

Paper ID:	1571068646
Paper Title:	Pelvic Tumor Segmentation in MRI Images Using Deep learning with DeepLabV3+ and U-Net: A Performance Comparison
Authors:	Noppanon Nobnop, Thanadon Piboonthummasak, Naramon Yamcharoen, Theekapun Charoenpong and Chamaiporn Sukjamsri (Srinakharinwirot University, Thailand); Piya Kiatisevi (Ministry of Public Health, Thailand)
Email:	noppanon.derng@g.swu.ac.th

Abstract

Pelvic tumors present a challenge for oncology diagnosis due to the complex morphology of the lesions. Tumor segmentation in Magnetic Resonance Imaging (MRI) is commonly employed for treatment planning. However, research focusing on tumors in the pelvic region is limited. This paper proposes a method that utilizes DeepLabV3+ and U-Net architectures for segmenting pelvic tumors in MRI images. The study used 50 MRI images, dividing the data into 60% for training, 20% for testing, and 20% for validation. The results demonstrated that DeepLabV3+ outperformed U-Net, achieving IoU values of 73.97% compared to 45.48%, respectively.
