Duygu ÜÇÜNCÜ Bahcesehir University, Engineering and Natural Science Faculty Mathematics Department Istanbul, Turkey +902123810586 duygu.ucuncu@bau.edu.tr



#### **EDUCATION**

PhD 2011/2018-2024

Yildiz Technical University, Istanbul

Mathematics

Thesis: Makine Öğrenme Problemlerinde Konveks Olmayan Optimizasyon Modellerinin İki Konveks Fonksiyonun Farkı ve İkinci Derece Konik Programlama İle Modellenmesi (Difference of Convex Functions Programming and Secon-Order Conic Programming Modellening of Non-Convex Optimization Problems in Machine Learning)

Supervisors: Erdal GÜL, Süreyya ÖZÖĞÜR AKYÜZ

# Master's degree (without Thesis)

2009-2010

Marmara University, Istanbul

Mathematics and Science Education / Mathematics Teacher Education

Master's degree 2007-2009

Yildiz Technical University, Istanbul

Mathematics

Thesis: İkinci Mertebeden Lineer Diferansiyel Denklemlerin Seri Çözümleri (Series Solutions of Second Order Linear Differantial Equations)

Supervisor: Erdal GÜL Degree: Department's 1st

Bachelor's degree 2002-2006

Kocaeli University, Kocaeli

Mathematics

Degree: Department's 7<sup>th</sup>

#### **RESEARCH & TEACHING EXPERIENCE**

Assistant Professor 2024-Continue

Bahcesehir University, Istanbul - Mathematics Department

Research Assistant 2012-2024

Bahcesehir University, Istanbul - Mathematics Department

## **COURSES:**

- Numerical Analysis
- Numerical Methods for Engineers
- Calculus I
- Calculus II
- Calculus I PS

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- Calculus II PS
- Linear Algebra with Applications PS
- Analysis I PS
- Analysis II PS
- Differential Geometry PS
- General Topology PS
- Mathematics for Social Sciences PS
- Mathematics for Biological Sciences PS

#### PUBLICATIONS (JOURNALS)

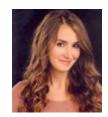
- A novel auto-pruned ensemble clustering via SOCP Duygu ÜÇÜNCÜ, Süreyya AKYÜZ, Erdal GÜL Cent Eur J Oper Res, 2023 (SCIE, Scopus Q2)
- Classification of Motor Imagery Task by Using Novel Ensemble Pruning Approach
  Muhammad Ammar ALI, Duygu ÜÇÜNCÜ, Pinar KARADAYI ATAS, Sureyya OZOGUR-AKYUZ
  IEEE Transactions on Fuzzy Systems, 2019 (SCIE, Scopus Q1)
- On the Trace Formula for a Differential Operator of Second-Order with Unbounded Operator Coefficient Erdal GÜL, Duygu ÜÇÜNCÜ Sigma Journal of Engineering and Natural Sciences - Sigma Mühendislik ve Fen Bilimleri Dergisi, 2018 (ESCI, Scopus Q4)

# PUBLICATIONS (CONFERENCES)

- Auto-Pruned SOCP Clustering Problem (Abstract)
   Duygu ÜÇÜNCÜ, Sureyya OZOGUR-AKYUZ
   33rd European Conference on Operational Research, 2024
- Novel Ensemble SVM Algorithm for Classification of Motor Imagery Task (Abstract)
   Duygu ÜÇÜNCÜ, Muhammad Ammar ALI, Pinar KARADAYI ATAS, Sureyya OZOGUR-AKYUZ
   30th European Conference on Operational Research, 2019
- Optimality Conditions for Sparse Quadratic Optimization Problem Duygu ÜÇÜNCÜ, Süreyya AKYÜZ, Erdal GÜL, Gerhard Wilhelm-WEBER International Conference on Engineering Optimization, 2018
- Seyrek Kuadratik Optimizasyon Problemi için Optimalite Koşul İncelemesi (Abstract)
   Duygu ÜÇÜNCÜ, Süreyya AKYÜZ, Erdal GÜL, Gerhard Wilhelm WEBER
   38. Yöneylem Araştırması ve Endüstri Mühendisliği Ulusal Kongresi (YAEM 2018), 2018
- On The Trace Formula for a Differential Operator of Second Order with Unbounded Operator Coefficients
  Erdal GÜL, Duygu ÜÇÜNCÜ

  13th Algebraic Hyperstructures and its Applications (AHA2017)), 2017
- On regularized trace of a differential operator of second order Erdal GÜL, Duygu ÜÇÜNCÜ
   AIP Conference Proceedings, 2016

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## **RESEARCH AREAS**

- Sparse Quadratic Non-Convex Optimization
- Machine Learning
- Ensemble Pruning
- Numerical Optimization
- Analysis
- Mathematical Modelling

#### LANGUAGES

- Turkish Natural Language
- English Advanced in Reading, Writing, Speaking
- French Beginner

#### TECHNICAL SKILLS

- MS Office High Capacity
- Weka High Capacity
- MATLAB Intermediate
- Python Intermediate
- C++ Beginner
- Java Beginner

## **MEMBERSHIPS**

• EURO (Association of European Operational Research Societies)

## **CERTIFICATES**

- 33rd European Conference on Operational Research, 2024 Stream Organizer
- 33rd European Conference on Operational Research, 2024 Session Organizer
- 30th European Conference on Operational Research, 2019 Session Organizer
- Summer School on Optimization, Big Data and Applications (OBA)
   Universita Degli Studi Firenze, 30th June 6th July 2019
- Using Optimization Toolbox and Machine Learning in Matlab, 18-19 May 2013