

**PROJECT PROPOSAL**

1. Team Members :

	Name	Roll number
Member 1	RAJA SUBRAMANIAN.V	20BCS046
Member 2	VIJAYA GOKUL.K	20BCS059

2. Proposed project title: **Breast mass detection in Mammography images based on Improved Deep Transformed model.**

3. Project Description: This research work aims to automatic detection of breast mass in digital mammograms using an ensemble YOLO object detection and transformer-based segmentation model. Ensemble reduces radiologists' workload, expedites screenings and the cascaded framework enables early detection, potentially saving lives. Attention maps aid radiologists in making informed decisions, enhancing patient care.

4. Project Objectives:

- To develop an improved deep learning model architecture for breast cancer mass detection and segmentation using the mammography.
- To improve the efficiency and performance of computer-aided breast cancer diagnosis.
- To reduce computational complexity of the algorithm.

5. Project Domain : Image Processing

6. Project Classification : Research

7. Benchmark data set to be used : Two Datasets,  
a. [CBIS-DDSM: Breast Cancer Image Dataset](#)  
b. [INbreast Dataset](#)

8. Guide name : Dr. B. Lakshmanan , Assistant Professor (Sl. Grade)

9. Journal Name & Year of Publication (2022 onwards) : Yongye Su , Qian Liu , Wentao Xie , Pingzhao Hu, 'YOLO LOGO: A transformer-based YOLO segmentation model for breast mass detection and segmentation in digital mammograms', Computer methods and programs in Biomedicine, Elsevier, Vol.no: 221, PP: 106903, 2022.

**Signature of the students  
with Date**