# Assoc. Prof. SİNEM BURCU ERDOĞAN

### **Personal Information**

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Address: Acıbadem Mehmet Ali Aydınlar Üniversitesi Kerem Aydınlar Kampüsü 32 Kayışdağı Cad. 34752 Ataşehir/İstanbul

#### **International Researcher IDs**

ScholarID: y95pTpcAAAAJ ORCID: 0000-0001-6028-3477

Publons / Web Of Science ResearcherID: CAH-7756-2022

ScopusID: 35100265300 Yoksis Researcher ID: 142835

### **Education Information**

Doctorate, Bogazici University, Institute Of Biomedical Engineering, Biyomedikal Mühendisliği (Yl) (Tezli), Turkey 2007 - 2014

Postgraduate, Bogazici University, Institute Of Biomedical Engineering, Turkey 2005 - 2007

Undergraduate, Bogazici University, Faculty Of Engineering, Department Of Chemistry Engineering, Turkey 2001 - 2005

## Foreign Languages

English, C2 Mastery

## **Dissertations**

Doctorate, An fmri based method for characterizing superficial layer contamination in fnirs signals, Bogazici University, Biyomedikal Mühendisliği Enstitüsü, Biyomedikal Mühendisliği (Yl) (Tezli), 2014

Postgraduate, Evaluation of local oxygen consumption in human flexor digitorum superficialis muscle by near infrared spectroscopy, Bogazici University, Biyomedikal Mühendisliği Enstitüsü, 2007

### **Research Areas**

Biomedical Engineering, Biomedical Image Processing, Biosignal Processing, Numerical Neuroscience, Neurophysiology, Engineering and Technology

# **Academic Titles / Tasks**

Associate Professor, Acibadem Mehmet Ali Aydinlar University, Faculty Of Engineering and Natural Sciences, Biomedical Engineering, 2023 - Continues

Assistant Professor, Acibadem Mehmet Ali Aydinlar University, Faculty Of Engineering and Natural Sciences, Biomedical Engineering, 2016 - 2023

Research Assistant, Harvard University, 2014 - 2016

Research Assistant, Bogazici University, Institute Of Biomedical Engineering, Department Of Biomedical Electronics, 2007 - 2014

# Academic and Administrative Experience

Head of Department, Acibadem Mehmet Ali Aydinlar University, Graduate School Of Natural And Applied Sciences, Biomedical Engineering With Thesis, 2024 - Continues

Faculty Board Member, Acibadem Mehmet Ali Aydinlar University, Faculty Of Engineering And Natural Sciences, Biomedical Engineering, 2024 - Continues

Ölçme Değerlendirme Kurulu Üyesi, Acibadem Mehmet Ali Aydınlar University, Faculty Of Engineering and Natural Sciences, Biomedical Engineering, 2022 - Continues

Unit Accreditation Board Member, Acibadem Mehmet Ali Aydinlar University, Faculty Of Engineering and Natural Sciences, Biomedical Engineering, 2022 - Continues

Internship Committee Member, Acibadem Mehmet Ali Aydinlar University, Faculty Of Engineering and Natural Sciences, Biomedical Engineering, 2020 - Continues

Staj Koordinatörü, Acibadem Mehmet Ali Aydinlar University, Faculty Of Engineering and Natural Sciences, Biomedical Engineering, 2020 - Continues

Bölüm Tanıtım ve Mezunlarla İlişkiler Komisyonu Üyesi, Acibadem Mehmet Ali Aydınlar University, Faculty Of Engineering and Natural Sciences, Biomedical Engineering, 2020 - Continues

Fakülte Kurulu Üyesi, Acibadem Mehmet Ali Aydinlar University, Faculty Of Engineering and Natural Sciences, Biomedical Engineering, 2020 - Continues

Bölüm Stratejik Plan Komisyonu Üyesi, Acibadem Mehmet Ali Aydınlar University, Faculty Of Engineering and Natural Sciences, Biomedical Engineering, 2020 - Continues

Ethics Committee Member, Acibadem Mehmet Ali Aydinlar University, Faculty Of Engineering and Natural Sciences, Biomedical Engineering, 2021 - 2023

