

## Curriculum Vitae of AtefMakhloof

### Personal information:

Name: AtefAbd-ElhakeemMakhloof  
Eslman  
Date of birth: January 5, 1970  
Nationality: Egyptian  
Profession: Surveying and geodesy  
Engineering  
Gender: Male  
Resident at present: Egypt



**Current Job:** Associate Professor of Surveying and geodesy Engineering, Civil Engineering Dept., Faculty of Engineering, Minia University, Minia, Egypt.

### Postal address

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- **Field of interest:** Civil Engineering, public works, surveying & geodesy Engineering.

### Membership in Professional Societies:

- Egypt Syndicate of Engineers.

### Education:

- **Bachelor of Engineering:** (Major in Civil Engineering), June 1993, Minia University, Department of civil Engineering, Minia, Egypt, (with grade very good with honor degree)
- **Master of Engineering:** (Major in public work, surveying and geodesy Engineering, 1997) Minia University, Egypt
- **Doctor of Engineering:** (Major in surveying and geodesy Engineering) Degree certificate obtained 2007, Bonn University, Germany..

### Key Qualifications:

- Substantial experience in surveying and Geodesy computer packages including. Surfer, Autocad, Civil-3d.
- Supervisor on setting out constructions in Minia governorate – Egypt.
- consultant work for many road constructions in Minia governorate – Egypt.
- Supervisor on surveying Laboratory, Faculty of Engineering, Minia University, Minia.
- Member of Tempus IV project (EU-EG-JO Joint Master Programme in Intelligent Transport Systems, 530632-TEMPUS-1-2012-1-SE-TEMPUS-JPCR).

### **Employment Record:**

- **Teacher assistant:** from 1993 until 1997 working in civil Engineering, Faculty of Engineering, Minia University, Egypt.
- **Assistant lecturer:** after Master degree from 1997 until 2000 working in civil Engineering, Faculty of Engineering, Minia University, Egypt.
- **2002-2007** Egyptian Government scholarship to study my PhD in Germany, Bonn University.
- **2007 to date assistant Professor**, working at civil Engineering, Faculty of Engineering, Minia University, Egypt.
- **2014 to date associate Professor**, working at civil Engineering, Faculty of Engineering, Minia University, Egypt.

### **Publications**

1. Makhloof A. A. (1997): Comparson of different gravity reduction techniques for geodetic application in Egypt. M. Sc. Thesis , Faculty of Engineering, Minia University, Minia
2. Makhloof, A.A., Ilk, K.H. (2004): The Use of Topographic-Isostatic Gravity Field Information in Satellite-to-Satellite Tracking and Satellite gravity Gradiometry Recovery Procedures, Porto, Portugal, August 30-September 3, 2004, Intern. Conference Gravity, Geoid and Space Missions – GGSM2004
3. Makhloof, A.B., Ilk, K.H. (2004): Effect of topographic and isostatic masses at satellite using soherical harmonic geodesy week Stuttttgart 14.10.2004, Germany
4. Makhloof, A.A., Ilk, K.H.(2004): The Use of Topographic-Isostatic Gravity Field Information in Satellite-to-Satellite Tracking and Satellite Gravity Gradiometry Recovery Procedures, Porto, Portugal, August 30-September 3, 2004, Intern. Conference Gravity, Geoid and Space Missions – GGSM2004
5. Makhloof, A., Ilk, K.H. (2005): Far-zone Topography Effects on Gravity and Geoid Heights According to Helmert's Methods of Condensation and Based on Airy-Heiskanen Model, Proceedings The 3rd Minia International Conference for Advanced Trends in Engineering

