

Assoc. Prof. Hüseyin Şerif SAVCI

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International Researcher IDs

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Publons / Web Of Science ResearcherID: AHD-6318-2022

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Education Information

Doctorate, Syracuse University, Electrical Engineering, United States Of America 2001 - 2008

Postgraduate, Syracuse University, Electrical Engineering and Computer Science, Electrical Engineering and Computer Science, United States Of America 2001 - 2005

Undergraduate, Yildiz Technical University, Elektrik-Elektronik Fakültesi, Elektronik Ve Haberleşme Mühendisliği Bölümü, Turkey 1997 - 2001

Research Areas

Electronic, Electromagnetic

Academic Titles / Tasks

Assistant Professor, Istanbul Medipol University, Mühendislik Ve Doğa Bilimleri Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2020 - Continues

Courses

EEE4167970 - Applied Microwave Engineering, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021

EEE1110782 - Introduction to Electrical- Electronics Engineering, Undergraduate, 2022 - 2023, 2021 - 2022

COE1110748 - Introduction to Computer Engineering, Undergraduate, 2022 - 2023, 2021 - 2022

EECD1214039 - Monolithic Microwave Integrated Circuits, Doctorate, 2021 - 2022

ELED1212818 Special Topic in Microwave Engineering, Doctorate, 2021 - 2022

EECD1212916 - Special Topic in Microwave Engineering, Doctorate, 2021 - 2022

EECD1112902 - Advanced Microwave Engineering, Doctorate, 2021 - 2022

EEE3249220 - Introduction to RF and Microwave Engineering, Undergraduate, 2021 - 2022, 2020 - 2021

COE2112504 - Digital Logic Design, Undergraduate, 2020 - 2021

EEE2112504 - Digital Logic Design, Undergraduate, 2020 - 2021

ELEY1169570 Microwave Engineering, Postgraduate, 2020 - 2021

COE1210752 - Physics II, Undergraduate, 2019 - 2020

EEE1210752 - Physics II, Undergraduate, 2019 - 2020

COE1210753 - Physics II Lab, Undergraduate, 2019 - 2020

EEE3249220 - Introduction to RF and Microwave Engineering, Undergraduate, 2019 - 2020, 2018 - 2019

EEE4167970 - Applied Microwave Engineering, Undergraduate, 2019 - 2020, 2018 - 2019

EEE1210753 - Physics II Lab, Undergraduate, 2019 - 2020

Advising Theses

Hüseyin Şerif S., Design of high-power millimeter-wave passive MMIC control products on GaAs based processes, Postgraduate, M.EMİN(Student), 2023

