

# Zewdie Habtie Sisay

Erasmus Mundus Joint Master Student In Intelligent Field Robotics Systems

✉ zewdiehabtie26@gmail.com

🌐 zewdiehabtie

👤 ZewdieMc

👤 Portfolio

☎ +34610281153



## Summary

- 📌 **Higly motivated and result-oriented Master's student at the Universitat de Girona, specializing in Intelligent Field Robotic Systems. Committed to applying my strong analytical and problem-solving skills along with a passion for automation and teamwork.**

## Education

- 2023 – ····
- 📌 **M.Sc. student Intelligent Field Robotic Systems(IFROS)**  
**Universitat de Girona, Spain:** Field robotics, with focus on land and marine robots(**Semesters I and II**).  
**GPA: 8.86/10**  
**Courses:** Autonomous Systems, Machine Learning, Multiview Geometry (Computer Vision), Probabilistic Robotics (Kalman Filters and SLAM), Path planning and Exploration, and Robot Manipulation.  
**Eötvös Loránd University, Hungary:** Autonomous systems and self-driving land vehicles(**Semester III**).  
**GPA: 5.0/5.0** [transcript](#) 🔗 .  
**Courses:** 3D sensing and sensor fusion, Deep Neural Network development, Introduction to vehicles and sensors, methods and tools for AI.  
**Thesis title:** LiDAR-Based Mapping module for autonomous navigation
- 2020 – 2022
- 📌 **M.Sc. Computer Engineering**  
**Bahir Dar University, Ethiopia**  
**Thesis title:** *Identification and Classification of COVID-19 Cases using Vision Transformer(ViT)* 🔗 .  
**CGPA: 3.98/4.**
- 20011 – 2016
- 📌 **B.Sc. Computer Science and Engineering** Mekelle Institute of Technology, Ethiopia 🔗 .  
**CGPA: 3.93/4.**

## Skills

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|-----------------------|-------------------------------------------------------------------------------|
| Languages             | 📌 Proficient in reading, writing, and speaking in English, Amharic, Tigrinya. |
| Programming Languages | 📌 C, C++, Python, Ruby, Java, JavaScript, ...                                 |
| ML-DL Tools.          | 📌 Keras, PyTorch, OpenCV, Pandas, Numpy, ...                                  |
| Robotics Tools        | 📌 ROS, Gazebo, MATLAB, Docker, Val3, StoneFish, RVIZ...                       |
| Soft skills           | 📌 Good communication, Adaptability, Teamwork, analytical thinking ...         |

## Projects

- 📌 Camera pose estimation using feature matching 🔗 .
- 📌 Autonomous Frontier-Based Robot Exploration and Path Planning 🔗 .

## Projects (continued)

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- ▣ Pose-Based EKF SLAM using NDT for point cloud registration [🔗](#) .
- ▣ Task-Priority Redundancy Resolution Algorithm for a Mobile-base Manipulator Robot [🔗](#) .
- ▣ Autonomous outdoor GPS navigation for mobile Robot [🔗](#) .

## Miscellaneous Experience

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- ▣ Good understanding of Multiview geometry
- ▣ Hands-on experience in robot localization and mapping using SLAM
- ▣ More comfortable working with camera calibration, homographies, stereo vision, perception, visual odometry, and structure from motion(3D reconstruction).
- ▣ Hands-on experience with machine learning for computer vision.

## References

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### **Prof Nuno Gracias**

Professor

Universitat de Girona

Address

`ngracias@silver.udg.edu`

### **Prof Narcis Palomeras**

Professor

Universitat de Girona

Address

`narcis.palomeras@udg.edu`