

# **DETECTION OF HIGHWAYS IN HIGH RESOLUTION IMAGES USING MATHEMATICAL MORPHOLOGY TECHNIQUES**

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## **ABSTRACT:**

This paper seeks to apply routine for highways detection through the mathematical morphology tools in high resolution image. The Mathematical Morphology theory consists of describing structures geometric presents quantitatively in the image (objectives or features). This explains the use of the Mathematical Morphology in this work. As high resolution images will be used, the largest difficulty in the highways detection process is the presence of trees and automobiles in the borders tracks. Like this, for the obtaining of good results through the use of morphologic tools was necessary to choose the structuring element appropriately to be used in the functions. Through the appropriate choice of the morphologic operators and structuring elements it was possible to detect the highways tracks. The linear feature detection using mathematical morphology techniques, can contribute in cartographic applications, as cartographic products updating.

**TOPIC:** Remote sensing applications

**ALTERNATIVE TOPIC:** Remote sensing applications