REVISITING AI PROJECT CYCLE

STAGE 1- PROBLEM SCOPING

- o Identifying Problem
- Setting Goal
- o 4W Canvas (1. WHO 2. WHAT 3. WHERE 4. WHY)
- Stakeholder
- Problem Statement Template

STAGE 2 – DATA ACQUISITION

Acquiring data from different sources like

- Interview
- Survey
- Web Scrapping
- \circ API
- Observations
- Sensors
- Cameras
- Internet (data.gov.in)
- Problem reports

STAGE 3 – DATA EXPLORATION/ VISUALIZATION

- **o** Scatter Chart
- o Bubble Chart
- Line Graph,
- Pie Graph,
- o Bar Graph,
- Histogram
- Heatmap (values are represented by colours)
- Choropleth(used with statistical data i.e. numeric with textual data)
- \circ Timeline

STAGE 4 – MODELLING Training Data and Testing Data are decided. • Once the most efficient model is chosen AI algorithms is developed around it. • Rule Based (also called Model Driven) Learning Based (also called Learning Based) ML CLASSIFICATION **Machine Learning Supervised Learning Unsupervised Learning Reinforced Learning** Labeled data O Data is not labeled O Data in the form of • Guessing the correct rewards and penalties answers Regression ← Classification Clusterina Making Making Discovering predictions based different patterns predictions from . continuous set of on finite data set based on data set @epsilon11 values

STAGE 5 – EVALUATION

- **O TP (TRUE POSITIVE)**
- **O TN (TRUE NEGATIVE)**
- FP (FALSE POSITIVE) also called Type- 1 Error
- FN (FALSE NEGATIVE) also called Type- 2 Error

STAGE 6 – DEPLOYMENT

- On Device/Premise Deployment (Phone or smart watch)
- Cloud Deployment (available on Internet services e.g. Google, Microsoft , Amazon)
- Edge Deployment

(Robot move around without crashing, AI Camera on traffic light differentiate People & Vehicles)

