

3D Images Representation to Provide Information on the Type of Castella Beams Hole

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Abstract : Digital image processing techniques to obtain detailed information from an image have been used in various fields, including in civil engineering, where the use of solid beam profiles in buildings and bridges has often been encountered since the early development of beams. Along with this development, the founded castellated beam profiles began to be more diverse in shape, such as the shape of a hexagon, triangle, pentagon, circle, ellipse and oval that could be a practical solution in optimizing a construction because of its characteristics. The purpose of this research is to create a computer application to edge detect the profile of various shapes of the castella beams hole. The digital image segmentation method has been used to obtain the grayscale images and represented in 2D and 3D formats. This application has been successfully made according to the desired function, which is to provide information on the type of castella beam hole.

Keywords : digital image, image processing, edge detection, grayscale, castella beams

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