

## Curriculum Vitae Şanser Güz

[Google Scholar](#) | [ResearchGate](#) | [LinkedIn](#)

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### EDUCATION

**Boğaziçi University**, Department of Industrial Engineering **Istanbul, Turkey**  
M.Sc., Industrial Engineering GPA: 3.93/4.00 Expected July 2021

*Thesis: Sustaining contribution-based healthcare systems against demographic challenges: dynamic simulation analysis and policy design*

**Boğaziçi University**, Department of Industrial Engineering **Istanbul, Turkey**  
B.Sc., Industrial Engineering GPA: 3.10/4.00 2019

*Thesis: Building an interactive treatment simulator for chemotherapy-induced neutropenia (CIN) using granulocyte colony-stimulating factor (G-CSF)*

**University of Tsukuba**, 筑波大学 **Ibaraki, Japan**  
Student Exchange Program 2017-2018

**Boğaziçi University**, Department of Western Languages & Literatures **Istanbul, Turkey**  
Minor in Film Studies GPA: 3.92/4.00 2017

### ACADEMIC EXPERIENCE

**Boğaziçi University**, [Socio-economic System Dynamics Laboratory](#) 2020-present  
Graduate Researcher  
Supervisors: Prof. Yaman Barlas, Assoc. Prof. Gönenç Yücel

- Dynamic modeling of chemotherapy-coupled pharmacotherapy for neutropenic patients
- Research on policy analysis for financial sustainability of contribution-based public health systems against demographic challenges such as aging and increased chronic disease prevalence.

**Koç University**, [KaranfilLab](#) 2020-present  
Teaching Assistant & Research Fellow  
Supervisors: Asst. Prof. Özge Karanfil, Asst. Prof. Mahdi Hashemian

- Teaching Assistant for TECH 517 - Strategic Systems Modeling, Fall 2021
- Human subject dynamic decision making (DDM) experiments for evaluation of stakeholder effect on formation of clinical practice guidelines (CPGs) in the context of prostate cancer screening.

## RESEARCH INTERESTS

System dynamics	Health systems modeling	Health economics
Agent-based modeling	Biomedical modeling	Insurance dynamics
Systems theory	Evidence-based public health	LGBTQIA+ health
Complex adaptive systems	Health policy	Social determinants of health
Simulation for policy analysis	Dynamic decision-making	Health disparities

## AWARDS AND SCHOLARSHIPS

- **Lupina Foundation**, Lupina Young Researchers Award Honorable Mention, International System Dynamics Conference 2020
- **The Scientific and Technological Research Council of Turkey (TUBITAK)** 2210-A National MSc/MA Scholarship, 2020
- **Japan Student Services Organization (JASSO)** Student Scholarship at the University of Tsukuba, 2017-2018

## PEER REVIEWED JOURNAL ARTICLES

O. İrsoy, Ş. Güz, N.B. Akan, and G. Yücel, (2021), [Dynamic trade-offs in granulocyte colony-stimulating factor \(G-CSF\) administration during chemotherapy](#). *System Dynamics Review*, 36: 397-446.

- Study presented in *System Dynamics Society Seminar Series: Biomedical System Dynamics Modeling*

## CONFERENCE PRESENTATIONS

Ö. Karanfil, Ş. Güz, O. İrsoy, M. Hashemian, (2021), [What is the Stakeholder Effect on Clinical Guideline Formation Process: An Experimental Study](#), *Proceeding of the 39th International Conference of the System Dynamics Society*, Chicago, IL.

- Presented in Parallel Session: Clinical Care Improvement

Ö. Karanfil, Ş. Güz, O. İrsoy, M. Hashemian, (2021), [Stakeholder Effect in The Formation of Policy/Practice Guidelines: An Experimental Study For Medical Screening](#), *Abstracts for the 40th Congress on Operations Research / Industrial Engineering*, Istanbul, Turkey.

- Presented in Parallel session: System Dynamics Applications in Healthcare

Ş. Güz, O. İrsoy, N.B. Akan, and G. Yücel, (2020), [Managing Chemotherapy-Induced Neutropenia using Exogenous Granulocyte Colony-Stimulating Factor](#), *Proceedings of the 38th International Conference of the System Dynamics Society*, Bergen, Norway.

