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| Internship Title | : | RSIP Career Basic AI 043 |
| Project ID | : | SPS\_PRO\_172 |
| Project Title | : | Rock identification using deep convolution neural network |
| TEAM |  | T |

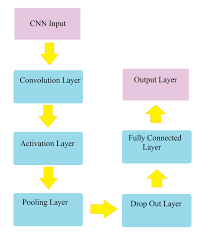
ROCK IDENTIFICATION USING DEEP CONVOLUTIONAL NEURAL NETWORKS

**AIM :** Identifying rock types in the field based on image analysis using deep convolutional neural networks.

**CATEGORY** : Deep Learning

**SKILLS REQUIRED** : PYTHON,PYTHON WEB FRAME WORKS,CNN

**FLOWCHART:**



**PROJECT DESCRIPTION**:

Visual inspection assesses properties such as colour, composition, grain size, and structure.

The attributes of rocks reflect their mineral and chemical composition, formation environment, and genesis. The colour of rock reflects its chemical composition.

But these analysis is time taken process to identify the rocks.

Its 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.

**STEPS INVOLVED ARE**:

1. Data Collection
2. Pre processing
3. Model Building
4. AplicationBuilding

**PROPOSED SOLUTION**:

The results show that the proposed approach based on deep learning represents an improvement in intelligent rock-type identification and solves several difficulties facing the automated identification of rock types in the field.

**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.

**SUMMARY**:

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.

**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.