

# **ARTIFICIAL INTELLIGENCE RECOMMENDATION SYSTEM FOR CANCER REHABILITATION SCHEME**

**DEPARTMENT OF CSE  
BATCH-12**

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**PROJECT GUIDE  
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## **ABSTRACT**

- Cancer is the most difficult problem in the field of medicine, and its postoperative recovery has become the most concerned problem for cancer patients.
- In the field of medical image processing, brain tumor detection and segmentation using MRI Scan has become one of the most important and challenging research areas.
- Magnetic resonance imaging (MRI) is a widely used imaging technique to assess these tumors, but the large amount of data produced by MRI needs manual segmentation in a reasonable time, limiting the use of precise quantitative measurements in the clinical practice. So, automatic and reliable segmentation methods are required.
- Automatic segmentation is a challenging problem in which manual detection and segmentation of brain tumors using brain MRI scan forms a large part of human intervention for detection and segmentation taken per patient, is both tedious and has huge internal and external observer detection and segmentation variability. Hence there is high demand for an efficient and automatic brain tumor detection and segmentation using brain MR images to overcome errors in manual segmentation.
- In Practice, the system uses HSI (Hyperspectral Imaging) to detect cancer cells. It is difficult to eliminate the ambiguities of matching spectral profiles with biological samples and therefore the presence of fundamental non-uniqueness is another limitation of HSI.
- To overcome this difficulty, we are developing a system which detects the location of cancer cells through MR Images and also suggests effective treatment like medications, vaccines etc.. to physicians.