

Mahrous Ali Mohamed Ali

Associate Professor 2019- until present

Mining and Petroleum Engineering Department,
Faculty of Engineering, Al-Azhar University, Egypt.

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Education

Chonnam National University, South Korea

- Postdoctoral

Prof. Hyung-Sik Yang

March. 2015– Sept. 2015.

Chonnam National University, South Korea
Doctor of Philosophy in Rock mechanics (Ph.D.)

Prof. Hyung-Sik Yang

Sept. 2010– March. 2013.

- Thesis Title: Prediction of Characteristics of Rock-like Materials by Penetration Rate of Rotary Drill.
- Completed Courses: Rock engineering Numerical analysis [A+], Advanced resource development engineering [A+], Advanced drilling and production engineering [A+], Special topics environmental geochemistry [A+], Mechanic Excavation Engineering [A+], Wavelet Theory [A], Theory of Rock Failure [A+], Advanced rock blasting [A+], Statistics of Rock mass [A+], Rock structure design [A+], Analysis of rock stress [A], Advanced Geology [A].

Assuit University, Egypt
mostafa.amin@eng.au.edu.eg

Prof. Mostafa T. Mohamed

Sept. 2008 – May, 2009

PhD Candidate

- Completed Preliminary PhD Courses: Advanced Rock Mechanics, Noise Control, Dust control, Computer applications, Environmental Impacts.

• Assuit University, Egypt

Prof. Hassan Ali Abdelhak Alsageer

• Master Science in Mining and Petroleum Engineering Department (M. Sc.) Sept. 2004 – Jan. 2008

• Thesis Title: Design and Planning of Some Building Materials Quarries for Different Purposes in Sohag and Quena Governorates.

• Completed Courses: Advanced Mathematics and statistics, Technology of Surface mines and Quarries, Slope Stability, Advanced Studies in Drilling and Blasting, Environmental Engineering in Mines

• Al-Azhar University, Egypt

Prof. Mohamed Galal Farghly

• Bachelor of Science in Mining and Petroleum Engineering Department (B.Sc. Sept. 1996 – May. 2001

• Final Graduation Grade: Very Good (77.13)

• Graduation Project Title: Cement Industry (Very good)

Key Courses: **Rock Mechanics, Geology, plane Topographic, Geodic and Mine survey,**

- Topographic and Plane Survey (setting and setting out for different locations, Qena and Red Sea Governorates).
- Tunneling and Mine survey applications (Aswan and Red Sea Governorates)

Employment Record

Al-Azhar University Associate Prof. Assistant Professor	Qena, Egypt November 2019 - until Present March 2013- June 2019
Chonnam National University CNU, Associate Senior Lecturer, Postdoctoral Al-Azhar University Assistant Professor	South Korea March, 2015- Sept. 2015 Qena, Egypt March 2013- 10/2019
Chonnam National University CNU, Research Assistant (PhD Candidate)	South Korea Sept. 2010 – March, 2013
Al-Azhar University	Qena, Egypt
• Senior Teaching Assistant	Jan. 2008- Sept. 2010
Al-Azhar University	Qena, Egypt
• Teaching Assistant • Conducting research toward getting the M.Sc degree	March. 2003 –Jan. 2008

Project's evolution

1. Evaluation of copper mine, Mexico. Co-operation with Prof. Jong-Gwan Kim, KORRES company south Korea (2018-2019).
2. Phosphate mine evaluation and design surface mine, Elwady company (private sector). Egypt.
3. Limestone quarry evaluation in south Korea for cement industry and re-design to setting out new crushing machine 2013.
4. Losses evaluation for gravel and sand quarry in Qena Governate. Egypt, 2013-2020.
5. Consultant for Academy of Scientific Research and Technology, Egypt, (2018-present).
6. Evaluation project in title Studying the effect of the quarry blasts inside cement Company in new capital area- for Academy of Scientific Research and Technology, Egypt (2018-2019).
7. Evaluation project in title The impact of Holocene climate change on Ancient Egyptian Civilization for Academy of Scientific Research and Technology, Egypt (2019-2020).
8. Co-operation with Cement Misr Company to evaluate Utilization of Cement Kiln Dust in industry Cement Bricks (2019- present).

