AMPLIFIER BASED ON THE ZTC OPERATION CONDITION**
Kouhalvandi L., Aygün S., Güneş E. O., Kirci M.
ICECS 2017, Batum, Georgia, 5 - 08 December 2017, pp.5-8
- XIX. **AN IMPROVED 2 STAGE OPAMP WITH RAIL-TO-RAIL GAIN-BOOSTED FOLDED CASCODE INPUT STAGE AND MONTICELLI RAIL-TO-RAIL CLASS AB OUTPUT STAGE**
Kouhalvandi L., Aygün S., Güneş E. O., Kirci M.
ICECS 2017, Batum, Georgia, 5 - 08 December 2017, pp.1-4
- XX. **DESIGN OF 0-15GHZ BAND 180 DEGREE DIGITAL PHASE SHIFTING CELL TOPOLOGY**
AVCI C., GÜNEŞ E. O., YARMAN B. S. B.
ICECS 2017, Batumi, Georgia, 5 - 08 December 2017, pp.1-4
- XXI. **Calculation of Fluxgate Sensor Parameters**
Yağlıdere İ., Güneş E. O.
ELECO 2017, Bursa, Turkey, 30 November - 02 December 2017, pp.5-8
- XXII. **On the Linearity of Open Loop Fluxgate**
Yağlıdere İ., Güneş E. O.

- ELECO 2017, Bursa, Turkey, 30 November - 02 December 2017, pp.1-4
- XXIII. **Design and Implementation of Ultra Wide Band Digital Phase Shifter Cells on a Silicon Substrate**
Avcı C., Güneş E. O., Yarman B. S.
Mediterranean Microwave Symposium 2017, Marsilya, France, 28 - 30 November 2017, pp.1-5
- XXIV. **10-bit High-Speed CMOS Comparator with Offset Cancellation Technique**
Kouhalvandi L., Aygün S., Özdemir G. G., Güneş E. O.
The 5th IEEE Workshop on Advances in Information, Electronic and Electrical Engineering, Riga, Latvia, 24 - 25 November 2017, pp.1-4
- XXV. **Design of a fully-differential double folded cascode class AB opamp with continuous time common mode feedback network for 12-bit pipeline ADC applications**
Kouhalvandi L., Aygün S., Güneş E. O., Kırıcı M.
2017 International Conference on Computer Science and Engineering (UBMK), Antalya, Turkey, 5 - 08 October 2017, pp.1-5
- XXVI. **Disease detection on the leaves of the tomato plants by using deep learning**
Durmuş H., Güneş E. O., Kırıcı M.
Agro-Geoinformatics 2017, Fairfax, United States Of America, 6 - 10 August 2017, pp.1-5
- XXVII. **An adaptive petri net model of wheat phenological phases under environmental conditions**
Kırıcı M., Güneş E. O.
Agro-Geoinformatics 2017, Fairfax, United States Of America, 6 - 10 August 2017, pp.1-4
- XXVIII. **Growth monitoring of plants using active contour technique**
Güneş E. O., Aygün S.
Agro-Geoinformatics 2017, Fairfax, United States Of America, 6 - 10 August 2017, pp.1-5
- XXIX. **A benchmarking: Feature extraction and classification of agricultural textures using LBP, GLCM, RBO, Neural Networks, k-NN, and random forest**
Aygün S., Güneş E. O.
Agro-Geoinformatics 2017, Fairfax, United States Of America, 7 - 10 August 2017, pp.1-4
- XXX. **A novel Broadband-Wide Phase Range digital phase shifter topology**
Avcı C., Güneş E. O., Yarman B. S.
2017 International Symposium on Signals, Circuits and Systems (ISSCS), Iasi, Romania, 13 - 14 July 2017, pp.1-4
- XXXI. **Sobel Filter Operation in Image Processing via Stochastic Arithmetic-Logic Unit Design**
Aygün S., Altun M., Güneş E. O.
25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017
- XXXII. **Seed Texture Classification by Random Forest and Neural Networks**
AYGÜN S., Yalçın H., Güneş E. O.
25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017
- XXXIII. **Survey of Positive CMOS Second Generation Controlled Current Conveter (CCCII+) and Macromodel of CCCII+**
Kouhalvandi L., Güneş E. O., Kırıcı M.
International Conference on Engineering and Information Technology (ICET), Dubai, United Arab Emirates, 2 - 03 May 2017, pp.1-5
- XXXIV. **Design of wideband 180° digital phase shifter in CMOS process CMOS Prosesinde Geniş Bantlı 180° Dijital Faz Kaydırıcı Tasarımı**
Avcı C., Güneş E. O., Yarman B. S.
2016 National Conference on Electrical, Electronics and Biomedical Engineering, ELECO 2016, Bursa, Turkey, 1 - 03 December 2016, pp.419-422
- XXXV. **Görünür Yakın Kızılötesi Spektrometre Tasarımı ve Bir Uygulama Örneği**
AKGÜL Ö., GÜNEŞ E. O.
ELECO 2016, Bursa, Turkey, 1 - 03 December 2016
- XXXVI. **CMOS Prosesinde Geniş Bantlı 180 Dijital Faz Kaydırıcı Tasarımı**
AVCI C., GÜNEŞ E. O., YARMAN B. S. B.
ELECO 2016, Bursa, Turkey, 1 - 03 December 2016