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Pattern Diversity Based Four-Element Dual-band MIMO Patch Antenna for 5G mmWave Communication Networks**
Sethi W. T., Kiani S. H., Munir M. E., Sehrai D. A., SAVCI H. Ş., Awan D.
Journal of Infrared, Millimeter, and Terahertz Waves, vol.45, no.5-6, pp.521-537, 2024 (SCI-Expanded)
- II. **Performance enhancement of Vivaldi-shaped planar UWB antenna using a single-layer FSS reflector**
Kiani S. H., Rafique U., SAVCI H. Ş., Rmili H., Parchin N. O., Algarni A. D., Elmannai H.
AEU - International Journal of Electronics and Communications, vol.178, 2024 (SCI-Expanded)
- III. **Dual-Polarized Wideband 5G N77 Band Slotted MIMO Antenna System for Next-Generation Smartphones**
Kiani S. H., Munir M. E., SAVCI H. Ş., Rimli H., Alabdulkreem E., Elmannai H., Pau G., Alibakhshikenari M.
IEEE Access, vol.12, pp.34467-34476, 2024 (SCI-Expanded)
- IV. **Side-edge dual-band MIMO antenna system for 5G cellular devices**
Kiani S. H., Ibrahim I. M., SAVCI H. Ş., Rafique U., Alsunaydih F. N., Alsalem F., Alhassoon K., Mostafa H.
AEU - International Journal of Electronics and Communications, vol.173, 2024 (SCI-Expanded)
- V. **A Circular Shape Arc Slot Ultra-Wideband Antenna for Biomedical Applications**
Awan D., Bashir S., Bari I., Bashir M. A., Ali H., Ibrahim I. M., Kiani S. H., SAVCI H. Ş., Zakaria Z.
Journal of Electromagnetic Engineering and Science, vol.24, no.4, pp.418-425, 2024 (SCI-Expanded)
- VI. **A Four Element Stringray-Shaped MIMO Antenna System for UWB Applications**
SAVCI H. Ş.
Micromachines, vol.14, no.10, 2023 (SCI-Expanded)
- VII. **FDTD-based SAR calculation of a wearable antenna for wireless body area network devices**
Savci H. Ş., Kaburcuk F.
INTERNATIONAL JOURNAL OF MICROWAVE AND WIRELESS TECHNOLOGIES, vol.15, no.8, pp.1354-1360, 2023 (SCI-Expanded)
- VIII. **mmWave Polarization Diversity Wideband Multiple-Input/Multiple-Output Antenna System with Symmetrical Geometry for Future Compact Devices**
Munir M. E., Kiani S. H., SAVCI H. Ş., Sehrai D. A., Muhammad F., Ali A., Mostafa H., Parchin N. O.
Symmetry, vol.15, no.9, 2023 (SCI-Expanded)
- IX. **An Ultra-Wide Band MIMO Antenna System with Enhanced Isolation for Microwave Imaging Applications**
Kiani S. H., SAVCI H. Ş., Munir M. E., Sedik A., Mostafa H.
Micromachines, vol.14, no.9, 2023 (SCI-Expanded)
- X. **A Four Element mm-Wave MIMO Antenna System with Wide-Band and High Isolation Characteristics for 5G Applications**
Munir M. E., Kiani S. H., SAVCI H. Ş., Marey M., Khan J., Mostafa H., Parchin N. O.
Micromachines, vol.14, no.4, 2023 (SCI-Expanded)
- XI. **Eight Element MIMO Antenna Array With Tri-Band Response for Modern Smartphones**

- Kiani S. H., SAVCI H. Ş., Abubakar H. S., Parchin N. O., Rimli H., Hakim B.
IEEE Access, vol.11, pp.44244-44253, 2023 (SCI-Expanded)
- XII. **Ultra-Wideband Fractal Ring Antenna for Biomedical Applications**
Saleem I., Rafique U., Agarwal S., SAVCI H. Ş., Abbas S. M., Mukhopadhyay S.
International Journal of Antennas and Propagation, vol.2023, 2023 (SCI-Expanded)
- XIII. **Dual-Band Multiple-Element MIMO Antenna System for Next-Generation Smartphones**
Kiani S. H., Marey M., SAVCI H. Ş., Mostafa H., Rafique U., Khan M. A.
Applied Sciences (Switzerland), vol.12, no.19, 2022 (SCI-Expanded)
- XIV. **Ultra-Wideband Pentagonal Fractal Antenna with Stable Radiation Characteristics for Microwave Imaging Applications**
Khan M. A., Rafique U., SAVCI H. Ş., Nordin A. N., Kiani S. H., Abbas S. M.
Electronics (Switzerland), vol.11, no.13, 2022 (SCI-Expanded)
- XV. **Multiple Elements MIMO Antenna System With Broadband Operation for 5th Generation Smart Phones**
Kiani S. H., Iqbal A., Wong S., SAVCI H. Ş., Alibakhshikenari M., Dalarsson M.
IEEE Access, vol.10, pp.38446-38457, 2022 (SCI-Expanded)

