

**Project Design Phase-I**  
**Proposed Solution Template**

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| Date          | 8th November 2022  |
| Team ID       | PNT2022TMID22106   |
| Project Title | <b>A Novel Method for Handwritten Digit Recognition System</b> |

**Proposed Solution:**

| S.No. | Parameter                                | Description   |
|-------|--|---|
| 1.    | Problem Statement (Problem to be solved) | <b>This problem is aimed</b> at developing a <b>new handwriting</b> recognition system using <b>ML</b> . A handwritten digit recognition system is <b>one</b> way to <b>address</b> the problem of <b>taking an</b> image of <b>digits</b> and <b>recognizing</b> the <b>digits</b> present in the <b>image</b> . |
| 2.    | Idea / Solution description              | Developing an AI <b>prediction</b> model <b>that predicts</b> handwritten digits and <b>builds</b> a neural network with hidden layers <b>to train digit recognition</b> .  |
| 3.    | Novelty / Uniqueness                     | The system <b>generates</b> not only digit <b>classifications</b> , but also rich <b>descriptions</b> of instantiation parameters <b>that can provide</b> information such as <b>typefaces</b> .  |
| 4.    | Social Impact / Customer Satisfaction    | Handwritten <b>numbers</b> can be <b>recognized</b> easily without strenuous <b>effort</b> . This reduces time and improves <b>everyone's productivity</b> .  |
| 5.    | Business Model (Revenue Model)           | It is used in vehicle <b>number detection</b> , banks <b>to read checks</b> , post offices <b>to sort mail</b> , and many other tasks.  |
| 6.    | Scalability of the Solution              | To <b>achieve</b> higher <b>performance</b> in the <b>field</b> of character recognition and pattern <b>recognition, thanks</b> to its excellent feature extraction and <b>acts as the best classifier</b> .  |