



The **13<sup>th</sup>** المؤتمر الجيولوجي الدولي الثالث عشر  
International Geological Conference  
03-06 March 2020, Jeddah, Saudi Arabia

# Geohazards in Saudi Arabia

## *Study, Analysis and Impact*



03 March 2020

Jeddah, Saudi Arabia

## Overview

Countries across the globe are prone to either multiple or a single catastrophic hazard either through sea, land or air. These hazards are collectively termed as Geohazards. The Geohazards considerations have grown in importance in Saudi Arabia as the government becomes increasingly aware of the potentially devastating impact these hazards can have on human lives, properties, and infrastructure. It is therefore critical that practices and technologies are continuously developed to ensure geohazards risks are timely and accurately identified and measures implemented to mitigate the risks involved. Within the geographic boundaries of Saudi Arabia, the geohazards that need a constant study and research perspective are seismic hazards, volcanic hazards, floods, landslides and radiation hazards.



**An Ariel view of the Volcanic Field of Harrat Rahat**

This workshop will present an advanced overview of surface and subsurface-related geohazards. Particular attention will be paid to the improvements in geohazards identification, quantification of risk and mitigation, best practices, lessons learnt and technological advancements in handling geohazards, and potential impact on human lives, properties, and infrastructure. Special discussions will focus on seismic, volcanic, flooding and radiation hazards in the Kingdom.

Keynote speakers will be invited to present their latest findings concerning these hazards and suggestions will be put forward to help understand the ways and methods to tackle and minimize the occurrences of these hazards using latest technological methods. Proposals and suggested proceeds from these presentations will be best put to use by forming a team of researchers under a single umbrella which will focus in implementing the best practices to tackle these hazards.

The following geohazards overview will be presented during the workshop proceedings to make people better understand the geohazards in the Kingdom:

Focus Area	Presentation Topic	Time
1) Seismic Hazards	a) Seismic Hazards in Saudi Arabia: An Overview <b>Dr. Hani Zahran</b>	09:00 – 09:30
	b) Earthquake location and magnitude estimation using Sgraph Program <b>Dr. Mohammed Farouk</b>	09:30 – 10:00
2) Volcanic Hazards	a) Volcanic Hazards in Saudi Arabia: An Overview <b>Dr. Nabil Elmasry</b>	10:15 – 10:45
	b) Evaluation of Volcanic Hazards using Geophysical Methods <b>Dr. Essam Aboud</b>	10:45 – 11:15
3) Flood Hazards	a) Impact of Climate change in Saudi Arabia <b>Dr. Mansour Almazroui</b>	11:15 – 11:45
	b) Flood Hazard Analysis – Case Studies <b>Dr. Ali M. Subyani</b>	11:45 – 12:15
4) Radiation Hazards	a) Radiation Hazards - Case Studies <b>Dr. Helmy Osman</b>	12:15 – 12:45

### **Who should attend?**

In general the workshop is organized for those who needs to understand and gain knowledge about the geohazards in Saudi Arabia. Specifically it is intended for researchers in the field of geology, government personnel who deal with disaster management and students whose primary focus is the geology of the Kingdom.

Every Attendee will be given a certificate of presence and supporting educational materials if any from the participating partners or organizers.

### **Workshop Fee**

The following fees will be charged for the participants. We encourage participants to pre-register due to limited availability of seats.

<b>Workshop Fee</b>
300 SAR