

## **ABSTRACT**

### **UTILIZATION OF 3D PRINTING TECHNIQUES WITH POLYLACTIC ACID FILAMENT AS CLOTHING EMBELLISHMENT**

Jihan Fadhilah  
ID: 1605174091

*Technology began to enter various aspects of life, including the textile industry. One technology that is starting to be widely used by the textile industry is 3D printing technology. 3D printing is one of the various processes of combining materials that are compacted under a computer and producing three-dimensional objects. In the fashion industry in Indonesia, 3D printing is still used only for the manufacture of accessories, while exploration of the use of 3D printing materials in the world is more diverse, ranging from materials and techniques. Along with technological developments, the fashion industry itself is also experiencing increasingly diverse developments, such as the application of embellishments to clothing. The application of embellishments on clothing is a way to decorate clothes by adding decorative effects to the clothes. Although it already has many variations of techniques and materials in the installation of embellishments on clothing, the use of technology has not been carried out optimally as a technique and material for clothing embellishments. Therefore, 3D printing technology has the potential as an alternative technique for making fashion embellishment modules. The application of the 3d printing technique is carried out using a type of Polylactic Acid (PLA) filament material in direct printing where the printing is done directly on the fabric in accordance with the design of the placement of the embellishment module on the clothing. This research is a qualitative research with data collection methods in the form of literature data related to fashion and 3D printing, observations and interviews with parties related to 3D printing, as well as exploration of the installation of 3D printing decorative elements on fabrics. The final result of this research is an embellishment module printed on 3D printing on a sheet of cloth which is then used as the main material in designing fashion products, using PLA filament material.*

**Keywords:** 3D printing, Embellishment, Fashion