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# <u>RESUME</u>

## Prof. ABBAS AIFAN AL-HARTHI

PROFESSOR DEPARTMENT OF ENGINEERING & ENVIRONMENTAL GEOLOGY FACULTY OF EARTH SCIENCES KING ABDULAZIZ UNIVERSITY

# <u>RESUME</u>

## PERSONAL INFORMATION

		Dr. ABBAS AIFAN ALHARTHI
Nationality	:	Saudi
Birth Date	:	March 26, 1962
Birth Place	:	Taif Saudi Arabia
Education	:	Ph.D. in Engineering Geology and Geohazards
Address	:	Dept. of Engineering & Environmental geology, FES, KAAU,
Address	•	P. O. Box 80206, Jeddah 21589
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#### **EDUCATION**

- Ph. D. Engineering Geology (Geohazards), 1993, The University of Leeds, UK
- M. Sc. Engineering Geology, 1988, King Abdulaziz University, Jeddah, Saudi Arabia.
- B. Sc. Geology, 1983, King Fahad University of Petroleum and Minerals, Dhahran, Saudi Arabia.

## ACADEMIC RANKS

- Demonstrator, Engineering Geology Department, Faculty of Earth Sciences, King Abdulaziz University, Jeddah. 1985 1993.
- Assistant Professor, Engineering Geology Department, Faculty of Earth Sciences, King Abdulaziz University, Jeddah. 1993 – 1998.
- Associate Professor, Engineering Geology Department, Faculty of Earth Sciences, King Abdulaziz University, Jeddah. 1998 – 2004.
- Professor, Engineering Geology Department, Faculty of Earth Sciences, King Abdulaziz University, Jeddah. 2004 – Present.

## ACADEMIC AND ADMINSTRATIVE POSITIONS

- 2007–Present **President** of GESCO Consultation Office.
- 2004 -present **Professor**, Engineering & Environmental Geology Department, Faculty of Earth Sciences, King Abdulaziz University, Jeddah.
- 2004–2009 Vice-Dean for Development, Faculty of Earth Sciences, King Abdulaziz University, Jeddah.
- 2002 2004 Chairman, Engineering and Environmental Geology Department
- 2001-2013 Part-Time consultant, RIO Company, Jeddah, Saudi Arabia.
- 02/2001 Acting **Dean** -Faculty of Earth Sciences, King Abdulaziz University, Jeddah.

2	RESUME PROF. ABBAS AIFAN AL-HARTHI	
10/ 2000	Acting <b>Dean</b> -Faculty of Earth Sciences, King Abdulaziz Universi Jeddah.	ty,
1998-2000	<b>Vice-Dean</b> for Post-Graduate Studies & Scientific Research-Faculty Earth Sciences, King Abdulaziz University, Jeddah.	of
1998- 200	) Part-Time <b>consultant</b> , <b>Soil &amp; Foundation Company</b> , Jeddah, Saudi Arabia.	
1998-2004	Associate Professor, Engineering & Environmental Geolo Department, Faculty of Earth Sciences, King Abdulaziz Universi Jeddah.	<b>U</b> .
1997-1998	Part-Time <b>consultant</b> , <b>Saudi AKR Engineering Consulta</b> <b>Company</b> , Jeddah, Saudi Arabia. Engineering geological studies a mapping, site investigation, mining works and engineering, ro blasting and environmental studies.	nd
1995-1998	<b>Chairman</b> , Engineering Geology Department, supervised the development of the department courses, laboratories, graduate studies and researches.	3

- 1993-1998 Assistant Professor, Engineering Geology Department, Faculty of Earth Sciences, King Abdulaziz University, Jeddah. Taught undergraduate and graduate courses in the subject of engineering and environmental geology, rock mechanics engineering, field training and mapping and advised both graduate and undergraduate students.
- 1990-1993 **Graduate student,** The University of Leeds, UK. Engineering geology of underground excavations and their stability (Geohazards).
- 1985-1990 **Demonstrator,** Engineering Geology Department, Faculty of Earth Sciences, King Abdulaziz University, Jeddah. Taught technical training courses in computer science programming and applications, geological mapping and rock mechanics laboratory courses.