(MICATE 2005), El-Minia, April 3-5

6. Eicker, A, Makhloof A. A., Mayer-Gürr, T. and Ilk, K. H. (2006): Regional solutions from GOCE orbit information and gradiometry measurements considering topographic-isostatic models. 3rd International GOCE User Workshop 6 - 8 November 2006 ESA-ESRIN Frascati Italy
7. Makhloof, A., Ilk, K.H. (2006): Band-limited topography effects in airborne gravimetry using space localizing base functions. SRef-ID: 1607-7962/gra/EGU06-A-07628 Geophysical Research Abstracts, Vol. 8, 07628, 2006, Vienna, Austria
8. Makhloof A. A., Müller F., Ilk, K.H. (2006): A comparison of different methods for determining the topographic-condensation mass effects at airborne altitude. 1st International Symposium of the International Gravity Field Service: Gravity Field of the Earth, 01.09.06, Istanbul/Türkei
9. Makhloof, A., Ilk, K.H. (2007): Effects of topographic–isostatic masses on gravitational functionals at the Earth's surface and at airborne and satellite altitudes. Journal of geodesy Volume 82, Number 2 pp. 93-111
10. Makhloof, A. A. (2007): The use of Topographic- isostatic mass information in geodetic applications. Ph. D. dissertation, Institute of geodesy and geoinformation, Bonn University, Bonn, Germany
11. Makhloof, A., Ilk, K.H. (2008) Far-zone effects for different topographic-compensation models based on a spherical harmonic expansion of the topography, Journal of geodesy, Volume 82, Issue 10, pp 613-635
12. F. Mueller, T. Mayer-Guerr and A.A. Makhloof (2009) Downward Continuation of Airborne Gravimetry and Gradiometry Data Using Space Localizing Spline Functions . International Association of Geodesy (IAG) vol. 133, PP: 143-153.
13. Makhloof, A. (2010) Truncation error in Airborne and satellite gravity gradiometer measurements using Gauss-Legendre quadrature method. Al-Azhar University Engineering Journal, JAUES, Vol. 5, No. 1, pp. 763-770
14. Makhloof, A. (2011) Effect of topographic–isoatatic gravity field information in satellite gravity gradiometry, using space localizing base function. Journal of applied geophysics, Volume 10, Number 2 pp. 77-86
15. Makhloof, A. (2011) gravimetric geoid for Egypt using inversion reduction of Rudzki in spherical approximation. Journal of applied geophysics, Volume 10, Number 2 pp. 87- 98
16. H. A. H. Ismaiel , A. A. Mahmoud, A. A. Makhloof, A. A. Galal A. (2012) Geotechnical Behavior of Pliocene Sedimentary Rocks Exposed along Qena-Safaga Road at Qena region, Egypt. Journal of mining engineering and mineral processing: I(2) pp 84-93
17. H. A. H. Ismaiel , A. A. Mahmoud, A. A. Makhloof, A. A. Galal A. (2012) Improvement of exoansive subgrade by lime addition. Journal of Engineering sciences Vol 41-No. 5 pp 1778-1795.
18. A. A. Makhloof (2013) Ellipsoidal approximation for topographic-isostatic masses effects on airborne and satellite gravity gradiometry. International Journal of Civil Engineering and

Technology (IJCIET) Vol. 4, Issue 6, pp: 145-159.

