Canan Yağmur BOYNUKARA

Physics Engineer &
Physics Engineering
M.Sc.

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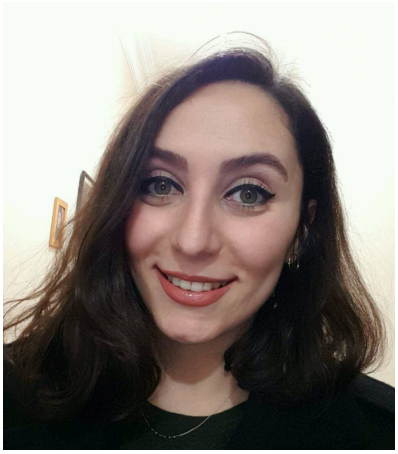

Education

November 2020 - **Doctor of Philosophy in Accelerator Physics**
Sapienza University of Rome, *Faculty of Mathematics, Physics and Natural Sciences*

February 2019 - **Doctor of Philosophy in Physics**
Koc University, *Graduate School of Science and Engineering*

November 2017 September 2014 **Master of Science in Physics Engineering**
Istanbul Technical University *(ITU), Graduate School of Science, Engineering and Technology*

July 2014 September 2009 **Bachelor of Science in Physics Engineering**
Istanbul Technical University *(ITU), Faculty of Science and Letters*

June 2009 Sept. 2008 **English Preparatory Class**
Istanbul Technical University *(ITU), School of Foreign Languages*

June 2007 Sept. 2003 **Fatih Vatan High School**

Presentations & Publications

- ***Publication:*** **Canan Yağmur BOYNUKARA**, Selcuk AKTURK, Mehmet UGURYOL, Gurcan MAVILI, "**Cleaning performance of femtosecond and nanosecond laser pulses for artificially soiled papers with sizing"**, January 2021, *Applied Physics A*, submitted and under review.

- ***Poster***: **Canan Yağmur BOYNUKARA**, Tansu ERSOY, Havva YAĞCI, Gürcan MAVİLİ, Mehmet UĞURYOL, Selçuk AKTÜRK, "**Cleaning Performance of Femtosecond and Nanosecond Laser Pulses for Artificially Soiled Papers with Sizing**", *Lasers in the Conservation of Artworks, LACONA XI*, September 20-23, 2016 Krakow, Poland. (http://www. lacona11.org/)

- ***Poster***: **Canan Yağmur BOYNUKARA**, Tansu ERSOY, Gürcan MAVİLİ, Mehmet UĞURYOL, Selçuk AKTÜRK, "**Tarihi Eser Temizliğinde Ultrakısa Darbeli Lazer Uygulamaları",** *FOTONIK 2015, 17. Ulusal Optik, Elektro-Optik ve Fotonik Çalıştayı*, s. 46. September 18, 2015 Ankara, Turkey. (http://fotonik.kocaeli.edu.tr/2015/)

- ***Oral Presentation***: **Canan Yağmur BOYNUKARA**, "**Lazerlerle Tarihi Eser Temizliği: Lazer - Yüzey Etkileşimlerinden Potansiyel Uygulamalara***",* ***İTÜ Optik, Elektro-Optik ve Fotonik Kongresi***, December 28, 2014 Istanbul, Turkey.

Honors & Scholarships

Honor list Istanbul Technical University, Spring 2014, in Honor List at graduation

Scholarship The Ministry of Youth and Sports (KYK), 2009-2013

Grant

- The Scientific Technology Research Council of Turkey (TUBITAK), Proje No: 114F376, Feb 2015 - Jan 2017
- The Scientific Technology Research Council of Turkey (TUBITAK), Proje No: 118F058, Feb 2019 - July 2019
- The Scientific Technology Research Council of Turkey (TUBITAK), Proje No: 114F422, Oct 2019 - Jan 2020
- Università degli Studi di Roma "La Sapienza" – Three years PhD grant – December 2020

Software skills

Python	**Proficient** in programming with the language
MAPLE	**Novice** symbolic and numeric calculations
C++	**Proficient** in programming with the language
MATLAB	**Experienced**, numerical calculations
Fortran	**Experienced** in programming with the language
AutoCAD	**Experienced**
LATEX	**Experienced** in the document markup language
MS Office	**Proficient** in Word, Excel, Visio and PowerPoint
Operating Systems	**MacOS, Windows 8.1/10**

Exemplary projects

Comparison of cleaning performances of nanosecond and femtosecond lasers on historical papers

description

- M.Sc's graduation project
- Literature research about historical papers and tradition cleaning methods.
- Preparation of samples and optical setups.
- Surface cleaning of artifacts
- Color measurement, UV spectrometer measurement

technical tools Yb:Glass Chirped-Pulse Amplification Femtosecond Laser, Q Switched System Nd:YAG Nanosecond Laser, Profilometer (Veeco DEKTAK 150 Profilometer), UV Spectrometer, Spectrophotometer (HunterLab Miniscan EZ), Microscope (Nikon, Eclipse, LV150L), MATLAB

Turning intra – ocular lenses into multi – focals by writing diffraction patterns on their surfaces

description Bachelor's graduation project

- Literature research about intra-ocular lenses
- Preparation of optical setup for writing diffraction pattern
- Writing diffraction pattern on surface of IOL

technical tools Yb:Glass Chirped-Pulse Amplification Femtosecond Laser, He – Ne Laser, CCD Camera, A White LED, PMMA plates (Nidek), Hydrophobic Acrylic IOLs (Alcon MA60BM), Microscope (Nikon, Eclipse, LV150L), MATLAB

Laser listening device

description Electronic II project

- Produce a listening device by using a laser pointer
- Set up a photodiode circuit

technical tools Laser Pointer, Photocell, DC Power Supply, NPN Transistor, Resistor, Amplifier

Spectroscopy measurements of embryos at laser spectroscopy laboratory

description Laboratory internship project

- Literature research laser spectroscopy
- Literature research for spectroscopy measurements of embryos
- Prepare the setup for the experiment

Language skills

English Fluent

French Beginner

References

... are available on request.

February, 2021

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