

## Assoc. Prof. Evren EKMEKÇİ

### Personal Information

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**Address:** Süleyman Demirel Üniversitesi Mühendislik Fakültesi E9 Binası Elektrik-Elektronik Mühendisliği Bölümü 32260 Çünür/ISPARTA

### Education Information

Doctorate, Middle East Technical University, Graduate School Of Natural And Applied Sciences, Elektrik Ve Elektronik Mühendisliği, Turkey 2003 - 2010

Under Graduate, Suleyman Demirel University, Elektronik Ve Haberleşme Mühendisliği Bölümü, Turkey 1998 - 2002

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, Design, fabrication and characterization of novel metamaterials in microwave and terahertz regions: Multi-band, frequency-tunable and miniaturized structures, Middle East Technical University, Graduate School Of Natural And Applied Sciences, 2010

### Research Areas

Electrical and Electronics Engineering, Electromagnetic, Modified Earth Planar Structures, Electric and Magnetic Fields, Electromagnetic Waves, Antennas and Propagation, Planar Buildings, Engineering and Technology

### Academic Titles / Tasks

Associate Professor, Suleyman Demirel University, Mühendislik Fakültesi, Elektronik Ve Haberleşme Mühendisliği Bölümü, 2017 - Continues

Assistant Professor, Suleyman Demirel University, Mühendislik Fakültesi, Elektronik Ve Haberleşme Mühendisliği Bölümü, 2011 - 2017

Research Assistant PhD, Suleyman Demirel University, Mühendislik Fakültesi, Elektronik Ve Haberleşme Mühendisliği Bölümü, 2011 - 2011

Research Assistant, Middle East Technical University, Fen Bilimleri Enstitüsü, Elektrik-Elektronik Mühendisliği, 2002 - 2011

Other, Boston University, College Of Arts & Sciences, Physics, 2009 - 2010

### Professional Experience

Head of Department, Suleyman Demirel University, Mühendislik Fakültesi, Elektronik Ve Haberleşme Mühendisliği, 2016

- Continues

Deputy Head of Department, Suleyman Demirel University, Mühendislik Fakültesi, Elektronik Ve Haberleşme Mühendisliği, 2012 - 2016

## Advising Theses

- EKMEKÇİ E., Rezonatör yapılarla oluşturulmuş düzlemsel soğurucu yüzeylerde soğurma mekanizmasının dielektrik malzeme özelliğine göre incelenmesi, Post Graduate, U.Köse(Student), 2019
- EKMEKÇİ E., Mikrodalga ve terahertz bölgelerinde dik girme uyarımı için rezonatör tabanlı sensör tasarımları ve hassasiyet analizleri, Post Graduate, Ö.Ertan(Student), 2019
- EKMEKÇİ E., Mikrodalga Bölgesi Metamalzeme Soğurucu Tasarımı: Çift Kapalı Halka Rezonatörü Tabanlı İki Katmanlı Yapı ve Mekanik Kaydırma İle Soğurma Spektrumlarının Açık/Kapalı Anahtarlanması, Post Graduate, E.(Demir)(Student), 2018
- EKMEKÇİ E., Elektromanyetik Rezonatör Tabanlı Hububat Nem Sensörü Tasarımı, Üretimi ve Karakterizasyonu, Post Graduate, A.Çınar(Student), 2016
- EKMEKÇİ E., Microwave Region Electromagnetic Absorber Design and Applications, Post Graduate, K.Saeed(Student), 2016
- EKMEKÇİ E., Dikdörtgen Mikroşerit Antenler İçin Bozulmuş Toprak Yüzeylerin Elektriksel Boyuta Etkisinin Parametrik Olarak İncelenmesi, Post Graduate, E.Merve(Student), 2016
- EKMEKÇİ E., Dikdörtgen ve Dairesel Yama Antenler Üzerinde Reel Empedans Uyumlandırma Tekniklerinin Nümerik ve Deneysel Yöntemlerle İncelenmesi, Post Graduate, Ö.Kasar(Student), 2015
- EKMEKÇİ E., Metamalzeme Tabanlı İki Modlu Anten Tasarımı, Post Graduate, G.Dişken(Student), 2014

## Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Response to "Comment on 'Sliding planar conjoined cut-wire-pairs: A novel approach for splitting and controlling the absorption spectra'" [J. Appl. Phys. 128, 126101 (2020)]**  
Karacan N., EKMEKÇİ E., SAYAN G.  
JOURNAL OF APPLIED PHYSICS, vol.128, 2020 (Journal Indexed in SCI)
- II. **The use of metamaterial type double-sided resonator structures in humidity and concentration sensing applications**  
EKMEKÇİ E., KOSE U., ÇINAR A., ERTAN O., Ekmekci Z.  
SENSORS AND ACTUATORS A-PHYSICAL, vol.297, 2019 (Journal Indexed in SCI)
- III. **Sliding planar conjoined cut-wire-pairs: A novel approach for splitting and controlling the absorption spectra**  
Al-Badri K. S. L. , KARACAN N., KÜÇÜKÖNER E. M. , EKMEKÇİ E.  
JOURNAL OF APPLIED PHYSICS, vol.124, 2018 (Journal Indexed in SCI)
- IV. **Monochromatic Tuning of Absorption Strength Based on Angle-Dependent Closed-Ring Resonator-Type Metamaterial Absorber**  
Al-Badri K. S. L. , Cinar A., Kose U., Ertan O., EKMEKÇİ E.  
IEEE ANTENNAS AND WIRELESS PROPAGATION LETTERS, vol.16, pp.1060-1063, 2017 (Journal Indexed in SCI)
- V. **A new molecular logic circuit with 4 bit input**  
Ekmekci Z., ULU B., EKMEKÇİ E.  
Sensors and Actuators, B: Chemical, vol.231, pp.655-658, 2016 (Journal Indexed in SCI)
- VI. **On/Off Switching of Absorption Spectra by Layer Shifting for Double-Layer Metamaterial-Based Absorber**  
EKMEKÇİ E., DEMİR E.  
IEEE ANTENNAS AND WIRELESS PROPAGATION LETTERS, vol.15, pp.532-535, 2016 (Journal Indexed in SCI)
- VII. **Effects of using different boundary conditions and computational domain dimensions on modeling**

## **and simulations of periodic metamaterial arrays in microwave frequencies**

Turkmen O., EKMEKÇİ E., Turhan-Sayan G.

INTERNATIONAL JOURNAL OF RF AND MICROWAVE COMPUTER-AIDED ENGINEERING, vol.23, pp.459-465, 2013  
(Journal Indexed in SCI)

- VIII. **Multi-functional metamaterial sensor based on a broad-side coupled SRR topology with a multi-layer substrate**  
EKMEKÇİ E., Turhan-Sayan G.  
APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, vol.110, pp.189-197, 2013 (Journal Indexed in SCI)
- IX. **Nested U-ring resonators: a novel multi-band metamaterial design in microwave region**  
Turkmen O., EKMEKÇİ E., Turhan-Sayan G.  
IET MICROWAVES ANTENNAS & PROPAGATION, vol.6, pp.1102-1108, 2012 (Journal Indexed in SCI)
- X. **Frequency tunable terahertz metamaterials using broadside coupled split-ring resonators**  
Ekmekci E., Strikwerda A. C., Fan K., Keiser G., Zhang X., Turhan-Sayan G., Averitt R. D.  
PHYSICAL REVIEW B, vol.83, 2011 (Journal Indexed in SCI)
- XI. **Performance enhancement of terahertz metamaterials on ultrathin substrates for sensing applications**  
Tao H., Strikwerda A. C., Liu M., Mondia J. P., Ekmekci E., Fan K., Kaplan D. L., Padilla W. J., Zhang X., Averitt R. D., et al.  
APPLIED PHYSICS LETTERS, vol.97, 2010 (Journal Indexed in SCI)
- XII. **Single loop resonator: dual-band magnetic metamaterial structure**  
Ekmekci E., Turhan-Sayan G.  
ELECTRONICS LETTERS, vol.46, pp.324-325, 2010 (Journal Indexed in SCI)
- XIII. **A tunable multi-band metamaterial design using micro-split SRR structures**  
Ekmekci E., Topalli K., AKIN T., Turhan-Sayan G.  
OPTICS EXPRESS, vol.17, pp.16046-16058, 2009 (Journal Indexed in SCI)

