Contribution ID: **23110** Type: **Paper**

The site selection of a nuclear reactor near the oil and gas exploration region

Tuesday, 14 November 2023 16:10 (20 minutes)

The site selection for a nuclear reactor is a crucial safety and security activity with escalating demands. The prospect of using seismic data to estimate the operational behavior of the nuclear reactor is intriguing. Visualization and analysis of continuous data recorded at a seismic station away from the reactor site can be helpful in this regard. In this work, we investigate the potential for inferring the impact of an operational reactor from seismic data acquisition. The obtained data exhibit an apparent relationship between seismic features and reactor primary operational frequency. The short-time frequency transform is utilized to analyze the frequency components. The outcomes are helpful in choosing the potential nuclear reactor site in an oil and gas-rich region.

Speaker Bio

Primary author: Dr IQBAL, Naveed (Electrical Engineering, King Fahd University of Petroleum and Minerals)

Co-authors: SHAMS, Afaque (Mechanical Engineering); Dr AL-SHAIKHI, Ali (Electrical Engineering, King Fahd University of Petroleum and Minerals); AL-ATHEL, Khaled (KFUPM-Mechanical Engineering)

Presenter: Dr IQBAL, Naveed (Electrical Engineering, King Fahd University of Petroleum and Minerals)

Session Classification: Day 2 Parallel Session - I : Research Reactors

Track Classification: Research Reactors