

# Applying Satellite Data for Shoreline Detection in Tideland Areas

Tang-Huang Lin<sup>1</sup>, Gin-Rong Liu<sup>2</sup>, A. J. Chen<sup>3</sup>, and Tsung-Hua Kuo<sup>4</sup>

## ABSTRACT

A simple model in determining the location of the shoreline on coastal zones by remote sensing data is presented in this study. The main concept involves using the reflectance difference between the coastal land and its adjacent waters in the visible and near infrared spectral bands. Concurrent shoreline position measurements by GPS are also employed to construct and improve our approach. Three sets of SPOT HRV images, acquired in the clear sky condition, are used in this study. The results show that the gradient criteria of the shoreline position are stable, and can be used to find the shoreline easily in the clear sky cases. More examples should be investigated for constructing a database of gradient values for further applications around tideland areas in the future.

**Keywords:** Remote sensing, Shoreline position, GPS

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<sup>1</sup> Associate research engineer, Center for Space and Remote Sensing Research, National Central University, Chung-Li, TAIWAN

<sup>2</sup> Professor, Center for Space and Remote Sensing Research/ Institute of Atmospheric Physics, National Central University, Chung-Li, TAIWAN

<sup>3</sup> Professor, Center for Space and Remote Sensing Research/ Institute of Space Science, National Central University, Chung-Li, TAIWAN

<sup>4</sup> Ph. D. student, Institute of Space Science, National Central University, Chung-Li, TAIWAN