#### PART TIME CONSULTATIONS

- 2014-2016 **TAFTEET Company**, Jeddah, Saudi Arabia.
- 2001-2013 **RIO Company**, Jeddah, Saudi Arabia.
- 1998-2000 Soil & Foundation Company, Jeddah, Saudi Arabia.
- 1997-1998 **Saudi AKR Engineering Consultant Company**, Jeddah, Saudi Arabia.

# ACADEMIC ACTIVITIES

- ✓ Chairman of Carrier Day Committee for the years from 1994 to 1999.
- ✓ Chairman of the General Lecturers Committee in FES for the year 1995.
- ✓ Chairman of the Academic Affairs at FES for the year 1994/1995.
- ✓ Member of the Technical Training Departmental Board, FES for the year 1994/1995.
- ✓ Organizer for the Natural Hazards short courses for the Civil Defense Officers for the years 1995 to 2000 (4 short courses).
- ✓ Chairman and Member of several Committees dealing with academic and scientific activities at FES.
- ✓ Member of several Committees at the University.
- ✓ Established the Environmental Geology specialty within the department of Engineering Geology.
- ✓ Attended several conferences both within the Kingdom and International.
- ✓ Attended several workshops dealing with the development of Higher Education Program at King Abdulaziz University.
- ✓ Attended a workshop dealing with the "Waste water & water reuse" at King Abdulaziz University.

## ACADEMIC AND RESEARCH ACTIVITIES

- ✓ Referee of several published papers, projects and books in the field of engineering geology, rock mechanics, environmental sciences, and rock blasting and construction materials.
- ✓ Supervised more than 200 B.Sc. Reports, 16 MSc. and 3Ph.D thesis in different aspects of Engineering & Environmental Geology and Geohazards.
- ✓ Academic supervision of 8 Postgraduate students.
- ✓ Consulted several Government Agencies and Private Establishments in the field of Engineering Geology, Geohazards and foundation engineering.
- ✓ Principal Investigator of more than (5) supported projects by the Scientific Research Administration and the Institute of Consultation and Researches at King Abdulaziz University (Project # 416/064, Project # 419/206, Project # 421/202, Project # 421/609 and Project # 20 - 1).
- ✓ Co-Investigator of Two (2) supported projects by the Scientific Research Administration and the King Abdulaziz City for science & technology Project # 421/609 & Project #AT- 20 -42).
- ✓ Member of the Scientific Committee of the Saudi Environmental Society, Jeddah, KSA, 1997.

# **PUBLICATIONS**

## A. Theses

- 1. <u>Al-Harthi, A. A.</u> 1983. Geology of Thanyat Turaif area, <u>B.Sc. Dissertation</u>, Department of Earth Sciences, KFUPM, 46 p.
- <u>Al-Harthi, A. A.</u>, 1986. Source and quality of aggregates around Bahrah area. <u>B.Sc. Dissertation</u>, Department of Engineering Geology, F.E.S., KAAU, 50 p.
- 3. <u>Al-Harthi, A. A.,</u> 1989. Stability analysis of shallow underground excavation in jointed rocks with emphasis on Tunnels at Al-Dela descent, Asir Province, Saudi

#### 4 RESUME

Arabia. Unpublished <u>M. Sc. Thesis</u>, Faculty of Earth Sciences. King Abdulaziz University, Jeddah, Saudi Arabia, 307 p.

4. <u>Al-Harthi, A. A.</u>, 1993. Physical and Numerical Modeling of shallow underground excavations in jointed rock masses. <u>Ph.D. Thesis</u>, University of Leeds, Leeds, UK 312 p.

