



Ahmed Abdelaziz

Career Summary

- I am an **Assistant Lecturer** in Geodesy and Surveying Engineering at Benha University, currently pursuing a PhD in Geodesy and Surveying Engineering at LIESMARS at Wuhan University, anticipated to be completed by June 2026.
- I hold a **Master's degree** in SC and GNSS from Beihang University, which has provided me with a solid foundation in Geospatial Information Technology.
- I am actively seeking a funded, research-focused postdoctoral position where I can contribute to innovative advancements and further develop my expertise in the discipline.

Contact



+2 01061691300
+86 15623306737
+2 01128812096



ahmed.abdelaziz@bhit.bu.edu.eg
ahmedes753@whu.edu.cn
ahmedes1594@gmail.com



Benha, Kalyobiya, Egypt
Current Residence: Wuhan, China

Language

- Arabic - Mother tongue
- English - Fluent 'whole study'
- Chinese (Level3)

Education

Benha University

- **(2012-2017)** Bachelor's in Civil Engineering (Surveying and Geodesy)- Faculty of Engineering, Benha University (Excellent with Honor Grade)

Beihang University, BUAA (北京航空航天大学)

- **(2019-2021)** pursuing **Master's** in Satellite Communication and GNSS, **CSC Scholarship. (3.72 out of 4.0 GPA)**
- Master's **thesis work** on "Investigation of the performance of GIM with high temporal resolution in GNSS positioning"

Wuhan University (武汉大学)

- **(2022-2026)** pursuing PhD in Geodesy and Surveying Engineering at LIESMARS, **(3.81 out of 4.0 GPA)**
- PhD **thesis work** on "Ionospheric Disturbance Monitoring and Prediction Methods Using Ground-Based GNSS and LEO Satellites"

Work Experience

- **(2017-Present) Assistant Lecturer** in Surveying Engineering, Mapping, Remote Sensing, and Geodesy, Faculty of Engineering, **Benha University, Egypt.**
- **(2024 - Present)** Teaching assistant at LIESMARS (**Wuhan, China**) for some specific related courses.
- **(2021-2022)** Senior **Geomatics Engineer** at **Benha University** Engineering Consultancy Center (Egypt).
- **(2020-2021)** Part-time **Technical Office Engineer** in government infrastructure projects, Delta Misr Co. (Egypt).
- **(2021-2022)** Part-time **Technical Office Engineer** in AL-REHAB Co. for infrastructure projects (Egypt).

Academic Experience

Journal Papers

- [1] **A. Abdelaziz**, Ren, X., et al., "Global Ionospheric F-layer Electron Density Prediction Based on Multiple Radio Occultation Data using Attention-Based Deep Learning Model," IEEE TGRS., vol. 63, pp. 1-16, 2025, doi: 10.1109/TGRS.2025.3546248. **Q1 IF: 8.6**
- [2] **A. Abdelaziz**, X. Zhang, et al., "Impact of temporal resolution in global ionospheric models on satellite positioning during low and high solar activity years of solar cycle 24," J. Appl. Geod., pp. 1-16, 2024, doi: 10.1515/jag-2024-0056. **Q3 IF: 1.0**
- [3] **A. Abdelaziz**, Ren, X., et al. Ionospheric disturbances over the American sector during the May 2024 solar storm: flares and geomagnetic effects (May 9-15), ASR, 2025, ISSN 0273-1177, <https://doi.org/10.1016/j.asr.2025.10.023>. **Q1 IF: 2.8**
- [4] **A. Abdelaziz**, X. Zhang, et al., "Leveraging Radio Occultation Data to Define Geomagnetic Storm Thresholds and Apply Deep Learning to Predict NmF2," JGR.Space Weather, **Q1 [Under Review]. IF: 3.5**
- [5] J. Zhang, ..., **A. Abdelaziz**, X. Zhang, ..., "Long-term analysis of NRTK positioning performances over one solar activity cycle from 2013 to 2023," GPS Solut., vol. 28, no. 4, 2024, doi: 10.1007/s10291-024-01727-2. **Q1 IF: 3.9**
- [6] X. Le, ..., **A. Abdelaziz**, X. Ren, and X. Zhang, "Ionospheric total electron content and electron density response induced by the 8 April 2024 total solar eclipse," Adv. Sp. Res., no. January 2025, 2025, doi: 10.1016/j.asr.2024.12.066. **Q1 IF: 2.8**
- [7] X. Ren, ..., **A. Abdelaziz**, and X. Zhang, "Intelligent Detection of Traveling Ionospheric Disturbances from Dense GNSS TEC Observations Utilizing Instance Segmentation Model Cascade Mask R-CNN," GPS Solut., vol. 29, no. 3, pp. 1-17, 2025. **Q1 IF: 3.9**
- [8] Zhang, ..., **A. Abdelaziz**, et al. Mitigating ionospheric disturbances impacts on NRTK positioning: an optimization method for adaptive functional and stochastic models. Satell Navig 6, 26 (2025). <https://doi.org/10.1186/s43020-025-00179-4>. **Q1 IF: 10.1**

