CURRICULUM VITAE

For: Prof. Dr

Mohammed Ahmed Sayed Abdel-Al

Professor of Well Drilling Engineering, in Mining and Metallurgical Engineering Department- Faculty of Engineering - Assiut University-Egypt

Personal data:

Name : Mohammed Ahmed Sayed

Personal address : Mining & Metal. Engineering Dept. Faculty of

Engineering, Assiut University, Assiut-Egypt

Date of birth : 1/10/1956

Place of birth : Alwasta, Assiut, Egypt

Nationality : Egyptian Marital status : Married

Number of children : 4

Major area : Mining Engineering

Area of specialization : Drilling Engineering in Mines & Petroleum

Education and academic degrees

B. Sc. "Mining and Metallurgical Engineering", Faculty of Engineering, Assiut University, Assiut, Egypt, 1980.

M. Sc. "Mining Engineering", Faculty of Engineering, Assiut University, Assiut, Egypt, 1987.

Thesis title:

"Geostatistical methods as a tool to determine some mine parameters"

PhD. "Mining Engineering", Faculty of Engineering, Assiut University, Assiut, Egypt, 1992

Thesis title:

"Development and optimization of drilling systems"

Assistant Professor, "Mining Engineering", Faculty of Engineering, Assiut University, Assiut, Egypt, 1998

Professor of Well Drilling Engineering, "Mining Engineering", Faculty of Engineering, Assiut University, Assiut, Egypt, 2003

Experience:

1982-1983: Mining engineer in Abu-Tartor phosphate project, New Valley, Egypt.

1983-1987: Demonstrator, Mining and Metallurgical Engineering Dept., Faculty of Engineering, Assiut University, Assiut, Egypt.

1987-1989: Assistant lecturer, Mining and Metallurgical Engineering Dept., Faculty of Engineering, Assiut University, Assiut, Egypt.

1989-1991: At "Technical University of Clausthal, Germany", to conduct the experimental Part of the PhD researches (in The Institute of Petroleum Engineering)

1992-1998: Lecturer of Well Drilling Engineering, Mining and Metallurgical Engineering Dept., Faculty of Engineering, Assiut University, Assiut, Egypt. 1998-2003: Assistant Professor, Mining and Metallurgical Engineering Dept., Faculty of Engineering, Assiut University, Assiut, Egypt.

2003-Now: Professor of Well Drilling Engineering, Mining and Metallurgical Engineering Dept., Faculty of Engineering, Assiut University, Assiut, Egypt 2012-2013: Head of the Mining and Metallurgical Engineering Dept., Faculty of Engineering, Assiut University, Assiut, Egypt.

Scientific Activities

Teaching:

I have assisted in teaching the following undergraduate courses, in the faculty of engineering-Assiut university, from 1983 to 1998.

- 1. For preparatory year students: Chemical engineering Technical writing.
- 2. For first year Mining Students: Plan surveying
- 3. For second year Mining Students: Topographic Surveying.
- 4. For third year Mining Students: Surface mining technology Underground mining technology.
- 5. For fourth year Mining Students: Mine machinery- mine surveying project mine engineering project- Geophysics.

From 1998 till now, I am actually teaching the following courses in the <u>faculty</u> of engineering-Assiut university:

- For 2nd year mining students: Drilling Engineering
 For 3rd year mining students: Drilling Methods and their applications.
- 3. For 4th year mining students: Elective course for Mine Engineering project "Safety drilling techniques."- Prospecting and Exploration for minerals

From 2002 till now, I am actually teaching the following courses in the faculty of engineering-Al-Azhar university:

- 1. For third year mining students: Underground mining technology- Mine sampling and ore reserves estimation.
- 2. For Fourth year mining students: Drilling and Blasting Engineering

Modern scientific conferences:

- Participating by a scientific paper and a member of the Preparatory Committee of the Seventh International Scientific Conference of Mining, Metallurgy and Petroleum Department of Mining Engineering and Metallurgy - Faculty of Engineering - Assiut University, 5-7 - February 2001.
- Participation in the International Conference for Development and Environment in the Arab world – in the Environmental Studies and Research Center - University of Assiut. From 26 to 28 March 2002
- Subscribe by a scientific paper and attendance at the Eighth International Scientific Conference for the Mining, Petroleum and Metallurgy - Suez Canal University from March 17 to 19, 2003

- Subscribe by a scientific paper and attendance at scientific conference Ninth International Mining, Petroleum and Metallurgy - University of Cairo from 21 to 24 February 2005
- Subscribe by a scientific paper and <u>Treasurer of the Seventh International Scientific Conference of Mining</u>, <u>Metallurgy and Petroleum</u> Department of Mining Engineering and Metallurgy Faculty of Engineering Assiut University from 6 to 8 March 2007.

Attendees to participate in the Fifth International Conference on Geology of Africa - Geology Department, Faculty of Science - Assiut University from March 23 to 24, 2007

Scientific tasks:

- A scientific mission to Poland six months from 28/03/1997 to 28/09/1997

Recognition and appreciation:

- Prize for the best scientific research from the Faculty of Engineering - Assiut University for the academic year (2004/2005)

Participation in the Applied projects

- Mine surveying projects in different governorates in Egypt.
- Research projects on energy consumption (Structural and building materials) in mining and metallurgy industries in Egypt.
- Research projects on Evaluation of Structural and building materials in Upper Egypt.
- Mining Engineering Projects for 4th year students.
- Research project on Reparation and Supporting Pillars of Amenhotep III Temple in Luxor, Egypt

Participate in the development of university courses for Higher Studies students

• Well Drilling technology:

Course for postgraduate studies diploma in Surface mining engineering

• New Drilling Machines and their Applications

Course for postgraduate studies diploma in Drilling engineering

• Advanced Studies in Drilling Engineering

Course of Master of Science in Drilling engineering

• Future of drilling operations

Course for Doctor of philosophy in Drilling engineering

Supervision on the scientific Thesis:

I am one of the supervision committee on 5 master thesis. Three thesis are completed and published and one thesis well be ready through 3-6 months. The last one is in the first year and may be need some time. The following are the Titles and the members of the supervision and examined committees for the published thesis.

- Improvement of Drilling and Blasting Performance to Minimize the Mining Cost in Limestone Quarry, Assiut Cement Company
 By Shehata Thabet Hassan ,Assiut, Egypt 2006
- Drilling Parameters In Relation To Penetration Rates, As a Tool to Predict the Type of Rock

By Wael Rashad El-Rawy Assiut, Egypt 2007

• Effect of Some Geological Factors and Operating Parameters on the Drilling Rate in Different rocks
By Helal H. Mohamed, Assiut, Egypt 2013

Participate in the committees of grades monitoring for undergraduate students

- Member of the monitoring grades committees for students of Civil Engineering Department, Electrical Engineering Department and Architecture Engineering Department for a long time (1995-2007)
- Chairman of the monitoring grades committees for students of Electrical Engineering Department for three years from 2008-2011

Language

- 1. Arabic
- 2. English
- 3. Germany

MAJOR RESEARCH TOPICS

- DRILLING ENGINEERING IN MINES AND PETROLEUM
- GEOSTATISTICAL EVALUATION OF ORE RESERVES
- CONSTRUCTION AND BUILDING MATERIALS
- ROCK CUTTING