### **Courses**

#### **Doctorate**

BME 619, Doctorate, 2023 - 2024

Advanced Human Physiology, Doctorate, 2022 - 2023, 2021 - 2022

### **Postgraduate**

Undergraduate

Tez Dersi, Postgraduate, 2022 - 2023, 2021 - 2022

ileri Radyoloji Teknolojileri, Postgraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021

Functional Neuroimaging, Postgraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2018 - 2019, 2017 - 2018 Radiology Technologies, Postgraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021

 $HUMAN\ PHYSIOLOGY, Postgraduate, 2022-2023, 2021-2022, 2020-2021, 2019-2020, 2018-2019, 2017-2018, 2019-2019-2019, 2019$ 

Human Anatomy and Physiology, Undergraduate, 2023 - 2024

Professional Enrichment, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018 Medical İmaging, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021

HUMAN ANATOMY AND PHYSIOLOGY, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018

Functional Neuroimaging, Undergraduate, 2023 - 2024, 2022 - 2023

Sistem Fizyolojisi, Undergraduate, 2018 - 2019

Tıbbi Malzemeler ve Cihazlar, Undergraduate, 2017 - 2018

# **Supervised Theses**

Erdoğan S. B., Gür Özmen S., (Investigation of The Effect of Transcutaneous Bilateral Auricular Vagal Nerve Stimulation on Episodic Future Thinking: A taVNS-EEG Study), Doctorate, A.Himmetoglu(Student), Continues

Erdoğan S. B., Quantification of the Impact of Direct Brain Current Stimulation on Brain Hemodynamics in Parkinson's disease Patients with fNIRS, Postgraduate, Ö.ÖZTEL(Student), Continues

Erdoğan S. B., Design of a hybrid EEG-fNIRS system for cognitive workload assessment, Doctorate, A.Eser(Student), Continues

Erdoğan S. B., Design of a hybrid EEG-fNIRS BCI for decoding mental states in everyday life, Doctorate, G.Yükselen(Student), Continues

Erdoğan S. B., A Machine Learning Based Blood Pressure Detection System from Speech Recordings, Postgraduate, B.Ercik(Student), Continues

Erdoğan S. B., --, Postgraduate, A.Elibol(Student), Continues

Dumlu S. N., Erdoğan S. B., Automatic Semantic Segmentation of Organs at Risk and Target Tumor Volume in Radiotherapy Planning CT Images of Nasopharyngeal Cancer, Postgraduate, M.Yüce(Student), Continues

Erdoğan S. B., Performance comparison of finers signal preprocessing approaches with and without short channel regression, Postgraduate, A.GÜVEN(Student), 2023

Erdoğan S. B., Design of an fNIRS based BCI system for identification of Impulsivity in Adolescents, Postgraduate, G.Yükselen(Student), 2022

Erdoğan S. B., Yıldırım F., Evaluation of Human and Robot Faces &Voices via Behavioral and Neuroimaging Methods, Doctorate, E.Yorgancıgil(Student), 2021

Akın A., Erdoğan S. B., TASK INDUCED BRAIN ACTIVATION ANALYSIS WITH GLOBAL EFFICIENCY METRIC DURING STROOP TASK, Postgraduate, B.Tatlıeşme(Student), 2020

Erdoğan S. B., EVALUATION OF BEST PREPROCESSING PRACTICES FOR DENOISING FNIRS SIGNALS COLLECTED DURING COGNITIVE AND MOTOR TASKS, Postgraduate, U.KARADENİZ (Student), 2020

### Jury Memberships

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Bahcesehir University, November, 2023

Academic Staff Examination, Academic Staff Examination, University of Engineering and Technology, October, 2023 Post Graduate, Post Graduate, Sabancı Üniversitesi, August, 2022

Doctorate, Doctorate, Yeditepe Üniversitesi, July, 2022

Doctorate, Doctorate, Yeditepe Üniversitesi, April, 2022

Post Graduate, Post Graduate, Acibadem Mehmet Ali Aydinlar University, April, 2022

Doctoral Examination, Doctoral Examination, Acibadem Mehmet Ali Aydinlar University, December, 2021

Doctorate, Doctorate, Istanbul Medipol University, July, 2021

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

I. Small world properties of schizophrenia and OCD patients derived from fNIRS based functional brain network connectivity metrics

AKIN A., Yorgancıgil E., Öztürk O. C., SÜTÇÜBAŞI B., KIRIMLI C. E., Elgün Kırımlı E. E., DUMLU S. N., YUKSELEN G., ERDOĞAN S. B.