## **Refereed Congress / Symposium Publications in Proceedings**

- I. **Mikrodalga Frekans Bölgesinde Silindirik Dielektrik Rezonatör Tabanlı Tamamı Dielektrik Soğurucu Yüzey Tasarımı**  
KARACAN N., EKMEKÇİ E.  
URSI-TÜRKİYE'2018 IX. Bilimsel Kongresi, Konya, Turkey, 6 - 08 September 2018
- II. **ELC Rezonatör Tabanlı Soğurucu Yüzeyi İle Farklı Kimyasal Maddeler İçin Hassasiyet Analizi**  
KARACAN N., AYKIRI M., EKMEKÇİ E.  
URSI-TÜRKİYE'2018 IX. Bilimsel Kongresi, Konya, Turkey, 6 - 08 September 2018
- III. **5G Uygulamaları için Enine Kuplajlı AHR Tabanlı Anten Tasarımı, Kazanç ve Elektriksel Boyut İncelenmesi**  
KARACAN N., YENİGÜN Ö. S., EKMEKÇİ E.  
URSI-TÜRKİYE'2018 IX. Bilimsel Kongresi, Konya, Turkey, 6 - 08 September 2018
- IV. **Metamalzeme Tabanlı Soğurucu Yüzeylerde Soğurma Miktarının Dielektrik Malzeme Özelliğine Göre Nümerik Olarak İncelenmesi**  
KÖSE U., EKMEKÇİ E.  
URSI-TÜRKİYE'2018 IX. Bilimsel Kongresi, Konya, Turkey, 6 - 08 September 2018
- V. **TEK BİR BOYAR MADDE TABANLI DÖRT GİRİŞLİ MOLEKÜLER MANTIK DEVRESİNDE ZAMAN DEĞİŞİMİ İLE DEVRELER ARASI ANAHTARLAMA**  
EKMEKÇİ Z., ULU B., EKMEKÇİ E.  
29.ulusal Kimya Kongresi, Ankara, Turkey, 10 - 14 September 2017, pp.1
- VI. **Molecular logic circuit with two and four bit input applications**  
EKMEKÇİ Z., ULU B., EKMEKÇİ E.  
18th Tetrahedron Symposium, Budapest, Hungary, 27 June - 30 July 2017

