Abstract Details

Corresponding Author : Prof. Wolfgang-Martin BOERNER (boerner@ece.uic.edu)

Organization: UIC-ECE/CSN, CHICAGO, IL/USA

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Title: (OA17) Recent Advances on Developing Air & Space-borne Fully Pola POL-DIFF-IN-SAR Sensing and Imaging and its Application to Environ Monitoring in Pacific Asia and Oceania

Abstract:

Very decisive progress was made in advancing fundamental multi-sp polarimetric EO-Lidar and multi-band POL-IN-SAR theory and algorith development during the past decade. This was accomplished with the airborne & shuttle platforms supporting single-to-multi-band multi-m POL-SAR and also some POL-IN-SAR sensor systems, which will be co and assessed with the aim of establishing the hitherto not completed required missions such as tomographic and holographic imaging. Bec the operation of airborne test-beds is extremely expensive, aircraft pl are not suited for routine wide area monitoring missions such as for t expanses of Pacific Asia and Oceania and it is better accomplished wit use of drones or UAVs. Such unmanned aerial vehicles were develope defense applications, however lacking the sophistication of implement advanced forefront POL-IN-SAR/SAL technology. This shortcoming wil thoroughly scrutinized resulting in the finding that we do now need to develop most rapidly POL-IN-SAR/SAL drone-platform technology esp for environmental stress-change monitoring with a great variance of applications beginning with flood, bush/forest-fire to tectonic-stress (quake to volcanic eruptions) and coastal littoral zone disaster assessr real-short-time hazard mitigation. However, for routine global monito purposes of the terrestrial covers neither airborne sensor implementa aircraft and/or drones - are sufficient; and there-fore multi-modal and band space-borne POL-IN-SAR/SAL space-shuttle and satellite sensor technology needs to be further advanced at a much more rapid phase existing ENVISAT with the forthcoming ALOS-PALSAR, RADARSAT-2, a TERRASAT present the proper approach and will be compared, demor that at this phase of development the fully polarimetric and polarimet interferometric modes of operation must be viewed and treated as preliminary algorithm verification support modes and at this phase of advancement are still not to be viewed as routine modes. Special atte will be paid to environmental stress-change monitoring in a coastal lit environments of Pacific Asia and of Oceania under diverse meteorolog conditions.

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