

## Asst. Prof. ÖNER BARUT

### Personal Information

**Office Phone:** [+90 312 582 3277](tel:+903125823277)

**Email:** [onerbarut@gazi.edu.tr](mailto: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 Engineering-Architecture, 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., Hacıomeroglu 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., Hacıomeroglu 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., Hacıomeroglu M.  
VISUAL COMPUTER, vol.31, pp.843-852, 2015 (SCI-Expanded)
- IV. **A GPU-assisted hybrid model for real-time crowd simulations**  
Hacıomeroglu 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**  
Hacıomeroglu 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-POLITEKNİK 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., TÜFEKÇİ A., AKŞAHİN M. F., GÜNGÖR K., YILMAZ M., BARUT Ö., Project Supported by Higher Education Institutions, Dış 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