

Personal Information

Email: sebnem.bora@ege.edu.tr

Post Address: Ege Üniversitesi Bilgisayar Müh. Bölümü Bornova İzmir 35100

Education Information

Doctorate, Ege Üniversitesi, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği, Turkey 1999 - 2006

Post Graduate, Stevens Institute Of Technology, Graduate School, Electrical Engineering And Computer Science, United States Of America 1995 - 1997

Post Graduate, Dokuz Eylül University, Turkey 1993 - 1995

Under Graduate, Dokuz Eylül Üniversitesi, Mühendislik-Mimarlık Fakültesi, Elektrik-Elektronik Mühendisliği, Turkey 1989 - 1993

Research Areas

Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Ege Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2018 - Continues

Assistant Professor, Ege Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2006 - Continues

Courses

MİKROİŞLEMCİLER, Under Graduate, 2017 - 2018

DIGITAL ELECTRONICS, Under Graduate, 2016 - 2017

MİCROCONTROLLER BASED SYSTEM DESIGN, Under Graduate, 2016 - 2017

Electrical Circuits, Under Graduate, 2016 - 2017

Complex Adaptive Systems, Doctorate, 2015 - 2016

Advising Theses

BORA Ş., Parameter Tuning, Doctorate, R.Tan(Student), 2018

BORA Ş., Data replication in large-scale data management systems, Doctorate, U.TOS(Student), 2017

BORA Ş., Etmen temelli benzetimler için test güdümlü bir yaklaşım geliştirilmesi, Doctorate, İ.ÇAKIRLAR(Student), 2015

BORA Ş., Sayısal görüntü iyileştirme algoritmalarının geliştirilmesi ve bu algoritmaların gerçek zamanlı gömülü sistemlerde gerçekleştirilmesi, Post Graduate, O.TEKDUR(Student), 2012

BORA Ş., Çok etmenli sistemlerde yükün dengelenmesi için hybrid yaklaşım, Post Graduate, İ.ÖZCAN(Student), 2010

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

- **Adaptive parameter tuning for agent-based modeling and simulation**

Korkmaz Tan R., BORA Ş.

SIMULATION-TRANSACTIONS OF THE SOCIETY FOR MODELING AND SIMULATION INTERNATIONAL, vol.95, pp.771-796, 2019 (Journal Indexed in SCI)

- **Agent-based modeling and simulation of blood vessels in the cardiovascular system**

BORA Ş., EVREN V., Emek S., ÇAKIRLAR I.

SIMULATION-TRANSACTIONS OF THE SOCIETY FOR MODELING AND SIMULATION INTERNATIONAL, vol.95, pp.297-312, 2019 (Journal Indexed in SCI)

- **Ensuring performance and provider profit through data replication in cloud systems**

Tos U., Mokadem R., Hameurlain A., Ayav T., BORA Ş.

CLUSTER COMPUTING-THE JOURNAL OF NETWORKS SOFTWARE TOOLS AND APPLICATIONS, vol.21, pp.1479-1492, 2018 (Journal Indexed in SCI)

- **EXPLOITING THE USE OF COOPERATION IN SELF-ORGANIZING RELIABLE MULTIAGENT SYSTEMS**
BORA Ş.

COMPUTING AND INFORMATICS, vol.37, pp.1363-1385, 2018 (Journal Indexed in SCI)

- **A centralized self-adaptive fault tolerance approach based on feedback control for multiagent systems**
BORA Ş., DİKENELLİ O.

TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.24, pp.4707-4723, 2016 (Journal Indexed in SCI)

- **Dynamic replication strategies in data grid systems: a survey**

Tos U., Mokadem R., Hameurlain A., Ayav T., BORA Ş.

JOURNAL OF SUPERCOMPUTING, vol.71, pp.4116-4140, 2015 (Journal Indexed in SCI)

- **Implementing Fault-Tolerant Services in Goal-Oriented Multi-Agent Systems**

Bora S.

ADVANCES IN ELECTRICAL AND COMPUTER ENGINEERING, vol.14, pp.113-122, 2014 (Journal Indexed in SCI)

- **Load sharing based on moving roles in multiagent systems**

BORA Ş., TİRYAKİ A. M. , DİKENELLİ O.

TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.20, pp.219-229, 2012 (Journal Indexed in SCI)

- **A fault tolerant system using collaborative agents**

Bora Ş.

ARTIFICIAL INTELLIGENCE AND NEURAL NETWORKS, vol.3949, pp.211-218, 2006 (Journal Indexed in SCI)

- **Implementing a multi-agent organization that changes its fault tolerance policy at run-time**

Bora Ş., Dikenelli O.

ENGINEERING SOCIETIES IN THE AGENTS WORLD VI, vol.3963, pp.153-167, 2006 (Journal Indexed in SCI)

Articles Published in Other Journals

- **Simulation of glucose regulating mechanism with an agent-based software engineering tool**

EMEK S., EVREN V., BORA Ş.

An International Journal of Optimization and Control: Theories Applications (IJOCTA), vol.9, pp.15, 2019 (Other Refereed National Journals)

- **Arteriyal Kan Basınç Sinyallerinin Elektriksel Analjisi**

EMEK S., EVREN V., BORA Ş.

Gümüşhane Üniversitesi Fen Bilimleri Enstitüsü Dergisi, 2018 (Other Refereed National Journals)

- **Generation of Fractal Vessel Structure Functions by Using the Lindenmayer System**

EMEK S., BORA Ş.

Journal of Applied Mathematics and Computation, vol.2, 2018 (Refereed Journals of Other Institutions)

- **Parameter Tuning of Complex Systems Modeled in Agent Based Modeling and Simulation**

KORKMAZ TAN R., BORA Ş.

World Academy of Science, Engineering and Technology International Journal of Computer and Information Engineering, vol.11, pp.1247-1256, 2017 (Refereed Journals of Other Institutions)

- **MODELLEME VE BENZETİM ORTAMINDA PARAMETRE OPTİMİZASYONU VE KULLANILAN TEKNİKLER**
KORKMAZ TAN R., BORA Ş.

Journal of Engineering Sciences and Design, vol.5, pp.685-697, 2017 (Other Refereed National Journals)

- **Parameter Tuning Algorithms in Modeling And Simulation**

KORKMAZ TAN R., BORA Ş.

INTERNATIONAL JOURNAL of ENGINEERING SCIENCE AND APPLICATION, vol.1, pp.58-66, 2017 (Other Refereed National Journals)

- **Adaptive BDI Architecture for Multi-Agent Systems**

BORA Ş., ÇAKIRLAR İ.

INTERNATIONAL JOURNAL of ENGINEERING SCIENCE AND APPLICATION, vol.1, pp.52-57, 2017 (Other Refereed National Journals)

- **Modeling and simulation of the resistance of bacteria to antibiotics**

BORA C. B. , Emek S., EVREN V., BORA Ş.

Periodicals of Engineering and Natural Sciences, vol.5, pp.396-408, 2017 (Refereed Journals of Other Institutions)

- **Turbulent Flow in Agent-based Blood Vessel Model**

BORA Ş., EVREN V., EMEK S.

International Journal of Engineering Science and Application, vol.1, pp.67-71, 2017 (Refereed Journals of Other Institutions)

- **Optimization of Travelling Salesman Problem Using Genetic Algorithm and Fuzzy C-Means Clustering**

EMEK S., BORA Ş., UĞUR A.

Global Journal on Technology, pp.143-150, 2015 (Refereed Journals of Other Institutions)

Book & Book Chapters

- **in: Computer Simulation**

BORA Ş., EMEK S.

Agent-Based Modeling and Simulation of Biological Systems, Dr. Dragan Cvetković, Editor, IntechOpen, 2018

- **in: Multi Agent Based Simulation XV**

ÇAKIRLAR İ., ÖNDER G., DİKENELLİ O., BORA Ş.

RatKit: Repeatable Automated Testing Toolkit for Agent-Based Modeling and Simulation, Grimaldo Francisco, Norling Emma , Editor, Springer, pp.17-27, 2015

- **in: Engineering Societies in the Agents World X- ESAW 2009. Lecture Notes in Computer Science**

BORA Ş., DİKENELLİ O.

