

## MUHAMMAD KHAIRUL ADIB MUHAMMAD YUSOF Ph.D. (Universiti Kebangsaan Malaysia)

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**EXPERTISE** 

Seismo-electromagnetics, space science, data science



Khairul Adib Yusof received the B.Sc. degree from Universiti Putra Malaysia (UPM) in 2016, and the Ph.D. degree in space science from Universiti Kebangsaan Malaysia (UKM) in 2021. He is currently a Senior Lecturer with the Department of Physics UPM. His research interests include earthquake precursor, ground and space geomagnetic observations, signal processing, and computer programming (MATLAB). He has authored and co-authored several highly reputable articles in indexed journals, a book and owns a patent pending. He has also been invited as a referee/reviewer for several national and international journals.

## **Current research interests:**

## Non-seismic earthquake precursors

Non-seismic earthquake precursors are believed to be generated by tectonic forces acting on the earth's crust, and possibly associated with seismic activity such as earthquakes and volcanoes. Study of these has been prompted by the prospect they might be generated by the increased stress leading up to an earthquake, and might thereby provide a basis for short-term earthquake prediction. Some of the widely observed parameters include ultra-low frequency (ULF) geomagnetic signals, total electron content (TEC), and radon gas.

## Data science & machine learning

A key problem in detecting non-seismic earthquake precursors is that the underground seismic activities produce relatively weak electromagnetic phenomena, and the effects from any precursory phenomena are likely to be too weak to measure directly. In order to overcome this issue, robust statistical methods and machine/deep learning algorithms might be an alternative solution.

LINK TO POSTGRADUATE FIELD OF STUDY

ADDITIONAL INFORMATION: