**Department of Electrical Engineering**

**Faculty Member:** LE Munadi Sial **Date:** 6-Dec-2023

**Semester:** 7th **Group:**

# CS471 Machine Learning

**Lab 12: Keras and TensorFlow**

***< Open-Ended Lab >***

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|  |  | **PLO4 - CLO4** | **PLO4 -CLO4** | **PLO5 -CLO5** | **PLO8 -CLO6** | **PLO9 -CLO7** |
| **Name** | **Reg. No** | **Viva /Quiz / Lab Performance** | **Analysis of data in Lab Report** | **Modern Tool Usage** | **Ethics** | **Individual and Team Work** |
|  |  | **5 Marks** | **5 Marks** | **5 Marks** | **5 Marks** | **5 Marks** |
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This laboratory exercise will focus on the usage of Keras and TensorFlow libraries in Python for creating an implementation for machine learning to solve a specified problem.

**Problem Statement**

Design a neural network implementation that solves for a specific machine learning problem by training on a dataset of your choice. You will need to specify the problem you are trying to solve as well as the architecture that you will design to solve that problem. You will need to get approval for the design before implementing it. You will also need to download a dataset that you will input for your solution.

For the submission, you will need to include the design with verification from your lab instructor as proof. Provide the codes that implement your design and all relevant screenshots that showcase your work.

You will also need to submit the dataset that you are using in the task.

## Problem Details:

***### PROBEM DETAILS START HERE ###***

*### PROBLEM DETAILS END HERE ###*

## Architecture Details:

***### ARCHITECTURE DETAILS START HERE ###***

*### ARCHITECTURE DETAILS END HERE ###*

## Program Codes:

***### CODE STARTS HERE ###***

*### CODE ENDS HERE ###*

## Screenshots:

***### SCREENSHOTS START HERE ###***

*### SCREENSHOTS END HERE ###*

## Explanation and Discussion:

***### EXPLANATION AND DISCUSSION START HERE ###***

*### EXPLANATION AND DISCUSSION END HERE ###*