

# Sattam Abdulkareem Almadani

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## **PERSONAL INFORMATION**

Born: 23 May 1977; in Taif, Saudi Arabia

Nationality: Saudi Citizen

Married, one child

## **EDUCATION**

**PhD (2011)** in Geophysics (3.32/4), Department of Geological Sciences & Engineering, Missouri University of Science & Technology (MST), Rolla, USA.

**M.S. (2003)** in Marine Physics (4.5/5), Department of Marine Physics, Faculty of Marine Sciences, King Abdulaziz University (KAU), Jeddah, Saudi Arabia.

**B.S. (1999)** in Marine Physics (3.58/5), Department of Marine Physics, Faculty of Marine Sciences, King Abdulaziz University (KAU), Jeddah, Saudi Arabia.

## **EMPLOYMENT**

(2018 - Present) **Project Manager, ISO/IEC (17025:2017)**, Faculty of Sciences, King Saud University, Riyadh, Saudi Arabia.

(2018 - Present) **Associate Professor**, Geology & Geophysics Department, Faculty of Sciences, King Saud University, Riyadh, Saudi Arabia.

(2013 - 2018) **Assistant Professor**, Geology & Geophysics Department, Faculty of Sciences, King Saud University, Riyadh, Saudi Arabia.

(2016 - 2017) **Director of Innovation Center**, King Saud University, Riyadh, Saudi Arabia.

- (2014 - 2016) **Vice Dean of the Faculty of Sciences**, King Saud University, Riyadh, Saudi Arabia.
- (2005 - 2006) **Recruitment Specialist**, Human Resources Department, Siemens Ltd., Jeddah, Saudi Arabia.
- (2003 - 2005) **Site Service Supervisor**, Human Resources Department, Binzagr Lever Ltd., Jeddah, Saudi Arabia.

### **RESEARCH INTERESTS**

- Solid-earth geophysics.
- Investigate the structure and dynamics of the Earth's crust and mantle.
- Study the distribution of seismic activities.
- Explore the interior of the Earth.
- Crustal thickness and Poisson's ratio.
- Digital signal processing.
- Crustal deformation.

### **PEER-REVIEWD PUBLICATIONS**

**-- 2014 --**

**Almadani, S.**, Ibrahim, K., Abdelrahman, K., Al-Bassam, A., and Al-Shmrani, A. (2014). Magnetic and seismic refraction survey for site investigation of an urban expansion in Abha District, Southwest Saudi Arabia. *Arabian Journal of Geosciences*, DOI 10.1007/s12517-014-1342-x3.

Reed, C., **Almadani, S.**, Gao, S., Elsheikh, A., Cherie, S., Abdelsalam, M., Thurmond, A., and Liu K. (2014). Receiver function constraints on crustal seismic velocities and partial melting beneath the Red Sea rift and adjacent regions, Afar Depression. *Journal of Geophysical Research: Solid Earth*, 119, 2138-2152, DOI:10.1002/2013JB010719.

**Almadani, S.**, Abdelrahman, K., Ibrahim, K., Al-Bassam, A., and Al-Shmrani, A. (2014). Site response assessment of an Urban extension site using microtremor measurements, Ahud Rufeidah, Abha District, Southwest Saudi Arabia. *Arabian Journal of Geosciences*, DOI 10.1007/s12517-014-1380-4.

**Almadani, S.**, Al-Amir, A., Fnais, M., Hassanein, K., Ibrahim, K., and Abd El-Motaal, S. (2014). Evaluation of geotechnical parameters for urban site in southern Kamis Mushait city, southwest Saudi Arabia using seismic refraction method. *Arabian Journal of Geosciences*, DOI 10.1007/s12517-014-1615-4.

-- 2015 --

Hisham A. Gahlan a., Shoji Arai, and **Sattam A. Almadani**. Petrogenesis of carbonated meta-ultramafic lenses from the Neoproterozoic Heiani ophiolite, South Eastern Desert, Egypt: A natural analogue to CO<sub>2</sub> sequestration (2015). *Journal of African Earth Sciences* 102-115, <http://dx.doi.org/10.1016/j.jafrearsci.2014.11.002>.

**Sattam Almadani**; Abdullah Al-Amri; Mohammed Fnais; Kamal Abdel-Rahman Hassanein, Elkhedr Ibrahim; and Enayat Awad. Seismic Hazard Assessment for Yanbu Metropolitan area, Western Saudi Arabia (2015). *Arabian Journal of Geosciences*, DOI 10.1007/s12517-015-1930-4.

