

Education

- 2019-cont. **Stanford University, Ph.D. Candidate, Electrical Engineering**
Advisor: Amir H. Safavi-Naeini
Focus Areas: Integrated Optics, Quantum Nonlinear Optics, Nanophotonics
Expected Graduation Date: 06/2025
- 2019-2022 **Stanford University, M.Sc., Electrical Engineering**
CGPA: 3.96/4.00
- 2015-2019 **Bilkent University, B.Sc., Electrical and Electronics Engineering**
CGPA: 3.99/4.00, Ranked 1st in Department and Faculty of Engineering
- 2018 **École Polytechnique Fédérale de Lausanne (EPFL)**
Exchange Student, Swiss European Mobility Program (SEMP)

Research Experience

- 2020-Cont. **Laboratory for Integrated Nano-Quantum Systems (LINQS), Stanford University**
Graduate Research Assistant
- Electro-optic modulation of near infrared (780 nm) and visible light (456 nm) on thin film lithium niobate.
 - High-efficiency fiber-to-chip coupling of visible light.
- 2018 **Microelectronic Systems Laboratory, EPFL**
Undergraduate Researcher & Intern
- Modeling and characterization of the metal oxide-based Resistive Random Access Memory (ReRAM) under the supervision of Prof. Yusuf Leblebici.
- 2017-2019 **National Nanotechnology Research Center (UNAM), Bilkent University**
Undergraduate Researcher & Intern
- Impedimetric droplet detection and size measurement for microfluidic systems under the supervision of Dr. Çağlar Elbüken.

Work Experience

- 2018 **ASELSAN A.Ş., Internship** - Development of an Ethernet driver in C without an OS on an ARM processor and FPGA.
- 2017 **Selex ES, Internship** - Design of a Multichannel Pulse Width Modulation Driver on an FPGA using VHDL.

Honors & Awards

- 2019-2020 **Stanford University Electrical Engineering Department Fellowship**
Full tuition waiver and stipend during first year of graduate studies.
- 2019 **Bilkent University Electrical Engineering Academic Excellence Award**
Departmental award for students with highest CGPA upon graduation.
- 2015-2019 **Bilkent University Comprehensive Scholarship**
Full tuition waiver and stipend during Bachelor studies.
- 2018 **Swiss European Mobility Programme (SEMP) Scholarship**
Scholarship for Exchange Students in Switzerland.
- 2018 **Humanities Honors Seminar, Bilkent University**
Honors course for outstanding students in Cultures, Civilizations and Ideas I & II courses.
- 2015 **National University Placement Exam (LYS)**
Ranked 317th among 2 million candidates in the University Placement Exam in Turkey.

Publications

- 2022 **O. T. Celik, C. J. Sarabalis, F. M. Mayor, H. S. Stokowski, J. F. Herrmann, T. P. McKenna, N. R. A. Lee, W. Jiang, K. K. S. Multani, and A. H. Safavi-Naeini**, "High-bandwidth CMOS-voltage-level electro-optic modulation of 780 nm light

in thin-film lithium niobate,” *Opt. Express* 2022, 30, 23177-23186. DOI: 10.1039/C9LC00641A.

2019 A. Saateh, A. Kalantarifard, **O. T. Celik**, M. Asghari, M. Serhatlioglu, C. Elbuken, “Real-time Impedimetric Droplet Measurement (iDM)” *Lab Chip* 2019, 19, 3815-3824. DOI: 10.1039/C9LC00641A.

2019 C. Giovinazzo, J. Sandrini, E. Shahrabi, **O. T. Celik**, Y. Leblebici, C. Ricciardi, “Analog Control of Retainable Resistance Multistates in HfO₂ Resistive-Switching Random Access Memories (ReRAMs)” *ACS Applied Electronic Materials* 2019, 1 (6), 900-909. DOI: 10.1021/acsaelm.9b00094.

Invited Talks

2020 **Bilkent University IEEE Student Branch**
How to - Stanford University

Languages

Turkish: Mother Tongue

English: Advanced TOEFL: 118/120

French: Intermediate B1, European Language Portfolio

German: Elementary

Professional Skills

Programming

Python Java C/C++ Verilog/VHDL Assembly

Software and Scripting

MATLAB - Simulink, CVX

COMSOL - EWFD, AC/DC

Lumerical - FDTD, MODE, CHARGE

SolidWorks Altium Cadence HSPICE LabVIEW Pytorch/Keras

Nanofabrication and Characterization

E-beam Lithography Photolithography E-beam Evaporation

Chemical Vapor Deposition Dry/Wet Etching Liftoff

Scanning Electron Microscopy Ellipsometry Profilometry

Other

Adobe Illustrator Photoshop Premiere

LaTeX

Social Activities

2015-2017 **Bilkent IEEE Student Branch Active Member**

2017 ÜD'17 Volunteer – Introducing engineering and campus life to high school students from all around Turkey.

2017 EEE-100 Tutor at Robotic Automation Society – Basic electrical and electronics engineering course for freshmen.

2014 **Volunteer Reader for the Blind** - Recorded an audiobook for visually impaired people at the National Library.

2004-cont. **Piano Player**

2017 ABRSM Grade 5 Theory Exam: Distinction (90/100)

2016 ABRSM Grade 5 Practical Exam: Distinction (137/150)

2014-cont. Youtube, SoundCloud