SCIENTIFIC REPORTS, vol.14, no.1, 2024 (SCI-Expanded)

II. Explainable fNIRS-based pain decoding under pharmacological conditions via deep transfer learning approach.

Eken A., Yüce M., Yükselen G., Erdoğan S. B.

Neurophotonics, vol.11, no.4, pp.45015, 2024 (SCI-Expanded)

III. Sex based differences in functional connectivity during a working memory task: an fNIRS study

Shirzadi S., Dadgostar M., Einalou Z., Erdoğan S. B., Akın A.

FRONTIERS IN PSYCHOLOGY, 2024 (SSCI)

IV. A new system for cuffless blood pressure measurement

ANKIŞHAN H., ARI F., Celik H., Frederick B. B., Hocke L. M., ERDOĞAN S. B., ÜNAL M. A.

APPLIED ACOUSTICS, vol.212, 2023 (SCI-Expanded)

V. An Exploratory Analysis of the Neural Correlates of Human-Robot Interactions With Functional Near Infrared Spectroscopy

Yorgancigil E., Yildirim F., Urgen B. A., ERDOĞAN S. B.

FRONTIERS IN HUMAN NEUROSCIENCE, vol.16, 2022 (SCI-Expanded)

VI. Four-Class Classification of Neuropsychiatric Disorders by Use of Functional Near-Infrared Spectroscopy Derived Biomarkers

ERDOĞAN S. B., YUKSELEN G.

SENSORS, vol.22, no.14, 2022 (SCI-Expanded)

VII. Effect of Painful Electrical Stimuli on Readiness Potential in the Human Brain.

Dilek B., Osumi M., Nobusako S., Erdoğan S. B., Morioka S.

Clinical EEG and neuroscience, vol.53, no.2, pp.114-123, 2022 (SCI-Expanded)

VIII. Identification of impulsive adolescents with a functional near infrared spectroscopy (fNIRS) based decision support system

ERDOĞAN S. B., YUKSELEN G., Yegul M. M., Usanmaz R., Kiran E., DERMAN O., AKIN A.

JOURNAL OF NEURAL ENGINEERING, vol.18, no.5, 2021 (SCI-Expanded)

IX. Changes in prefrontal cortex activation with exercise in knee osteoarthritis patients with chronic pain: An fNIRS study

ÖZTÜRK Ö., ALGUN Z. C., Bombaci H., ERDOĞAN S. B.

JOURNAL OF CLINICAL NEUROSCIENCE, vol.90, pp.144-151, 2021 (SCI-Expanded)

X. Functional Near-Infrared Spectroscopy Indicates That Asymmetric Right Hemispheric Activation in Mental Rotation of a Jigsaw Puzzle Decreases With Task Difficulty

Mutlu M. C., ERDOĞAN S. B., Öztürk O. C., Canbeyli R., Saybaşılı H.

Frontiers in Human Neuroscience, vol.14, 2020 (SCI-Expanded)

XI. The hemodynamic effects of occlusal splint therapy on the masseter muscle of patients with myofascial pain accompanied by bruxism

İspirgil E., Erdoğan S. B., Akın A., Şakar O.

CRANIO-THE JOURNAL OF CRANIOMANDIBULAR & SLEEP PRACTICE, vol.38, no.2, pp.99-108, 2020 (SCI-Expanded)

XII. Classification of motor imagery and execution signals with population-level feature sets:

implications for probe design in fNIRS based BCI

ERDOĞAN S. B., Ozsarfati E., Dilek B., Kadak K. S., Hanoglu L., AKIN A.

JOURNAL OF NEURAL ENGINEERING, vol.16, no.2, 2019 (SCI-Expanded)

XIII. Systemic Low-Frequency Oscillations in BOLD Signal Vary with Tissue Type

Tong Y., Hocke L. M., Lindsey K. P., Erdogan S. B., Vitaliano G., Caine C. E., Frederick B. d.

FRONTIERS IN NEUROSCIENCE, vol.10, 2016 (SCI-Expanded)

XIV. Correcting for Blood Arrival Time in Global Mean Regression Enhances Functional Connectivity
Analysis of Resting State fMRI-BOLD Signals

Erdogan S. B., Tong Y., Hocke L. M., Lindsey K. P., Frederick B. d.