Research Profile

Publications

Under Published

1. Haitham M. Ahmed and Mahrous A. M. Ali “Evaluation of Young’s Modulus of the Elasticity and Associated Mechanical Properties of Natural Rock “under review.
2. A. S. Abdelrahman, W. M. Draz, Mahrous A. M. Ali, Faissal A. Ali, M. A. Yassien “An optimal solution for building materials handling problem using Microsoft Excel functions “under review.

- Published paper

1. Mahrous A. M. Ali, Mohamed M. A. Hassan and Jong-Gwan Kim, 2021, “ Quality evaluation and loss estimation at gravel quarries around the Qena Governorate, Egypt: A case study“, Journal of Mining of Mineral Deposits Volume 15, issue 2, pp: 1-10.
2. Mahrous A. M. Ali and Jong-Gwan Kim, 2021, “Selection mining methods via multiple criteria decision analysis using TOPSIS and modification of the UBC method “Journal of sustainable mining,
3. Mohamed G. Farghaly, Mahrous A. M. Ali and Jong-Gwan Kim, 2021, “Optimization of blending and production processes considering origin mines and metallurgical units using linear programming rules“ Geosystem Engineering Journal, <https://doi.org/10.1080/12269328.2021.1910574>
4. Jung Gyu Kim, Mahrous A. M. Ali and Jong-Gwan Kim, 2020, “Effect of an eccentric decoupled charge on rock mass blasting” Journal of sustainable mining,19:1-10.
5. Mahrous A. M. Ali, Wael R. Abdellah, Ahmed Abd El Aal & Jong-Gwan Kim, 2020, “The Influence of the Physical and Mechanical Properties on the Abrasion Rate of Rocks Along Idfo-Marsa Alam, Eastern Desert, Egypt” Geotechnical and Geological Engineering volume 38, pages 1567–1577.
6. Mohamed A. Y; Mohammad A. S.; Gamal Y. Boghdadi; Mahrous, A.M. Ali; Ahmed, S. M, 2020, “Experimental research into the effect of some operation factors and rock properties on the rate of penetration” journal of Mining of Mineral Deposits Volume 14, issue 1., Jan. 2020),
7. Mahrous A.M. Ali, and Haitham M. Ahmed, 2019 “Engineering characteristics of Egyptian limestone”, Journal of Mining of Mineral Deposits Volume 13, issue 2., 75-81- Jan. 2019),
8. Jung-Gyu Kim, Jong-Gwan Kim and Mahrous A.M. Ali, 2019 “ In-ground vibration propagation characteristics during underground blasting” Mining of Mineral Deposits 13 (4), 1-8
9. A. S. Abdelrahman, Mahrous A. M. Ali, M. R. Moharam M. A.Yassien, Waleed M. Draz and Faissal A. Ali, 2019 “ Geotechnical Assessment of Limestone and Dolomite Quarries around Cairo for Different purposes” Journal of Al-Azhar University Engineering Sector 14 (50), 130-135.
10. Jong-Gwan Kim, Mahrous A. M. Ali & Hyung-Sik Yang, 2019 “ Robust Design of Pillar Arrangement for Safe Room-and-Pillar Mining Method”, Geotechnical and Geological Engineering volume 37, pages1931–1942.
11. Mahrous A.M. Ali, H.S. Wasly, W.R. Abdellah and Hung Doo Jang, 2018 “ Optimization of blending operation for Aswan phosphate mines using linear programming” Mining of Mineral Deposits 12 (4), 1-8