## **B.** Technical Reports and Projects

- 1. <u>Al-Harthi A. A.</u> and Amin, A. A. 1996 -1997. Natural aggregates in Makkah Governate. <u>Technical Proposal and Progress Reports # 1,2 & 3</u> submitted to Office of Scientific Research, King Abdulaziz University, (Project No. 416/064).
- <u>Al-Harthi A. A.</u> and Amin, A. A. 1997. Natural (Source and quality) aggregates in Makkah Governate. <u>Final Report</u>. Office of Scientific Research, King Abdulaziz University, (Project No. 416/064).
- 3. <u>Al-Harthi A. A.</u>, AlWagdani, A. S. and Amin, A. A. 1998-1999. Flooding hazards at Al-Lith area, Makkah Governate. <u>Technical Proposal and Progress Reports # 1,2 & 3</u>, Office of Scientific Research, King Abdulaziz University, (Project No. 419 / 206).
- <u>Al-Harthi A. A.</u>, AlWagdani, A. S. and Amin, A. A. 2000. Flooding hazards at Al-Lith areas, Makkah Governate. <u>Final Report</u>, Office of Scientific Research, King Abdulaziz University, (Project No. 419 / 206).
- <u>Al-Harthi A. A.</u>, AlHjar, A. S. and Mohorji, A. M. 2000. Environmental assessment of Mining operation of gypsum deposits at Jabal ALRagamah Magna Tabuk Governate for Tabuk Cement Company. <u>Final Technical Report</u>, Institute of Consultation and Research, King Abdulaziz University, (National Project No. 20 1).
- 6- <u>Al-Harthi A. A.,</u> AlHjar, A. S., Jawdah, A. H. and Goshari, M. AH. 2001. Environmental evaluation of disposal sewage-water at Wadi Uranah, South Makkah, King Abdulaziz University, Office of Scientific Research, King Abdulaziz University, (Project No. 421 / 202).– with Saudi Geological Survey, SGS, Jeddah.
- 7- AlHjar, A. S., Kordi, M, <u>Al-Harthi A. A.</u>, and Hariri, M. 2001. Collection and documentation of environmental academic expertise, studies and researches at King AbdulAziz University, Office of Scientific Research, King Abdulaziz University, (Project No. 421 / 609).
- 8- <u>Al-Harthi A. A.</u>, AlWagdani, A. S., AL-Gamdi, A. S. and Al-Dowa'an M. I. 2003. Flooding hazards at the Holey Shrines, Makkah Governate, Office of Scientific Research, King Abdulaziz University, (Project No. 423 / 201).

Conducted More than 200 Technical consultation reports in the field of Engineering Geological studies (GESCO Office <u>www.gesco-sa.com</u>) 2007-2020.