FRONTIERS IN HUMAN NEUROSCIENCE, vol.10, 2016 (SCI-Expanded)

XV. Analysis of task-evoked systemic interference in fNIRS measurements: Insights from fMRI

Erdogan S. B., Yucel M. A., Akin A.

NEUROIMAGE, vol.87, pp.490-504, 2014 (SCI-Expanded)

# Articles Published in Other Journals

I. Explainable fNIRS Based Pain Decoding Under Pharmacological Conditions via Deep Transfer Learning Approach

Eken A., Erdoğan S. B., Yukselen G., Yüce M.

medRxiv, vol.1, no.1, pp.1-30, 2023 (Non Peer-Reviewed Journal)

II. Identification of the hemodynamic correlates of basic emotional states with a mobile functional near infrared spectroscopy system

ERDOĞAN S. B.

ACTA MEDICA ALANYA, vol.6, no.2, pp.159-166, 2022 (Peer-Reviewed Journal)

III. Effects of Single-Task, Dual-Task and Successive Physical-Cognitive Training on Fall Risk and Balance Performance in Older Adults: A Randomized Trial

ATAŞ BALCI L., SOĞUKKANLI KADAK K., ERDOĞAN S. B., HANOĞLU L.

Journal of Exercise Therapy and Rehabilitation, vol.9, no.1, pp.1-11, 2022 (Peer-Reviewed Journal)

# Papers Published in Refereed Scientific Meetings

I. Assessment of Neurovascular Reactivity during Physiological Tasks with fNIRS

Yorgancıgil E., Akın A., Erdoğan S. B., Yukselen G.

20. Ulusal Sinirbilim Kongresi, İstanbul, Turkey, 19 - 23 October 2022, pp.150

II. An fNIRS-based BCI System for Identification of Neuropsychiatric Disorders

Yukselen G., Erdoğan S. B.

20. Ulusal Sinirbilim Kongresi, İstanbul, Turkey, 19 - 23 October 2022, pp.119

III. An fNIRS-based BCI System for Identification of Impulsivity in Adolescents

Yukselen G., Erdoğan S. B., Derman O., Akın A.

3rd International Webinar on Cognitive and Behavioral Neurosciences, 15 - 16 June 2022, pp.37

IV. Validity of fNIRS method in Assessing Cerebrovascular Reactivity in Prefrontal and Occipital Cortex of the Brain

Yorgancıgil E., Erdoğan S. B., Yukselen G., Akın A.

3rd International Webinar on Cognitive and Behavioral Neurosciences, 15 - 16 June 2022, pp.35

V. DECODING OF EMOTIONAL STATES WITH A FUNCTIONAL NEAR INFRARED SPECTROSCOPY SYSTEM ERDOĞAN S. B.

6th INTERNATIONAL EUROPEAN CONFERENCE ON INTERDISCIPLINARY SCIENTIFIC RESEARCH, Bucharest, Romania, 26 - 27 August 2022, pp.136

VI. IDENTIFICATION OF NEUROPSYCHIATRIC DISORDERS WITH A FUNCTIONAL NEAR INFRARED SPECTROSCOPY (FNIRS) BASED BRAIN COMPUTER INTERFACE SYSTEM ERDOĞAN S. B.

2. INTERNATIONAL MEDITERRANEAN SCIENTIFIC RESEARCH AND INNOVATION CONGRESS, Girne, Cyprus (Kktc), 30 - 31 July 2022, pp.557-567

VII. An fNIRS-based BCI System for Identification of Impulsivity in Adolescents

YÜKSELEN G., ERDOĞAN S. B., DERMAN O., AKIN A.

3rd Edition of International Webinar on Cognitive and Behavioral Neurosciences, 15 - 16 June 2022, pp.37

VIII. Metaphor Comprehension in Alzheimer's Disease and Behavioral-variant Frontotemporal Dementia:a Concurrent EEG-fNIRS study.

Erdoğan S. B.

FENS 2020, Edinburgh, United Kingdom, 11 - 15 July 2020, pp.1-3

IX. Machine learning based prediction of motor imagery and motor execution tasks from functional near infrared spectroscopy signals

Aslan O., Kurtoğlu K. K., Yeşilalan K., ERDOĞAN S. B.

