## Risk Areas for Car Robbery in Lat Phrao District, Bangkok, Thailand

Jakrapong Tawala

Geo-Informatics and Space Technology Development Agency (Public Organization) 120 The Government Complex Commemorating His Majesty The King's 80th Birthday Anniversary, 5th December, B.E.2550(2007) Ratthaprasasanabhakti Building 6th and 7th Floor, Chaeng Wattana Road, Lak Si, Bangkok 10210, THAILAND, <u>jakrapong@gistda.or.th</u>

Abstract: Car robbery is one of serious problems in a big city like Bangkok, the capital city of Thailand, and a statistic showed that 1- 2 vehicles were stolen every day. An objective of this study was to identify risk area for car robbery in Lat Phrao district, Bangkok, Thailand. First of all, I converted an excel file of 5-year car stolen records collected during 2005 – 2009 by Lat Phrao police station into GIS format, which better described spatial and temporal distribution of the incident. Next, the data were spatially interpolated using various algorithms, and all outputs were compared to select the most appropriate output. The result showed that the kernel density estimation described spatial distribution of the robbery very well, and Ban Kapi and Happy Land sub districts had the highest risk for car robbery. To make the output more understandable for general users, the kernel density estimation was overlaid on high resolution satellite imageries in Google Earth. The results provide a basis for further study on risk areas for the car robbery, analysis of factors leading to the risk, and help law enforcement administrators in making better decisions.

Key words: Car robbery, GIS, Interpolation, Google Earth