Internship Title	:	RSIP Career Basic AI 043
Project ID	:	SPS_PRO_172
Project Title	:	Rock identification using deep convolution neural network
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ROCK IDENTIFICATION USING DEEP CONVOLUTIONAL NEURAL NETWORKS

1 INTRODUCTION

1.1 OVERVIEW

This project is about classify and identify different types of images using deep cnn

TOOLS USED

python,flask algorithm,cnn

1.2 PURPOSE

This is used to find the automatic rock type and solves various problems. This project is used in the filed of geology very extensively to identify types of rocks effectively and easily.

2. LITERATURE SURVEY

2.1 EXISTING PROBLEM

Identification of different types of rocks is very hard and often working condtions in the field are generally limited to different visual methods

2.2PROPESED SOLUTIONS

the proposal solution includes a deep learning based approch to identify different rocks which solves diifcult faced while working in the field.The solutions is to use convolution neural network model to solve the problem of indentification of rocks in an effective manner.

3.THEORITICAL ANALYSIS

3.1 BLOCK DIAGRAM

ROCK IMAGES.....>CNN.....>QUARTZ/CHRYSOCO

3.2 HARDWARE/SOFTWARE DESIGNING

SOFTWARE USED:

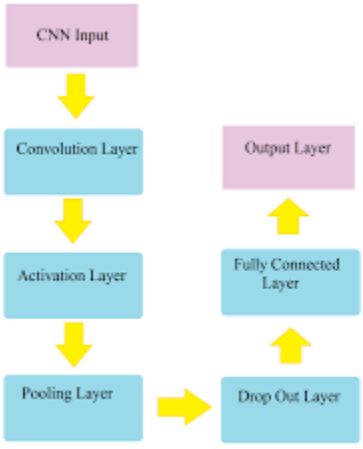
PYTHON

FLASK WEB FRAMEWORK

4.EXPERIMENTAL INVESTIGATION

This project can be used in the identification of rocks in an easy manner .The dataset consist of three types of rocks and the CNN used here are identified the rocks.

5.FLOWCHART:



6.RESULT:

The deep cnn learning model can be used in different types of rock images and their structure in a very easy manner. Here class of rocks Igneous,metamorphic,sedimentary can be identified . The model can identify images using Flask framework upon uploading the images.

7.ADVANTAGES AND DISADVANTAGES:

1. Effectively identified rock types from images captured in the field.
2. Improvement in intelligent rock-type identification and solves several difficulties facing the automated identification of rock types in the field
3. Who are experienced in the field of geological they can identify the rocks easily. But who are new to the field, it can help to identify the type of rock.
4. Machine should be trained with a larger data set to get accurate output.

8.APPLICATIONS

1. Identifying rock types in the fileds
2. Automated identification of rock tyypes

9.CONCLUSION:

Application here has effectively identified rock types from images captured in the field. This paper proposes an accurate approach for identifying rock types in the field based on image analysis using deep convolutional neural networks.

10.FUTURE SCOPE:

Deep learning is receiving significant research attention for pattern recognition and machine learning. Its application here has effectively identified all types from images captured in any field.

BIBILOGRAPHY AND APPENDIX:

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