Optics and the Brain, BRAIN 2020, Washington, United States Of America, 20 - 23 April 2020, vol.Part F176-BRAIN-

2020, no.1

X. Effects of a tailored exercise program in knee osteoarthritis patients with chronic pain: an fNIRS study

Öztürk Ö., Algun Z. C., Erdoğan S. B., Bombacı H.

11 th Congress of the European Pain Federation, Valencia, Spain, 4 - 07 September 2019, pp.10-11

XI. Effects of tailored exercise program in knee osteoa-rthritis patients with chronic pain: a FNIRS Study.

ÖZTÜRK Ö., ALGUN Z. C., ERDOĞAN S. B., BOMBACI H.

11th Congress of the European Pain Federation EFIC, 4 - 07 September 2019

XII. Understanding of the neural correlates of Turkish conceptual metaphors by using fNIRS method in elderly healthy native speakers

DİKMEN M., KARAKULAK E. Z., SOĞUKKANLI KADAK K., ERDOĞAN S. B., HANOĞLU L.

20. Ulusal Anatomi Kongresi, İstanbul, Turkey, 27 - 31 August 2019, vol.13, pp.147

XIII. Subband Analysis of fNIRS Signals

ŞAUL C. J., ERDOĞAN S. B., AKIN A.

The fNIRS2018 conference, Tokyo, Japan, 5 - 08 October 2018

XIV. Assessing Alterations in Functional Activation and Connectivity Metrics in Schizophrenia with fNIRS ERDOĞAN S. B., AKIN A.

The fNIRS2018 conference, Tokyo, Japan, 5 - 08 October 2018

XV. Improving Sensitivity of Task-fMRI Signals by Use of Time Delayed Systemic Regressors: A Comparison of Probe Regressors from Peripheral NIRS Recordings and BOLD-fMRI

ERDOĞAN S. B., TONG Y., HOCKE L. M., LINDSEY K. P., DEB FREDERICK B.

Joint Annual Meeting ISMRM-ESMRMB 2018, Paris, France, 16 June - 21 August 2018

XVI. Bruksizme eşlik eden miyofasyal ağrılı bireylerde splint tedavisinin massater kasındaki hemodinamik değişiklikler üzerine etkilerinin İYKAS ile incelenmesi

İspirgil E., ERDOĞAN S. B., ŞAKAR O., AKIN A.

Biyomut 2017, Turkey, 24 - 26 November 2017

XVII. Mapping hemodynamic delay times from Human Connectome Project Resting State Data

DEB FREDERICK B., LINDSEY K. P., ERDOĞAN S. B., HOCKE L. M., TONG Y.

2017 Annual Meeting of the Organization for Human Brain Mapping, Vancouver, Canada, 25 - 29 June 2017

XVIII. Improving Sensitivity of task-fMRI by use of Reciprocal Information from Peripheral Near Infrared Spectroscopy (NIRS) measurements

Erdogan S. B., Tong Y., Hocke L. M., Lindsey K. P., Frederick B. d. B.

25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017

XIX. Studying the propagation of systemic hemodynamic oscillations in human body using peripheral near infrared spectroscopy measurements

LI Y., DEB FREDERICK B., ERDOĞAN S. B., LINDSEY K. P., CAYETANO K. R., HOCKE L. M., TONG Y.

fNIRS 2016 Conference, Paris, France, 13 - 16 October 2016

XX. Denoising task related fMRI data with time delay processing of concurrently recorded peripheral NIRS

ERDOĞAN S. B., TONG Y., HOCKE L. M., LINDSEY K. P., DEB FREDERICK B.

fNIRS 2016 Conference, Paris, France, 13 - 16 October 2016

XXI. DETECTING LATERIZATION OF HAEMODYNAMIC RESPONSE DURING EXECUTIVE MOTOR TASK AND MOTOR IMAGERY WITH FNIRS

Gokdag Y. E., Sansal F., Dumlu S. N., Erdogan S. B., Yilmaz O., Akin A.

22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Turkey, 23 - 25 April 2014, pp.2118-2121

### XXII. Translating fMRI to fNIRS

Tumer A., Erdogan S. B., Akin A.

6th International IEEE EMBS Conference on Neural Engineering (NER), California, United States Of America, 6 - 08 November 2013, pp.493-496

### XXIII. An fMRI based method for characterizing superficial layer contribution to fNIRS signals

Erdogan S. B., Nevsehirli T. D., Ergen Y. K., Akin A.

