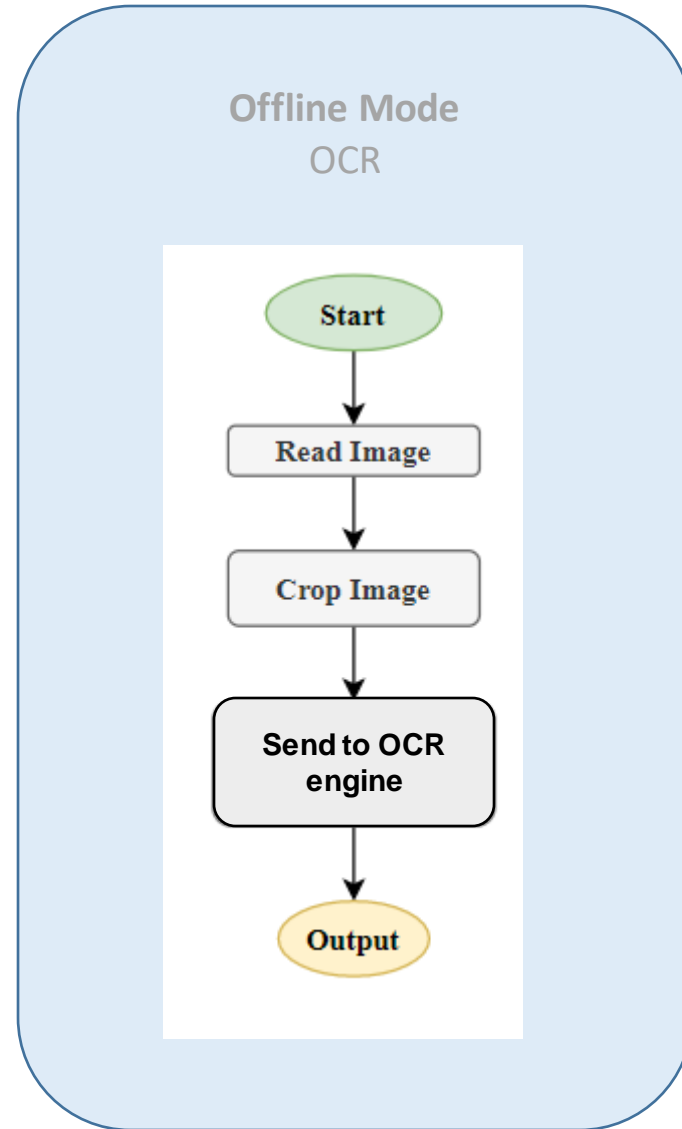


Process Flowchart



7501

000027694

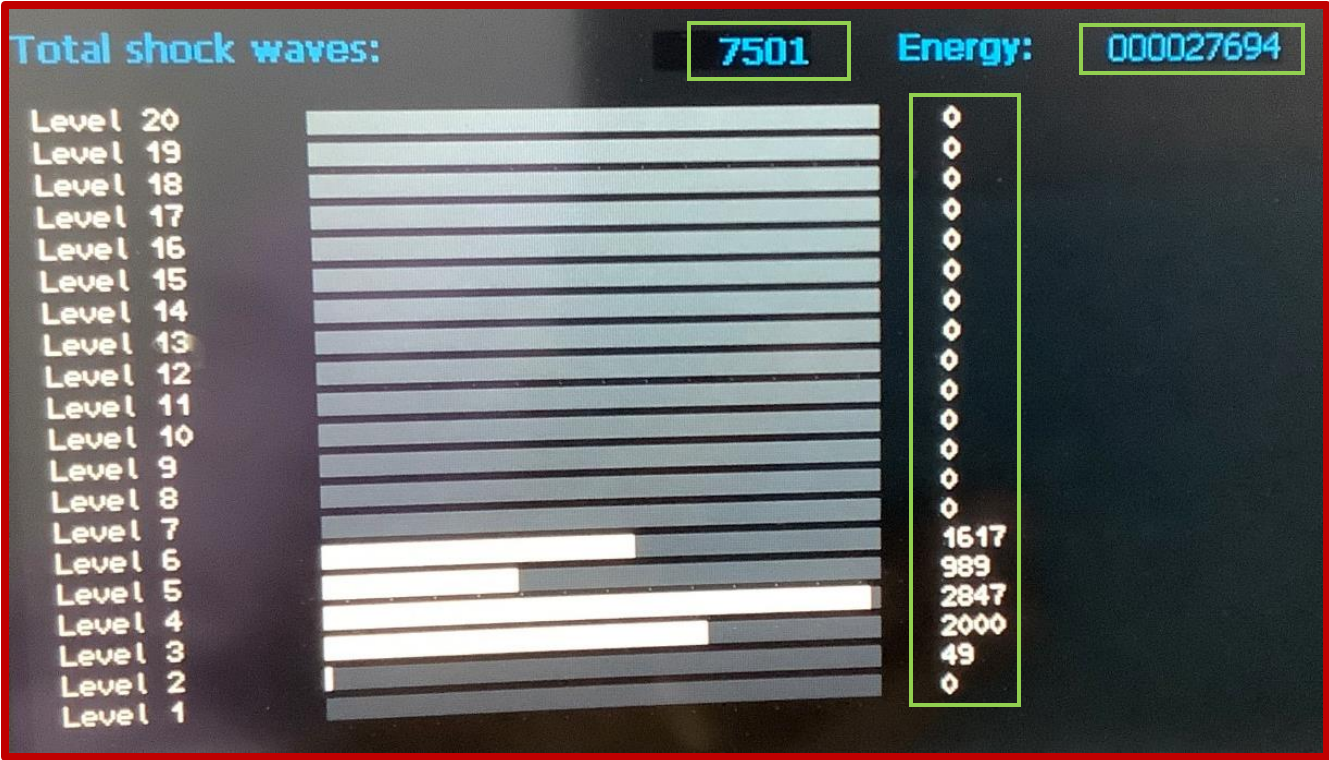


Image 1

0
0
0
0
0
0
0
0
0
0
0
0
0
0
0
0
0
0
0
0
0
1617
989
2847
2000
493
0

Prediction Output – OCR

000027694

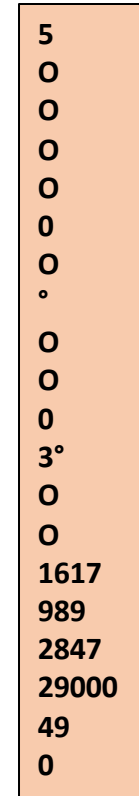


Image 2

Output- Offline Mode

81.8% Prediction Output – OCR

7501

000027694

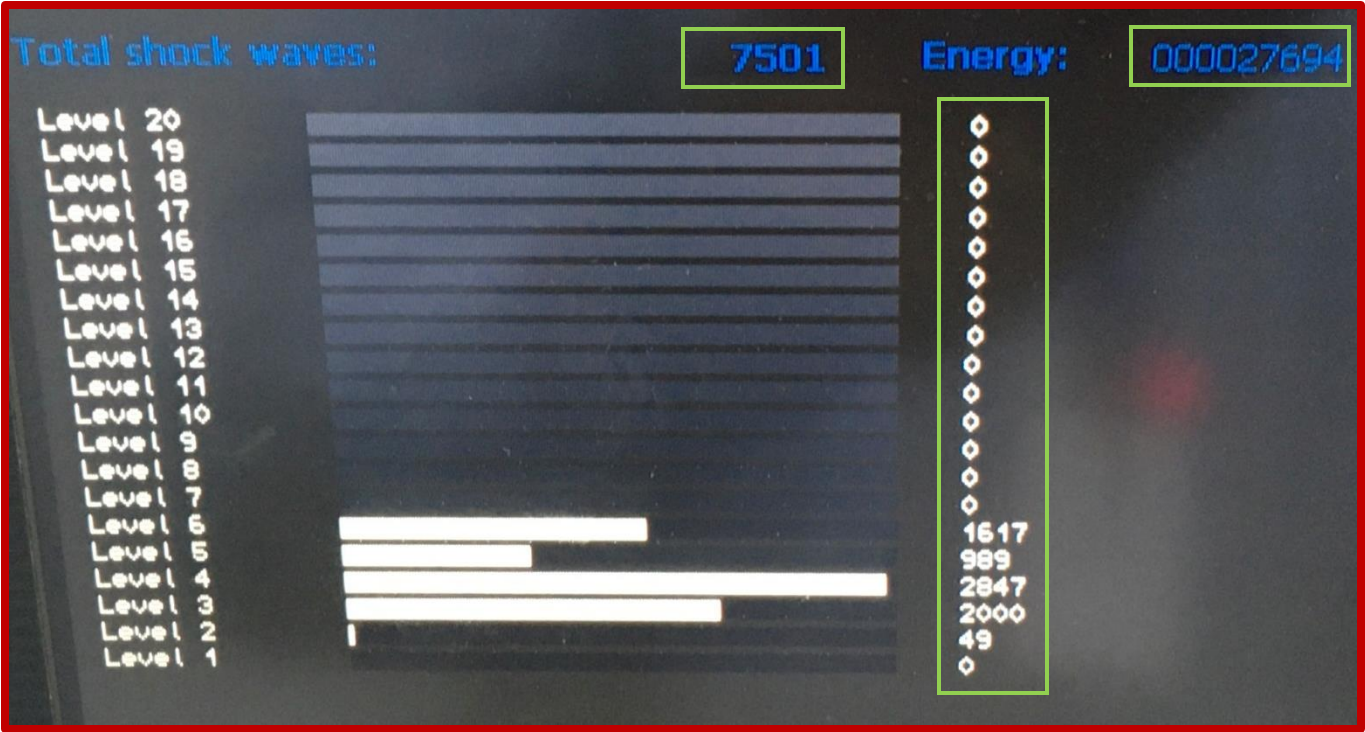


Image 3

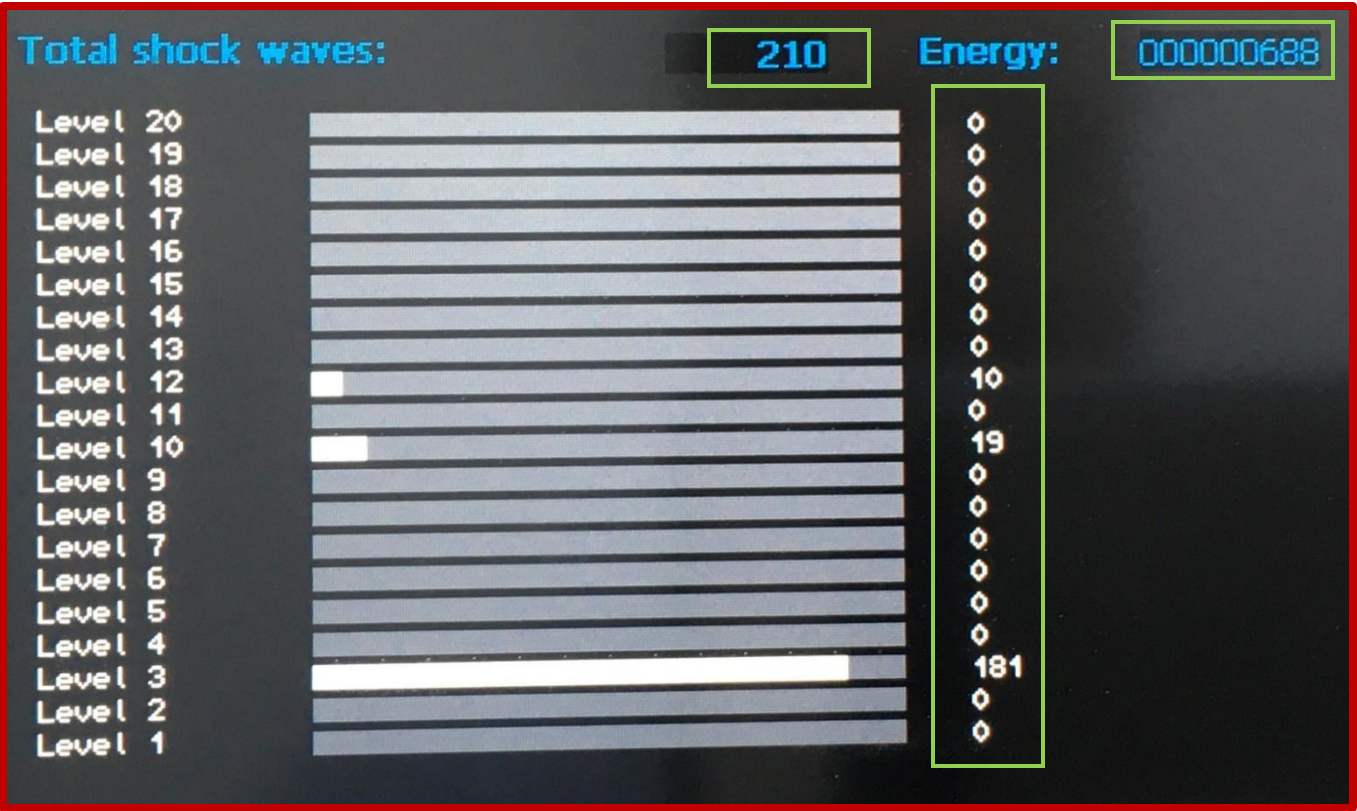
0
0
0
0
0
0
0
0
0
re]
0
0
0
0
0
0
4617
9869
2847
29000
49
0

Output- Online and Offline Mode

90.9% Prediction Output – OCR

210

000000688



0
0
0
0
0
0
0
0
0
0
0
40
0
49
0
0
0
0
0
0
0
181
0
0

Image 4

Output Analysis

- Overall Accuracy

OCR	
Total no. of detections	88(including zeros)
No. of accurate detections	77
Accuracy in %	87.5%

- Reasons for Failure in offline mode using OCR

1. Digit **1** predicted as digit **4**
2. Digit **0** predicted as degree symbol(°), digit 6

Challenges

- **Challenges:**

Challenge 1: Camera orientation while image capture has to be restricted

Challenge 2: Formula to cross verify Histogram bar correlation with Total Shock waves and Energy value

Challenge 3: Illumination condition, zoom level, the distance from which the image has been captured, focus level will impact the accuracy

Challenge 4: Image preprocessing pipeline to be established

Challenge 5: Re-training of OCR engine for fine tuning accuracy

Extraction of Histogram data

Purpose:

To cross-verify the output of OCR with the graphical data



Method of verification:

$(\text{Histogram highlighted portion percentage}) * (\text{Total bar length Value}) = \text{Individual level value (as detected from OCR)}$

Histogram highlighted in percentage:

5.2%

9.5%

92%