19. A. A. Makhloof (2013) Evaluation and Interpretation of Cracks along Qena-Safaga Road Using Surveying Techniques,
20. H. A. Abdel-Elmotaal and A. A. Makhloof (2013) Comparison of Recent Geopotential Models for the Recovery of the Gravity Field in Egypt. Geodetic week conference 8-11 Oktober 2013 .
21. H. A. Abdel-Elmotaal and A. A. Makhloof (2013) Gross-Errors Detection in the Shipborne Gravity Data Set for Africa. Geodetic week conference, Essen, Germany, 8-11 Oktober 2013.
22. A. A. Makhloof (2013) Ellipsoidal approximation for topographic-isostatic masses effects on airborne and satellite gravity gradiometry. International Journal of Civil Engineering and Technolgy (IJCET) Vol. 5, Issue 1.
23. A. Makhloof (2014) The gravimetric geoid for Egypt using the far-zone topographic effects for different topographic-isostatic methods and spherical approximation. International Refereed Journal of Engineering and Science (IRJES), Vol. 3 pp: 66-76
24. Abd-Elmotaal HA, Makhloof A, Abd-Elbaky M, Ashry M (2017) The African 3"× 3" DTM and its validation. In: Vergos GS, Pail R, Barzaghi R (eds) International symposium on gravity, geoid and height systems 2016. International Association of Geodesy Symposia, Vol 148, pp 79–85. [https://DOI.org/10.1007/1345\\_2017\\_19](https://DOI.org/10.1007/1345_2017_19)
25. Abd-Elmotaal HA, Makhloof A, Hassan AA, Mohasseb H (2018) Preliminary results on the estimation of ground water in Africa using GRACE and hydrological models. In: Vergos GS, Pail R, Barzaghi R (eds) International symposium on gravity, geoid and height systems 2016, Vol 148. Springer International Publishing, Cham, pp 217–226, Vol. 148, 217.226. [https://doi..10.1007/1345\\_2018\\_32](https://doi..10.1007/1345_2018_32).
26. Abd-Elmotaal, HA , Makhloof A, Hassan AA, Ashry M (2018) Impact of Nasser Lake on gravity reduction and geoidal heights for Egypt. NRIAG Journal of Astronomy and Geophysics, Vol. 7, 40.46, <https://doi..10.1016/j.nrjag.2018.02.005>.
27. Abd-Elmotaal HA, Makhloof (2023) Integrating altimetry derived gravity anomalies with ship-borne gravity data for Africa. Contributions to Geophysics and Geodesy (53): 191-206. <https://doi.,10.31577/congeo.2023.53.3.2>
28. Abd-Elmotaal HA,,Makhloof A (2023).Two alternative techniques for fitting the gravimetric geoid for Egypt. Contributions to Geophysics and Geodesy (53):377-398, <https://doi.,10.31577/congeo.2023.53.4.4>
29. Sally Y. Sayed 1, Mustafa El-Rawy , Mohamed A.E. AbdelRahman, AtefMakhloof (2023) Groundwater Quality Assessment in Siwa Oasis, Egypt, Using Different Indicators and GIS, Journal of Advanced Engineering Trends, (JAET) (**Accepted**)

30. Abd-Elmotaal HA.AshryandMakhloof A (2024) Comparison of Different Approaches for Combining Gravity Field Wavelengths for Egypt. JES, Journal of Engineering Sciences. Vol. (52):31-52. <https://doi.10.21608/JESAUN.2023.246329.1283>, [https://jesaun.journals.ekb.eg/article\\_331889.html](https://jesaun.journals.ekb.eg/article_331889.html)
31. AshryM , Shen WB, Ruby A, Pengfei Z, Shen Z, Abd-Elmotaal HA., Abd-Elbaky and Makhloof A (2023) A Relativistic Geodetic Approach to Unify the Height System for Africa. Mansoura Engineering Journal 49 (1) (Accepted)

### **TeachingExperience**

- 1- Teacher assistant: from 1993 until 1997 working in civil Engineering, Faculty of Engineering, Minia University, Egypt.
- 2- Assistant lecturer: after Master degree from 1997 until 2002 working in civil Engineering, Faculty of Engineering, Minia University, Egypt.
- 3- Teaching of surveying (3) drawing at El Minia High Institute of Technology 2007-todate.
- 4- Teaching Computer Programming for Civil Engineering at El MiniaUniversity 2007-2011.
- 5- Teaching of topographic and photogrametriv survey at Minia University 2010 to date.
- 6- Teaching of plane surveying Engineering at Minia University 2007 to 2017
- 7- Supervisor of Surveying and Geodesy graduation project 2007 to date

### **Computer skill:**

- 1- Application software: SURFER, FORTRAN, GRAFER for surveyingprojects, Microsoft office, IDCL, AutoCAD, Latex, and other professional soft.
- 2- Operating system: windows 95/98/NT/XP/win8, Win10
- 3- Programming language: FORTRAN

### **Work Experiences:**

1. Participate in many structural designs of buildings from 1993-2002.
2. Working part time job as designer/supervisor in Engineering *consulting office, Minia* from 1997-2002.
3. Supervisor/consultant on many constructions in Minia University campus, Minia City.
4. Supervisor/consultant on many surveying / upgrade of Miniacity.
5. Supervisor onsurveying, Laboratory, Faculty of Engineering, Minia University, Minia from 2007 up to date.

6. One member of the examination committee for most of the projects in Minia governorate
7. Participation in TEMPUS III - Project JEP-34039-2006 (European union, Minia University, Ain shams University) responsible for highway and traffic engineering section from 2007.

**Language ability:**

- 1- Arabic: Native Language
- 2- English: Fluent
- 3- Germany: Good.