Replication Based on Role Concept for Multi-Agent Systems, Aldewereld H., Dignum V., Picard G., Editor, Springer, 2009

- **in: Multi-Agent Systems and Applications V-CEEMAS 2007. Lecture Notes in Computer Science**

BORA Ş., DİKENELLİ O.

Experience with feedback control mechanisms in self-replicating multi-agent systems, Burkhard, HD Lindemann, G Verbrugge, R Varga, LZ, Editor, SPRINGER-VERLAG BERLIN, HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY, 2007

- **in: Artificial Intelligence and Neural Networks - TAINN 2005. Lecture Notes in Computer Science**

BORA Ş.

A fault tolerant system using collaborative agents, Savaci, FA, Editor, SPRINGER-VERLAG BERLIN, HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY, 2006

Refereed Congress / Symposium Publications in Proceedings

- **Parameter calibration with Modified Artificial Bee Colonies Algorithm Modifiye Yapay Ari Kolonileri Algoritmasi ile Parametre Ayarlama**

Tan R. K. , Bora S.

26th IEEE Signal Processing and Communications Applications Conference, SIU 2018, İzmir, Turkey, 2 - 05 Mayıs 2018, pp.1-4

- **Exploiting the Impact of the Migration Operator Used in the Adaptive Genetic Algorithm in Optimization Problems of Complex Systems**

KORKMAZ TAN R., BORA Ş.

International Conference on Application Mathematics in Engineering, 27 - 29 Haziran 2018

- **A Computational Model: Agent-based Modeling and Simulation**

EMEK S., EVREN V., BORA Ş.

2017 3rd International Conference on Computer and Information Technology (ICCI 2017), 12 - 14 Nisan 2017

- **Modeling and Simulation of the Resistance of Bacteria to Antibiotics**

Bora C. B. , EMEK S., EVREN V., BORA Ş.

International Conference on Engineering Technology and Innovation, 22 - 26 Mart 2017

- **Parameter Tuning in Modeling and Simulations by Using Swarm Intelligence Optimization Algorithms**

Tan R. K. , BORA Ş.

9th International Conference on Computational Intelligence and Communication Networks (CICN), Girne, Cyprus (Kktc), 16 - 17 Eylül 2017, pp.148-152

- **An Agent-based Approach in Homeostatic Control Systems: Thermoregulation**

Emek S., EVREN V., BORA Ş.

9th International Conference on Computational Intelligence and Communication Networks (CICN), Girne, Cyprus (Kktc), 16 - 17 Eylül 2017, pp.113-116

- **A Performance and Profit Oriented Data Replication Strategy for Cloud Systems**

TOS U., MOKADEM R., HAMEURLAİN A., AYAV T., BORA Ş.

The IEEE International Conference on Cloud and Big Data Computing, Toulouse, France, 18 - 21 Temmuz 2016

- **Agent Based Modeling and Simulation of Human Cardiovascular Physiology: Construction**

EVREN V., BORA Ş., ÇAKIRLAR İ., EMEK S., KORKMAZ TAN R.

Turkish Society of Physiological Sciences 41st National Physiology Congress, Turkey, 01 Ağustos 2015, vol.215, pp.71-72

- **RatKit: Repeatable Automated Testing Toolkit for Agent-Based Modeling and Simulation**

ÇAKIRLAR İ., GÜRCAN O., DİKENELLİ O., BORA Ş.

15th International Workshop on Multi-Agent-Based Simulation (MABS), Paris, France, 5 - 06 Mayıs 2014, vol.9002, pp.17-27

- **Developing an Agent Based Modeling and Simulation of Cardiovascular Physiology: The Initial Framework**

EVREN V., BORA Ş., EMEK S., KORKMAZ TAN R., ÇAKIRLAR İ.

The 3rd International Conference on Complex Dynamical Systems Their Applications, Turkey, 24 - 26 Kasım 2014

- **A hybrid load balancing model for multi-agent systems**

Özcan İ., BORA Ş.

