Suggested topic: Remote Sensing Applications

Paper title: Past, Present and Future of Rubber Plantations: A Case Study of Rayong Province, Thailand

Author names:

(1) Dr. Narong Pleerux

Faculty of Geoinformatic, Burapha University, Chon Buri 20131, Thailand

Tel. +66822313386, Fax. +6638102328, narong\_p@buu.ac.th

(2) Mr. Kritsana Imswat

Faculty of Geoinformatic, Burapha University, Chon Buri 20131, Thailand

Tel. +66868386355, Fax. +6638102328, kritsana@buu.ac.th

(3) Mr. Pichana Kongyungyean

Faculty of Geoinformatic, Burapha University, Chon Buri 20131, Thailand

Tel. +66890222619, Fax. +6638102328, pichana@buu.ac.th

Proposed presenter: Narong Pleerux

Presenter preference: Oral presentation

Abstract:

At present, in Thailand, the rubber plantations are expanding rapidly without determining the suitable areas. Up-to-date monitoring is needed to study the changes of rubber plantations. This research aimed to estimate and forecast the rubber plantation areas in 2006, 2010, 2014 and 2018 in Rayong province. An object base classification was applied to LANDSAT-5 TM images in 2006 and 2010 and SMMS images in 2014. The CA-Markov model was used to forecast the rubber plantations in 2018. In 2006, the rubber plantations were accounted for 336.38 km2. In 2010, the rubber plantations highly increased 293.48% or 1,323.23 km2 while in 2014 the rubber plantations decreased 1.82% or 24.11 km2 in which the areas were 1,299.11 km2. The results indicate that the rubber plantations in 2018 will expand with 1,664.77 km2 into eight districts especially, Klaeng, Bankai and Muang district.

Keywords: Rubber plantation, Object base classification, CA-Markov