Monograph - Hyperspectral Remote Sensing for Forestry

Long time OARS member, Dr. Paul Treitz, is the lead author of a monograph on hyperspectral remote sensing published recently by the American Society of Photogrammetry and Remote Sensing [ASPRS]. Dr. Treitz is Professor and Head of the Department of Geography at Queen's University, Kingston, Ontario and is also the director of the Laboratory for Remote Sensing of Earth & Environmental Systems [LARSEES], an OARS sustaining member.

Title: **Hyperspectral Remote Sensing for Forestry**

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DESCRIPTION: Hyperspectral Remote Sensing for Forestry provides a clear and concise description of the role of hyperspectral remote sensing for the extraction of biophysical / biochemical information about forests. This monograph covers the fundamental principles related to the importance of high spectral resolution data for the identification of spectral features related to plant biochemistry and physiology.

Various methods of hyperspectral data analysis are discussed, with specific attention given to spectral indices, spectral mixture analysis and canopy reflectance modeling.

A number of case studies are presented that cover applications related to:
(i) forest classification based on species biochemical composition;
(ii) forest canopy structural analysis;
(iii) spectral unmixing; and
(iv) fusion of hyperspectral and lidar data for species mapping.

This volume will be of significant interest to the remote sensing scientist and practitioner as well as senior undergraduate and graduate students interested in hyperspectral remote sensing for vegetation analyses.

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Student member: US 21.00

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