

# Prof. MEHMET EMİN TAĞLUK

## Personal Information

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## Education Information

Doctorate, University of Sussex, Biomedical, United Kingdom 1994 - 1997

Post Graduate, Gaziantep University, Mühendislik Fakültesi, Elektrik Elektronik, Turkey 1990 - 1992

Under Graduate, Middle East Technical University, Mühendislik Fakültesi, Elektrik Elektronik, Turkey 1984 - 1990

## Dissertations

Post Graduate, Modulation Response of A 1.55  $\mu\text{m}$  InGaAsP Semiconductor Laser Diode, Gaziantep University, Mühendislik Fakültesi, Elektrik Elektronik, 1992

## Research Areas

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

## Academic Titles / Tasks

Associate Professor, Inonu University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2012 - Continues

Assistant Professor, Inonu University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 1998 - 2012

Research Assistant, Inonu University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 1994 - 1998

Research Assistant, Gaziantep University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü (İngilizce), 1990 - 1993

## Advising Theses

TAĞLUK M. E. , Davranışsal öğrenme bazlı bir yapay makine öğrenme yönteminin geliştirilmesi, Doctorate, Ö.FARUK(Student), 2015

TAĞLUK M. E. , Small-World modelinde yeniden yapılandırma ve gürültülü sinaptik iletkenliğin talamokortikal yavaş dalgalar üzerindeki etkileri, Doctorate, R.TEKİN(Student), 2015

TAĞLUK M. E. , Geniş bant kablosuz ağlarda sembolik modülasyonların hata analizi, Post Graduate, İ.İŞİK(Student), 2014

TAĞLUK M. E. , Bilgisayarlı tomografi ile elde edilen volumetrik verinin işlenerek üç boyutlu görüntüye dönüştürülmesi, Post Graduate, F.NUR(Student), 2011

TAĞLUK M. E. , Geliştirilen önışlemeli?sinir ağı modelleri ile yetişkin insanlarda uyku apne ve çeşitlerinin teşhisi, Doctorate, N.SEZGİN(Student), 2010

TAĞLUK M. E. , Üçüncü nesil mobil telekomünikasyon sistemlerinin gelişimi ve radyo yükleme stratejileri, Post Graduate, B.ŞAHİN(Student), 2010

TAĞLUK M. E. , Yüksek gerilim üreten dizel jeneratörlerden oluşan bir sistemin sinyalizasyon analizi, Post Graduate,