## **<u>C. Refereed Publications</u>**

- <u>Al-Harthi, A. A., Zakir, F. and Eissa, E.</u>, 1990. Stability evaluation of proposed traffic Tunnel No. 3 at Al-Dela descent, Asir Province, Saudi Arabia. <u>Journal, KAAU: Earth Sciences.</u>, Vol. 3, Special issue, 1st Saudi Symp. on Earth Sci., Jeddah, S.A., pp. 325-329.
- <u>Al-Harthi, A. A.</u> and Hencher, S. R., 1993. Modeling stability of the Pen-Y-Clip tunnel. UK <u>EUROCK 93</u>, on Safety and Environmental Issues in Rock Engineering, ISRM, Lisbon, A. A. Balkema, pp. 451-459.
- 3. <u>Al-Harthi, A. A. and Hencher, S. R.</u>, 1993. On the effect of block size on the shear behavior of jointed rock masses. <u>Proc. 2nd Int. Workshop on Scale Effects</u> in Rock Masses, ISRM, Lisbon, A. A. Balkema, pp. 205-209.
- 4. <u>Al-Harthi, A. A.</u>, 1993. Application of CSIR and NGI classification systems along tunnels No. 3 at Al-Dela descent, Asir Province, Saudi Arabia. In the Engineering Geology of Weak Rock., <u>Proc. 26th Annual Conf</u>. of the Engineering Group of the Geological Society., Special Publication No.8., pp. 323-328.
- Abou-Sadah, Y., <u>Al-Harthi, A. A.</u>, Abosafiah, M. and Al-Tayeb, M., 1994. Effect of sulphates and material finer than sieve # 200 on the hardened cement concrete. <u>Proc. 7th Int. IAEG Cong</u>. A. A. Blkema, pp. 3201-3205.
- 6. <u>Al-Harthi</u>, A. A. and Hencher, S. R., 1995. Physical and numerical modeling of underground excavations in dilational rock masses. <u>Proc. 2nd ISRM Conf. on</u> <u>Fractured and Jointed Rock Masses</u>, Lake-Tahoe, 1992, CA., USA, pp. 608-615.
- 7. Al-Derbi, M. S. and <u>Al-Harthi, A.</u> A., 1995. Geotechnical Evaluation of the sadus Area Limestone. <u>Journal KAAU: Earth Sciences Vol. 8</u>, pp. 159-173.
- <u>Al-Harthi, A.</u> A., Shehata, W. M., and Abo-Saada Y. E. 1997. Anisotropy of Wadi Lisb Marble. <u>The Arabian Journal for Science and Engineering, KFUPM</u>, Dhahran, Vol. 22: 2A, pp. 145-154.
- <u>Al-Harthi, A. A.</u>, and Abo-Saada Y. E., 1997. Wadi natural aggregates in Western Saudi Arabia for use in concrete. <u>Bulletin International Association of</u> <u>Engineering Geology</u>, No. 55, pp. 27-37.
- 10. Al-Qudami, M. D., Shehata, W. M., <u>Al-Harthi A.</u> A., and Sabtan, A. A., 1997. On the weathering of Syenite under arid conditions. <u>Bulletin International Association of Engineering Geology</u>, No. 56, pp. 3-8.
- 11. <u>Al-Harthi, A. A.,</u> 1997. Effect of planar structures on the anisotropy of Ranyah Sandstone. <u>Engineering Geology</u>, Vol. 50 (1-2), pp. 49-57.
- 12. <u>Al-Harthi, A. A.</u>, and Bankher, K. A., 1999. Collapsing loess like soil at Western Saudi Arabia. <u>Journal of Arid Environments (JAE)</u>, vol. 41: 383-399.

- 13. <u>Al-Harthi, A. A.,</u> and Amin A. A., 1999. Natural aggregates in Western Saudi Arabia. <u>Bulletin International Association for Engineering Geology and the</u> <u>Environment</u>, vol. 57: 343 - 352.
- <u>Al-Harthi, A. A.</u>, AL-Amri, R. M. and Shehata, W. M., 1999. The porosity and the engineering properties of vesicular basalt. <u>Engineering Geology</u>, vol. 54: 313 -320.
- 15. Bankher, K. A., and <u>Al-Harthi, A. A.</u>, 1999. Earth fissuring and land subsidence at Western Saudi Arabia. <u>Journal of Natural Hazards (NHAZ)</u>, Vol. 20: 21-42.
- <u>Al-Harthi, A. A</u>., 2001. A field index to determine the crushability of rocks. <u>Bulletin International Association for Engineering Geology and the Environment</u>, Vol. 60 (3): 193 -200.
- <u>Al-Harthi, A. A.</u>, 2001. Environmental impacts of gypsum mining operation at Maqna area – Tabuk, Saudi Arabia. <u>Environmental geology</u>. Vol. 41:209-218.
- 18. <u>Al-Harthi, A. A.</u> 2002. Geohazard assessment of sand dunes between Jeddah and AL-Lith , Western Saudi Arabia. <u>Environmental geology</u>, Vol. 42:360-369.
- <u>Al-Harthi, A. A.</u>, 2002. Preliminary environmental assessment of the pollution of soil and water at Wadi Uranah, Makkah Al-Mukarramah, Saudi Arabia, <u>J.</u> <u>KAAU; Earth Sciences.</u> Vol. 13, pp 123-150.
- 18. <u>Al-Harthi, A. A.</u>, 2002. Geohazards assessment of sand dunes between Jeddah and AL-Lith, Western Saudi Arabia. <u>Environmental geology</u>, vol. 42:360-369.
- <u>Al-Harthi, A. A.</u>, 2004. Preliminary environmental assessment of the pollution of soil and water at Wadi Uranah, Makkah Al-Mukarramah, Saudi Arabia, <u>J.</u> <u>KAAU; Earth Sciences.</u> Vol. 13, pp 123-150.
- <u>Al-Harthi, A. A.</u>, 2004. Assessment of flooding hazards at AL-Lith area, West Saudi Arabia. <u>Annals of The Geological Survey of Egypt</u>, Vol XXVI, pp. 529-551
- Hussain A. G. and <u>Al-Harthi, A. A.</u>, 2008. Assessment of the natural impact of the wastewater to the soil and water at Wadi Uranah, Makkah, Using geophysical methods. <u>J. KAAU; Earth Sciences</u>. (In preparation).
- 22. Alsoulami, A. M., Amin A. A., and <u>Al-Harthi, A. A.</u>, 2008. Site selection for solid waste disposal for south Jeddah, Saudi Arabia. <u>Journal of Arid Environments (JAE)</u>, (In preparation).
- 23 <u>Al-Harthi, A. A.,</u> 2008. Environmental Impacts of the sewagewater on soil and groundwater, East Jeddah, Saudi Arabia. Environmental Risk Management under Modern Technological Aspects, Cairo, Egypt.

