CONTACT

Mehmet Enes Avcu

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🌐 https://avcuenes.github.io/

OBJECTIVE

Designed control system at unmanned aerial vehicles and robotic system applications. Utilized through knowledge of dynamic of robotic and design control algorithm. Demonstrated strong skills in object-oriented programming and the use of abstract data types. Experienced programming embedded systems and designing 3D printing object, modifying existing software. Worked on many c-based embedded systems and has experience in linux-based systems. Preparing papers for national and international conferences on swarm unmanned aerial vehicles.

EXPERIENCE

Jan-2023 -

- **Autonomous and Robotics Team Lead**
  Titra Technology
  - Responsibility of the Autopilot System
  - Responsibility of the Swarm Algorithms for Aerial Vehicle
  - Responsibility of the Image Processing

Jul-2021 - Jan-2023

- **Robotisc Engineer**
  Titra Technology
  - Navigation and Guidance Algorithms for Kamikaze UAV DELİ
    - https://www.linkedin.com/posts/titrateknoloji_sahaexpo-activity-6991037289762050049-YAJd?utm_source=share&utm_medium=member_android
  - Path Planning for Multi-Agent
  - Swarm Intelligence
  - Collision Avoidance for Fixed Wing Swarm UAV
  - Deep Reinforcement Learning based Trajectory Tracker Design
  - Deep Reinforcement Learning based Auto-tune
  - Model-based Position acontroller Design
  - Using and developing algorithms at PX4, Mavlink, ROS/ROS2, MAVSDK and PlotJuggler.
  - Working with C++, Python ,Matlab and Simulink across Linux, Windows and Nuttx
  - Test algorithms in software and hardware

Aug-2020 - Aug-2021

- **Candidate Engineer**
  İTÜ Aerorospace and Research Center
  - Trajectory Generation Based on B-spline and Polynomial
  - Formation Flying Based on Graph Theory
  - Trajectory Generation Using Convex Optimization
  - Collision Avoidance Using Artificial Potential Field
  - Collision Avoidance Using Sequential Convex Optimization

Aug-2020 - Sep-2020

- **Intern**
  ISTAERO

Jul-2019 - Aug-2019

- **Intern**
  ASELSAN

EDUCATION

2016-2021

- **Gazı University**
  Mechanical Engineering
  3.08

2023-Present	• **İstanbul Techical University**
	Mathematics Engineering

SKILLS

- C++
- Python
- Matlab
- Matlab-Simulink
- C
- ROS-ROS2
- AutoCAD
- Microsoft
- Solidworks
- CATIA

PROJECTS

- **SRUS:Swarm of Agile Drones**
- **Model Predictive Controller Design for Quadcopter**
- **Research and Rescue with Multi-Agent UAV**
- **Meta-heuristic optimization algorithms for design**
- **Reinforcememt Learning for UAV Control**
- **Machine Learning Algorithms for Formation Control**

PUBLICATIONS

- **AVCU, Mehmet Enes; GÖKÇE, Harun. Weight Optimization of the Gearbox Using Interior Point Method. International Journal of Precision Engineering and Manufacturing, 2022, 1-6.**

- **Handbook of Whale Optimization Algorithm**
  Preprint

INTERESTS

- Robotic
- Control Theory
- Convex Optimization
- Dynamic Programming
- Optimization

LANGUAGES

- Turkish
- English

PERSONAL DETAILS

- Github : https://github.com/avcuenes
- Google : https://scholar.google.com.tr/citations?
  Scholar   user=YzoTAmEAAAAJ&hl=tr&oi=ao