Abdallah Abdelmajeed

PhD Student

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Profile

PhD candidate in Environmental Engineering with extensive experience in UAV-based research, remote sensing, and geoinformation science. Proven record in academic teaching, research project management, and publication in high-impact journals. Adept at integrating innovative earth observation techniques with smart agricultural applications and environmental analysis.

Education

- Ph.D. in Environmental Engineering
 - Poznan University of Life Science, Poznan, Poland | 2021 Expected Sep 2025
- M.Sc. in Geoinformation Science, Earth Observation and Spatial Management Poznan University of Life Science, Poznan, Poland | 2019 2021
- **B.Sc. in Agriculture** Fayoum University, Fayoum, Egypt | 2013 2017

Research & Project Experience

Impact of Heatwaves and Droughts on Peatland Vegetation

Poznan University of Life Science | Oct 2021 - Present

- UAV data acquisition and processing to analyze drought and heatwave impact on suninduced fluorescence, photosynthesis, and vegetation parameters.
- Intern-Drought Monitoring

AgriWatch, Enschede, The Netherlands | Jul 2020 - Sep 2020

- Team member responsible for UAV-based data collection, hypothesis generation, and pattern classification.
- Research Assistant Smart Agrihub

Poznan University of Life Science | Mar 2020 - Sep 2020

• Assisted in field measurements and designed ground control points for UAV flights in support of precision agriculture research.

Teaching & Academic Involvement

• Course Assistance

Assisted in delivering seminars and classes in:

- Geoinformation Science and Spatial Management
- Recent Advances in Environmental Engineering
- ESA and NASA Earth Observation Missions, Platforms and Databases
- Climate Aspects in Spatial Planning

(Courses delivered in English)

• Reviewer for International Journals:

- International Journal of Applied Earth Observation and Geoinformation (IF: 7.6)
- Computers and Electronics in Agriculture (IF: 7.7)
- Geomatica

• Professional Memberships

- LI-COR-Carbon Dew Community for Climate Solutions (Feb 2023 Present)
- GRSS Instrumentation and Future Technologies Technical Committee (IFT-TC) & Geoscience Spaceborne Imaging Spectroscopy (GSIS) (Sep 2022 Present)
- Pan-European Network for Green Deal Agriculture and Forestry Earth Observation Science (PANGEOS COST Action)

Recent Academic Training:

- **IGARSS 2024 Summer School** Sponsored by IEEE GRSS, Athens, Greece, July 4–6, 2024
- UAVs in Precision Agriculture Online course by ITC, University of Twente

Publications & Presentations

- Abdelmajeed, A. Y. A., et al. (2025). Assessing SIF-GPP Relationships in Peatlands: Temporal Insights for FLEX Mission Validation. Egu25. https://doi.org/10.5194/egusphere-egu25-18025
- Antala, M., **Abdelmajeed, A. Y. A., et al.** (2024). *Photosynthetic Responses of Peat Moss and Bog Cranberry to Spring Warming*. Plants, 13(22), 3246. https://doi.org/10.3390/plants13223246
- Abdelmajeed, A. Y. A., et al. (2024). *Diurnal Variations of Solar-Induced Fluorescence in a Heterogeneous Peatland Ecosystem*. Egu24. https://doi.org/10.5194/EGUSPHERE-EGU24-20509
- Abdelmajeed, A. Y. A. & Juszczak, R. (2024). *Challenges and Limitations of Remote Sensing in Northern Peatlands*. Remote Sensing, 16(3), 591. https://doi.org/10.3390/rs16030591
- Abdelmajeed, A. Y. A., et al. (2023). *Cloud-Based Remote Sensing for Wetland Monitoring—A Review*. Remote Sensing, 15(6), 1660. https://doi.org/10.3390/rs15061660

• Poster:

- Challenges of Linking EC Data (GPP) to Hyperspectral Data (SIF): A Case Study in Rzecin Peatland, Poland Presented at Mountain Research Station, University of Colorado, Boulder, CO, USA
- The capabilities and limitations of cloud-based Farm Management Information Systems (FMIS) for UAV-based imaging presented in training led by European Space Agency 21-25 November 2022 at the Institute of Advanced Studies Kőszeg (iASK), Kőszeg, Hungary
- Does the spectrum signature change according to the altitude?— presented in training led by European Space Agency 21-25 November 2022 at the Institute of Advanced Studies Kőszeg (iASK), Kőszeg, Hungary

Academic Honors & Awards

• Best Proposal for Earth Observation – IEEE, Greece, 2024

- PhD Scholarship, Poznan University of Life Science (2021 Present)
- Rector's Scholarship for the Best Students, Poznan University of Life Science (Oct 2020 Jun 2021)
- MSc Scholarship (Partially Funded by the EU, 2019 2021)

Technical Skills

- **Research & Analysis:** Photogrammetry (Pix4D, Agisoft Metashape, Drone Deploy, WebODM), GIS (ILWIS, ArcGIS Pro, QGIS)
- Programming & Data Analysis: principles of R, Python, MATLAB, Power BI
- Software: Autodesk (AutoCAD, Revit, Recap), Adobe Photoshop

Languages

- Arabic (Native)
- English (Advanced)
- Polish (Beginner)

References

• References Available Upon Request