

Idea Details

Organization Name: National Jute Board, Min of Textiles

Problem Statement: Automated Inspection of manufacturing Process

Team Name:

Team Leader Name:

College code:

Proposed Solution

The problem statement can be divided into two parts:

1. Inspection in Manufacturing Process

- This part of the problem can be implemented using a Neural Network by using inputs from a sensor array as well as computer vision to flag batches of goods for manual inspection.
- The **Neural Network** would flag a certain batch of goods as either 'cleared for dispatch' or 'needs manual inspection'.
- This would greatly reduce the total number of goods that have to be manually inspected in order to uphold strict QA regulations. ⁽¹⁾

Tech Stack: Python, Keras, Open CV, VS Code, MongoDB

Proposed Solution

2. Post Manufacturing Process

- This problem can be effectively solved using blockchain principles. A **Decentralized ledger** system would ensure tamper proof method of logging details, starting from their point of origin to the end user including intermediaries.
- This enables users to create **Smart Contracts** to allow buyers to deal with manufacturers directly, without involvement of middlemen.
- As **Blockchain** is decentralized, it has no single point of failure and changes in possession and ownership details can be entered into the ledger permanently.

Tech Stack: Solidity, Ethereum, Python, Django

(1) <http://textilescommittee.nic.in/writereaddata/files/II.A.%289%29%20Mill-made%20Cotton%20Yarn%20Inspection%20Regulations.%201966.pdf>