Articles Published in Other Journals

- I. **A COMPACT GAN POWER AMPLIFIER MODULE FOR NEW GENERATION CELLULAR BASESTATIONS**
TÜRK B. B., HÜRÇAN F., SAVCI H. S., Dogan H.
Black Sea Journal of Engineering and Science, vol.7, no.3, pp.587-593, 2024 (Peer-Reviewed Journal)
- II. **Numerical and Measurement Based Modeling of a MiM Capacitor in a 0.25 µm SiGe-C BiCMOS Process**
Aniktar H., Savci H. Ş.
Progress In Electromagnetics Research C, vol.129, pp.173-186, 2023 (Scopus)
- III. **A Phased Array Antenna System of a Millimeter-wave FMCW Radar for Blind Spot Detection of Mobile Robots**
SAVCI H. Ş.
Sakarya Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.26, no.6, pp.1253-1261, 2022 (Peer-Reviewed Journal)
- IV. **Analysis of a Compact Multi-Band Textile Antenna for WBAN and WLAN Applications**
SAVCI H. Ş., YILMAZ M., KABURCUK F., KHA S.
Balkan Journal of Electrical and Computer Engineering, vol.9, no.3, pp.255-260, 2021 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **Microwave Technologies - Recent Advances and New Trends and Applications**
Savci H. Ş. (Editor)
IntechOpen, London, 2024
- II. **A KA BAND MMIC BASED VOLTAGE CONTROLLED OSCILLATOR FOR MODERN COMMUNICATION INFRASTRUCTURES**
SAVCI H. Ş.
in: Innovation and Technologies in Engineering, Tasdemir Sakir, Ozkan Ali İlker, Editor, Eğitim Yayınevi, Konya, pp.147-158, 2022

Refereed Congress / Symposium Publications in Proceedings

- I. **Damar İçi Stent ve Plağın Mikrodalga ile Tespiti İçin Bow-Tie Anten Tasarımı**

GÖKÇE İ. T., ÜNAL İ., BAŞ R., SAVCI H. Ş.

XI. URSI Türkiye Bilimsel Kongresi ve Ulusal Genel Kurul Toplantısı 2023, İstanbul, Turkey, 31 August - 02 September 2023, pp.121-124