Biomedical Optics, BIOMED 2012, Miami, FL, United States Of America, 28 April - 02 May 2012

# XXIV. INVESTIGATON OF THE NEURONAL EFFICACY AND EEG SOURCE POWER UNDER STEADY-STATE VISUAL STIMULATION

DURU A. D., ERDOĞAN S. B., Kasikci I., BAYRAM A., Ademoglu A., DEMİRALP T.

33rd Annual International Conference of the IEEE Engineering-in-Medicine-and-Biology-Society (EMBS),

Massachusetts, United States Of America, 30 August - 03 September 2011, pp.6576-6579

# XXV. Determination and anatomical mapping of thalamic stroke regions to anatomical atlas Talamik inme bölgelerinin belirlenmesi ve anatomik atlasta eşleştirilmesi

Özel P., Uslu F. I., Duru A. D., Erdoğan S. B., Gökyiğit A., Ademoğlu A.

2010 15th National Biomedical Engineering Meeting, BIYOMUT2010, Antalya, Turkey, 21 - 24 April 2010

# XXVI. Investigation of the Effect of Playing Video Games on Visual Attention and Brain Hemodynamics with Functional Near Infrared Spectroscopy

Erdogan S. B., Bilgin C., Turan B., Akin A.

22nd Annual Meeting of the IEEE-Photonics-Society, Belek, Turkey, 4 - 08 October 2009, pp.272-273

# XXVII. Evaluation of co-activation of antagonistic muscles using near infrared spectroscopy

Erdoğan S. B., Yucesoy C. A., Huijing P. A., Akin A.

Biomedical Optics, BIOMED 2008, St. Petersburg, FL, United States Of America, 16 - 19 March 2008

# XXVIII. The effect of methylphenidate on brain hemodynamics of attentiondeficit/hyperactivity disorder measured by functional near infrared spectroscopy

Topaloğlu N., Kara E., Karahan E., ERDOĞAN S. B., Serap S., Öner Ö., ÖNCÜ ÇETİNKAYA B., Münir K., Çiftçi K., AKIN A. Biomedical Optics, BIOMED 2008, St. Petersburg, FL, United States Of America, 16 - 19 March 2008

## XXIX. Activation of lateral prefrontal cortex during a complex cognitive task

Kirimli C. E., Sumer S., Erdogan S. B., Topaloglu N., Akin A.

Biomedical Optics, BIOMED 2008, St. Petersburg, FL, United States Of America, 16 - 19 March 2008

### Other Publications

I. Beyin Bilgisayar Arayüzlerinde Yeni Bir Teknoloji: İşlevsel Yakın Kızılaltı Spektroskopi (STM BLOG) Erdoğan S. B.

Technical Report, pp.1-7, 2019

II. Beyin Bilgisayar Arayüzlerinde Yeni Bir Teknoloji: İşlevsel Yakın Kızılaltı Spektroskopi (YÖK DERGİ) Erdoğan S. B.

Technical Report, pp.22-25, 2019

# **Activities in Scientific Journals**

Frontiers in Robotics and AI, Assistant Editor/Section Editor, 2020 - Continues

# Memberships / Tasks in Scientific Organizations

Society for fNIRS, Member, 2016 - Continues, United States Of America

### Peer Reviews in Scientific Publications

NEUROPHOTONICS, Journal Indexed in SCI-E, April 2023 HUMAN BRAIN MAPPING, Journal Indexed in SCI-E, January 2023 Dicle Üniversitesi Mühendislik Fakültesi Mühendislik Dergisi, National Scientific Refreed Journal, December 2022

FRONTIERS IN BEHAVIORAL NEUROSCIENCE, SCI Journal, September 2022

FRONTIERS IN NEUROENGINEERING, SCI Journal, August 2022

FRONTIERS IN HUMAN NEUROSCIENCE, SCI Journal, April 2022

NEUROPHOTONICS, SCI Journal, March 2022

NEUROPHOTONICS, SCI Journal, September 2021

FRONTIERS IN HUMAN NEUROSCIENCE, SCI Journal, March 2021

# Scientific Project Refereeing

TUBITAK Project, 1501 - Industry R & D Projects Support Program, November 2023

TUBITAK Project, 1501 - Industry R & D Projects Support Program, August 2023

KOSGEB, May 2023

TUBITAK Project, 1501 - Industry R & D Projects Support Program, May 2023

KOSGEB, January 2023

TÜBİTAK International Bilateral Joint Cooperation Program Project, 2535 TÜBİTAK-IRAN MSRT, October 2022