12. Wael R. Abdellah , Mahrous A. Ali , Gamal Y. Boghdady , Hyung-Sik Yang " Studying the effect of some parameters on the stability of shallow tunnels" Journal of Sustainable Mining.
13. Mahrous A. M. Ali, 2018, "Software application in mining engineering" journal of Mining of Mineral Deposits". <https://doi.org/10.15407/mining12.01.048>, Volume 12, Issue 1, pp. 48-53
14. Wael R. Abdella and Mahrous A. M. Ali, 2017, "Stability analysis of vertical and inclined backfilled stope "Journal of Engineering Sciences, Assiut University Faculty of Engineering Vol. 45 No. 1 January PP. 70– 79
15. Mahrous A. M. Ali, G Yehia B, EI Wael R. Abdellah, "Evaluation of the Effect of Rock Joints on the Stability of Underground Tunnels". Journal of Civil Engineering and Architecture Research 3 (11), 1790-1799
16. Mahrous A. M. Ali, K. Abd El Aal, Wael Abdellah, 2016, "Drillability International Journal of Research in Engineering and Technology 5 (10).
17. Mahrous A. M. Ali and Hyung-Sik Yang "A study of some Egyptian carbonate rocks for the building construction industry ". International Journal of Mining Science and Technology. International Journal of Mining Science and Technology Volume 24, Issue 4, July 2014, Pages 467–470.
18. Hyung-Sik Yang, Won-Beom Kim and Mahrous A. M. Ali "Performance of pillar design in underground stone mines including the discontinuity ". Taylor & Francis, Geosystem Engineering, 2012, 1–8.
19. Mahrous A. M. Ali and HyungSik Yang "Transportation Problem: A special Case for Linear Programming Problems in Mining Engineering ". International Journal of Mining Science and Technology 22 (2012), 371–377.
20. Mahrous A. M. Ali and Hyung-Sik Yang "Utilization of Cement Kiln Dust in industry Cement Bricks ". Geosystem Engineering, March 2012, Vol. 14, No.1, pp. 29–34.
21. Mahrous A. M., Mostafa Tantawi M, Hassan A. A. ElSageer "Evaluation of the Engineering Properties of some Egyptian Limestones as Construction Materials for Highway Pavements ". Construction and Building Materials 24 (2010), 2598–2603.

- **Conferences Publications**

1. Mahrous A. M. Ali and Hyung-Sik Yang "Determination of drillability of some different concrete layers and their association with concrete properties ". Al-Azhar Engineering Twelfth International Conference, December 2012, Cairo, Egypt, pp. 23-27.
2. Mahrous A. M. Ali and Hyung-Sik "The drillability assessment of concrete using rotary drilling speed ". The Korean Society for Geosystem Engineering conference, South Korea, May 3-4, pp. 296–298, 2012.
3. Mahrous A. M. Ali and Hyung-Sik Yang "Pillar design under large angular discontinuities in underground limestone mines ". The Korean Society for Geosystem Engineering, Chonbuk National University, South Korea, Apr. 21-22, 2011, pp. 130–132.
4. Mostaf M. M. A. El-Beblwi, Mohamed A.Y., Hassan A. A. El Sageer, Mostaf T. Mahrous A. M. "Quality Index to determine the Optimum Utility of some Egyptian Limestones as Building, Road Construction and Cement Industry ". 11th International Conference on Mining, Petroleum and Metallurgical Engineering. Mining and Metallurgical Department, Faculty of Engineering, Suez University, Egypt, pp. 555–565, Sharm El-Sheikh, March 15-19, 2009.
5. Mostaf M. M. A. El-Beblwi, Mohamed A.Y., Hassan A. A. El Sageer, Mostaf T. Mahrous A. M. "Evaluation and Transportation Problem of Gravel Quarries, Qena Governorate, Egypt". 10th International Conference on Mining, Petroleum and Metallurgical Engineering. Mining and Metallurgical Dept. Faculty of Engineering, Assiut University, Egypt., pp.301–318, , 2007.
6. Mostaf M. M. A. El-Beblwi, Mohamed A.Y., Hassan A. A. El Sageer, Mostaf T. Mahrous A. M. "Comparison between Some Methods Used in Solving Transportation Problem ". 10th

International Conference on Mining, Petroleum and Metallurgical Engineering. Mining and Metallurgical Dept. Faculty of Engineering, Assiut University, Egypt. pp. 289-300, March 6-8, 2007.

