



RESEARCH ROADMAP
LABORATORY OF PROGRAMMING AND VISUAL COMPUTING
DEPARTMENT OF MATHEMATICS – FSAD-ITS



**Object Detection; Image Processing;
Product Defect Detection**

**Human Detection; Vehicle Speed
Tracking and Detection**

**Road Damage Detection; Vehicle Speed
Detection**

- People and Vehicle Detection with HOG
- Bullets Defect Detection (RAPID I)
- Image Quality Enhancement using Wavelet (Final Year Project)
- Ceramic Defect Detection (Thesis)

- Emotion Recognition based on Facial Image (Thesis)
- Diabetes Identification based on Iris Image Analysis (Final Year Project)
- People Tracking and Counting
- Vehicle Speed Detection (PUPT)

- Vehicle Speed Detection (PUPT)
- Road Damage Detection based on Video (PUPT)
- DSS development for road conditions
- Road Damage Classification (Thesis and Final Year Project)
- Rice Plant Diseases Identification

2013-2017

2017-2018

2018 -
2019

2019 -
2020

2020-2021

2021-2022

**Object Detection, Tracking, and
Classification**

**Road Damage and Vehicle Speed
Detections**

**Road Damage and Vehicle Speed
Detections**

- Vehicle Object Detection and Classification (PUPT)
- Skin Cancer Identification (Final Year Project)
- Small Object Tracking (PUPT)
- Vehicle Speed Detection (Final Year Project)

- Emotion Recognition based on Facial Image (Thesis)
- Vehicle Speed Detection (PUPT)
- Road Damage Detection (PUPT)
- Road Damage Classification (Thesis and Final Year Project)
- Estimating Road Damage Dimension Estimation (Thesis and Final Year Project)

- Nighttime Vehicle Speed Tracking and Estimation (PUPT)
- DSS Development for Road Condition
- Rice Plant Diseases Identification based on its image