

***Pump Installation Planning to Support the Implementation of Rain  
Harvesting in the ITK Lecture Building***

Student Name : Anggara Abdi Sentosa  
NIM : 03181010  
Main Advisory Lecturer : Gad Gunawan, S.T., M.T  
Assistant Lecturer : Diniar Mungil Kurniawati, S.T., M.T.

**ABSTRACT**

*The availability of clean water needs in the lecture building of the Kalimantan Institute of Technology (ITK) currently only comes from the source of the Regional Drinking Water Company (PDAM), but the need for clean water in the ITK lecture building is currently more varied because there are several new facilities and the density of lecture activities that demand there is an effort to support the availability of clean water needs other than PDAM sources. Rain Harvesting is a method that can be used as an effort to save on the use of clean water by utilizing the potential of rainwater in the ITK lecture building. The Rain Harvesting system in the ITK lecture building can work if it is supported by a pump installation system. In selecting the pump and piping system, it must be adjusted to the needs in the ITK lecture building, it is important to understand the capacity, pipe diameter, and installation head. In this study, pump installation planning was carried out to support the application of Rain Harvesting in the ITK lecture building. The calculation results obtained a pump capacity of 11,44 m<sup>3</sup>/hour and a total installation head in Building E; F ; and G of 13,8243 m; 13,8690 m; and 13,8466 m. Thus, the Grundfos CR(E) 10-2 type centrifugal pump was chosen.*

*Keywords : Head loss, Pump, Rain Harvesting*