## THE REMOTE SENSING LAB

Director: Dr. Noam Levin

Remote sensing is the science and art of obtaining information about an object, area, or phenomenon through the analysis of data acquired by a device that is not in contact with the object, area, or phenomeno nunder investigation (Lillesand and Kiefer, 2000).

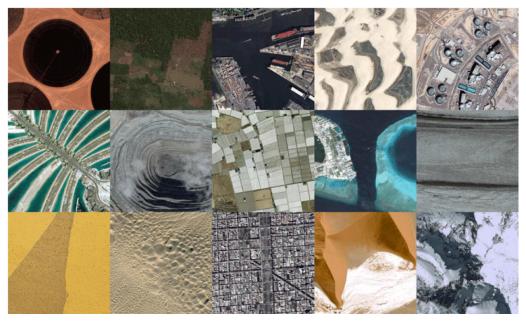


Figure 1: Snapshots of the Earth from space, presenting various natural and anthropogenic features all images shown at the same scale

The Remote Sensing lab at the Department of Geography focuses on several research themes, including: dune dynamics, land cover/land use changes, human impacts on natural environments.

The lab facilities include remote sensing software (ATCOR, ENVI, ERDAS, IDRISI, PC-MODWIN). To conduct basic remote sensing studies and field calibration/validation, the lab has a portable field/lab spectroradiometer, the SVC HR-1024, manufactured by Spectra Vista Corporation. This new spectroradiometer has 1024 channels between 350-2500 nm with a rugged PDA/Bluetooth for wireless operation (Figures 2, 3). It can acquire spectral measurements in several modes, including a fiber optic light guide 25 degree FOV, a 4 degree FOV lens, or direct contact measurements using a specially designed leaf/fruit probe. In addition the lab has a Fuji-1S digital camera that is sensitive to the near-infrared region, thus enabling us to acquire images in the VIS-NIR (Figure 4).

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Figure 2: The SVC HR-1024 spectroradiometer

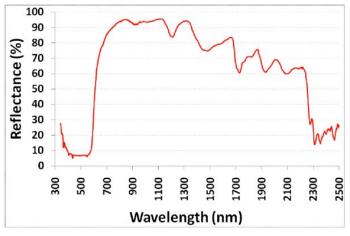


Figure 3: Spectral reflectance of red plastic as measured with the SVC HR-1024

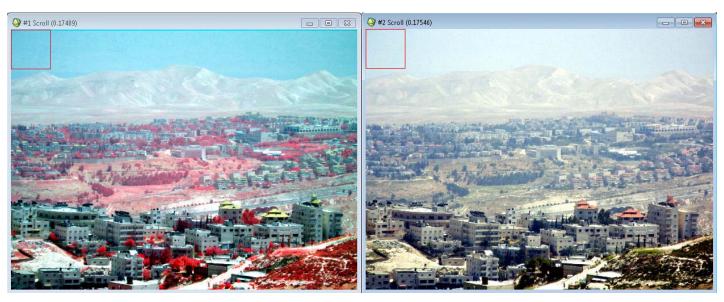


Figure 4: A view from Mount Scopus eastwards using the Fuji 1S camera, April 2012 (left: infrared false color composite; right: true color composite)

Lab members:

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