

Optical Real-Time Adaptive Spectral Identification System

The Optical Real-Time Adaptive Spectral Identification System (ORASIS) is a software application for the analysis and compression of hyperspectral images that is based on a patented algorithm from the Naval Research Laboratory (NRL). Hyperspectral images are composite images made up of multiple pictures of a “scene” taken at different wavelengths. This technology mathematically identifies constituent components and maps their abundances within the image.

Through the efforts of Dr. Jeffrey Bowles, ORASIS has been transferred to Advanced Power Technology, Incorporated (APTI) under the terms of a nonexclusive license with NRL.

Using the technology, the licensee is selling value-added earth image analysis products and services, such as customized maps, and systems for remote sensing data collection and analysis.

The earth image products from ORASIS will be used for oil, gas, and mineral exploration; environmental assessment; crop analysis for optimizing irrigation and fertilization; and military remote sensing. Based on the array of areas in which the technology can be applied, the individuals, businesses, agencies, etc., that will benefit range from doctors and patients to farmers, manufacturers and oil companies.

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