



MULTIDISCIPLINARY RESEARCH

Prof. Rajani Shikhare

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Publisher	:	Anand Prakashan, Jaisingpura, Aurangabad.(M.S) Cell : 9970148704 Email: anandprakashan7@gmail.com
©	:	Author
Typeset At	:	Anand Computer Aurangabad.
Edition	:	December 2020
ISBN No	:	978-93-90004-07-2
Cover Design	:	Aura Design Mumbai.
Printed At	:	Om Offset Aurangabad.
Main Distributor	:	Anand Book Depot Jaisingpura, Aurangabad - 431004
Price	:	₹ 120 /-

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Determination of Vegetation using Microwave remote Sensing

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Abstract:

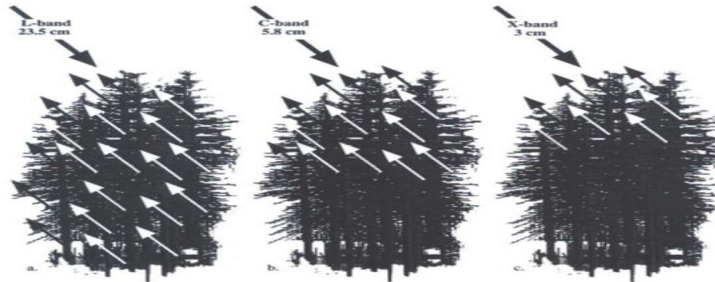
Radar senses electromagnetic waves that are a reflection of an active transmission; radar is considered an active remote sensing system. Remote sensing refers to the sensing of electromagnetic waves. This paper is to understand the radar signal Energy with field and Crops.

Keywords: Radar Microwaves Synthetic Aperture Radar (SAR) Image Analysis

Introduction:

RADAR systems which provide their own source of electromagnetic energy. Active radar sensors, when the energy reaches the target, some of the energy are reflected back towards the sensor^[2-5]. The microwave region of the spectrum is quite large, relative to the visible and infrared, and there are several wavelength bands. K bands: X-band C-band: S-band: L-band: P-band. The energy of the radar pulse is scattered in all directions at the Earth's surface.. The surface's roughness, the irregularity of the terrain vertically and horizontally-determines the return signal's amplitude. Surface are classified as smooth, slightly rough, moderately rough. Bright areas in a SAR image are strong reflectors, surfaces that reflect little.

Wavelength and Energy:



Longer wavelength bands penetrate forest canopy and reflect off of standing tree trunks are used to detect the amount of wood in a forest and shorter wavelengths are used to detect smaller features like twigs and leaves for vegetation canopy.

Conclusion:

This is due to the different ways in which the radar energy interacts with the fields and crops depending on the radar wavelength.

Acknowledgement:

The authors wish to thank European Space Agency for kindly providing the SAR images and Keith Morrison for this for understanding SAR Image signal

References:

1. P.D. Gaikwad, N.K.Raut, S.N.Ipper SAR Image for remote sensing (IJAIEM) 245-247 7, 2017 .
2. OH. Y. AY, Y. Condition for precise measurement of soil surface Roughness. IEEE Trans.Geosci. Remote Sens. 691-695, 36,. 1998.
3. Baghdadi, N. Paillou, P. Davidson, M. Grandjean, G. Dubois, P. Relationship between profile length and roughness parameters for natural surfaces. Int. J. Remote Sens. 3375-3381, 21, 2000.
4. Davidson, M. Le Toan, T. Marria, F. Satalino, G. Maninnen, T. Borgeaud, M. On the characterisation of agricultural soil roughness for radar remote sensing studies. IEEE Trans.Geosci. Remote Sens. 630-640,38, 2000.
5. Zribi, M. Dechambre, M. A new empirical model to retrieve soil moisture and roughness from Cband radar data. Remote Sens. Environ. 42-52, 84, 2002.