- XXXVII. **Design of Wideband 180(omicron) Digital Phase Shifter in CMOS Process**
AVCI C., Güneş E. O., YARMAN B. S.
National Conference on Electrical, Electronics and Biomedical Engineering (ELECO), Bursa, Turkey, 1 - 03
December 2016, pp.419-422
- XXXVIII. **Design of A Visible Near Infrared Spectrometer and An Application Example**
AKGUL O., Güneş E. O.
National Conference on Electrical, Electronics and Biomedical Engineering (ELECO), Bursa, Turkey, 1 - 03
December 2016, pp.202-206
- XXXIX. **Python Based Parallel Application of Knuth-Morris-Pratt Algorithm**
Aygün S., Güneş E. O., Kouhalvandi L.
4th IEEE Workshop on Advances in Information, Electronic and Electrical Engineering (AIEEE), Vilnius, Lithuania,
10 - 12 November 2016
- XL. **Design of an Embedded System for Automatically Determination of the Varieties of Wheat Seeds
Grown in Turkey Based on Image Analysis**
AYGUN S., Yazgaç B. G., Kırıcı M., Güneş E. O.
5th International Conference on Agro-Geoinformatics (Agro-Geoinformatics), Tianjin, China, 18 - 20 July 2016,
pp.7-12
- XLI. **Detection of Green and Orange Color Fruits In Outdoor Conditions for Robotic Applications**
OZTURK B., Kırıcı M., Güneş E. O.
5th International Conference on Agro-Geoinformatics (Agro-Geoinformatics), Tianjin, China, 18 - 20 July 2016,
pp.565-569
- XLII. **Data Acquisition from Greenhouses by Using Autonomous Mobile Robot**
Durmus H., Gunes E. O., Kırıcı M.
5th International Conference on Agro-Geoinformatics (Agro-Geoinformatics), Tianjin, China, 18 - 20 July 2016,
pp.50-54
- XLIII. **Computer Vision Techniques for Automatic Determination of Yield Effective Bad Condition Storage
Effects on Various Agricultural Seed Types**
AYGUN S., Güneş E. O.
5th International Conference on Agro-Geoinformatics (Agro-Geoinformatics), Tianjin, China, 18 - 20 July 2016,
pp.1-6
- XLIV. **Design and Simulation of A Low Power RF Front-End for Short Range Outdoor Applications**
AMIN H. Y., PIRI F., Güneş E. O.
2nd International Conference on Knowledge Based Engineering and Innovation (KBEI), Tehran, Iran, 5 - 06
November 2015, pp.32-35
- XLV. **Security and Biometrics**
GÜNEŞ E. O.
KBEI-2015 IEEE 2nd International Conference on Knowledge-Based Engineering and Innovation, TAHRAN, Iran, 5 -
06 October 2015
- XLVI. **The Design of General Purpose Autonomous Agricultural Mobile-Robot: "AGROBOT"**
Durmus H., Güneş E. O., Kırıcı M., Ustundag B. B.
Fourth International Conference on Agro Geoinformatics, İstanbul, Turkey, 20 - 24 July 2015
- XLVII. **A comparison of PCA, LDA and DCVA in ear biometrics classification using SVM**
KACAR U., Kırıcı M., Güneş E. O., Inan T.
23rd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, 16 - 19 May 2015,
pp.1260-1263
- XLVIII. **Bulut Sistemler için Önerilen Biyometri Tabanlı Güvenlik Sistemine Genel Bakış**
AYGÜN S., AKÇAY M., GÜNEŞ E. O.
ISDFS - INTERNATIONAL SYMPOSIUM ON DIGITAL FORENSICS AND SECURITY 2015, 25 - 27 April 2015
- XLIX. **LBP and SIFT based Facial Expression Recognition**
SUMER O., Güneş E. O.
7th International Conference on Machine Vision (ICMV), Milan, Italy, 19 - 21 November 2014, vol.9445

