



Conceptual model of Geotechnical Information System

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Geological, geodynamical and hydrological research in Zagreb area resulted in several spatial data of different lineage, coordinate systems and resolution. The goal of this paper is the gathering of data in a unique geotechnical information system, which will be the basis for further analysis. We are using ArcGIS modules for spatial and geo-statistical analysis. Geotechnical information systems can be used to prevent, mitigate and alleviate damage caused by the natural disasters such as earthquakes and landslides. However, the geotechnical data bases have not been utilized extensively. Examples of using the data bases this chapter for seismic hazards assessment, planning for new structures, ground water hydrology, disaster mitigation systems of gas pipelines, and infrastructure management systems are presented.