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

- I. **Effect of receiver shape and volume on the Alzheimer disease for molecular communication via diffusion**  
IŞIK İ., Yılmaz H. B., Demirkol I., TAĞLUK M. E.  
IET NANOBIO TECHNOLOGY, vol.14, pp.602-608, 2020 (Journal Indexed in SCI)
- II. **Design and development of travelling-wave-frequency-based transmission line fault locator using TMS320 DSP**  
ARKAN M., AKMAZ D., MAMİŞ M. S., TAĞLUK M. E.  
IET SCIENCE MEASUREMENT & TECHNOLOGY, vol.13, pp.518-522, 2019 (Journal Indexed in SCI)
- III. **Communication in nano devices: Electronic based biophysical model of a neuron**  
TAĞLUK M. E., IŞIK İ.  
NANO COMMUNICATION NETWORKS, vol.19, pp.134-147, 2019 (Journal Indexed in SCI)
- IV. **Forecasting financial indicators by generalized behavioral learning method**  
ERTUĞRUL Ö. F., TAĞLUK M. E.  
SOFT COMPUTING, vol.22, pp.8259-8272, 2018 (Journal Indexed in SCI)
- V. **Transmission line fault location using traveling wave frequencies and extreme learning machine**  
Akmaz D., MAMİŞ M. S., ARKAN M., TAĞLUK M. E.  
ELECTRIC POWER SYSTEMS RESEARCH, vol.155, pp.1-7, 2018 (Journal Indexed in SCI)
- VI. **A novel machine learning method based on generalized behavioral learning theory**  
Ertugrul O. F., TAĞLUK M. E.  
NEURAL COMPUTING & APPLICATIONS, vol.28, pp.3921-3939, 2017 (Journal Indexed in SCI)
- VII. **Forecasting Local Mean Sea Level by Generalized Behavioral Learning Method**  
Ertugrul O. F., TAĞLUK M. E.  
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, vol.42, pp.3289-3298, 2017 (Journal Indexed in SCI)
- VIII. **A novel version of k nearest neighbor: Dependent nearest neighbor**  
ERTUĞRUL Ö. F., TAĞLUK M. E.  
APPLIED SOFT COMPUTING, vol.55, pp.480-490, 2017 (Journal Indexed in SCI)
- IX. **Effects of Small-World Rewiring Probability and Noisy Synaptic Conductivity on Slow Waves: Cortical Network**  
TEKİN R., TAĞLUK M. E.  
NEURAL COMPUTATION, vol.29, pp.679-715, 2017 (Journal Indexed in SCI)
- X. **Fault location determination for transmission lines with different series-compensation levels using transient frequencies**  
Akmaz D., MAMİŞ M. S., ARKAN M., TAĞLUK M. E.  
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.25, pp.3764-3775, 2017 (Journal Indexed in SCI)
- XI. **A fast feature selection approach based on extreme learning machine and coefficient of variation**  
ERTUĞRUL Ö. F., TAĞLUK M. E.  
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.25, pp.3409-3420, 2017 (Journal Indexed in SCI)
- XII. **Beneficial effects of dexpanthenol on mesenteric ischemia and reperfusion injury in experimental rat model**  
CAGIN Y. F., ATAYAN Y., Sahin N., PARLAKPINAR H., POLAT A., VARDI N., TAĞLUK M. E., TANBEK K., YILDIZ A.  
FREE RADICAL RESEARCH, vol.50, pp.354-365, 2016 (Journal Indexed in SCI)
- XIII. **A joint generalized exemplar method for classification of massive datasets**  
TAĞLUK M. E., ERTUĞRUL Ö. F.  
APPLIED SOFT COMPUTING, vol.36, pp.487-498, 2015 (Journal Indexed in SCI)

- XIV. **The influence of ion concentrations on the dynamic behavior of the Hodgkin-Huxley model-based cortical network**  
TAĞLUK M. E. , TEKİN R.  
COGNITIVE NEURODYNAMICS, vol.8, pp.287-298, 2014 (Journal Indexed in SCI)
- XV. **Dual effects of melatonin on uterine myoelectrical activity of non-pregnant rats.**  
SIMŞEK Y., PARLAKPINAR H., TURHAN U., TAĞLUK M. E. , Ateş B.  
Journal of the Turkish German Gynecological Association, vol.15, pp.86-91, 2014 (Journal Indexed in SCI Expanded)
- XVI. **Effects of electromagnetic radiation from 3G mobile phone on heart rate, blood pressure and ECG parameters in rats**  
COLAK C., PARLAKPINAR H., ERMİŞ N., TAĞLUK M. E. , ÇOLAK C., SARIHAN E., DILEK O. F. , TURAN B., BAKIR S., ACET A.  
TOXICOLOGY AND INDUSTRIAL HEALTH, vol.28, pp.629-638, 2012 (Journal Indexed in SCI)
- XVII. **A new approach for estimation of obstructive sleep apnea syndrome**  
TAĞLUK M. E. , SEZGİN N.  
EXPERT SYSTEMS WITH APPLICATIONS, vol.38, pp.5346-5351, 2011 (Journal Indexed in SCI)
- XVIII. **Classification of Sleep Apnea through Sub-band Energy of Abdominal Effort Signal Using Wavelets plus Neural Networks**  
TAĞLUK M. E. , SEZGİN N.  
JOURNAL OF MEDICAL SYSTEMS, vol.34, pp.1111-1119, 2010 (Journal Indexed in SCI)
- XIX. **Estimation of Sleep Stages by an Artificial Neural Network Employing EEG, EMG and EOG**  
TAĞLUK M. E. , SEZGİN N., AKIN M.  
JOURNAL OF MEDICAL SYSTEMS, vol.34, pp.717-725, 2010 (Journal Indexed in SCI)
- XX. **Virtual hysterosalpingography and hysteroscopy: assessment of uterine cavity and fallopian tubes using 64-detector computed tomography data sets**  
Celik O., Karakas H. M. , Hascalik S., TAĞLUK M. E.  
FERTILITY AND STERILITY, vol.93, pp.2383-2384, 2010 (Journal Indexed in SCI)
- XXI. **Classification of sleep apnea by using wavelet transform and artificial neural networks**  
TAĞLUK M. E. , AKIN M., Sezgin N.  
EXPERT SYSTEMS WITH APPLICATIONS, vol.37, pp.1600-1607, 2010 (Journal Indexed in SCI)
- XXII. **Effects of highly purified urinary FSH and human menopausal FSH on uterine myoelectrical dynamics**  
Hascalik S., Celik O., TAĞLUK M. E. , Yildirim A., Aydın N. E.  
MOLECULAR HUMAN REPRODUCTION, vol.16, pp.200-206, 2010 (Journal Indexed in SCI)
- XXIII. **Energy based feature extraction for classification of sleep apnea syndrome**  
SEZGİN N., TAĞLUK M. E.  
COMPUTERS IN BIOLOGY AND MEDICINE, vol.39, pp.1043-1050, 2009 (Journal Indexed in SCI)
- XXIV. **Use of porcine small intestinal submucosa to reconstruct an ovarian defect**  
Celik O., Esrefoglu M., Hascalik S., GÜL M., TAĞLUK M. E. , Elter K., Aydın E.  
INTERNATIONAL JOURNAL OF GYNECOLOGY & OBSTETRICS, vol.106, pp.218-222, 2009 (Journal Indexed in SCI)
- XXV. **Spectrotemporal changes in electrical activity of myometrium due to recombinant follicle-stimulating hormone preparations follitropin alfa and beta**  
Celik O., TAĞLUK M. E. , Hascalik S., Elter K., Celik N., Aydın N. E.  
FERTILITY AND STERILITY, vol.90, pp.1348-1356, 2008 (Journal Indexed in SCI)
- XXVI. **Assessment of myoelectrical signal parameters in estrogen, progesterone, and human chorionic gonadotropin administered in nonpregnant rat myometrium after ovariectomy**  
CELİK O., HASCALIK S., TAĞLUK M. E. , ELTER K., PARLAKPINAR H., Acet A.  
FERTILITY AND STERILITY, vol.89, pp.188-198, 2008 (Journal Indexed in SCI)
- XXVII. **Bearing and misalignment fault detection in induction motors by using the space vector angular fluctuation signal**  
Arkan M., CALIS H., TAGLUK M. E.