List of Publications

- 1. **Mohamed Ahmed Sayed**, Mamdouh Y. Hussein and Mustafa M. El-beblawi, " Experimental Investigation of Rock Cutting Forces For Application in the Design of Mining Cutting Machines", Al-Azhar Engineering Third International Conference, Cairo, Egypt, Vol. 9, pp. 258-269, Dec. 18-21, 1993.
- 2. **Mohamed Ahmed Sayed**, Mamdouh Y. Hussein and Mustafa M. El-beblawi, "A study of some effective drilling variables for the optimization of drilling characteristics", The forth mining, Petroleum and Metallurgy Conference, Vol. 1, pp. 179-191, Assiut, Egypt, Feb. 5-7, 1994.
- 3. **Mohamed Ahmed Sayed**, Mamdouh Y. Hussein, Mustafa M. El-beblawi and Marx C., "Effects of some rock properties and hole diameter on the depth of cut and specific energy in drilling operations", The forth mining, Petroleum and Metallurgy Conference, Vol. 1, pp. 192-202, Assiut, Egypt, Feb. 5-7, 1994.
- 4. Mohamed Ahmed Sayed "A Mathematical Model of Single Bit-tooth to Relate Some Drilling Parameters" Bulletin of the Faculty of Engineering, Assiut University, Vol. 22 No. 2 July 1994.
- 5. **Mohamed Ahmed Sayed**, "Optimization of the Face Length of the Long wall Mining Method (Case study Related to Production Rate", Bulletin of The Tabbin Institute for Metallurgical Studies, No. 66 pp. 86-94, July 1995.
- 6. **Mohamed Ahmed Sayed** and Hassan Ali A. El-Sageer "Comparative Study Between Kriging Blocks of the Random Stratified Grids (RSG) and Some Methods for ore Reserve Estimation", Bulletin of the Faculty of Engineering, Assiut University, Vol. 23 No. 2 July 1995.
- 7. Hassan A. El-Sageer and **Mohamed Ahmed Sayed** "Dilution of Tin Ore at Eastern Desert Egypt as a Controlling Factor to Design an open-pit Mine", The forth International Conference, Faculty of Engineering, Al-Azhar University, Cairo, Egypt Vol. 9, pp. 116-124, Dec. 16-19, 1995.
- 8. **Mohamed Ahmed Sayed**, Hassan A. El-Sageer and Mamdouh Y. Hussein, "Evaluation of Some Engineering Properties of Some Egyptian Limestone as Controlling Factors For Highways Construction and Cement Industry", The third International Conference for Building and Construction, InterBuild, 96, Cairo, Egypt, Vol. 1, pp. 323-332, 27 June-1st. July 1996.
- 9. Hassan A. El-Sageer, **Mohamed Ahmed Sayed** and Mamdouh Yousef Hussein "A Study on The Possibility of Using Some Assiut Limestone As Building and Construction Materials", The Fifth Mining, Petroleum and Metallurgy International Conference, Vol. II Mining and Geological Engineering, pp. 27-36, Suez, Egypt, 22-26 Feb. 1997.
- 10. **Mohamed Ahmed Sayed** "Prediction of the Percussive Drill penetration Rate by the Specific Energy Transfer to Rock in Compression Tests", Gornictwo, The