- L. **An application for the efficient use of potable water**
BAGCI F. A., Kirci M., Güneş E. O.
3rd International Conference on Agro-Geoinformatics (Agro-Geoinformatics), Beijing, China, 11 - 14 August 2014, pp.256-259
- LI. **Yield prediction of wheat in south-east region of Turkey by using artificial neural networks**
Çakır Y., Kirci M., Güneş E. O.
3rd International Conference on Agro-Geoinformatics (Agro-Geoinformatics), Beijing, China, 11 - 14 August 2014, pp.212-215
- LII. **Vegetation Measurement Using Image Processing Methods**
Kirci M., Güneş E. O., Çakır Y., SENTURK S.
3rd International Conference on Agro-Geoinformatics (Agro-Geoinformatics), Beijing, China, 11 - 14 August 2014, pp.207-211
- LIIL. **Determination of the Varieties and Characteristics of Wheat Seeds Grown in Turkey Using Image Processing Techniques**
Güneş E. O., AYGUN S., Kirci M., KALATEH A., Çakır Y.
3rd International Conference on Agro-Geoinformatics (Agro-Geoinformatics), Beijing, China, 11 - 14 August 2014, pp.216-219
- LIV. **Detection of Oranges In Outdoor Conditions**
Çakır Y., Kirci M., Güneş E. O., Ustundag B. B.
2nd International Conference on Agro-Geoinformatics (Agro-Geoinformatics), Virginia, United States Of America, 12 - 16 August 2013, pp.498-501
- LV. **An Embedded Biometric System**
KACAR U., KUS M., Kirci M., Güneş E. O.
16th International Conference on Information Fusion (FUSION), İstanbul, Turkey, 9 - 12 July 2013, pp.736-742
- LVI. **ARM Based Ear Recognition Embedded System**
KUS M., KACAR U., Kirci M., Güneş E. O.
IEEE EUROCON Conference, Zagreb, Croatia, 1 - 04 July 2013, pp.2021-2028
- LVII. **Detection of the Pomegranate Fruits On Tree Using Image Processing**
AKIN C., Kirci M., Güneş E. O., Çakır Y.
1st International Conference on Agro-Geoinformatics (Agro-Geoinformatics), Shanghai, China, 2 - 04 August 2012, pp.624-627
- LVIII. **Effects of the Facial and Racial Features on Gender Classification**
ÖZBUDAK O., Kirci M., Çakır Y., Güneş E. O.
15th IEEE Mediterranean Electrotechnical Conference (MELECON 2010), Malta, 25 - 28 April 2010, pp.26-29
- LIX. **Optimization of Area under a Delay Constraint in Multiple Constant Multiplications**
AKSOY L., Güneş E. O., Flores P.
13th WSEAS International Conference on Circuits held at the 13th WSEAS CSCC Multiconference, Rodos, Greece, 22 - 24 July 2009, pp.81-82
- LX. **ON EAR BIOMETRICS**
KOCAMAN B., Kirci M., Güneş E. O., Cakir Y., Ozbudak O.
International IEEE Conference Devoted to the 150-Anniversary of Alexander S Popov, St Petersburg, Russia, 18 - 23 May 2009, pp.327-328
- LXI. **An exact breadth first search algorithm for the multiple constant multiplications problem**
AKSOY L., GÜNEŞ E. O., FLORES P.
NORCHIP 2008, 16 - 17 November 2008, pp.41-46
- LXII. **Area Optimization Algorithms in High-Speed Digital FIR Filter Synthesis**
AKSOY L., Güneş E. O.
21st Symposium on Integrated Circuits and Systems Design (SBCCI 2008), Gramado, Brazil, 1 - 04 September 2008, pp.64-69
- LXIII. **An Approximate Algorithm for the Multiple Constant Multiplications Problem**
AKSOY L., Güneş E. O.