- 24 Al-Zhrani, Abdulaziz S. and AL-<u>Harthi A. A</u>. 2009. Potential geological hazards along the coastal area between al-Lith and al-Qunfudah, western Saudi Arabia. 8 th Geological Meeting, SGM-8, Saudi Geological Society.
- 25 <u>AL-Harthi A. A.</u> and Basahel, Hassan M. 2009. Rock mass quality and stability analysis of rock cuts at Makkah city, Saudi Arabia. 8 th Geological Meeting, SGM-8, Saudi Geological Society.

Conducted More than 200 Technical consultation reports in the field of Engineering Geological studies (GESCO Office <u>www.gesco-sa.com</u>) 2007-2020.

#### **THESES SUPERVISION**

- Engineering Geological evaluation of earth fissuring in Wadi Al-Yutamah, Al-Madinah Al-Munawarah. <u>Master Thesis</u>, 1996-1997, (Mr. Khalid A. Bankher – Saudi Geological Survey, SGS, Jeddah).
- Engineering Geological design of the critical debris sections at the upper part of AL-Hada Road, Taif, Western Saudi Arabia. <u>Master Thesis</u>, 1998-2000, (Mr. Abdulatif S. Algazi – ABV – Group, Jeddah).
- Solid Waste Disposal site selection (using GIS) for Southern Jeddah area, Makkah Governate. <u>Master Thesis</u>, 1999-2000, (Mr. AbdulAziz M. Al-Sulami–Saudi Geological Survey, SGS, Jeddah).
- Potential geological hazards along the coastal area between AL-Lith and AL- Qunfudah, Western Saudi Arabia, <u>Doctoral Thesis</u>, 2004, (Mr. AbdulAziz S. Al-Zahrani– Ministry of Interior- Civil Defense).
- Rock cuts stabilizations and Environmental impacts at Makkah City, Makkah Governate. <u>Master Thesis</u>, 2006-2007, (Mr. Hasan M. Basahal– Saudi Geological Survey, SGS, Jeddah).
- Stability Analysis of slope cuts along Road # 8, Jabal Fayfa, Jazan Governate. <u>Master Thesis</u>, 2009-2010, (Mr. Waheed M. Baamer–Saudi Geological Survey, SGS, Jeddah).
- Assessment and Mitigation of slope stability Hazards along Raydah Escarpment Road Asir Governate. <u>Master Thesis</u>, 2010-2011, (Mr. Mohammed M. Alkatheery –Saudi Geological Survey, SGS, Jeddah).
- Environmental impact of the wastewater to the soil and water at Wadi Uranah, Makkah, Doctoral Thesis, 2010-2011, (Mr. Abdulelah A. Bahabri KAU).
- Rock Mass Quality for Foundations of the New Ajiad Hospital Building Makkah City, <u>Master Thesis</u>, 2012-2013, (Mr. Sultan B. Albahlul –Saudi Geological Survey, SGS, Jeddah).

