CAVE WALL CHARACTERISTIC DETERMINATION AT SEROPAN GUNUNGKIDUL USING GROUND PENETRATING RADAR METHOD

Student Name : Supriyanto
NRP : 1105 100 046
Department : Fisika FMIPA – ITS
Supervisor : Prof. Dr.rer.Nat Bagus Jaya Santosa
            A.Syaeful Bahri, S.Si, M.T.

Abstract

A research has been conducted on Seropan cave wall in Gunungkidul karst area to determine the characteristic of the wall. The data that is used is Ground Penetrating Radar (GPR) recording on August 16-19 2009. To present the wall characteristic in this research, GPR method and Future Series 2005 hardware and software are used. This method is based on electromagnetic wave propagation. The result of this method is data recording that illustrate the characteristic of the wall. This result is further compared with lithological data from IWRM Germany team. The result of the illustration showed that there are differences on several points in the wall surface compared with the one from the illustration. On the right side of the wall, shows the comparison between cavities and dry karst. While for the pipe installation of Microhydro Power Plant, it is recommended in the points that are identified as massive limestone which most located in the left part of cave.

Key word : GPR, karst