## Articles Published in Other Journals

- I. **Fpga Tabanlı Dijital Haberleşme Sistemlerinin System Generator Aracı İle Analizi**  
IŞIK İ., TAĞLUK M. E.  
Selçuk Journal of Applied Mathematics, vol.6, no.1, pp.25-31, 2018 (National Refreed University Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Series Compensation with Constant Capacitors in Transmission Lines**  
AKMAZ D., MAMIŞ M. S. , ARKAN M., TAĞLUK M. E.  
8th,International advanced technology symposium, (Iats2017), Elazığ, Turkey, 19 - 22 October 2017
- II. **A Preliminary Investigation of Receiver Models in Molecular Communication via Diffusion**  
IŞIK İ., TAĞLUK M. E. , Yılmaz H. B.  
2nd International Conference on Artificial Intelligence and Data Processing (IDAP17), Malatya, Turkey, 16 - 17 September 2017, pp.1-5
- III. **Comparison of HDL Coder and System Generator Tools in terms of QPSK Analysis**  
IŞIK İ., TAĞLUK M. E.  
2nd International Conference on Artificial Intelligence and Data Processing (IDAP17), Malatya, Turkey, 16 - 17 September 2017, pp.1-5
- IV. **Analysis Methods in Molecular Communication via Diffusion**  
IŞIK İ., TAĞLUK M. E.  
2nd International Energy and Engineering Conference, Gaziantep, Turkey, 12 - 14 September 2017, pp.1-5
- V. **Investigation of Correlation of Vibration to BurrHeight in Drilling Free Form Surfaces**  
ERDOĞDU Y. E. , BAHÇE E., TAĞLUK M. E.  
International Conference on Advances and Innovations in Engineering, Elazığ, Turkey, 10 - 12 May 2017, pp.580-585
- VI. **Estimation of Short-Term Power Load of a Small House by Generalized Behavioural Learning Method**  
ERTUĞRUL Ö. F. , TAĞLUK M. E.  
5th International Istanbul Smart Grid and Cities Congress and Fair (ICSG), İstanbul, Turkey, 19 - 21 April 2017, pp.85-89
- VII. **A Preliminary Investigation of Receiver Models in Molecular Communication via Diffusion**  
IŞIK İ., Yılmaz H. B. , TAĞLUK M. E.  
2017 International Artificial Intelligence and Data Processing Symposium (IDAP), Malatya, Turkey, 16 - 17 September 2017
- VIII. **Determining relevant features in estimating short-term power load of a small house via feature selection by extreme learning machine**  
ERTUĞRUL Ö. F. , SEZGİN N., ÖZTEKİN A., TAĞLUK M. E.  
2017 International Artificial Intelligence and Data Processing Symposium (IDAP), Malatya, Turkey, 16 - 17 September 2017
- IX. **Comparison of HDL Coder and System Generator Tools in terms of QPSK Analysis**  
IŞIK İ., TAĞLUK M. E.  
2017 International Artificial Intelligence and Data Processing Symposium (IDAP), Malatya, Turkey, 16 - 17 September 2017
- X. **Classification of Hand Opening/Closing and Fingers by Using Two Channel Surface EMG Signal**  
SEZGİN N., ERTUĞRUL Ö. F. , TEKİN R., TAĞLUK M. E.  
2017 International Artificial Intelligence and Data Processing Symposium (IDAP), Malatya, Turkey, 16 - 17