Conferences and Workshops

- [1] **A. Abdelaziz**, X. Zh, X. R. (2025). Geomagnetic Storm Classification Regarding Ionospheric Reaction (**IGWG 2025**), **Hong Kong**.
- [2] **A. Abdelaziz**, X. Zh, X. R. (2025). Under the Storm: How the G5 Event Shaped Ionospheric Behavior and GNSS Accuracy in May 2024 (**IAG 2025**), **Italy**.
- [3] **A. Abdelaziz**, X. Zh, X. R. (2025). Enhancing GNSS Applications: A Deep Learning Model for Low-latitude F-layer Ionospheric Ne Prediction. (**AOGS 2025**), **Singapore**.
- [4] **A. Abdelaziz**, X. Zhang, ...et al. (2023). Statistical Analysis of Short-term Precursor TEC Variations in Ionosphere Due to Five Successive Mw+6.5 Earthquakes in Japan, (**ACAG8**), Cairo, **Egypt**.
- [5] M. Freeshah, **A. Abdelaziz**, ...et al. (2023). Seismo-Ionospheric Anomalies Prior to Two-Successive Earthquakes Mw 6.6 and 7.1 Taitung, Taiwan: Pre-Results. **ISPRS** Geospatial Week 2023, Cairo, **Egypt**.
- [6] (**July 2025, 2024, 2023**) Artificial Intelligence and Machine Learning Course, International Geoinformatics Summer School, **LIESMARS**

✓ Professional Development

Completed the following accredited training courses for faculty promotion at Benha University:

- Research Methodology
- Research Ethics
- Time and Stress Management
- Self-Study of Educational Programs
- Question Banks and Online Tests
- Website Management
- Preparation of Competitive Research Projects
- Examination Systems and Student Assessment
- Professional Ethics and Conduct
- International Publication of Scientific Research
- Academic Advising and Psychological Support

Research INTERESTS

- Precise point positioning (PPP),
- Real-Time Kinematic positioning (RTK),
- PPP-RTK,
- Ionospheric Disturbance during Natural Hazards,
- Ionosphere Modeling,
- Ionosphere Monitoring,
- Numerical weather prediction (NWP),
- Machine Learning,
- Deep learning

Academic Volunteering

- **(March 2023 - Present)** English Geoscience Café (**EGSC**), **LIESMARS** — I actively participated as director of the social activity department, supporting the organization of academic lectures conducted in English, cross-cultural exchange events, and international scholarly sessions.
- **(July 2025, 2024, 2023)** Served as a volunteer organizer and assisted in coordinating academic sessions at the **Luojia Global Summer School**.

Software Skills

- RTKLIB
- raPPPid
- PRIDE-PPPAR
- GAMIT/GLOBK
- GAMP
- Google earth
- Leica Geo Office
- Trimble Business Center
- Python
- MATLAB
- MS office and WPS office
- LaTeX
- Mendeley
- Origin Pro
- AutoCAD
- AutoCAD Civil 3D
- Autodesk InfraWorks
- Primavera
- NetCDF: Handling and analyzing NetCDF data formats.

Personal Skills

- Academic writing
- Academic reviewing
- Problem Solving
- Ability to learn new skills.
- Time management
- Project Management
- Ability to lead and motivate others
- Excellent teamwork and communication skills.
- Good background in mathematics and statistics
- Project Management