ONUR BURAK ÖZDEMIR

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EDUCATION

Munich Technical University, Munich, Germany
MSc in Applied and Engineering Physics (2022-Present)

Istanbul Technical University, Istanbul, Turkey
BSc in Engineering Physics (2017-2022)
GPA: 3.54/4.00

Computer Skills With Proficiency: Python(and PyTorch), Matlab, Fortran, Latex, C++, Solidworks, Blender, MS Office Programs

CAREER SUMMARY

Student Assistant at Helmholtz Munich | March 2023 - October 2023
- Institute of Computational Biology

Software Engineer at BAYKAR | June 2022 - Aug. 2022
- Created 3D geographical maps from UAV images using Neural Radiance Fields (NeRF)

TUBITAK STAR Internship | Dec. 2021-July 2022
- Selected amongst many applicants to work on space-qualified solar cells.
- Developed software for dark I-V measurements of solar cells to monitor their health.

TUBITAK MAM Internhsip | Summer 2021
- Manufactured OLEDs and worked with photovoltaic cells
- Developed OLED I-V analysis software

VOLUNTEER WORK

Tutoring and laboratory work for high school students |Summer 2021
- Funded by the Ministry of Youth and Sports

Pars Rocketry Team Propulsion Group | 2017
- Manufactured hybrid engines for model rockets

INTERESTS

- **TUM Rowing (Regattaanlage)**
- Playing piano
- Practicing Aikido

RESEARCH EXPERIENCE

The following research was conducted in the GaliLab research group.

Ozone Filter Design Using Reinforcement Learning (Final Thesis) 2021-2022

UV Mask Design
- Istanbul University grant TSG-2020-34891 2020-2021

Non-Invasive Optical Glucose Measurement Device 2018-2021
- Istanbul Tech. Unv. grant FLO-2019-42073

Measuring the Sequence of Intersecting Lines in Questioned Documents (Forensics) 2019-2021
- Istanbul University grant TSA-2018-32531

Determination of Permanent Facial Scars by Optomechanical Device with 3D Scanner 2018-2019
- TUBITAK grant 216S896

PAPERS

- Ozdemir, O.B., Gelir, A. et al. (2023). Comparing the light response of D-glucose in polyacrylamide hydrogel and water in NIR spectral region by using an LED based portable device. Opt Quant Electron 55, 30. https://doi.org/10.1007/s11082-022-04123-7

- Öztürk, T.P., Gelir, A., Keshtiban, N.A. et al. (2023). Synthesis and characterization of PVA-based binary-gel electrolytes including massive ions. *J Solid State Electrochem 27, 885–894 . https://doi.org/10.1007/s10008-023-05390-4*

- Gelir,A., et al. (2021). Design of UVC Led Based Face Mask and Efficiency Measurements Against Bacteria and Virus. Submitted to *Kuwait Journal of Science.* (Under Peer Review)

- Faruk A., et al. (2021). A novel technique based on 3D scanning for quantitative analysis of the indentations in documents, 3rd International Eurasian Conference on Science, Engineering and Technology