bkslasi@email.arizona.edu (mailto:bkslasi@email.arizona.edu)
520.621.2439 (tel:520.621.2439)
Mines 241A

Full details at profiles.arizona.edu

Ben K. Sternberg

Professor of Mining and Geological Engineering
Professor of Electrical and Computer Engineering
Professor of Materials Science Engineering

Courses

Thesis

GEN 910 (Spring 2018)
GEN 910 (Fall 2017)
GEN 910 (Fall 2016)

Research

GEN 900 (Spring 2018)

Field Study: Geophysics

GEN 516 (Spring 2018)
GEOS 416 (Spring 2018)
GEN 416 (Spring 2018)
GEOS 516 (Spring 2017)
GEOS 416 (Spring 2017)
GEN 516 (Spring 2017)

Geophys Exploration+Engr

GEOS 448 (Fall 2017)
GEOS 548 (Fall 2016)
GEN 548 (Fall 2016)

Techn Trnds Min Res Engr

MNE 396A (Spring 2017)

Selected Publications

Journals/Publications

- Dvorak, S. L., & Sternberg, B. K. (2014). Analytical studies of the vertical array-Differential Target Antenna Coupling (DTAC) method for rapid sensing and imaging of subsurface targets. *Journal of Applied Geophysics*, 105, 34-49.
- El-Kaliouby, H., Sternberg, B. K., Hoffmann, J. P., & Langenheim, V. E. (2012). Integrated geophysical surveys for mapping lati-andesite intrusive bodies, Chino Valley, Arizona. *Proceedings of the Symposium on the Application of Geophyics to Engineering and Environmental Problems, SAGEEP*, 483-494.
- Jordan, J. W., Sternberg, B. K., & Dvorak, S. L. (2011). Size, weight and power efficiency for high-power, nonlinear, geophysical-transmitter, rod-core antennas. *Journal of Environmental and Engineering Geophysics*, 16(1), 1-12.
- Jordan, J. W., Dvorak, S. L., & Sternberg, B. K. (2010). The use of modified scaling factors in the design of high-power, non-linear, transmitting rod-core antennas. *Journal of Applied Geophysics*, 72(2), 114-122.
- Sternberg, B. K. (2010). The variability of naturally occurring magnetic field levels: 10 Hz to 8 kHz. *Geophysics*, 75(6), F187-F197.
- Dvorak, S. L., & Sternberg, B. K. (2009). Development of a new method for making high dynamic range, vector mixer characterisations. *IET Science, Measurement and Technology*, 3(6), 365-376.
- Dvorak, S. L., & Sternberg, B. K. (2009). Extension of an absolute vector error correction technique to wideband, high-frequency measurements. *IET Science, Measurement and Technology*, 3(1), 59-71.
- Krichenko, O., Dvorak, S. L., & Sternberg, B. K. (2009). A new dual-tone, signal-normalisation method for the measurement and prediction of small-signal distortion. *International Journal of Electronics*, 96(1), 11-27.
- Dvorak, S. L., & Sternberg, B. K. (2008). New absolute vector error correction technique for a transmitter/receiver module. *IET Science, Measurement and Technology*, 2(5), 359-366.
- Krichenko, O., Sternberg, B. K., & Dvorak, S. L. (2008). A new high-sensitivity subsurface electromagnetic sensing system: Part II - Measurement results. *Journal of Environmental and Engineering Geophysics*, 13(3), 263-275.
- Sternberg, B. K., & Dvorak, S. L. (2008). New vector signal measuring system, featuring wide bandwidth, large dynamic range and high accuracy. *IET Science, Measurement and Technology*, 2(4), 219-232.
- Sternberg, B. K., & Dvorak, S. L. (2008). Quasi-reciprocal mixer as an absolute vector signal standard at microwave frequencies. *IET Science, Measurement and Technology*, 2(4), 258-267.
- Sternberg, B. K., Krichenko, O., & Dvorak, S. L. (2008). A new high-sensitivity subsurface electromagnetic sensing system: Part I - System design. *Journal of Environmental and Engineering Geophysics*, 13(3), 247-261.
- Sternberg, B. K., Sternberg, B. K., Levitskaya, T. M., & Levitskaya, T. M. (2005). Measurement of sheet-material electrical properties: Extending lumped-element methods to 10 GHz. *IEE Proceedings: Science, Measurement and Technology*, 152(3), 123-128.
- Dvorak, S. L., & Sternberg, B. K. (2002). Suppression of phase-noise interference due to closely spaced data and calibration signals. *IEEE Transactions on Instrumentation and Measurement*, 51(6), 1157-1162.

The University of Arizona
Department of Mining & Geological Engineering
1235 E. James E. Rogers Way
P.O. Box 210012
Tucson, AZ 85721-0021
520.621.6063