- VII. **Numerical Investigation of the Effect of Resonator Position Etched on Defected Ground Structure Composed of a Complementary Split Ring Resonator with Dumbbell Designed for Microstrip Patch Antenna on Electrical Size**  
Kucukoner E. M. , KOSE U., Ekmekci E.  
National Conference on Electrical, Electronics and Biomedical Engineering (ELECO), Bursa, Turkey, 1 - 03 December 2016, pp.543-546
- VIII. **Sensitivity Analysis of Different Resonator Structure for Sensor Applications in Microwave Region**  
ERTAN O., KOSE U., CINAR A., EKMEKÇİ E.  
National Conference on Electrical, Electronics and Biomedical Engineering (ELECO), Bursa, Turkey, 1 - 03 December 2016, pp.550-553
- IX. **DUAL MODE ANTENNA DESIGN USING SPLIT RING RESONATOR ARRAY**  
DISKEN G., EKMEKÇİ E.  
22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Turkey, 23 - 25 April 2014, pp.91-94
- X. **Electromagnetic Behavior of SRR Loaded Microstrip Transmission Lines: Investigation for Different SRR Types and Array Topologies**  
DISKEN G., PALA F., DEMIR E., KORUCU H. D. , EKMEKÇİ E.  
Progress In Electromagnetics Research Symposium, Stockholm, Sweden, 12 - 15 August 2013, pp.1796-1799
- XI. **Metamaterial Sensor Applications Based on Broadside-Coupled SRR and V-Shaped Resonator Structures**  
Ekmekci E., Turhan-Sayan G.  
IEEE International Symposium on Antennas and Propagation (APSURSI)/USNC/URSI National Radio Science Meeting, Washington, United States Of America, 3 - 08 July 2011, pp.1170-1172
- XII. **Frequency Tunable Metamaterial Designs Using Near Field Coupled SRR Structures in the Terahertz Region**  
Ekmekci E., Strikwerda A. C. , Fan K., Keiser G., Zhang X., Turhan-Sayan G., Averitt R. D.  
Conference on Lasers and Electro-Optics (CLEO), Maryland, United States Of America, 1 - 06 May 2011
- XIII. **Parametric investigation of a new multi-band metamaterial design: U-shaped multiple ring magnetic resonators**  
Turkmen O., Ekmekci E., Turhan-Sayan G.  
IEEE International Symposium on Antennas and Propagation (APSURSI)/USNC/URSI National Radio Science Meeting, Washington, United States Of America, 3 - 08 July 2011, pp.1516-1518
- XIV. **A New Multi-ring SRR Type Metamaterial Design with Multiple Magnetic Resonances**  
Turkmen O., Ekmekci E., Turhan-Sayan G.  
Progress in Electromagnetics Research Symposium (PIERS), Marrakush, Morocco, 20 - 23 March 2011, pp.315-319
- XV. **Equivalent Circuit Models for Split-ring Resonator Arrays**  
Yasar-Orten P., Ekmekci E., Turhan-Sayan G.  
Progress in Electromagnetics Research Symposium, Cambridge, Canada, 5 - 08 July 2010, pp.534-537
- XVI. **Unsupervised Electromagnetic Target Classification by Self-organizing Map Type Clustering**  
Katilmis T. T. , Ekmekci E., Turhan-Sayan G.  
Progress in Electromagnetics Research Symposium, Cambridge, Canada, 5 - 08 July 2010, pp.240-243
- XVII. **Effects of Substrate Parameters on the Resonance Frequency of Double-sided SRR Structures under Two Different Excitations**  
Ekmekci E., Averitt R. D. , Turhan-Sayan G.  
Progress in Electromagnetics Research Symposium, Cambridge, Canada, 5 - 08 July 2010, pp.538-539
- XVIII. **A Feasibility Study for Tunable Metamaterial Design Using Multi-Split SRR Structures and RF MEMS Switching**  
Ekmekci E., Topalli K., AKIN T., Turhan-Sayan G.  
IEEE Antennas and Propagation International Symposium /USNC/URSI National Radio Science Meeting, South-Carolina, United States Of America, 1 - 05 June 2009, pp.1548-1551
- XIX. **A Novel Dual-band Metamaterial Structure**

Ekmekci E., Turhan-Sayan G.

Progress in Electromagnetics Research Symposium (PIERS 2009 Moscow), Moscow, Russia, 12 - 21 August 2009, pp.87-90

- XX. **Effects of Array Dimensions on the Resonance Characteristics of SRR Type Metamaterial Arrays with Small Sizes: Simulations and Experiments**  
Ekmekci E., Topalli K., AKIN T., Turhan-Sayan G.  
Progress in Electromagnetics Research Symposium (PIERS 2009 Moscow), Moscow, Russia, 12 - 21 August 2009, pp.83-86
- XXI. **Experimental Investigation of Metamaterial Array Structures With Split Ring Resonators**  
Ekmekci E., Topalli K., AKIN T., Turhan-Sayan G.  
IEEE 17th Signal Processing and Communications Applications Conference, Antalya, Turkey, 9 - 11 April 2009, pp.551-554
- XXII. **A Resonance Region Method for Recognition of Multiple Targets Using the MUSIC Algorithm and a Time Correlation Technique**  
Secmen M., Ekmekci E., Turhan-Sayan G.  
IEEE Antennas-and-Propagation-Society International Symposium, California, United States Of America, 5 - 11 July 2008, pp.4106-4109
- XXIII. **Sensitivity of the resonance characteristics of SRR and DSRR (double-sided SRR) type metamaterials to the changes in substrate parameters and the usefulness of DSRR structure for reduced electrical size**  
Ekmekci E., Turhan-Sayan G.  
Progress in Electromagnetics Research Symposium (PIERS 2008), Cambridge, Canada, 2 - 06 July 2008, pp.598-602
- XXIV. **Reducing the Electrical Size of Magnetic Metamaterial Resonators by Geometrical Modifications: A Comparative Study for Single-Sided and Double-Sided Multiple SRR, Spiral and U-Spiral Resonators**  
Ekmekci E., Turhan-Sayan G.  
IEEE Antennas-and-Propagation-Society International Symposium, California, United States Of America, 5 - 11 July 2008, pp.1484-1487
- XXV. **Electromagnetic target recognition with the fused MUSIC spectrum matrix method: Applications and performance analysis for incomplete frequency data**  
Secmen M., Ekmekci E., Turhan-Sayan G.  
IEEE 15th Signal Processing and Communications Applications Conference, Eskişehir, Turkey, 11 - 13 June 2007, pp.253-256
- XXVI. **Simulations for a novel magnetic resonator with V-shaped structures**  
Ekmekci E., Turhan-Sayan G.  
IEEE 15th Signal Processing and Communications Applications Conference, Eskişehir, Turkey, 11 - 13 June 2007, pp.751-753

