THE MATHWORKS HELPS ADVANCE SUBSURFACE IMAGING

For the past two years, The MathWorks has collaborated with research teams from universities and corporate partners to form a consortium that develops non-invasive methods for visualizing and understanding subsurface objects. This consortium, the Center for Subsurface Sensing and Imaging Systems (CenSSIS), seeks to revolutionize the detection and imaging of biomedical and environmental objects or conditions that are underground, underwater, embedded within cells, or inside the human body.

The CenSSIS multidisciplinary approach combines expertise in wave physics, sensor engineering, image processing, and inverse scattering with rigorous performance testing. This approach leads to new sensing system prototypes that are handed off to industry partners for further development and commercialization. Diverse fields have benefited from this program, including fetal development, stroke victim rehabilitation, and nondestructive oceanographic imaging. In addition, this program provides student researchers with real-world experiences and assists in the design of new, richer engineering curricula.

By donating software and employee time to the CenSSIS Program, The MathWorks aims to increase the scope and productivity of science. For more information, visit [www.censis.neu.edu](http://www.censis.neu.edu).

![CenSSIS ultrasound image of tissue-like material, acquired using MATLAB.](image)