21st Symposium on Integrated Circuits and Systems Design (SBCCI 2008), Gramado, Brazil, 1 - 04 September 2008, pp.58-63

- LXIV. **Effect of number representation on the achievable minimum number of operations in multiple constant multiplications**
Aksoy L., Güneş E. O., Costa E., Flores P., Monteiro J.
IEEE Workshop on Signal Processing Systems, Shanghai, China, 17 - 19 October 2007, pp.424-425
- LXV. **An implementation of elliptic curve cryptography scalar multiplication block in GF 2^m with VHDL**
ACAR S., GÜNEŞ E. O.
Fourth International Conference on Electrical and Electronics Engineering (ELECO), 1 - 04 November 2005, pp.90-94
- LXVI. **An evolutionary local search algorithm for the satisfiability problem**
AKSOY L., GÜNEŞ E. O.
14th Turkish Artificial Intelligence and Neural Network Symposium, TAINN 2005, İzmir, Turkey, 5 - 08 April 2005, vol.1, pp.222-230
- LXVII. **COM TEST A Pattern Generation System**
AKSOY L., GÜNEŞ E. O.
Third International Conference on Electrical and Electronics Engineering (ELECO), Bursa, Turkey, 4 - 07 November 2003, vol.1, pp.112-116
- LXVIII. **New high-Q band-pass filter configuration using current controlled current conveyor based all-pass filters**
Toker A., Gunes E. O., Ozoguz S.
8th IEEE International Conference on Electronics, Circuits and Systems, ICECS 2001, Malta, 2 - 05 September 2001, vol.1, pp.165-168
- LXIX. **Birim kazanç hücreli yüksek Q lü band geçiren süzgeç yapısı**
TOKER A., GÜNEŞ E. O., ÖZOĞUZ İ. S.
SİU2000 IEEE Sinyal İşleme ve Uygulamaları Kurultayı, Turkey, 12 - 15 June 2000, pp.478-482
- LXX. **On the realization of CFA-based oscillators using state equations and block diagrams**
Güneş E. O., Toker A.
First IEEE Balkan Conference On Signal Processing, Communications, Circuits, And Systems, İstanbul, Turkey, 1 - 02 February 2000, vol.1, no.1, pp.1
- LXXI. **Birim akım izleyicilerle süzgeç gerçekleştirilmesi**
TOKER A., GÜNEŞ E. O., ÖZOĞUZ İ. S.
Elektrik-Elektronik-Bilgisayar Müh. 8. Ulusal Kongresi, Gaziantep, Turkey, 1 - 04 June 1999, vol.1, pp.41-44
- LXXII. **CCII-based balanced fully-integrated continuous-time filter synthesis: Signal-flow graph approach**
Özoğuz İ. S., Güneş E. O., Elwan H. O., Tarım T. B.
ICECS98, Lizbon, Portugal, 2 - 04 September 1998, vol.3, no.3, pp.131-133
- LXXIII. **CCII-based balanced fully integrated continuous-Time current-mode filter synthesis: Signal-flow graph approach**
Özoguz S., Güneş E. O., Elwan H. O., Tarim T. B.
1998 Midwest Symposium on Circuits and Systems, MWSCAS 1998, Indiana, United States Of America, 9 - 12 August 1998, no.1, pp.412-414
- LXXIV. **Realisation of nth Order Current Mode Transfer Functions Using CFCCIIs**
GÜNEŞ E. O., ANDAY A. F.
ECCTD'97, Budapest, Hungary, 25 - 29 August 1997, vol.3, pp.72-76
- LXXV. **Realisation of nth-Order Current-Mode Transfer Functions Using CCIIs**
Güneş E. O.
ECCTD'95, İstanbul, Turkey, 6 - 09 September 1995, vol.2, no.2, pp.812-816