## Supported Projects

TİLKİ U., EKMEKÇİ E., TUBITAK Project, Atmosfer Ve Nefes Havası Analizleri İçin Elektromanyetik İndüklenmiş Geçirgenlik Yöntemine Dayalı, Ultra Yüksek Çözünürlükte Ve Ultra Yüksek Duyarlılıkta Gaz Sensörlerinin Tasarımı Ve Geliştirilmesi, 2014 - 2017

EKMEKÇİ E., TUBITAK Project, Mikrodalga Ve Terahertz Bölgelerinde Metamalzeme Tabanlı Özgün Sensörler Tasarım Üretim Ve Çeşitli Sensör Uygulamalarında Kullanılması, 2014 - 2017

EKMEKÇİ E., TUBITAK Project, Özgün Dört Girişli Moleküler Mantık Devrelerinin Tasarlanması Sentezi ve Uygulamaları, 2013 - 2017

## Scientific Refereeing

SİU 2019, Other Journals, March 2019  
TUBITAK Project, February 2019  
TUBITAK Project, November 2018  
Applied Physics Letters, SCI Journal, July 2018  
TUBITAK Project, June 2018  
TUBITAK Project, May 2018  
PIER Journals, Other Indexed Journal, April 2018  
TUBITAK Project, April 2018  
SİU 2018, Other Journals, March 2018  
TUBITAK Project, October 2017  
TUBITAK Project, October 2017  
Optics Express, SCI Journal, August 2017  
TUBITAK Project, June 2017  
SİU 2017, Other Journals, March 2017  
TUBITAK Project, April 2016  
Applied Physics Letters, SCI Journal, March 2016  
Applied Physics Letters, SCI Journal, November 2015  
Optics Express, SCI Journal, May 2015  
IEEE Antennas and Wireless Propagation Letters, SCI Journal, November 2014  
TUBITAK Project, November 2014  
Optics Express, SCI Journal, June 2014  
TUBITAK Project, July 2013  
Optics Express, SCI Journal, January 2013  
Optics Express, SCI Journal, January 2013  
Optics Express, SCI Journal, December 2012  
Optics Express, SCI Journal, November 2012  
Optics Express, SCI Journal, April 2012  
Applied Physics Letters, SCI Journal, March 2012

## Invited Congress and Symposium Activities

IX.URSI-TÜRKİYE 2018 BİLİMSEL KONGRESİ, Attendee, Konya, Turkey, 2018  
Elektrik - Elektronik ve Biyomedikal Mühendisliği Konferansı (ELECO), Attendee, Bursa, Turkey, 2016  
VIII. URSI-TÜRKİYE'2016 BİLİMSEL KONGRESİ, Attendee, Ankara, Turkey, 2016  
İlk Bildiriler Konferansı, Attendee, Ankara, Turkey, 2013

## Citations

Total Citations (WOS):380  
h-index (WOS):7