Asst. Prof. ÖNER BARUT

Personal Information

Office Phone: +90 312 582 3277
Email: onerbarut@gazi.edu.tr
Web: https://avesis.gazi.edu.tr/12832

International Researcher IDs
ScholarID: Xg7cMMQAAAAJ
ORCID: 0000-0003-3442-1586
Publons / Web Of Science ResearcherID: K-3319-2018
ScopusID: 55376204500
Yoksis Researcher ID: 137163

Biography

Dr. Öner Barut completed his undergraduate education in 2010 at Hacettepe University, Department of Computer Engineering. He completed his doctoral studies also at Hacettepe University, Department of Computer Engineering in 2017. He has worked on computer graphics, especially on crowd simulation in his Ph.D. thesis. He tried to accelerate navigation process of virtual human crowds benefitting from GPUs of the system hardware.

Dr. Barut continues his academic career as an assistant professor at Gazi University, Department of Computer Engineering. He is currently continuing his research on Computer Graphics, Real-time Crowd Simulation, Path Planning, GPGPU, Multi-Agent Simulations.

Education Information

Doctorate, Hacettepe University, Fen Bilimleri Enstitüsü, Bilgisayar Bilimleri Mühendisliği (Dr), Turkey 2010 - 2017
Undergraduate, Hacettepe University, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, Turkey 2006 - 2010

Foreign Languages

English, C2 Mastery

Dissertations

Doctorate, Investigation of Agent Number and Movement Variations in Convincing Crowd Simulation, Hacettepe University, Fen Bilimleri Enstitüsü, 2017

Research Areas

Computer Graphics

Academic Titles / Tasks

Assistant Professor, Gazi University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2020 - Continues
Assistant Professor, Kirşehir Ahi Evran University, Faculty Of Engıneerıng-Archıtecture, 2018 - 2020
Research Assistant, Hacettepe University, Mühendislik Fakültesi, Bilgisayar Bilimleri Mühendisliği Bölümü, 2011 - 2018

Academic and Administrative Experience

Assistant Director of the Institute, Gazi University, Bilişim Enstitüsü, 2020 - Continues

Courses

Computer Graphics, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021
3D Game Programming, Doctorate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021
Algorithm Design, Doctorate, 2023 - 2024, 2022 - 2023
Software Design Patterns, Doctorate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021
Artificial Intelligence for Computer Games, Doctorate, 2023 - 2024, 2022 - 2023, 2021 - 2022
Data Structures, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021
Algorithm Analysis and Design, Undergraduate, 2021 - 2022

Advising Theses

Barut Ö., Short-term wind energy forecasting with machine learning methods, Postgraduate, D.YENİLMEZ(Student), 2023

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Combining GPU-generated linear trajectory segments to create collision-free paths for real-time ambient crowds**
Barut Ö., Haciomeroglu M., SEZER E.
GRAPHICAL MODELS, vol.99, pp.31-45, 2018 (SCI-Expanded)
II. **Perceptual evaluation of maneuvering motion illusion for virtual pedestrians**
Barut Ö., Haciomeroglu M., SEZER E.
VISUAL COMPUTER, vol.34, pp.1119-1128, 2018 (SCI-Expanded)
III. **Real-time collision-free linear trajectory generation on GPU for crowd simulations**
Barut Ö., Haciomeroglu M.
VISUAL COMPUTER, vol.31, pp.843-852, 2015 (SCI-Expanded)
IV. **A GPU-assisted hybrid model for real-time crowd simulations**
Haciomeroglu M., Barut Ö., Ozcan C. Y., Sever H.
COMPUTERS & GRAPHICS-UK, vol.37, no.7, pp.862-872, 2013 (SCI-Expanded)
V. **Hardware-accelerated dynamic clustering of virtualcrowd members**
Haciomeroglu M., Ozcan C. Y., Barut Ö., Seckin L., Sever H.
COMPUTER ANIMATION AND VIRTUAL WORLDS, vol.24, no.2, 2013 (SCI-Expanded)

Articles Published in Other Journals

I. **GPU-based collision-free linear trajectory generation for small groups in crowd simulations**

Barut Ö.
JOURNAL OF POLYTECHNIC-POLITEKNIK DERGISI, vol.27, no.1, pp.407-417, 2024 (ESCI)

Refereed Congress / Symposium Publications in Proceedings

I. **Short-Term Wind Energy Forecasting with Machine Learning Techniques**
Yenilmez D., Barut Ö.
9th International Congress on Engineering and Technology Management, 29 April - 01 May 2023, pp.299-309

II. **Illusive Crowd**
BARUT Ö., HACIÖMEROĞLU M., ÖZCAN C. Y.
CASA 2014, 26 - 28 May 2014

III. **A Path Based Composite Crowd Simulation Model**
ÖZCAN C. Y., HACIÖMEROĞLU M., BARUT Ö., SEVER H.
CASA 2013, 16 - 18 May 2013

Supported Projects

AKAY G., TÜFEKCİ A., AKŞAHİN M. F., GÜNGÖR K., YILMAZ M., BARUT Ö., Project Supported by Higher Education Institutions, Diş Hekimliği Radyoloji Eğitiminde Simülasyon: Sanal Gerçeklik Tabanlı İntraoral Radyografi için Sanal Klinik Uygulaması, 2024 - Continues

Activities in Scientific Journals

Bilişim Teknolojileri Dergisi, Editor, 2020 - Continues

Scientific Refereeing

TUBITAK Project, 1501 - Industry R & D Projects Support Program, ENDURANS, Turkey, January 2024
TUBITAK Project, 1501 - Industry R & D Projects Support Program, ALKAMANAS, Turkey, August 2023

Metrics

Publication: 9
Citation (WoS): 20
Citation (Scopus): 19
H-Index (WoS): 2
H-Index (Scopus): 2