

Efficient 3D Design Drawing Visualization Based on Mobile Augmented Reality

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Abstract—Recently, in manufacturing, machinery, construction and shipbuilding [3] industry, diversified researches of visualizing design documents without difficulty utilizing augmented reality technology have been performed. In this paper, we propose an efficient 3D design document visualization technique based on mobile augmented reality. Proposed technique first recognizes design document region, and only performs image tracking in its region. Through performance analysis, it could be seen that in technique being suggested in this study, drawing recognition time was reduced by 4-33%, drawing matching recognition rate was increased by 5-15% and number of output frame per second was increased by 7-8 frames per second.

Keyword—Smartphone, Mobile Reality, 3D Structures, Drawing recognized



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