-- 2016 --

Ali K. Abdel-Fattah, S. M. Mogren, and **Almadani, S.** Seismicity constraints on stress regimes along Sinia Subplate Boundaries (2016). *Studia Geophysica et Geodaetica*. 60, 268-279, DOI: 10.1007/s11200-014-0968-1.

Abdelbaset El-Sorogy, **Sattam Almadani**, and Mohammad Al-Dabbagh. Microfacies and diagenesis of the reefal limestone, Callovian Tuwaiq Mountain Limestone Formation, Central Saudi Arabia (2016). *Journal of African Earth Sciences*, v. 115, pp. 63-70.

Abdelbaset S. El-Sorogy, Mohamed Tawfik, **Sattam A. Almadani**, and Abdullah Attiah. Assessment of toxic metals in coastal sediments of the Rosetta area, Mediterranean Sea, Egypt (2016). *Environ Earth Science*, 75:398. DOI 10.1007/s12665-015-4985-3.

-- 2017 --

**Sattam Almadani**; Hussain Alfaifi; Mohammed Shehata; Elkhedr Ibrahim; Kamal Abdel-Rahman Hassanein; Abdullah Al-Amri; Mohamed Fnais; and Osama Kassem. Hydrochemical characteristics and evaluation of the granite aquifer in the Alwadeen area, Southwest Saudi Arabia (2017). *Arabian Journal of Geosciences*, 10:139, DOI 10.1007/s12517-017-2873-8.

**Sattam Almadani.** Source parameters of the 27<sup>th</sup> of June 2015 Gulf of Aqaba earthquake (2017). Journal of Seismology, DOI 10.1007/s10950-017-9651-7.

A.K. Abdelfattah, A. Al-Amri, A.K. Abd el-aal, Faisal K. Zaidi, M. Fnais, **S. Almadani**, and N. Al-Arifi. The 23 January 2014 Jizan earthquake and its tectonic implications in southwestern Saudi Arabia (2017). Tectonophysics, (712-713) 494-502.

Talal Alharbi & Hussain Alfaifi & **Sattam A. Almadani** & Abdelbaset El-Sorogy. Spatial distribution and metal contamination in the coastal sediments of Al-Khafji area, Arabian Gulf, Saudi Arabia. Environ Monit Assess (2017) 189:634.

-- 2018 --

Abdelbaset El-Sorogy, Khaled Al-Kahtany, **Sattam Almadani**, Mohamed Tawfik. Depositional architecture and sequence stratigraphy of the Upper Jurassic Hanifa Formation, central Saudi Arabia (2018). Journal of African Earth Sciences (139) 367-378.

**Sattam Almadani**, Elkhedr Ibrahim, Mahfooz Hafez, Hussain Alfaifi, Talal Alharbi, Kamal Abdelrahman, & Essam Abdel-Motaal. Geotechnical investigation of the El-Elb dam site, northwest Riyadh, Saudi Arabia, using 2D resistivity and ground-penetrating radar techniques (2018). Arabian Journal of Geosciences (11:33).

Hamdy E. Noura, Abdelbaset S. El-Sorogy, Mohamed Abdel-Wahab, **Sattam Almadani**, Hussain Alfaifi, and Mohamed Youssef. Assessment of sediment quality using different pollution indicators and statistical analyses, Hurghada area, Red Sea coast, Egypt (2018). Marine Pollution Bulletin 133 (808-813).

## **TEACHING COURSES**

- **Physical Geology** (GEO 101).
- **Principles of Geophysics** (GPH 201).
- **Oceanography** (GEO 435).
- **Geophysical Exploration** (GPH 301).
- **Field Geophysics** (GPH 393).
- **Graduation Project** (GPH 496 & GPH 497).

## **FIELD WORK EXPERIENCE**

- Install and service 18 broadband seismic stations along a 250 km profile in the Afar Depression, Ethiopia.
- Participate in field training by the Program for Array Seismic Studies of the Continental Lithosphere (PASSCAL) in Socorro, New Mexico, USA (2009).

## **COMPUTER SKILLS**

- UNIX operating system.
- FORTRAN programming language.
- Generic Mapping Tools (GMT).
- Seismic Analysis Code (SAC).

## **SCIENTIFIC AFFILIATIONS**

- Member of Saudi Society for Geosciences (SSG).
- Member of Society of Exploration Geophysicists (SEG).
- Member of American Geophysical Union (AGU).
- Member of Seismological Society of America (SSA).