

Asst. Prof. BETÜL BOZ

Personal Information

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International Researcher IDs

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Biography

Betül BOZ lisans ve yüksek lisans derecelerini Marmara Üniversitesi Mühendislik Fakültesi Bilgisayar Mühendisliği Bölümü'nden, doktora derecesini Boğaziçi Üniversitesi Bilgisayar Mühendisliğinden aldı. 2013 yılında Marmara Üniversitesi Mühendislik Fakültesi Bilgisayar Mühendisliği Bölümü'nde Dr. Öğretim Üyesi olarak çalışmaya başlamıştır. Başlıca araştırma alanları arasında bilgisayar mimarisi, paralel algoritmalar, optimizasyon, yapay zeka, ve algoritma tasarımı yer almaktadır.

Education Information

Doctorate, Bogazici University, Institute Of Science, Bilgisayar Mühendisliği (Dr), Turkey 2004 - 2011

Postgraduate, Marmara University, Faculty of Engineering, Computer Engineering, Turkey 2002 - 2004

Undergraduate, Marmara University, Faculty of Engineering, Computer Engineering, Turkey 1998 - 2002

Foreign Languages

English, C2 Mastery

Dissertations

Doctorate, Application mapping and optimization for CMP based architectures, Boğaziçi Üniversitesi, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği (Dr), 2011

Postgraduate, Hybrid evolutionary algorithms for solving the register allocation problem, Marmara University, Faculty of Engineering, Computer Engineering, 2004

Research Areas

algorithms, Processor Architectures, Evolutionary Computing

Academic Titles / Tasks

Assistant Professor, Marmara University, Faculty of Engineering, Computer Engineering, 2012 - Continues
Research Assistant, Marmara University, Faculty of Engineering, Computer Engineering, 2002 - 2012

Academic and Administrative Experience

Marmara University, Faculty of Engineering, Computer Engineering, 2014 - Continues

Marmara University, Faculty of Engineering, Computer Engineering, 2014 - Continues

Courses

Introduction to Computational Genomics, Undergraduate, 2020 - 2021

Compiler Design, Undergraduate, 2020 - 2021

Embedded Systems, Postgraduate, 2020 - 2021

Digital Logic Design, Undergraduate, 2019 - 2020

Computer Programming I, Undergraduate, 2019 - 2020

Advising Theses

Boz B., Solving graph coloring problem by using an evolutionary algorithm, Postgraduate, S.KORKMAZ(Student), 2020

Boz B., Solving bin packing problem with problem specific operators using an evolutionary algorithm, Postgraduate, T.Zeynep(Student), 2019

BOZ B., Solving dynamic graph coloring problem by using a heuristic algorithm, Postgraduate, G.SÜNGÜ(Student), 2018

BOZ B., Improving efficiency of the solutions for class imbalance problems using data mining techniques, Postgraduate, I.FAKHRUZI(Student), 2018

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **DCDA: CircRNA–Disease Association Prediction with Feed-Forward Neural Network and Deep Autoencoder**
Turgut H., TURANLI B., BOZ B.
Interdisciplinary Sciences – Computational Life Sciences, vol.16, no.1, pp.91-103, 2024 (SCI-Expanded)
- II. **Approximate execution and grouping of critical sections for performance-accuracy tradeoff**
ALTUNTAŞ Z., ARSLAN YILMAZ S., BOZ B.
Concurrency and Computation: Practice and Experience, vol.35, no.24, 2023 (SCI-Expanded)
- III. **Integrated Crossover Based Evolutionary Algorithm for Coloring Vertex-Weighted Graphs**
BOZ B., Sungu G.
IEEE ACCESS, vol.8, pp.126743-126759, 2020 (SCI-Expanded)
- IV. **Particle simulation on the Cell BE architecture**
Demiroz B., TOPCUOĞLU H. R., Kandemir M., Tosun O.
CLUSTER COMPUTING-THE JOURNAL OF NETWORKS SOFTWARE TOOLS AND APPLICATIONS, vol.14, no.4, pp.419-432, 2011 (SCI-Expanded)
- V. **Solving the register allocation problem for embedded systems using a hybrid evolutionary algorithm**
Topcuoglu H. R., Demiroz B., Kandemir M.
IEEE TRANSACTIONS ON EVOLUTIONARY COMPUTATION, vol.11, no.5, pp.620-634, 2007 (SCI-Expanded)
- VI. **Static task scheduling with a unified objective on time and resource domains**
BOZ B., TOPCUOĞLU H. R.
Computer Journal, vol.49, no.6, pp.731-743, 2006 (SCI-Expanded)

Articles Published in Other Journals

I. Pool-based Evolutionary Algorithm for the Bin Packing Problem

BOZ B., Yıldız T. Z.

International journal of advances in engineering and pure sciences (Online), vol.33, no.3, pp.406-414, 2021 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

I. Solving Dynamic Graph Coloring Problem Using Dynamic Pool Based Evolutionary Algorithm

Sungu G., BOZ B.

20th European Conference on the Applications of Evolutionary Computation (EvoApplications), Amsterdam, Netherlands, 19 - 21 April 2017, vol.10200, pp.189-204

II. An Evolutionary Algorithm for Weighted Graph Coloring Problem

BOZ B., SÜNGÜ G.

Proceedings of the Companion Publication of the 2015 on Genetic and Evolutionary Computation Conference - GECCO Companion 'xx15, Madrid, Spain, 11 - 15 July 2015, pp.1233-1236

III. Locality-Aware Dynamic Mapping for Multithreaded Applications

BOZ B., TOPCUOĞLU H. R., KANDEMİR M., Tosun O.

2012 20th Euromicro International Conference on Parallel, Distributed and Network-based Processing, Munich, Germany, 15 - 17 February 2012, pp.185-189

IV. A hybrid evolutionary algorithm for solving the register allocation problem

BOZ B., TOPCUOĞLU H. R., KANDEMİR M.

Evolutionary Computation in Combinatorial Optimization, Portugal, 5 - 07 April 2004, pp.62-71

V. Signal compression using growing cell structures: A transformational approach

BOZ B., TÜMER M. B.

Computer and Information Sciences - ISCIS 2003, Antalya, Turkey, 3 - 05 November 2003, vol.952

Scientific Refereeing

IEEE ACCESS, Journal Indexed in SCI-E, September 2020

Metrics

Publication: 12

Citation (WoS): 25

Citation (Scopus): 44

H-Index (WoS): 2

H-Index (Scopus): 2

Congress and Symposium Activities

İşlemci Tasarımı Çalıştayı, Working Group, İstanbul, Turkey, 2019