TÜBİTAK International Bilateral Joint Cooperation Program Project, 2535 TÜBİTAK-IRAN MSRT, October 2022

TÜBİTAK International Bilateral Joint Cooperation Program Project, Korean National Research Foundation, NRF Bilateral Joint Cooperation Program, October 2022

TUBITAK Project, 1501 - Industry R & D Projects Support Program, July 2022

KOSGEB, June 2022

KOSGEB, April 2022

H2020 Project, FET, H2020 Future & Emerging Technologies Project, December 2021

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, May 2021

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, May 2021

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, May 2021

TUBITAK Project, 1501 - Industry R & D Projects Support Program, April 2021

TÜBİTAK International Bilateral Joint Cooperation Program Project, Ministry of Science and Technology of Pakistan, MoST Bilateral Cooperation Program, March 2021

### **Tasks In Event Organizations**

Erdoğan S. B., 5th International Neuroergonomics Conference, Scientific Congress, Bordeaux, France, Temmuz 2024 Akin A., Tahir Turanli E., Onat F., Erdoğan S. B., Sütçübaşi B., Workshop on AI in Neurosciences, Workshop Organization, İstanbul, Turkey, Ocak 2023

Akın A., Bekçi B., Sütçübaşı B., Erdoğan S. B., Yukselen G., Kognitif Nörobilim Stajı, Science / Art Camp or Summer School Organization, Turkey, Aralık 2022

Süyen G., Yavuz M., Sütçübaşı B., Ergen M., Erdoğan S. B., KAN B., 20th National Neuroscience Congress, Scientific Congress, İstanbul, Turkey, Ekim 2022

Akın A., Bekçi B., Sütçübaşı B., Erdoğan S. B., Yukselen G., Mühendislik Yaklaşımı ile Nörobilim Stajı, Science / Art Camp or Summer School Organization, Turkey, Nisan 2022

Sütçübaşi B., Erdoğan S. B., Akin A., Dumlu S. N., ACU SİNİRBİLİM ÇALIŞTAYI, Workshop Organization, İstanbul, Turkey, Şubat 2022

Yukselen G., Akın A., Bekçi B., Erdoğan S. B., Mühendislik Yaklaşımı ile Nörobilim Stajı 2021-2, Science / Art Camp or Summer School Organization, İstanbul, Turkey, Ocak 2022

Süyen G., Alanay Y., Öz Arslan D., Akyerli Boylu C., Ergen M., Keskinöz E. N., Yavuz M., Özdemir Ö., Erdoğan S. B., Seçkin M., ACU Disiplinlerarası Sinirbilim Araştırmaları Çalıştayı, Workshop Organization, İstanbul, Turkey, Haziran 2021

Erdoğan S. B., Noise as Signal: Finding Nemo, Scientific Congress, Massachusetts, United States Of America, Haziran 2021 Erdoğan S. B., Sağlık Girişimlerinin Küresel Pazara Erişimi Projesi- Uluslararası Sağlık Sektörüne Yönelik Zirve

Organizasyonu, Scientific Congress, İstanbul, Turkey, Eylül 2020

Erdoğan S. B., 2020 OSA Biophotonics Congress: Biomedical Optics (BioMed 2020), Scientific Congress, Florida, United States Of America, Nisan 2020

### Scientific Research / Working Group Memberships

Adalab, Acibadem Mehmet Ali Aydinlar University, Turkey, https://www.adalaboratory.org, 2020 - Continues Mind And Brain Lab, Acibadem Mehmet Ali Aydinlar University, Turkey, https://www.adalaboratory.org, 2016 - Continues

Optomagnetic Research Group, Harvard University, United States Of America, https://www.nirs-fmri.net, 2014 - Continues

#### **Metrics**

Publication: 57
Citation (WoS): 182
Citation (Scopus): 229
H-Index (WoS): 6
H-Index (Scopus): 6

### **Congress and Symposium Activities**

Special Topics in Biomedical Sciences-Bogazici University, Invited Speaker, İstanbul, Turkey, 2023

