DEPARTMENT OF DATA SCIENCE & ARTIFICIAL INTELLIGENCE
HIMACHALPRADESH UNIVERSITY
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Prof. Manu Sood
Chairman

HPU-DSAI-
Date: 06th August 2025

M.Sc. 3rd Semester Deep Learning Project Titles/ Project Instructions and Submission Guidelines

(In addition to the Actual Lab Work)

S.No	Student Name	Project Title
1	Anchal	Intrusion Detection using DL in IoT Networks
2	Anjali	Facial Expression Recognition with CNN and Attention Mechanism
3	Chandan	COVID-19 Detection from Chest X-Rays using Deep CNN
4	Chirag	Phishing Website Detection using Deep Neural Networks
5	Deepanjali	Breast Cancer Classification using Transfer Learning
6	Divya Bharti	Emotion Detection in Text using BiLSTM and BERT
7	Harsh	Garbage Classification for Smart Cities using Deep CNN
8	Himanshu	Fake News Detection using LSTM and Transformers
9	Ishita	Sign Language Recognition using CNN+LSTM
10	Mahima	Skin Lesion Classification using ResNet and EfficientNet
11	Neelam	Autonomous Driving: Lane Detection using Deep Learning
12	Nikita	Object Detection in Aerial Images using YOLOv8
13	Prakariti	Ransomware Detection using Autoencoders and DL Techniques
14	Prianshu	Speech Emotion Recognition using CNN + MFCC Features
15	Ritesh	3D Human Pose Estimation using Deep Learning
16	Sanat	Style Transfer in Images using GANs
17	Shreya	Facial Age Estimation using Deep CNN
18	Simran	Malaria Cell Classification using CNNs
19	Tanjan	Food Image Classification using Deep CNN and ResNet
20	Tanvi	Road Accident Severity Prediction using Deep Neural Nets
21	Vishwajeet	Autonomous Vehicle Obstacle Detection using YOLOv5
22	Abhishek	Crop Disease Detection using UAV Images and CNN-based DL models
23	Amit	Pneumonia Detection from X-Rays using CNN and VGG16
24	Ankit	Agentic AI: Multi-Agent Reinforcement Learning in GridWorld
25	Anshul	Pothole Detection on Roads using YOLOv5 for Smart Infrastructure
26	Sahil	Human Activity Recognition using LSTM
27	Satya	GenAI for Music Mixing using Diffusion Models and Audio Transformers

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Instructions for Deep Learning Project Submission

General Guidelines

1. **Each student** is assigned a unique project based on real-world problems and deep learning applications.
2. Projects must be implemented **using Python** (preferably with libraries like TensorFlow, Keras, or PyTorch).
3. You are required to **search, download, and preprocess the assigned dataset**.
4. Use **Jupyter Notebook or Google Colab/Kaggle** for development and include:
    - Data loading and preprocessing steps
    - Model building and training
    - Evaluation metrics
    - Results with visualizations
5. Use version control (GitHub recommended) for tracking project progress (optional but encouraged).
6. Students may use **pre-trained models** or **transfer learning** as needed for complex datasets.

Project Report Requirements

- Title Page with Name, Roll No, and Project Title
- Abstract (150–200 words)
- Introduction and Problem Statement
- Literature Review (2-3 research paper summaries)
- Dataset Description
- Methodology and Architecture Diagram
- Implementation Details
- Results and Evaluation (graphs, tables, metrics)
- Challenges Faced
- Conclusion and Future Work
- References (APA or IEEE format)

Final Deliverables

You must submit the following:

1. **Jupyter Notebook / Colab / Kaggle Link** (with comments and outputs)
2. **Final Project Report (PDF)**
3. **PowerPoint Presentation (8–10 slides)**
4. Optional: **GitHub link** to your project code repository

Important Deadline

- **Final Submission Date**: **15th September 2025**
- **Project Presentation**: On or before **15th September 2025**
- **Mode**: Offline or as notified by faculty

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