

## Endometriosis prediction using deep learning and machine learning algorithms

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The endometriosis is a disorder that stripes the uterus both inside and outside. The endometriosis is a recurrence disease that can be diagnosed by the medical practitioners with the help of traditional scanning procedures. The laparoscopic surgery is the authentic method for identifying the advanced stages of endometriosis. The stages of endometriosis includes mild endometriosis, moderate endometriosis, severe endometriosis and deep infiltrating endometriosis are to be handled differently. The stages are categorised based on the lesion intruding size, area and severity of endometriosis. The symptoms of Endometriosis include (a) Irregular Menstrual cycle, (b) Adnexal mass, (c) Tube Blockage, (d) Tenderness, (e) Dysmenorrhea, (f) Chronic Pelvic pain, etc. There exist several other symptoms that can be identified only by Laparoscopic procedures. The Artificial intelligence is a cutting edge technology in predicting the type and severity of endometriosis in reference gynecologist. The various deep learning and machine learning assist radiologist are able to recognizing and classifying the endometriosis accurately. The identified deep learning algorithm known as Convolution Neural Network and machine learning algorithm random forest was experimented and found that the presented algorithm performed well in terms of 97.65% prediction and 98.23% classification. for her research work. She is active researcher in the field of medical image analysis.

### Biography

S.Visalaxi is a Researcher in the School of Computing Science, Hindustan Institute of Technology and science (Hindustan University), Chennai, India. She has ten years of experience in the field of higher education and research. She obtained Master Degree from SRM University, Chennai, India. She is pursuing her research work in endometriosis using deep learning. She has published 15 papers in reputed journals and conferences. She has received various award for her consistent reasearch work includes best researcher award, best young scientist award. She also granted a internatioanl patent for her research work. She is active researcher in the field of medical image analysis.