1. Ulusal Norogoruntuleme Kongresi (NGK2023), Panelists, Ankara, Turkey, 2023

Bilimsel Sinirbilim Günleri-Medipol Universitesi, Invited Speaker, İstanbul, Turkey, 2023

Nörobilimde Yapay Zeka Uygulamaları Çalıştayi, Panelists, İstanbul, Turkey, 2023

Ulusal Psikoloji Kongresi, Panelists, İstanbul, Turkey, 2022

Fonksiyonel Yakın Kızılaltı Spektroskopisi (fNIRS) Tekniğinin Bilişsel ve Klinik Sinirbilim Araştırmalarında Potansiyeli: Ne

Yapabiliyoruz Ne Yapamıyoruz?, Panelists, İstanbul, Turkey, 2022

Global Marketing Summit, Invited Speaker, İstanbul, Turkey, 2022

The Future Healthcare, Invited Speaker, İstanbul, Turkey, 2022

EEG-fNIRS Workshop In Neuroscience Research, Invited Speaker, İstanbul, Turkey, 2022

Noise As Signal: Finding Nemo, Invited Speaker, Massachusetts, United States Of America, 2021

International Conference on Artificial Intelligence and Mechatronics (AIMS 2021), Invited Speaker, Jakarta, Indonesia, 2021

2nd International Symposium on Applied Sciences and Engineering (ISASE2021), Invited Speaker, Kuala-Lumpur, Malaysia, 2021

### **Invited Talks**

The Potential of fNIRS based BCI System Designs as Clinical Decision Support Systems, Seminar, Bogazici University, Turkey, December 2023

Yeni Dunya da Yeni Bir Mühendislik: Biyomedikal Mühendisliği, Seminar, Ayazaga Lisesi, Turkey, October 2023

Türkiye'de Nörobilim Araştırmalarında fNIRS'ın Yeri, Conference, Gazi University, Turkey, September 2023

FNIRS Verilerine Dayalı Nöropsikiyatrik Hastalıkların Sınıflandırılması, Conference, Istanbul Medipol University, Turkey, May 2023

Can Artificial Intelligence Match and Surpass Human Intelligence?, Conference, The Future Healthcare, Turkey, October 2022

İnsan Zekası Bir Çipe Aktarılabilir mi? Potansiyeller ve Sınırlılıklar, Conference, Doğuş Üniversitesi, Turkey, October 2022 Can Human Intelligence Be Transferred to a Chip? Assumptions, Potential Trajectories and Myths, Conference, GLOBAL MARKETING SUMMIT, Turkey, October 2022

How can fNIRS and EEG techniques be used effectively in collecting and interpreting temporal and spatial data to reveal neuronal processes related to mental abilities?, Workshop, MEDIPOL UNIVERSITY, Turkey, July 2022 İnsan Beynini Işıkla Görüntülemek, Seminar, OpenCampusTR, Turkey, May 2022

What can fNIRS tell us about the Neurobiology of Cognition?, Conference, ANKARA UNIVERSITESI, Turkey, May 2022 A novel Profession in the New World: (Bio)Medical Engineering, Seminar, Koc High School, Turkey, April 2022 Systemic LFOs and fMRI denoising, Seminar, Harvard Medical School, United States Of America, June 2021 Neuroimaging in everyday life with a novel brain imaging modality, Conference, 2nd International Symposium on Applied Sciences and Engineering (ISASE2021), Malaysia, April 2021

Neuroimaging in everyday life with a relatively novel brain imaging SYSTEM:Functional near infrared spectroscopy (FNIRS), Conference, International Conference on Artificial Intelligence and Mechatronics (AIMS 2021), Turkey, April 2021

A new profession in the new World: Biomedical Engineering, Seminar, Koc High School, Turkey, April 2021 (Bio)Medical Engineering as a Novel Profession, Seminar, SEV American High School, Turkey, March 2021 What can fNIRS tell us about the neurobiology of cognition?, Seminar, Yeditepe University, Turkey, March 2021

## **Awards**

Erdoğan S. B., Physiological Denoising of Functional Near Infrared Spectroscopy (fNIRS) and Functional Magnetic Resonance Imaging (fMRI) Signals with 'Regressor Interpolation at Progressive Time Delays (RIPTiDe)' Technique (supported by the BIDEB 2219 Program of Scientific and Technological Research Council of Turkey, September 2014 – September 2015), Bideb, June 2014