ARTIFICIAL INTELLIGENCE BASED INTERACTIVE VIRTUAL BOARD

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Abstract

The post pandemic era has transformed the traditional classrooms into digital classrooms. The state-of-art writing is being replaced by digital writing which requires the use of keyboard, touchscreen, digital pen, stylus, etc. Despite the availability of many teaching tools, the need for touch screen supporting PCs and other touch based peripheral devices is high and quite expensive. To solve this issue, an interactive virtual writing tool using hand tracking mechanism is proposed. This paper proposes an Artificial Intelligence (AI) based Virtual Board which employs the blended mechanism involving the core concepts of information technology domain namely AI and object tracking. The proposed AI Virtual Board is an effective teaching tool to illustrate demonstration of the teaching concepts accurately.

I. INTRODUCTION

Human-Computer interaction became a very huge concern as technology seemed to change all over the years. Writing with a finger on a touch-based interface is intuitive because it follows the metaphor of traditional writing. Recent advances in object tracking technology make it possible to track hand and finger motions without user-worn devices like data gloves, LED light, markers, etc., and additional peripheral devices like Kinect sensors, LEAP motion controllers.