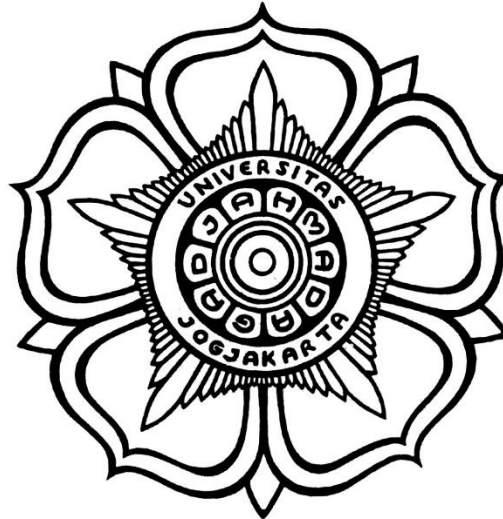


**INVESTIGATION OF THREE-DIMENSIONAL BUBBLE VELOCITIES  
AT CO-CURRENT AIR-WATER VERTICAL UPWARD  
BUBBLY FLOWS**

A Thesis

Submitted in partial fulfillment of the requirements for  
the degree of Master of Engineering

Mechanical Engineering Study Program  
Field of Engineering Science



Submitted by:

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