**Data and AI Training for Ext LT-PHDSI**

**Deep Learning – Computer vision Cat Vs Dog Prediction Model**

## Context

Computer vison is one of the major area where AI ML with Deep Learning concepts are getting used, Computer vision algorithms are widely used in security cameras to Self-driving vehicles, As part of the exercise, a pre-trained deep learning models are used to see how the images are classified, and how it performs when the images are rotated and flipped. Also how the performance of the model increases based on the improvement of training

## Content

The datasets consists two pre-trained models one which is trained with 20 images, and second one trained with 100 images. There are 21 images which will be used to test the model prediction.

## Problem Statement

Our aim is to load the different pre-trained models and to classify the images as Dog or Cat with what accuracy, the same classification will be done by rotating and flipping the image as well.

As part of the Exercise – following concepts will be explored

* Loading the pre-trained model
* Image classification on raw images
* Image classification by flipping the image
* Prediction percentage
* Model performance comparison based on training

Dataset will be shared as part of the GitHub repo - <https://github.com/vallerivinodh/AI-Examples>

## Tools Used

Jupyter Notebook with Online tool – [Google Colab](https://colab.research.google.com/) - <https://colab.research.google.com/>

Python 3.x