Delivered Speech

- Title: "African resources" workshop held in Don-a National University, South Korea Sept. 2015.
- Title: "Optimization in surface mines (transportation, loading, and breaking" Chosen National University, South Korea Sept. 2015.
- Title: "Settlement of Shallow Foundations Placed on Limestone Rock Formations" Chonnam National University South Korea, Jun. 2015.

Students Supervision

- Master Theses Supervision
 - 1- Ahmed Sayed "Effect of drilling fluid properties and geotechnical parameters on the rate of rock penetration", Al-Azhar University, Egypt. Started, Sept. 2014.
- Bachelor Theses Supervision
 - 1- Mohamed Abdeen, "Quarry design- Granit extraction and Evaluation for different purposes", Faculty of Engineering, Al-Azhar University Egypt. Completed, June 2014.
 - 2- Ahmed Mohammed Salah El-Gendy "Mine Design and Planning of Some Phosphate Mines-East Sibaiya-Idfo-Aswan", Faculty of Engineering, Al-Azhar University Egypt. Completed, June 2016.
 - 3- Ahmed Alshaat Almondly Allam" Studying the Effect of Some Geological Factors and Operating Parameters on the Drilling Rates in Different Rocks "Faculty of Engineering, Al-Azhar University Egypt. Completed, June 2016.
 - 4- Abdelnasser Mohmaed "Survey application in urban road design" Sohag University 2016.
 - 5- Abdelal Magdey "Survey application in swimming pool design" "South Valley University 2017.
 - 6- Mostafa Ramadan "Survey application in urban road design" South Valley University 2017.

Pedagogical Merits

Al-Azhar University

Qena, Egypt

Assistant Professor – I was responsible of teaching the following subjects for undergraduate classes: -

- Rock mechanics
- Fundamentals of rock drilling
- General Geology
- Structure Geology
- Surface mine design
- Underground mine design
- Mine sampling
- Statistical analysis
- Topographic and Plane Survey (Faculty of Technology, South Valley University- Egypt 2014-2016).
- Mine survey.

- Manger of Incubated Teams – RWAQ Business Incubator Al-Azhar University).
- Manger of Grants and International Co-operations Office (GICO) in Technology Innovation Commercialization Office (TICO Al-Azhar University).

Al-Azhar University

Qena, Egypt

Teaching Associate – I was in charge of teaching the following subjects for undergraduate classes: -

- Project Economic and Valuation
- Phosphate industry
- Construction and building materials
- Material Handling
- Surface Mining Engineering
- Introductory of Mining Engineering

Al-Azhar University

Teaching Assistant – I was in charge of teaching the following subjects for undergraduate classes: -

- Material Science
- Plane survey
- General Geology
- Rock Mechanics
- Conducting postdoctoral research.
- Supervisor of postgraduate students.
- Teaching some course for undergraduate students, Faculty of Engineering, Al-Azhar University. Egypt.
- Teaching some course for undergraduate students, Faculty of Engineering, South Valley University, Egypt.
- Teaching some course for undergraduate students, Geographic Dept. Faculty of Art, Sohag University.
- Supervisor of graduation projects funded by Academy of Scientific Research and Technology (ASRT), Egypt.
- Conducting postdoctoral research
- Writing project proposals and attracting external funds.

Judge Committee:

- ISEF (Intel Science & Engineering Fair, Luxor 2016),
- ISEF Qena 2015. (judge@isef-eg.com, <https://isef-eg.com>),
- ISEF (Intel Science & Engineering Fair Qena 2014),
- IMSEF Luxor 2014, Final Upper Egypt (ISEF 2014).

