ABSTRACT

SHIELD METAL ARC WELDING (SMAW) welding technique is the most widely used and found welding technique. To be able to do welding, one must be able to master the welding technique and it takes a long time to master it, because there are 3 skills that must be mastered at the same time, namely the skill of adjusting the arc length, the skill of adjusting the slope and the skill of setting the timeliness of welding. it takes a long time to build skills so that when doing welding there are no mistakes and the welded object sticks perfectly besides that, the welding process has a very large cost because the materials used are very large and expensive. In our final project titled "LAsR: Application of user skills measurement system on an augmented reality-based welding simulator" is designed with the aim of helping teachers and students in conducting practicals and exams during welding with augmented reality (AR) technology. When practicum using the LAsR application, students will be safe when welding is in progress and minimize errors that can occur and teachers can easily assess students who are doing welding exams. With the LAsR application, schools can also save costs when doing welding practicums. With the LAsR application, schools can also save costs when doing practicum. The results of testing in this final project to 40 target users related to the effectiveness, usability, and satisfaction of the application display resulted in an average.

Keywords: welding, SMAW, augmented reality, skill