

A Hitchhiker's Guide to Geophysics



Abstract:

We live in the 21st Century. The satellites cruising around the earth help our daily communication. The spacecrafts travel interplanetary space to collect information. Radio telescopes watch birth and death of stars. We try to understand what happened in the galaxies millions of light years away. Yet we cannot see what is behind the wall next to us or what is under our feet.

Geophysics is a tool to “see” the invisible. Any physical phenomenon provides hints to geophysics: vibration, sound, mass, electric and magnetic properties, heat, radiation, and cosmic ray; as much as our imagination could lead us. With a clear understanding of the phenomenon, we can predict what is in the invisible space. With appropriate instrumentation, we can probe it. With the wildest imagination, we can develop ways to “see the invisible”. Geophysicists study the natural phenomena to understand the system. Some geophysicists design instruments right for observing the phenomena and some geophysicists interpret the data to “see” the invisible. Geophysics is a fun subject. It offers you a lot of challenge and a lot of reward.

This presentation guides you around the fascinating world of geophysics.