



DENİZ EREN MOL

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References available upon request.

RESEARCHER CANDIDATE

PROFILE

I graduated from Electrical and Electronics Engineering department. I pursue an academic career in the field of Quantum Optics. I am working on Fano Resonances and voltage tunable entanglement devices.

EXPERIENCE

VODAFONE TURKEY

Planning & Optimisation Discover (08.2022-present)

- Planning and optimization for the 3G, 4G and next generation mobile networks in Ankara region.

NANOMY

Team Coordinator (06.2022-09.2022)

- Design of an initial prototype of medical device for the TUBITAK project

LOKMAN HEKIM UNIVERSITY

Sinerg 3D Modelling Lab/Intern Researcher(08.2021-12.2021)

- 3D modelling, printing and production of organ models.

BTECH INNOVATION

Intern(06.2021-08.2021)

- 3D Printing, modelling and production with SLA printers.

VOLUNTEER EXPERIENCE

IEEE HACETTEPE EMBS

Coordinator (2020-2021)

- Directed projects: Bionic Arm, Telemonitoring and TEKNOFEST(competition) projects
- Planned online educations.(Arduino, various workshops)
- Online organizations(Webinars)

IEEE TRSB EMBS

Coordination Team Member (2020-2021)

- Worked for the organization of events, Online Camp '20 and '21
- Worked for organization of EMB Convention 21

CERTIFICATES

EU Projects

- C Code to Common Future,Commenius Multilateral Meeting in Šibenik (Croatia) (2013), participant
- Multiculture in One World: My Own Technology, Erasmus+ Project at Hatay (2020), participant

SKILLS

- Microcontroller and various boards programming(Arduino)
- Programming (MATLAB, Python, C)
- Electronic Design (Spice Programs,LTspice)
- FDTD/BEM simulations (Lumerical, MNPBEM)
- Language Skills: (English-Advanced)
- Hobbies :(Jazz Guitarist)

EDUCATION

BS ELECTRICAL AND ELECTRONICS ENGINEERING

Hacettepe University(2017-2023)

MS NANOTECHNOLOGY AND NANOMEDICINE

Hacettepe University(2023-)

PUBLICATIONS

- Demirtas, Özge, Taner Tarik Aytas, Duygu Gümüş, Deniz Eren Mol, Batuhan Balkan, Emren Nalbant, Mehmet Emre Taşgın, Ramazan Sahin, and Alpan Bek. "QUPERS: Quantum Enhanced Raman Spectroscopy." arXiv preprint arXiv:2502.05443 (2025).
- Asrın Uzguc, Deniz Eren Mol, Sena Taskiran, Kubra Atar, "Numeric Simulation of the Suppression of Third Harmonic Light Generation with Plasmonic Fano Resonance", 26th condensed matter physics Ankara Meeting poster presentation, Gazi University, Ankara (2021), Turkey
- Deniz Eren Mol, Asrın Uzguc Kubra Atar, Sena Taşkıran, Ulaş Eyupoglu, Mehmet Emre Taşgın, "Voltage controlled entanglement device using nonlinear fano resonances", INSQT Workshop 3: Space Quantum Internet, Humboldt Universitat zu Berlin at the ErwinSchrödinger Zentrum in Berlin, poster presentation, GERMANY (2023)
- Deniz Eren Mol, Güneş Akyüz, Ramazan Tütük, Gunça Niyazmetova, Asrın Üzgüç, Mehmet Emre Tasgin, "Voltage-Tunable Entanglement Generation for Continuous Variable Cluster States using Fano resonances", INSQT Workshop 4 Physical Research Laboratory, poster presentation, India. (2024)
- Deniz Eren Mol, Güneş Akyüz, Ramazan Tütük, Gunça Niyazmetova, Asrın Üzgüç, Alpan Bek, Mehmet Emre Tasgin, "Voltage-tunable entanglement generation for continuous variable cluster states using Fano resonances", QT Future Summer School on Quantum Physics, poster presentation, Ljubljana, Slovenia
- Deniz Eren Mol, Asrın Uzguc Kubra Atar, Sena Taşkıran, Ulaş Eyupoglu, Mehmet Emre Tasgin, "Electrical-control of third harmonic generation in nanostructures for programmable quantum integrated circuits", (Article in preparation)