Supported Projects

Güneş E. O., Aygün S., Project Supported by Higher Education Institutions, STOCHASTIC BITSTREAM-BASED VISION AND LEARNING MACHINES - STOKASTİK BİT AKIŞI TABANLI GÖRÜ VE ÖĞRENME MAKİNELERİ, 2018 - 2023
Güneş E. O., TUBITAK Project, Obezite Genetik Risk Panelinin Analizi İçin Rekombinaz Polimeraz Amplifikasyon Ve Tam Otomasyona Dayalı Bir Sistem Geliştirilmesi, 2018 - 2020
Güneş E. O., Kouhalvandı L., Aygün S., Durmuş H., Project Supported by Higher Education Institutions, RF Vericiler için Sayısal Ön-Bozucu Tasarımı, 2018 - 2020
Güneş E. O., CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, Tarımsal İzleme ve Bilgi Sistemleri, 2013 - 2019
Güneş E. O., Project Supported by Higher Education Institutions, Otonom Robot ve Kontrol Birimi Tasarımı, 2014 - 2015
Güneş E. O., Project Supported by Higher Education Institutions, Akıllı Kart ve Biyometrik Genel Amaçlı Erişim Kontrolü Sistemi Tasarımı, 2014 - 2015

Scientific Refereeing

IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS II-EXPRESS BRIEFS, SCI Journal, June 2019
INTERNATIONAL JOURNAL OF ELECTRONICS, SCI Journal, July 2018
Plos One, SCI Journal, January 2017

Tasks In Event Organizations

Güneş E. O., Agro-Geoinformatics 2019, Scientific Congress, İstanbul, Turkey, Temmuz 2019
Güneş E. O., Agro-Geoinformatics 2015, Scientific Congress, İstanbul, Turkey, Temmuz 2015

Scientific Research / Working Group Memberships

Sistem Modelleme, Tasarım Ve Araştırma, Istanbul Technical University, Turkey, <https://www.smart.itu.edu.tr/>, 2015 - Continues

Metrics

Publication: 104
Citation (WoS): 354
Citation (Scopus): 850
H-Index (WoS): 10
H-Index (Scopus): 15

Congress and Symposium Activities

KBEI 2015, Invited Speaker, Tehran, Iran, 2015

Awards

Güneş E. O., Best Paper Award-First Place, Ieee Council On Electronic Design Automation, June 2023
Güneş E. O., 2023 En Başarılı Doktora Tez Ödülü (Danışman), Tesid, April 2023
Güneş E. O., En İyi Bilimsel Araştırma Ödülü (Doktora Tezi Danışman), Esweek Acm Sığda , October 2022
Güneş E. O., 2021 En başarılı Doktora Tez Ödülü (Danışman), Tesid, April 2021

Non Academic Experience

TÜBİTAK

Saniva Bilgisayar Sistemleri A.Ş.