Training Skills:

- Successfully completed 35 total mine of 3D geological modelling on lime course Apr.20, 2020. Udemey platform.
- Attended 1st International Virtual Multidisciplinary Conference Entitled: *MAINTENANCE OF A SAFE LIFE DURING THE PANDEMIC* (2 4th - 2 7th September 2020).
- Participate in E-Learning Design for University Teaching and learning workshop on Jun. 23,2020.

- Participate in E-Learning unite, Al-Azhar University Egypt, in title Moodle training for University staff workshops on Jun., 24-25, 2020.
- Participate in E-Learning unite, Al-Azhar University Egypt in title Google classroom training workshops on Jul, 8-9,2020.
- Attended the workshop, Al-Azhar University Egypt of Digital Transformation in Egyptian Universities (Challenges and Opportunities), Jul., 13,2020.
- Micromine Basic, attended the online training course held on 14 - 18 September 2020.
- Successfully completed the following course online and scored 100/100 E-Learning breaking time, space and pandemic. The ITRDC in University of Kufa, Iraq.
- Attended in the Training Virtual Conference Entitled: Improvement of Research Skills of Students and Youth Researchers, 09 - 10 October 2020. BIOSCIENCES RESEARCH SUPPORT FOUNDATION.
- attended the following Improving Grant Success: What Funders Look For? at Egyptian Knowledge Bank, on Thursday 17 September, 2020.
- Successfully completed 1 total hour of learning Excel from scratch on line course, July, 28, 2020.
- Successfully completed 1 total hour of projects cost management, estimating, budgeting and control online July, 28, 2020.
- Successfully completed 6.5 total hours of advanced data sciences, technique in SPSS on line course on July, 28,2020.
- Successfully completed 3 total hours of statics with R beginner level on line course on July, 28, 2020.
- Successfully completed 4 total hours of technology o online teaching a guide of Educators online course on July, 28,2020.
- Successfully completed 21 total hours of R programming online course on July, 28,2020.
- Successfully completed 1 total hour of waste dump design 101 online course on Apr., 20,2020.
- Completed the workshop on "**Introduction to Intellectual Property**", INNOVETY
- Completed the workshop on "**Patent Information and Patent Search**", INNOVETY
- Completed the workshop on "**Market Research Study**", ASRT
- Successfully completed the requirements for the course entitled "**Anatomy of a Technology License Agreement and Deal Making**" ASRT
- Completed the workshop on "**Business Strategy and planning with IP**" INNOVETY
- Completed the workshop on "**Market Opportunity Mapping, TTO workshops**" SEED
- Participations in **2nd and 3rd Cairo International Exhibition of Innovation**
- Participation in the "**second student conference**" in faculty of engineering Al-Azhar University, Qena, under the supervision of TICO Azhar office, May,2016
- Participation in **Bedaya Weekend** Qena
- Participation in **Bedaya Weekend** Luxor
- Participation in **Bedaya Academy** Qena.

Technical Skills

Computer and Software: MATLAB, Rock Lap, RS 2D, Surpac, Minex, Micromine.

Productivity Tools: Microsoft Office 2003; 2010.2016.

Spoken Languages: Arabic (Mother Tongue), English (Very Good).

Honors and Awards

South Korea

Postdoctoral Collage of Engineering, Chonnam National University, Gwang-Ju, March, 2015- Sept. 2015.

PhD Scholarship, Collage of Engineering, Chonnam National University, Gwang-Ju 2010-2013

Egypt

Best Teaching Assistant prize from Faculty of Engineering, Al-Azhar University, Qena, Egypt, 2005, 2006.
Ranked 2nd in Bachelor study 1996–2001, Graduated with GPA: 77.13 of 100.

References

Prof. Hyung-Sik Yang

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Vice Dean, Faculty of Engineering- Qena, Al-Azhar University,
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