

SAIP 2011



Contribution ID : 185

Radiometric studies of South African Water bodies

Friday 15 Jul 2011 at 11:45 (00h15')

Content :

Maintaining, monitoring and safeguarding South Africa's oceans and dams is a multifaceted project requiring the skills and expertise from several scientific domains-.The radiometric study and spectral characterization through in situ measurements of these water systems is critical to such a project. The objective is to develop and subsequently test 2 prototype radiometers for their reliability and efficacy, then pending accurate results, the manufacturing of several low cost radiometers. These radiometers will be deployed at strategic locations in oceans and dams around South Africa to monitor eutrophication levels. By closely observing the eutrophication stages of these water bodies an early warning system for detecting the initial stages of algal blooms is formed. This is of interest not only to oceanographers and biologists but also the military. An additional benefit of the prototype radiometers is that they provide means of validating ocean colour data obtained from satellites. As a result, the data captured from decades earlier can be used with true confidence; such data can be directly linked to climate studies including global warming and global cooling.

Level (Hons, MSc, PhD, other)? :

MSc

Consider for a student award (Yes / No)? :

Yes

Short Paper :

No

Primary authors : Mr. RAMKILOWAN, Arshath (CSIR)

Co-authors : Dr. LYSKO, Meena (CSIR) ; Dr. CHETTY, Naven (University of KwaZulu-Natal)

Presenter : Mr. RAMKILOWAN, Arshath (CSIR)

Session classification : LOS

Track classification : Track C - Lasers, Optics and Spectroscopy

Type : Oral Presentation