# AIKATERINI MARIA OIKONOMOU

Email : k.m.oikonomou@gmail.com ⋄ Personal Website ⋄ Github profile ⋄ Google Scholar profile

## EDUCATION

**Democritus University of Thrace, Xanthi, Greece**  April 2021 - To present
*Ph.D. Candidate.*  *Advisor: Prof. Antonios Gasteratos*

Department of Production and Management Engineering.
PhD research topic: Robotics systems for ambient assisting living.

**National Technical University of Athens, Greece**  September 2018 - February 2021
*Master in Automation Systems.*

Department of Electrical and Computer Engineering & Mechanical Engineering.
Direction: Automatic Control Systems and Robotics.
Diploma thesis: Semantic Segmentation for ADL in Assistive Robotics and Comparison of RGB/RGB-D Input and Single/Multiple Viewpoints. (University of Bremen, Germany)

**University of Patras, Greece**  September 2013 - September 2018
*Bachelor in Physics*

Direction : Electronics, Computers and Signal Processing.
Diploma thesis: EEG signal classification evoked from music stimuli.

## WORK EXPERIENCE

**Democritus University of Thrace, Xanthi, Greece**  October 2023 - To Present
*Collaborative Research*

Subject: Development of a human detection algorithm for indoor UAV navigation.

**Democritus University of Thrace, Xanthi, Greece**  June 2021 - September 2023
*Collaborative Research*

Subject: Study, Design, Development and Implementation of a Holistic System for Upgrading the Quality of Life and Activity of the Elderly.

**National Center For Scientific Research "Demokritos"**  January 2021 - March 2021
*Collaborative Research*

Subject: Data analysis and web application development using Flask & Django.

**National Center For Scientific Research "Demokritos"**  July 2020 - December 2020
*Collaborative Research*

Subject: Navigation algorithm development for an indoor 4x4 robotic platform ("Mir Robot"). Evaluation in simulation environments. Docker containers deployment for cross-compilation.

**University of Bremen**  October 2019 - April 2020
*Master thesis*  *Advisor: Prof. Dr.-Ing. Axel Graeser*

Subject : Semantic Segmentation for Activities of Daily Life in Assistive Robotics and Comparison of RGB/RGB-D Input and Single/Multiple Viewpoints.

**National Center For Scientific Research "Demokritos", Athens** May 2019 - September 2019
*Collaborative Research*

Subject : 3D printable gears design in Blender for a 4x4 robotic platform and inclined terrain traversability testing through autonomous robot experimentation.

**National Center For Scientific Research "Demokritos", Athens** May 2018 - September 2018
*Working Student*

Subject : Implementation and evaluation of human tracking algorithms using laserscans and RGB images.

**National Center For Scientific Research "Demokritos", Athens** September 2017 - Dec. 2017
*Working Student*

Subject : Outdoor world design in Blender for robot simulation purposes. 3D mapping of Demokritos campus using OctoMap framework for autonomous robot navigation.

**National Center For Scientific Research "Demokritos", Athens** July 2017 - September 2017
*Internship*                                                    *Advisor: Dr. Stasinos Konstantopoulos*

Subject : Implementation and evaluation of a visual odometry algorithm. Traversability map design for an outdoor 4x4 robotic platform.

## TECHNICAL STRENGTHS

| | |
|---|---|
| **OS** | Linux, Windows, MacOS |
| **Languages** | Python, Matlab, Latex |
| **Web Applications** | Flask, Django |
| **Software & Tools** | ROS, Gazebo, MoveIt, Github, Gitlab, Bitbucket, Meshlab, Blender |
| | Jupyter Notebook, DSpace, Docker, Travis CI |
| **Libraries** | OpenCV, PointCloud, Keras, Tensorflow, PyTorch |

## LANGUAGE SKILLS

Greek (Native speaker)

English (Proficiency , Michigan)

French (Delf B2)

## SCIENTIFIC PAPERS

Google Scholar profile : Katerina M. Oikonomou.