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# Abstracts

## THE 34<sup>TH</sup> ASIAN CONFERENCE ON REMOTE SENSING

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Indonesian Remote Sensing Society and  
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Abstracts of ACRS 2013

778	Using Open Source Web-Based Gis For Publishing And Querying Cadastral Information In Long Xuyen City, An Giang Province, Vietnam	Hung The Pham
779	Analysis And Evaluation Of Human Lifestyle Pattern Using Mobile Phone Gps In Japan	Takahiro Nishimura
782	A Geographic Information System (Gis)-Based Analysis To Predict The Suitability Of Rubber Plantation By Extreme Learning Machine And Decision Tree	Piyasakul Banluewong
783	Distributed Gis For Flood Monitoring System	Pornpen Somkuantad
787	Estimating Method Of The Future Population At Small Administrative Unit	Yuma Nakasone
789	Integrating Sms And Application Programming Interface (Api) For Web-Based Gis Mapping Of Real Property Units Of Butuan City, Philippines	Michelle Villamor Japitana
811	Application Of Online Information System For Delivering The Rice Planting Time Prediction In Indramayu	Armi Susandi
812	Using High Level Architecture For An Information Exchange: A Dti's Integrated Approach Of Modeling And Simulation	Teerapong Sontayaman
847	Quickbird Satellite Image Optimization For City Planning	Ketut Wikantika
855	Fractal Algorithm For Road Network Modeling In Indian Urban	Khalid Ahmed Ali
856	Utilization Of Remote Sensing And Geographic Information System For Investigation Of Best Route Between Iraq And Kingdom Of Saudi Arabia	Hashim Ali Hasab
858	Three-Dimensional High Reconstruction Using Geographic Information System	Hashim Ali Hasab
864	Geographic Information System (Gis) Application For Vulnerability Mapping And Evacuation Zone Of Tsunami Hazard (Case Study : Glagah Beach Area, Kulon Progo, Yogyakarta)	Ghufran Zulqisthi
868	Application Of Geoinformatics And Analytical Hierarchy Process For Environmental Hazard Mapping In Dong Trieu District, Vietnam	Anh Kim Nguyen
876	The Impact Of Expanding Rubber Tree Plantation On Soil Erosion In The Mekong Sub Basin.	Wasana - Putklang
893	Study On Interface Modeling Of Remote Sensing Products' Cloud Service Platform Based On Multi-Satellite Networking	Jianjun He
904	Development Of A Web-Based Marine Spatial Planning Tool For Ocean Renewable Energy	Ma. Rosario Concepcion Ortiz Ang
911	Testing The Performance Of Spatial Interpolation Techniques For Mapping Tropical Forest Attributes In Berau District, East Kalimantan, Indonesia	Ali Suhardiman
934	Application Of The Social Tenure Domain Model To Recognition Of Indigenous Rights In The Philippines	Romer Kristi Danduan Aranas
936	A Web Map Service Implementation For Assessment System Of Tree Biodiversity In Dry Dipterocarp Forest	Yaowaret Jantakat
937	Gis Modeling For Monitoring And Attention Of Rubber Plantation	Yaowaret Jantakat
938	A Framework For Scaleless Feature-Based Topographic Map Database	Jung-Hong Hong
940	Developing Web-Gis For The Provincial Spatial Planning Database	Ilham Alimuddin

# DISTRIBUTED GIS FOR FLOOD MONITORING SYSTEM

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**Abstract:** Recently, Thailand faced several natural disasters including floods resulting in immense losses of human lives and properties. To provide relief and rehabilitation to disaster areas quickly, decision makers need to know current situation in order to make their decision properly. For this reason, several agencies have been attempted to develop real-time or near real-time monitoring systems for providing data from gauging stations through the Internet. However, with those monitoring systems, decision makers cannot see geographic region of the disaster area. For this study, a flood monitoring system using Remote Sensing and Geographic Information Systems technologies was developed to provide geographic areas of floods. The system was designed and implemented based on a distributed GIS concept to provide flexibility for incorporating geocollaborative applications later in the future. Flood area map and other maps such as satellite images, administrative boundary, land use maps can be visualized as GIS layers with respect to space and time through the Web browser and other mobile-based applications. More advantages with the system, future GIS analysis tools such as flood damage estimation can be incorporated and accessible through the Internet, allowing mitigation and relief disaster team to evaluate damage on site more efficiently.

Keyword : Remote sensing, distributed GIS, flood, monitoring, disaster