

# Binnur Görer

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**Contact Information** Boğaziçi University <http://robot.cmpe.boun.edu.tr/~binnur/>  
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**Research Interest** human-robot interaction, socially assistive robots, computational emotion models, emotional robots, human behavior analysis, robot soccer, imitation learning

**Education** Ph.D. candidate in Computer Engineering, Boğaziçi University, Istanbul, Turkey  
2013 - GPA: 3.94/4.00

- Thesis Topic: IM4U:A Computational Affective Model for Companion Robots to Increase Interaction Quality and Task Engagement
- Advisor: Professor H. Levent Akin

M.Sc. Computer Engineering, Boğaziçi University, Istanbul, Turkey  
2011 - 2013 GPA: 3.75/4.00

- Thesis Topic: Developing a Fitness Coach Robot for Elderly People in Assisted Living Environments
- Advisor: Professor H. Levent Akin

B.Sc. Computer Engineering, Boğaziçi University, Istanbul, Turkey  
2006 - 2011 GPA: 3.40/4.00

- Thesis Topic: Implementation of Learning from Demonstration Method to Imitate Human Body Actions by Humanoid Robot Nao Using Depth Camera
- Advisor: Professor H. Levent Akin

**Research Experience** Member of Cerberus Robocup Standard Platform League (SPL) Soccer Team

- Improve vision module for white goal detection (China, 2015, lead to quarter finals)
- Improve vision module, field line detection for localization, teammate and opponent detection for planning (Brasil, 2014)
- Develop motion and planning capabilities of the goalie (Mexico, 2012)

Researcher in “Multi Robot Tour Guide System” project (funded by Boğaziçi University, 2014)

- Develop conversational skills and explanatory body gestures on Nao robot

Researcher in “Analyzing human behaviors using EEG signals” project (funded by Boğaziçi University, 2012)

- Responsible for setup the experiment environment which includes human and robot to obtain results for human-robot interaction as well as collecting and processing EEG signals

### **Publications**

- Binnur Görer, Albert Ali Salah, and H.Levent Akin. “An Autonomous Robotic Exercise Tutor for Elderly People”. In: *Autonomous Robots* 41.3 (2017), pp. 657–678
- D. Davison et al. “Things that Make Robots Go HMMM: Heterogeneous Multilevel Multimodal Mixing to Realise Fluent, Multiparty, Human-Robot Interaction”. In: *Proceedings of the 12th Summer Workshop on Multimodal Interfaces (eNTERFACE '16)*
- Binnur Görer, Albert Ali Salah, and H.Levent Akin. “A Robotic Fitness Coach for the Elderly”. In: *Ambient Intelligence*. Vol. 8309. Lecture Notes in Computer Science. Springer International Publishing, 2013, pp. 124–139
- B. Gorer, AA Salah, and H.L. Akin. “Gesture imitation for a robotic fitness coach”. In: *21st Signal Processing and Communications Applications Conference (SIU)*. Apr. 2013, pp. 1–4
- B. Gorer. “Emotion classification of text based conversations through dialog act modeling”. In: *22nd Signal Processing and Communications Applications Conference (SIU)*. Apr. 2014, pp. 2221–2224
- Y. Yıldırım et al. “Multi Robot Tour Guide System”. In: *Turkey Conference of Autonomous Robots (TORK) (in Turkish)*. 2014

