DEPARTMENT OF APEX INSTITUTE OF TECHNOLOGY

**PROJECTPROPOSAL**

# Project Title: -

ML based Ham-Spam Detection System

# Project Scope: - (Max 500 words)

The project scope for the topic "ML based Ham-Spam detection system" would involve developing a machine learning system that can accurately classify emails as either spam or ham (non-spam) based on their content. The scope of the project includes the following:

* 1. To analyze the existing work related to Ham-Spam detection system.
  2. To Design a Model for Movie recommendation system using the concept of Machine Learning.
  3. To evaluate the efficiency of model using computer vision model based on evaluation parameters.

# Requirements: -

* Hardware Requirements
  1. **Processing Power**: Building and training ML models for spam detection, especially those based on deep learning, can be computationally intensive.
  2. **Memory (RAM)**: ML models require memory to store intermediate results during training and inference. Larger datasets and complex models demand more RAM.
  3. **Storage**: Storing datasets, trained models, and other related files requires ample storage space.
* Software Requirements

1. **Python and Libraries**: Python is the most commonly used programming language for ML. Python along with libraries like scikit-learn, TensorFlow, or PyTorch for creating and training ML models. Library called NLTK is used for natural language processing tasks.
2. **Text Preprocessing Tools**: For Ham-Spam detection, text preprocessing is essential. Software tools for tokenization (breaking text into words), stop-word removal (removing common words like 'and', 'the'), and stemming (reducing words to their root form) are required.
3. **Version Control System**: Using a version control system like Git helps you track changes and collaborate with team members effectively.

**STUDENTS DETAILS**

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| **Name** | **UID** | **Signature** |
| Bhudil Mallick | 21BCS9534 |  |
| Kiruthik Ranga SV | 21BCS6765 |  |

**APPROVAL AND AUTHORITY TO PROCEED**

We approve the project as described above, and authorize the team to proceed.

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| **Name** | **Title** | **Signature (With Date)** |
| Kalpana Singh (E14950) | Project Supervisor |  |