OMICS Group Conferences
Accelerating Scientific Discovery

2nd International Conference and Exhibition on
Materials Science & Engineering

October 7-9, 2013 Hampton Inn Tropicana, Las Vegas, USA

Creation of an environmental atlas for a quarry cluster

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Abstract

The paper describes the studies on the impact on environmental attributes and abatement measures due to the operation of multiple stone-quarrying units. Study area covers a geographical area of 120 sq.kms covering part of Bangalore north and east district. The laboratory work consisted in collecting samples from 50 selected groundwater locations and subjected for qualitative analysis. as per Standard regulations and guidelines. The studies were integrated with a GPS survey which generated a spatial distribution of the ground water stations. The vast array of environmental attributes is made effective with a high quality geographic data about the study area. Methods and processes of data analysis in Remote Sensing enabled extracting meaningful spatial information from remote sensed data which become direct input into GIS. Different thematic maps/layers have been generated for geology, landforms, land-use, lineaments, lithology, geomorphology and hydrology. Based on the studies on the impact of environmental parameters due to multiple stone -quarries an Integrated a Decision Support tool by Remote sensing and GIS techniques has been evolved for the geographical area.

Biography

Dr. Sampath kumar M.C. is faculty at the civil engineering Department at B.M.S College of engineering Bangalore, India. He is involved in Teaching, research and environmental application activities. His area of interest is in the field of Remote sensing and GIS for natural resources conservation.