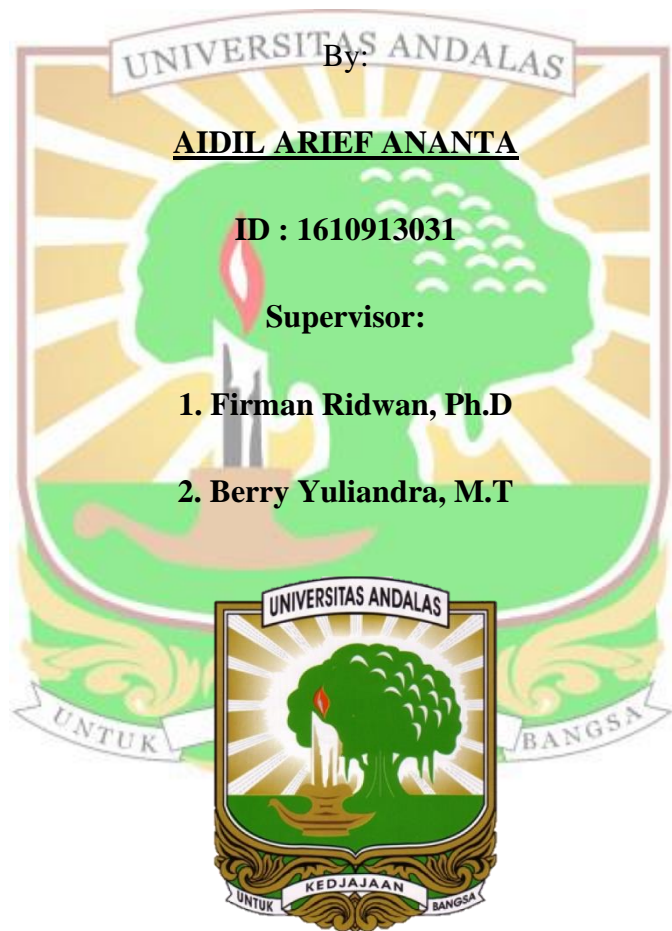


# **THESIS**

## **EFFECT OF DISTANCE BETWEEN TIP AND COLLECTOR ON ELECTROSPINNING TOWARD FIBRE DIAMETER OF BINAHONG LEAF**

Submitted as One of the Requirements for Completing a Bachelor's Degree  
Education



**MECHANICAL ENGINEERING DEPARTMENT**

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## ABSTRACT

*Electrospinning is one of process to produce fine fibre from polymer solutions or melts. Electrospinning process mainly consists of three parts, emitter, collector and high voltage. Taguchi methods L9 Orthogonal Array was utilized as Design of Experiment with three input, distance between tip and collector, voltage, and viscosity. Produced fibre was observed under stereo microscope and calculated the diameter. Smallest fibre obtained was 0,379996  $\mu\text{m}$  where the variation of distance, voltage and PVA viscosity are at 8 cm, 30 kV, and 8%(98,6922 P) respectively. Biggest fibre diameter obtained was 1,2031330  $\mu\text{m}$  where the variation of distance, voltage and PVA viscosity are 16 cm, 15 kV and 337,249 P respectively.*

**Key words:** *Electrospinning, Binahong Leaf, Polymer, Taguchi DoE*

