



**BLISTERING MACHINE PROCESS SIMULATION TRAINING MODULE BY  
VIRTUAL REALITY**

**UNDERGRADUATE THESIS**

**Submitted as one of the requirements to obtains  
Sarjana Komputer**

**By:**

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**FACULTY OF COMPUTING  
INFORMATICS STUDY PROGRAM**

**CIKARANG**

**MAY, 2023**

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## **ABSTRACT**

This thesis presents a simulation training module for operating a blistering machine using virtual reality (VR) technology. The goals of this study are to provide an immersive and interactive training experience for new operators and to improve their efficiency and safety in operating the machine. The module was developed using Unity 3D game engine and was tested by a group of participants with no prior experience in blistering machine operation. The benefits of this training module include reduced training time and costs, improved safety, and enhanced learning retention. The methods used in this study include the ADDIE (Analysis, Design, Development, Implementation, and Evaluation) instructional design model, Axis-Aligned Boundary Box, and the Sphere collision detection algorithm. The result of the study shows that the VR training module effectively improves participants' knowledge and skills in operating the blistering machine. The study also highlights the potential of VR technology in providing realistic and engaging training experiences for industrial machine operation.



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