



**NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS)**  
**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

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<b>Batch Number</b>	DG7
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<b>Guide</b>	Yamani Chandana
<b>Title</b>	Brain Tumor Detection Using Deep Learning with Efficient Net-B0
<b>Domain/Technology</b>	DEEP LEARNING
<b>Base Paper Link</b>	<a href="https://ieeexplore.ieee.org/document/9798829">https://ieeexplore.ieee.org/document/9798829</a>
<b>Dataset Link</b>	1. <a href="https://drive.google.com/drive/u/0/folders/1Vt8bQqqzf-evPXvICUmek1nvUbweKgJ5">https://drive.google.com/drive/u/0/folders/1Vt8bQqqzf-evPXvICUmek1nvUbweKgJ5</a> (Google Drive). 2. <a href="https://www.kaggle.com/datasets/sartajbhuvaji/brain-tumor-classification-mri">https://www.kaggle.com/datasets/sartajbhuvaji/brain-tumor-classification-mri</a>
<b>Software Requirements</b>	Browser: Any latest browser like Chrome Operating System: Windows 7 Server or later Python (COLAB)
<b>Hardware Requirements</b>	System Type: Intel Core i3 or above RAM: 8 GB Number of cores:3 Number of Threads: 4
<b>Abstract</b>	Benign brain tumors result from abnormal cell growth within the brain. The death rates can't be established because the disease is rare and has many classifications in its ambit. MRI scans are greatly valid in finding tumors . But the procedure relating to finding tumors in images is manual. Hence, this drains a lot of time and may give incorrect results. These are the limitations that become important to overcome. The uncontrollable advancements in the field of artificial intelligence are developing especially computer-aided methods . This research proposes a deep complex neural network model, namely, advanced semantic segmentation derived from an efficient B0 network for correct identification and detection of brain tumors from MRI images. Image enhancement techniques were employed to improve image quality and training data variability. With the use of enhancement techniques, the size increases. The other DL models included in the comparative analysis are VGG16, InceptionV3, Xception, ResNet50, and InceptionResNetV2.

**Signature of the student(s)**

**Signature of the Guide**

**Signature of the project coordinator**