- Bulletin of the Faculty of Engineering, The University of Mining and Metallurgy, Cracow, Poland, Sept. 1997.
- 11. **Mohamed Ahmed Sayed**, "Influence of Stress-Strain Parameters of Rocks on Prediction of the Drilling Penetration Rate", Report prepared during the visiting to Department of Geomechanics and Geotechnics, Faculty of Mining, Academy of Mining and Metallurgy, Cracow, POLAND, September 1997.
- 12. **Mohamed Ahmed Sayed** "Experimental study of the drill bit abrasion and rock abrasiveness", Bulletin of the Faculty of Engineering, Assiut University, Vol. 28 No. 2, pp. 125-133, May 2000.
- 13. **Mohamed A. Sayed**, Mustafa El-Beblawi and Kukialka S., "Relationships between some rock properties and cutting efficiency at constant power consumption", 7th Inter-national Conference on Mining, Petroleum and Metallurgical Engineering (MPM) Vol. 1 Mining Engineering, pp. 287-298, Assiut- Egypt, 10-12 February, 2001
- 14. **Mohamed Ahmed Sayed**, "Relation Between Operating Parameters and Bit performance in Diamond Core Drilling", 7th Inter-national Conference on Mining, Petroleum and Metallurgical Engineering (MPM) Vol. 1 Mining Engineering, pp. 322-332, Assiut- Egypt, 10-12 February, 2001.
- 15. **Mohamed Ahmed Sayed**, "Optimum Number of Drilling Machines Required for any Production Plan", Bulletin of the Faculty of Engineering, Assiut University, Vol. 29 No. 3 (2/2), pp. 225-262, September 2001.
- 16. **Mohamed A. Sayed** and Abdel Nasser M. Abdel Rhman," Using Diamond Core Drilling Parameters For Identifying The Rock Type To Be Drilled" Journal of Engineering Sciences, Assiut University, Vol.30, No. 4, pp 1011-1025, October 2002.
- 17. **Mohamed A. Sayed**, Mustafa T. Mohamed, Mustafa El-Beblawi and Shehata T. Hassan "Improvement Of The Bench Blasting Parameters To Reduce The Drilling and Blasting Costs", Journal of Engineering Sciences, Assiut University, Vol. 31, No. 1, pp 161-174, January 2003.
- 18. **Mohamed. A. Sayed** and Sabry. A. Abdel Sabour, "A Method For Optimizing The Mine Plan Based On Geostatistical And Economic Concepts", Journal of Engineering Sciences, Assiut University, Vol. 31, No. 2, pp 459-470 April 2003.
- 19 **Mohamed A. Sayed**, Elseman I. Abdel Rasoul, Mustafa T. Mohamed and Shehata T. Hassan "Correction Of The Toe Problem In Front of Blast Holes For Assiut Cement Limestone Quarry", Journal of Engineering Sciences, Assiut University, Vol. 31, No. 2, pp 471-484 April 2003.
- 20 Tantawy M. M, **Sayed M. A**, Abdel-Hak, H. A and Hussein M. Y, "Proper Sandstone Rock For Reparation and Supporting Pillars of Amenhotep III Temple in Luxor, Egypt",

 Journal of Engineering Sciences, Assiut University, Vol. 32, No. 2, Part: B, pp

- 961-968, April 2004.
- 21 Mohamed A. Sayed, "Historical Development of Drilling Techniques in Mines ",9th International Mining, Petroleum and Metallurgical Engineering Conference (MPM), Faculty of Engineering, Cairo University, 21-24 February, 2005.
- 22 Mohamed A. Saved, Mostafa T. Mohamed, Mostafa El-Beblawi and Wael R. El-Rawy, "Effect of Weight on Bit and Rotary Speed on Drilling Rate and Specific energy Using Different Racks", Accepted for publication in the 10th International Conference on Mining, Petroleum and Metallurgical Engineering (MPM), Assiut- Egypt, 6-8 March, 2007.
- M. M. El-Beblawi, M. A. Sayed, M. T. Mohamed and W. R. El-Rawy, "Some Drilling Parameters As A Tool To Predict Different Categories Of Rocks", Journal of Engineering Sciences, Assiut University, Vol. 41, No. 2, Part: B, April 2007.
- Mohamed A. Sayed and Gamal Y. Boghdady, "Optimization of Diamond 24 Core Bit Performance Utilizing High Rotary Speed in Drilling Limestone Rocks", Journal of Engineering Sciences, Assiut University, Vol. 38, No. 6, pp. 1531-1543, November 2010.
- 25 Mustafa M. Elbeblawi¹, Mohamed A. Sayed², Gamal Y. Boghdadi³ and Helal H. Hamd-Allh⁴, "Effect of operating parameters and formation properties on penetration rate in some sandstone rocks by using diamond core bit" Journal of Engineering Sciences, Assiut University, Vol. 40, No 2, pp. 581-594, March 2012.
- 26 Mustafa M. Elbeblawi¹, Mohamed A. Sayed², Mostafa T. Mohamed and Mohamed E. I. Abdel-Rasoul, "Distribution and Implementation of Drilling Machines at the Quarry Benches" Revista Minelor Mining Revue, An International Journal of Mining and Environment: Vol. 20 No. 1/2014, University Publishing House, Petrosani, Romania

The Author

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