2011 International Symposium on Innovations in Intelligent Systems and Applications, INISTA 2011, Istanbul-Kadikoy, Turkey, 15 - 18 Haziran 2011, pp.182-187

- **Çok Etmenli Sistemlerde Yük Dengeleme ve Yük Paylaşımı**

ÖZCAN İ., BORA Ş.

Akademik Bilişim'10, Turkey, 10 - 12 Şubat 2010, pp.647-656

- **Exploiting Replication based Approaches in a Fault-tolerant Multi-agent System**

BORA Ş., DİKENELLİ O.

International Symposium on Innovations in Intelligent Systems and Applications, 21 - 24 Haziran 2010

- **A hybrid approach for load balancing in multi-agent systems**

ÖZCAN İ., BORA Ş.

The 4th International Student Conference on Advanced Science and Technology, İzmir, Turkey, 25 - 26 Mayıs 2010

- **Geri besleme kontrollü yedekleme mekanizmasıyla aksaklığa dayanıklılığın iyileştirilmesi**

BORA Ş., DİKENELLİ O.

TOK'09 OTOMATİK KONTROL ULUSAL TOPLANTISI, Turkey, 13 Ekim 2009 - 15 Ekim 2010

- **Yeni Nesil Yazılım Sistemlerinde Yedekleme Tabanlı Aksaklığa Dayanıklılık**

BORA Ş., DİKENELLİ O.

IV.ULUSAL YAZILIM MÜHENDİSLİĞİ SEMPOZYUMU (UYMS'09), Turkey, 8 - 10 Ekim 2009

- **Replication Based on Role Concept for Multi-Agent Systems**

BORA Ş., DİKENELLİ O.

10th International Workshop on Engineering Societies in the Agents World, Utrecht, Netherlands, 18 - 20 Kasım 2009, vol.5881, pp.165-180

- **A Load Sharing Approach Based on Refactoring of Roles in Multi-Agent Systems**

BORA Ş., TİRYAKİ A. M. , DİKENELLİ O.

Engineering Societies in the Agents World, 2008, 24 - 26 Eylül 2008

- **Experience with feedback control mechanisms in self-replicating multi-agent systems**

BORA Ş., DİKENELLİ O.

5th International Central and Eastern European Conference on Multi-Agent Systems, Leipzig, Germany, 25 - 27 Eylül 2007, vol.4696, pp.133-142

- **Applying feedback control in adaptive replication mechanisms in fault tolerant multi-agent organizations**

BORA Ş., DİKENELLİ O.

2006 International Workshop on Software Engineering for Large-Scale Multi-Agent Systems, SELMAS '06, Co-located with the 28th International Conference on Software Engineering, ICSE 2006, Shanghai, China, 20 - 28 Mayıs 2006, pp.5-11

- **EXPLOITING THE USE OF AGENTS IN FAULT TOLERANT SYSTEMS**

BORA Ş., YILMAZ S.

Thirteenth Turkish Symposium on Artificial Intelligence and Neural Networks, 10 - 11 Haziran 2004

- **Architecture for a fractionally spaced Godard equalizer**

Bora S., BORA A. B. , NUNNA R.

39th Midwest Symposium on Circuits and Systems, Iowa, United States Of America, 18 - 21 Ağustos 1996, pp.876-879

Supported Projects

BORA Ş., EMEK S., Project Supported by Higher Education Institutions, ÖZ-ÖRGÜTLEMELİ ALGORİTMALARIN GÜVENİLİR ÇOKLU ETMEN SİSTEMLERİNE UYGULANMASI, 2016 - 2019

BORA Ş., Project Supported by Higher Education Institutions, ÇOK-ETMENLİ ORGANİZASYONLARDA ROLLERİN YEDEKLENMESİNE DAYALI AKSAKLIĞA DAYANIKLILIK, 2009 - 2013

BORA Ş., Project Supported by Higher Education Institutions, ÇOK ETMENLİ ORGANİZASYONLARDA ROLLERİN YENİDEN DÜZENLENMESİYLE YÜK PAYLAŞIMININ SAĞLANMASI, 2007 - 2012

Citations

Total Citations (WOS):41

h-index (WOS):3