- II. **A Doherty Power Amplifier for 5G Applications**
SAVCI H. Ş., Konanç H., AKINCI M. N.
ITU 2nd INTERNATIONAL GRADUATE RESEARCH SYMPOSIUM (IGRS2023), İstanbul, Turkey, 16 - 18 May 2023, pp.1-3
- III. **Meandered V-Shape MIMO Antenna for Short-range mmWave Vehicular Applications**
Munir M. E., Kiani S. H., Marey M., SAVCI H. Ş., Parchin N. O.
The International Telecommunications Conference (ITC Egypt 2023), Alexandria, Canada, 12 April 2023
- IV. **A Wideband High-efficiency Doherty Power Amplifier for LTE**
Koca K., SAVCI H. Ş., KENT PINAR S.
2023 33rd International Conference Radioelektronika (RADIOELEKTRONIKA), Prag, Czech Republic, 19 April 2023
- V. **A GaN-based Power Amplifier Module Design for 5G Base Stations**
Türk B. B., Hürcan F., SAVCI H. Ş., DOĞAN H.
International Conference on Cyber Security and Computer Science, Karabük, Turkey, 29 March 2023
- VI. **Tri-band MIMO Diversity Antenna for Modern Smartphones**
Kiani S. H., SAVCI H. Ş., Rafique U., Parchin N. O.
Wireless, Antenna & Microwave Symposium, Gandhinagar, India, 13 March 2023
- VII. **An X-Band Class-B Push-Pull Power Amplifier on a 0.25 µm SiGe-C Process**
Cagdas E., Aniktar H., SAVCI H. Ş., Palamutcuogullari O.
30th IEEE International Conference on Electronics, Circuits and Systems, ICECS 2023, İstanbul, Turkey, 4 - 07 December 2023
- VIII. **A GaAs p-HEMT Voltage Controlled Oscillator Design for 5G Millimeter-Wave Applications**
SAVCI H. Ş.
International Conference on Engineering Technologies, Konya, Turkey, 17 November 2022
- IX. **A Broadband, Low Insertion Loss, Millimeter Wave GaAs PIN Diode Based SPDT Switch**
SAVCI H. Ş.
International Conference on Innovative Academic Studies, Konya, Turkey, 10 September 2022, pp.1036-1041
- X. **Compact Wide-band Gysel Power Divider**
Tekin H., SAVCI H. Ş., Elsherbeni A. Z.
2022 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, AP-S/URSI 2022, Colorado, United States Of America, 10 - 15 July 2022, pp.1452-1453
- XI. **6 GHz Low Noise Amplifier design with 65nm CMOS for 5G/6G Applications 5G/6G Uygulamaları için 65nm CMOS ile 6GHz Düşük Gürültülü Yükselteç Tasarımı**
Eren T., Oktay Z. N., DOĞAN H., SAVCI H. Ş.
12th International Conference on Electrical and Electronics Engineering, ELECO 2020, Bursa, Turkey, 26 - 28 November 2020, pp.88-92
- XII. **Design and Implementation of an X-band Passive RFID Tag**
Senadeera P. M., Xie Z., Dogan N. S., SAVCI H. Ş.
2020 IEEE SoutheastCon, SoutheastCon 2020, North Carolina, United States Of America, 28 - 29 March 2020, vol.2
- XIII. **An Energy Starving Radio for Integrated Bio-Sensors and Actuators**
SAVCI H. Ş., KOÇAN F.
Computational Methods and Telecommunication in Electrical Engineering and Finance, Sarajevo, Bosnia And Herzegovina, 6 - 09 May 2018, pp.80-81
- XIV. **A power-aware rotary traveling wave oscillator (RTWO) design in 0.18µm CMOS**
Aidoo M., Dogan N. S., Xie Z., SAVCI H. Ş., Roblin P.
2014 IEEE MTT-S International Microwave Symposium (IMS2014), Tampa, FL, United States Of America, 1 - 06 June 2014, pp.1-4
- XV. **A Dual Band Passive RFID Design in 0.18 µm CMOS Technology**
Senadeera P. M., Dogan N. S., Xie Z., SAVCI H. Ş., Ibraheem K.

IEEE SOUTHEASTCON 2014, Lexington, United States Of America, 13 - 16 March 2014, pp.1-6

