

Curriculum Vitae Şanser Güz

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

Boğaziçi University Department of Industrial Engineering
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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

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|--------------------------------|------------------------------|-------------------------------|
| 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

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| 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

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|------------------------------------|---------|-----------------|
| 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

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|------------------------------------|---------|----------------|
| 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

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|---------------------------------------|--------|------------------|
| 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

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

Note: Additional references are available upon request.