

## IGS provides Geophysical Training to support Training & Capacity Building Workshops

A comprehensive suite of geophysical training materials has been developed for use in training workshops. This material is primarily developed for purposes of institutional technical capacity strengthening. The training modules have a strong focus on airborne geophysics but cover the full spectrum of geophysical methods and platforms. These resources provide practical, hands-on guidance for scientists at all career stages from junior to senior research scientists.

The training materials encompass comprehensive coverage of geophysical exploration methods, including:

**Airborne Methods:** Principles and applications of airborne magnetic, radiometric, electromagnetic (time-domain, frequency-domain, and natural source EM), and gravity methods. Platform considerations for fixed-wing aircraft, helicopters, and drones, including sensor deployment, survey design, and operational considerations.

**Ground Methods:** Magnetic, radiometric, electromagnetic, gravity, electrical resistivity (including ERT), induced polarization (IP), self-potential (SP), ground penetrating radar (GPR), Magnetotellurics (MT), and seismic methods (reflection and refraction).

**Fundamental Concepts:** Essential basic principles e.g. scalar and vector fields, signal vs. noise, sampling theory, data presentation and quality control.

**Practical Applications:** Mineral exploration, groundwater studies, geothermal resource assessment, environmental investigations, engineering site characterization, and agricultural geophysics.

### **Benefits:**

The materials provide systematic training in geophysical methods. Scientists gain practical knowledge in:

- Method selection and survey design principles
- Data acquisition best practices and quality control procedures
- Data processing workflows and interpretation techniques
- Integration of multiple geophysical datasets

These training materials directly support institutional capacity building by:

**Standardizing Practices:** Providing consistent methodologies and procedures that can be adopted across teams and projects.

**Reducing Training Costs:** Eliminating the need for expensive external training programs while maintaining high-quality instruction.

**Knowledge Preservation:** Documenting best practices and lessons learned for future reference and new staff orientation.

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**Enabling Self-Paced Learning:** Allowing scientists to learn at their own pace and revisit materials as needed.

**Supporting Career Development:** Providing clear pathways for skill development from junior to senior levels.

**Facilitating Collaboration:** Common reference materials enable better communication and collaboration within and between institutions.

For more information, please contact [enquiries@igsint.com](mailto:enquiries@igsint.com)