### **Honors, Involvements**

- Women Techmakers Scholarship for 2017 Grace Hopper Celebration (GHC'17), Orlando, USA
- eNTERFACE'16, University of Twente, Netherlands, July 2016
- Interdisciplinary Robotics Research Methods Summer School, Cefalu, Italy, July 2016 (Grant received from summer school organization)
- Google Anita Borg EMEA Scholar, 2015
- Scholar for the CITEC MORE program in the project of “Motion Tracking based teleoperation of a virtual human in MORSE”
- A member of Cerberus SPL Team (Standard Platform League Robot Soccer Team of Boğaziçi University), competed in quarter final, Robocup 2015, Hefei, China
- Volunteer in the WAFR'14 Conference (The Eleventh International Workshop on the Algorithmic Foundations of Robotics, 3-5 August, 2014, Istanbul, Turkey)
- A member of Cerberus SPL Team, Robocup 2014, João Pessoa, Brasil
- OPW (Outreach Program for Women) intern (December 2013 - March 2014) Accepted for Gazebo project by OSRF (Open Source Robotic Foundation)
- Recipient of TUBITAK 2211 Scholarship
- Logistic Chair of the Computer Science Student Workshop 2013 (CSW'13), Istanbul, Turkey
- A member of Cerberus SPL Team, Robocup 2012, Mexico City, Mexico
- Machine Learning Summer School 2012, Kyoto, Japan (Grant received from summer school organization and TUBITAK 2224 scholarship)
- Participating in Care-o-bot Service Robot Experimentation Days, (funded by) Fraunhofer Automotion and Production Institute, Stuttgart, Germany, December 2011
- Scholar, Japan Foundation Japanese Language Institute, Osaka, Japan (07.2011 - 09.2011)
- Junior League Volunteer, Robocup 2011, Istanbul, Turkey
- The third best senior completion project (2011)
- Completed undergraduate study holding a honor degree, ranked 8th out of 50 students (2011)
- Placed in the top 600 over 1500000 students in the university entrance exam (2006)

- Completed high school on the 1st rank (2006)

### ***Skills***

- Natural Languages: Turkish (Native), English (Fluent), Japanese (Upper Intermediate)
- Programming Languages: C, C++, Java, Python, Assembly, Verilog
- Web: ASP, SQL, JavaScript
- Operating Systems: Linux, Windows
- Other: ROS (Robot Operating System), Matlab, Gazebo, Aldebaran Graphical Development Tool “Choregraphe”, Webots, V-REP, Qt, CodeWarrior, Xilinx

### ***Talks***

- Turkey Innovation Week, Panelist in the session of “Extraordinary Women”, Istanbul, Turkey, 2015
- Ada Lovelace Day, “Anita Borg Scholarship and Further Opportunities for Women in CS”, Istanbul, Turkey, 2015
- Google Anita Borg Event Turkey, “An exercise coach robot for the elderly”, Istanbul, Turkey, 2014
- Symposium on Design and Technologies for Elderly, “Design and Implementation of Exercise Coach Robot”, Ankara, Turkey, 2013

### ***Teaching Experience***

Boğaziçi University, Istanbul, TURKEY

Teaching Assistant (TA) in Autonomous Robots Course (2015, 2016, 2017 Spring Semesters)

- prepare and grade assignments for basic robotics problems such as PID control and navigation in the V-REP simulator using different robot models

TA in Computer Organization Course (2015, 2016, 2017 Fall Semesters)

- prepare and manage the laboratory sessions in which assembly language is practiced

TA in Digital Systems Course (2013, 2014, 2015, 2016, 2017 Spring Semesters)

- manage the laboratory sessions and grade the works of the students, organize problem sessions

TA in Principles of Embedded Systems Design Course (2012, 2013, 2014 Fall Semesters)

- manage laboratory sessions where the weekly practical work is demonstrated on the embedded boards, manage the online homework submission system for grading

Volunteer TA in Principles of Programming Languages Course (2012 Spring Semester)

- help to the management and grading of homeworks and projects

### ***Internships***

Pozitron, Istanbul, TURKEY

June 2009 - August 2009

- understanding the basics of developing mobile applications, analyzing log files and reporting progress of applications, developing Java projects for mobile applications

Koç.Net, Istanbul, TURKEY

June 2010 - July 2010

- study the concepts of network security, use CheckPoint on firewalls and routers

IbTech, Istanbul, TURKEY

July 2010 - August 2010

- develop VBS scripts, understanding the units and infrastructure of a banking system, working on virtualization technology and VmWare software

### ***References***

Prof. H. Levent Akın ( [akin@boun.edu.tr](mailto:akin@boun.edu.tr) )