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| **Oral Cancer Detection**    **MAJOR PROJECT SYNOPSIS**    ***of***    **BACHELOR OF TECHNOLOGY**    ***in***    **COMPUTER SCIENCE & ENGINEERING**  ***by***    **Project ID:** 148-CSE-M      Rahul Tanwar Saurabh Bisht Akshansh Kumar  (01414802719) (01314807220) (10014802719)        ***Guided by***    **Name of the Guide:** Ms.DEEPTI GUPTA              **DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**  **MAHARAJA AGRASEN INSTITUTE OF TECHNOLOGY**  **(AFFILIATED TO GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, DELHI)** |

**Basic Details of the Team and Problem Statement**

Project Team ID : 148-CSE-M

Problem Statement Title :Oral Cancer Detection

Theme of Project : Deep learning

Team Member 1 Name: Rahul Tanwar

Team Member 1 Roll No.: (01414802719)

Team Member 1 Group.: 8C2

Team Member 2 Name: Saurabh Bisht

Team Member 2 Roll No.: (01314807220)

Team Member 2 Group.: 8C2

Team Member 3 Name: Akshansh Kumar

Team Member 3 Roll No.: (10014802719)

Team Member 3 Group.: 8C5



**Computer Science and**

**Engineering Department**

**Minor Project Synopsis 2022**

Guide Name: Ms.DEEPTI GUPTA

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| Describe your Technology stack here:   * Deep learning * python |

# Idea/Approach Details

Describe your idea/Solution/Prototype here:

* we will covert dicom images to jpg images then we will apply different CNN model architectures on it and then we’ll compare all CNN model .
* By using CNN model we’ll detect oral cancer on given dicom images.

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# Idea/Approach Details

Describe your project Methodology/ Planning of work

Oral cancer is one of the most common head and neck malignancies and has an overall 5-year survival rate that remains below 50%. Oral cancer is generally preceded by oral potentially malignant disorders (OPMDs) but determining the risk of OPMD progressing to cancer remains a difficult task. Several diagnostic technologies have been developed to facilitate the detection of OPMD and oral cancer, and some of these have been translated into regulatory-approved in vitro diagnostic systems or medical devices. Furthermore, the rapid development of novel biomarkers, electronic systems, and artificial intelligence may help to develop a new era where OPMD and oral cancer are detected at an early stage. To detect oral cancer we are going to use deep learning on jpg images (converted from dicom images)

References/Bibliography.

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**[2] Huiping Lin, Hanshen Chen, Luxi Weng, Jiaqi Shao, and Jun Lina, “Automatic detection of oral cancer in smartphone-based images using deep learning for early diagnosis” 2021**

**[3] Rogério Ribeiro de Paiva, Paulo Tadeu de Souza Figueiredo, André Ferreira Leite, Maria Alves Garcia Silva “Oral cancer staging established by magnetic resonance imaging” 2011**

# [4] Zhalong Hu; Abeer Alsadoon; Paul Manoranjan; P. W. C. Prasad; Salih Ali; A. Elchouemic “Early stage oral cavity cancer detection: Anisotropic pre-processing and fuzzy C-means segmentation” 2018

**[5] T. Morikawa , A. Kozakai , A. Kosugi , H. Bessho , T. Shibahara “Image processing analysis of oral cancer, oral potentially malignant disorders, and other oral diseases using optical instruments” 2020**