- Presented in Plenary session: Scientific Advances
- Awarded with Lupina Young Researchers Award – *Honorable Mention*

## PROFESSIONAL AFFILIATIONS

System Dynamics Society	2020-present
SDS Health Policy Special Interest Group	2021-present

**SKILLS** (refer to [GitHub](#) for produced materials)

Software: STELLA, STELLA Architect, VensimPLE, VensimDSS, RStudio, NetLogo, ARENA, MS Office, QGIS, C, C++, R, CMPL, GAMS, SIMAN

Languages: Turkish (Native), English (Proficient), Japanese (Proficient)

**RELATED COURSEWORK** (w/ instructor & course code, at Boğaziçi University)

**Complex Systems Science and Simulation**

Dynamics of Socio-Economic Systems	IE 550	Yaman Barlas
Agent Based Modeling & Simulation	IE 588	Gönenç Yücel
Systems and Sustainability	ESC 578	Ali Kerem Sayse
Systems Theory	IE 533	Gönenç Yücel
Systems Science and Engineering	IE 350	Gönenç Yücel
Systems Simulation (DES)	IE 306	Ali Rıza Kaylan

**Operations Research and Management**

Optimization Techniques I	IE 501	Kuban Altınel
Operations Research I	IE 202	İlhan Or
Operations Research II	IE 305	Hakan Yaşarcan
Facilities Design & Planning	IE 312	Gönenç Yücel
Supply Chain Management	IE 313	Taner Bilgiç
Graph Algorithms & Applications	IE 456	Tınaz Ekim
Stochastic Models in OR	IE 450	Refik Güllü
Strategic Management for Engineers	ENG 582	Lutfi Ensari

**Data Science, Statistics and Stochastic Modeling**

Statistical Learning for Data Mining	IE 582	Mustafa Baydoğan
Statistical Inference	IE 508	Wolfgang Hörmann
Stochastic Processes and Applications	IE 505	Aybek Korugan
Statistical Forecasting & Time Series	IE 360	Mustafa Baydoğan
Design & Analysis of Experiments	IE 506	Ali Rıza Kaylan
Queuing Systems Analysis & Control	IE 584	Aybek Korugan
Quality Engineering	IE 423	Mustafa Baydoğan

**SELECTED PROJECTS** (outputs and reports are available at [GitHub](#))

- What's land got to do with it? Exploring the potential of land- based carbon mitigation strategies in Turkey, *System Dynamics project, 2021 (ESC 587)*
- Algorithmic Efficiency of Random Graph Generation Algorithms for Given Degree Sequences, *Graph Theory project, 2020 (IE 456)*
- Dynamic Modelling of Harmful Algal Blooms and an Analysis on Potential Mitigation Strategies, *System Dynamics project, 2020 (IE 550)*
- Prediction of Match Scores in English Premiere League using Data Mining Algorithms, *Data Mining Project, 2019 (IE 582)*
- Analysis of False Information Diffusion under Different Network Topologies and Population Characteristics, *Agent Based Modelling project, 2019 (IE 588)*

## INTERNSHIPS

### **Arçelik-LG**

*Production Intern*

Istanbul  
2019

- Assembly line management operations
- Ergonomics design improvement tasks

### **CoFesta**

*Youth Ambassador*

Tokyo  
2017-2018

- Organization and promotion work for large scale events
- Japanese-English translation

### **Koç Zer Merkezi Hizmetler**

*Digital Marketing Intern*

Istanbul  
2017

- Search Engine Optimization (SEO)
- Search Engine Marketing (SEM)
- Google AdWords, Google Analytics

## REFERENCES

### **Dr. Gönenç Yücel**

Associate Professor & Department Vice-Chair  
Department of Industrial Engineering, Faculty of Engineering  
Boğaziçi University, Istanbul  
[gonenc.yucel@boun.edu.tr](mailto:gonenc.yucel@boun.edu.tr)

### **Dr. Özge Karanfil**

Assistant Professor & Coordinator of MSc. Program in Global Health  
Department of Operations Management and Information Systems, College of Administrative  
Sciences and Economics  
Koç University, Istanbul  
[okaranfil@ku.edu.tr](mailto:okaranfil@ku.edu.tr)

*Note: Additional references are available upon request.*