September 2017

- XI. **Influence of Rewiring on Spike Activity and Phase Coherence in a Small-World Cortical Network**  
TEKİN R., TAĞLUK M. E.  
24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Turkey, 16 - 19 May 2016,  
pp.569-572
- XII. **European EMTP ATP Conference EEUG Meeting Courses 2015**  
AKMAZ D., MAMIŞ M. S. , TAĞLUK M. E. , ARKAN M.  
Travelling-wave based fault distance estimation for series compensated transmission lines using ATP-EMTP, 14 -  
16 September 2015, pp.151-161
- XIII. **Fault Location on Series Compensated Power Transmission Lines Using Transient Spectrum**  
Akmaz D., MAMIŞ M. S. , ARKAN M., TAĞLUK M. E.  
23rd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, 16 - 19 May 2015,  
pp.951-954
- XIV. **Detecting Fault Type and Fault Location in Power Transmission Lines by Extreme Learning Machines**  
TAĞLUK M. E. , MAMIŞ M. S. , ARKAN M., Ertugrul O. F.  
23rd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, 16 - 19 May 2015,  
pp.1090-1093
- XV. **LEARNING WITH CLASSICAL CONDITIONING**  
ERTUĞRUL Ö. F. , TAĞLUK M. E.  
22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Turkey, 23 - 25 April  
2014, pp.927-930
- XVI. **Complexity and Irregularity Analysis of the Output Data of a Cortical Network**  
TEKİN R., TAĞLUK M. E. , ERTUĞRUL Ö. F. , SEZGİN N.  
21st Signal Processing and Communications Applications Conference (SIU), CYPRUS, 24 - 26 April 2013
- XVII. **Fault Detection at Power Transmission Lines by Extreme Learning Machine**  
ERTUĞRUL Ö. F. , TAĞLUK M. E. , KAYA Y.  
21st Signal Processing and Communications Applications Conference (SIU), CYPRUS, 24 - 26 April 2013
- XVIII. **EMG Signal Classification by Extreme Learning Machine**  
ERTUĞRUL Ö. F. , TAĞLUK M. E. , KAYA Y., TEKİN R.  
21st Signal Processing and Communications Applications Conference (SIU), CYPRUS, 24 - 26 April 2013
- XIX. **Bispectral Analysis of Epileptic EEG signals**  
SEZGİN N., TAĞLUK M. E. , ERTUĞRUL Ö. F. , KAYA Y.  
21st Signal Processing and Communications Applications Conference (SIU), CYPRUS, 24 - 26 April 2013
- XX. **Time-Frequency analysis of Snoring Sounds in Patients With Simple Snoring And OSAS**  
TAĞLUK M. E. , AKIN M., SEZGİN N.  
IEEE 17th Signal Processing and Communications Applications Conference, Antalya, Turkey, 9 - 11 April 2009,  
pp.535-536

## Citations

Total Citations (WOS):249

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