



FROM A PHYSICAL SCANNED MAP TO A DIGITAL ELEVATION MODEL USING THE LEGEND AND KRIGING (WedPmOR4)

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* Abstract :

The objective of this paper is the development and analysis of methods for producing digital elevation models from physical scanned maps having as little as possible human interaction. The elevation layers are identified based on the map's legend using the CIE $L^*u^*v^*$ color space, the mean shift filtering and the randomised local search color clustering. The nonelevation layers within the map image generates unclassified pixels. Their values are estimated using geostatistics (i.e. kriging). In the end, the elevation contours are extracted and interpolated.