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Evaluation of AR-4BL-MAST with Multiple Markers Interaction Technique for Augmented Reality Based Engineering Application

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Abstract : Augmented reality (AR) technology has the capability to provide many benefits in the field of education as a modern technology which aided learning and improved the learning experience. This paper evaluates AR based application with multiple markers interaction technique (touch-to-print) which is designed for analyzing the kinematics of 4BL mechanism in mechanical engineering. The application is termed as AR-4BL-MAST and it allows the users to touch the symbols on a paper in natural way of interaction. The evaluation of this application was performed with mechanical engineering students and human–computer interaction (HCI) experts to test its effectiveness as a tangible user interface application where the statistical results show its ability as an interaction technique, and it gives the users more freedom in interaction with the virtual mechanical objects.

Keywords : augmented reality, multimedia, user interface, engineering, education technology
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