- XVI. **Study of amplification stage limitation of rotary traveling wave oscillators**
Aidoo M., Xie Z., Dogan N. S., SAVCI H. Ş., Roblin P.
2013 IEEE International Wireless Symposium (IWS), Beijing, China, 14 - 18 April 2013
- XVII. **Multi-objective optimization of rotary travelling wave oscillator (RTWO) with neuro-genetic nondominated sorting algorithm**
Aidoo M., Haruna M., Homaifar A., Xie Z., Dogan N. S., SAVCI H. Ş., Roblin P.
2013 IEEE International Wireless Symposium (IWS), Beijing, China, 14 - 18 April 2013
- XVIII. **Low power analog baseband circuits in 0.18x03BCm CMOS for MICS and Body Area Network receivers**
SAVCI H. Ş., Arvas S., Dogan N. S., ARVAS E., Xie Z.
2013 Proceedings of IEEE Southeastcon, Jacksonville, FL, United States Of America, 4 - 07 April 2013
- XIX. **Recent trends in RFID transponders**
Senadeera P. M., Dogan N. S., Xie Z., SAVCI H. Ş., Kateeb I., Ketel M.
2013 Proceedings of IEEE Southeastcon, Jacksonville, FL, USA, 4 - 07 April 2013
- XX. **X-band energy harvester with miniaturized on-chip slot antenna implemented in 0.18-x03BCm RF CMOS**
Senadeera P. M., Griggs J. D., Xie Z., Dogan N. S., Meng L., Behdad N., SAVCI H. Ş.
2012 IEEE International Conference on Ultra-Wideband, Syracuse, Italy, 17 - 20 September 2012, pp.448
- XXI. **EM Analysis of Rotary Travelling Wave Oscillator Topology**
Aidoo M., Matson J., SAVCI H. Ş., Xie Z., Dogan N. S.
28th Annual Review of Progress in Applied Computational Electromagnetics, Columbus, Ohio, United States Of America, 10 - 14 April 2012, pp.894-898
- XXII. **Design of A Low Power CMOS Differential Low Noise Amplifier by Using Die-Level EM analysis**
SAVCI H. Ş., Dogan N. S., Xie Z., ARVAS E.
28th Annual Review of Progress in Applied Computational Electromagnetics, Columbus, Ohio, United States Of America, 10 - 14 April 2012, pp.668-673
- XXIII. **Integrated Antenna Design for Passive X-band RFID Transponder**
Senadeera P. M., SAVCI H. Ş., Xie Z., Dogan N. S.
28th Annual Review of Progress in Applied Computational Electromagnetics, Columbus, Ohio, United States Of America, 10 - 14 April 2012, pp.686-689
- XXIV. **1-V 400 MHz CMOS Class-E Power Amplifier with Dynamic Body Biasing for Medical Implant Communication Services(MICS)**
Yin P., Wang Z., SAVCI H. Ş., Griggs J. D., Dogan N. S.
The 2008 IEEJ International Workshop on AVLSI, İstanbul, Turkey, 30 July - 01 August 2008, pp.22-27
- XXV. **1-V Ultra-Low-Power CMOS LC VCO with Dynamic Body Biasing**
Wang Z., SAVCI H. Ş., Griggs J. D., Dogan N. S.
2007 International Symposium on Signals, Circuits and Systems, Iasi, Romania, 13 - 14 July 2007, pp.53-56
- XXVI. **Coping with process variations in ultra-low power CMOS analog integrated circuits**
Wang Z., SAVCI H. Ş., Griggs J. D., Dogan N. S., ARVAS E.
Proceedings 2007 IEEE SoutheastCon, Richmond, New Zealand, 22 - 25 March 2007, pp.54
- XXVII. **The Effect of Structural Parameters on the Characteristics of Finite Ground Coplanar Waveguides on Silicon Substrates for 60 and 94 GHz Applications**
Sula A., SAVCI H. Ş., Dogan N. S., ARVAS E.
2006 Joint IEEE AP-S / URSI /AMEREM Symposium, Albuquerque, New Mexico, United States Of America, 9 - 14 July 2006
- XXVIII. **1-V ultra-low-power CMOS LC VCO for UHF quadrature signal generation**
Wang Z., SAVCI H. Ş., Dogan N. S.
Proceedings - IEEE International Symposium on Circuits and Systems, Kos, Greece, 21 - 24 May 2006, pp.4022-4025
- XXIX. **A 1-V UHF low noise amplifier for ultralow-power applications**

SAVCI H. Ş., Wang Z., Sula A., Dogan N. S., ARVAS E.

Proceedings - IEEE International Symposium on Circuits and Systems, Kos, 21 - 24 May 2006, pp.4495-4498

XXX. MICS transceivers: Regulatory standards and applications

SAVCI H. Ş., Sula A., Wang Z., Dogan N. S., ARVAS E.

PROCEEDINGS OF THE IEEE SOUTHEASTCON 2004, Ft Lauderdale, United States Of America, 8 - 10 April 2005,
pp.179-182

Activities in Scientific Journals

APPLIED COMPUTATIONAL ELECTROMAGNETICS SOCIETY JOURNAL, Assistant Editor/Section Editor, 2021 - Continues