

# EIRINI NIKOLAOU

Cyprus

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## EXPERIENCE

*Eratosthenes (ECoE)*

July 2024 - July 2025/ Limassol, Cyprus

### Assistant Researcher A'

- Conducting field and laboratory research for the CARBONICA project, focusing on soil pH, SOC (Soil Organic Carbon), conductivity, and nutrient analysis to support Carbon Farming initiatives in the EMMENA region. Contributing to the development of MRV (Measurement, Reporting, and Verification) protocols for carbon storage, ensuring robust validation, verification, and credit issuance processes.
- Contributed to a research funding proposal for RIF Cyprus, strengthening skills in grant writing and project development.

*Molecular Plant Physiology Group, Cyprus University of Technology*

May 2022 - May 2023/ Limassol, Cyprus

### Graduate Researcher - Assistant

- Participated in interdisciplinary projects (multiple priming projects, PLANTEX) managing laboratory tasks such as analytical equipment operation, experimental set-up, sample preparation, **plant housekeeping** and data analysis.
- Successfully applied conjugated-nanomaterials from medicine to agriculture, notably **enhancing plant growth and stress resilience**. Collaborated with experts to understand nanomaterial characterization and synthesis techniques (SEM and TEM), and conducted biochemical analyses under stringent deadlines.
- Employed specialized software for **photo processing** and analysis of plants, calculating indices crucial to understanding plant growth physiology and architecture, setting the stage for further in vivo & field studies.
- Practiced **experimental design**, accomplishing editing protocols to meet research demands, while using software tools for qualitative and quantitative data analysis to ensure high standards of integrity and reliability. Engaged in an NGS study, demonstrating deep understanding of **sequencing** technologies and setting benchmarks in sample preparation excellence.

### Laboratory Teaching Assistant

- Mentored undergraduate students in key laboratory techniques, enhancing their skills and proficiency. Managed laboratory operations, ensuring organization, efficiency, and the availability of essential supplies. Strictly adhered to safety protocols for handling hazardous materials and waste disposal, demonstrating strong leadership, operational management, and safety compliance.

*Botany lab, University of Cyprus*

May 2018 - May 2020/ Nicosia, Cyprus

### Undergraduate Researcher

- Participated in the R&D in inter-cropping project (Black Gold H<sub>2</sub>O<sub>2</sub>), enhancing soil fertility and biodiversity without chemicals, notably enhancing soil fertility and biodiversity
- Played a pivotal role in **optimizing field operations** setting up experimental plots and managing data collection protocols, including **seed collection and plant measurements**, critical in comparing productivity across different cultivation areas.
- Applied **plant phenotyping** techniques, including recording plant characteristics, soil moisture sensors and pressure chamber analysis, to meticulously monitor plant **water potential** under drought conditions, demonstrating effective water conservation strategies.

## EDUCATION

**Cyprus University of Technology**

**Limassol, Cyprus**

*MSc Agricultural Biotechnology*

*Sept 2021 to May 2023*

Thesis Project on "Evaluation of zeolite-based nanomaterials as a novel priming agent in *Arabidopsis thaliana*".

**University of Cyprus**

**Nicosia, Cyprus**

*BSc Biological Science*

*Sept 2016 to Sept 2020*

Thesis Project on "Water relations of carob (*Ceratonia siliqua* L.) in co-culture systems."

## SKILLS

### Technical & Laboratory Skills

- Microsoft Office Packages
- SPSS, ImageJ, GraphPad, Python (beginner)
- Spectrophotometry/Stereoscopy
- Tissue extraction
- qPCR-PCR (familiar)
- Plant phenotyping/cultivation

## PUBLICATIONS

- **Book Chapter** (de Gruyter p.257-277. (Chapter 8)): Nanomaterials as new techniques in plant priming technology. In: Engineered Nanoparticles in Agriculture: From Laboratory to Field" (eds. Fotopoulos V, Gohari G) -
- **Master's thesis** publication (in work)