

# **ANALYSIS OF FLOW VELOCITY ALTERATION CAUSED BY CONSTRICTION IN OPEN CHANEL**

(Research held at Laboratory of Civil Engineering Faculty of Technology and Vocational Education (FPTK) Indonesia University of Education (UPI))

**Andi Setiawan (0706897)**

## **ABSTARCT**

Flow velocity is one of many factor's that influence energy value. The fluctuation of flow velocity influenced by several factor's which is slope of base chanel, wide of chanel, water discharge, etc. Based on continuity law, flow velocity will be increase if wide of chanel being constricted. Increase of flow velocity would be hoped to assume to increase a value of specific flow energy. That energy could be used as source of human need. The purpose of research is to find out an influence from two kind constriction's chanel which are Sudden Constriction (PM) and Transition Constriction (PT) toward energy value. The expected result from this research is to get an energy equation as function of chanel constriction. The research method used in this research is experimental research which carried on at Hydrolic Laboratory of Civil Engineering, Faculty of Technology and Vocational Education (FPTK) Indonesia University of Education (UPI). The sample for this research is a total sample from whole population. From this research, the hypothesize have been proved. The constriction of chanel could increase a value of specific flow energy in each sample of discharge. The produced energy increasing two times greater, and it come from the most effective constriction which is transition constriction (PT).

**Keywords :** *Constriction, Velocity, Flow, Energy.*