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- Evaluation of The Geohazards Along New Route of Al-Hada Taif, Saudi Arabia, <u>Master Thesis</u>, 2013-2014, (Mr. Ahmed Alshehri, KAU, Jeddah).
- Engineering Geological and Geohazards Assessments of The New Residential Sites Of Northn East Jeddah City, <u>Master Thesis</u>, 2013-2014, (Mr. Mushref Alshehri, MOE, Jeddah).
- Effect of Rock Types on the Environmental Impact Assessment of Mining Activity, <u>Master Thesis</u>, 2013-2014, (Mr. Abdulrahman S. Alqahtani – MOPM, Jeddah).
- Rock Mass Quality for Cut Design In Jabal Khandamah, Makkah City, <u>Master Thesis</u>, 2014-2015, (Mr. Tuhami Jameel, KAU, Jeddah).
- ☑ The effect of Disposal sewagewater on the surrounding Environments along Wadi Fatemah, Bahra Region, Makkah Governate, Saudi Arabia, , <u>Master Thesis</u>, 2015-2016,(Mr. Ahmed Alshehri, KAU, Jeddah).
- Engineering Geological map and Sand dunes Hazards Between Jeddah and Makkah Cities, Makkah Governate <u>Master Thesis</u>, 2017-2018, (Mr. Yasser A. Zarqawi –Saudi Geological Survey, SGS, Jeddah).

#### **COMPUTER SKILLS**

Applications of engineering and geological software's, Global Information System (GIS), Numerical Modeling of Geohazards, Statistics (SAS and SPSS), Lotus 123, Quattro Pro., Stat-graph packages, Power point, Microsoft Publisher, Microsoft Front-Page, Microsoft Word, Excel, Access.

#### **PROJECT CONSULTATION & MANAGEMENT:**

- Mining process of gypsum at Magna Mountain, Tabuk cement factory.
- Drilling and blasting of ring road Madinah Munawarrah area.
- Rock cut and stabilization of Slope Mountain at Mina area.
- Rock cut stabilizations of road No. 8 & 9 between Arafat and Muzdalifah.
- Extension of King Khaled Road tunnel northern from Mina to Sharaiah Taif Road.
- King Khaled road tunnel from Aziziah to second ring road Makkah Mukarramah.
- Flooding channel and road cutting at wadi Muhassir area, Muzdilifah area.
- Rock cutting and stabilizations at Jabal Omar, Makkah Mukarramah.
- Rock stabilization and slope protection for Jabal Al-Galah Makkah Mukarramah.
- Mining processing and Environmental Evaluations of Kaoline and Bauxite ore deposits at Az-Zabirah project, Phosphate ore deposits at AL-Jalamid project and at Bulgah Gold Project.
- Environmental impacts of Mining processes for Cement Companies.
- Environmental Assessment of site selections for Solid and Liquid wastes.
- Environmental Impacts of aggregate crushers.
- Geohazards Assessment of flooding, sand dunes and earthquakes.

## PROFESSIONAL SOCIETIES

- Engineering Geological Society of Leeds, UK, since, 1990.
- E Geological Society of London, Engineering Group, UK, (EZ 1003450), since 1991.
- International Assoc. for Eng. Geol. & the Environment, France (MI 501-003), since 1995.
- Saudi Society for Earth Sciences, Riyadh, KSA, (447), since 1996.
- Saudi Environmental Society, Jeddah, KSA, (225) since 1997.
- Saudi Council of Engineers (Mining and Geology) since 2003.
- Arbitration Technical Expert in Engineering Geological, Saudi Council of Engineers, SCE, since 2013.
- Engineering Geological Consultant, Saudi Council of Engineers, SCE, since 2013.

**President** of <u>Geological & Environmental Studies & Consultation Office</u>, GESCO, <u>www.gesco-sa.com</u>