

## Asst. Prof. BETÜL BOZ

### Personal Information

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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, Boğaziçi Üniversitesi, Fen Bilimleri Enstitüsü, 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, Bilgisayar Mühendisliği Bölümü, 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

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

- I. **Integrated Crossover Based Evolutionary Algorithm for Coloring Vertex-Weighted Graphs**  
BOZ B., Sungu G.  
IEEE ACCESS, vol.8, pp.126743-126759, 2020 (Journal Indexed in SCI)
- II. **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 (Journal Indexed in SCI)
- III. **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 (Journal Indexed in SCI)
- IV. **Static Task Scheduling with a Unified Objective on Time and Resource Domains**  
BOZ B., TOPCUOĞLU H. R.  
Computer Journal, vol.49, pp.731-743, 2006 (Journal Indexed in SCI)

## 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

## **Edit Congress and Symposium Activities**

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

## **Citations**

Total Citations (WOS):25

h-index (WOS):2