Multiple Uterine Disease Classification Using Machine Learning

Kartika Sahu, Sannu Kumar Nayak

- **Introduction:**
  - On Exploring the Artificial Inteligence -assisted methods to improve the diagnostic performance we found out there has not been done any work related to multiple utirine disease classification and we are the first one to try so.
  - There is an increase in the Reproductive track diseases in India due to late marriage and late child birth and there is an need of an model to classify multiple diseases using Machine Learning.
- **Dataset:** We collected some sample data from CMRP, NISER and Ran it in MatRAD and we got confirmation for more such data from AIIMS , BBSR Hospital
- **Midway Goals:** Analyzing Dataset using MatRAD, applying ML Algorithms and comparing the results for model accuracy.
- **Baselines:**
  - We will be going through convolutional neural network (CNNs) and applying it for classification and applying some models to get accuracy.
- **Expected Results:** Model considerably improve the dignosis performance.

- **Teammates & Work Division:**
  - Kartika: Data management and result analysis.
  - Sannu: Model Implementation.
  - Report works can be coding part will be managed together.
- **Relevant Papers:**
  - Ovi Sarkar 1,Md. Robiul Islam 1,Md. Khalid Syfullah 1ORCID,Md. Tohidul Islam,Md. Faysal Ahamed,Mominul Ahsan andJulfikar Haider. Multi-Scale CNN: An Explainable AI-Integrated Unique Deep Learning Framework for Lung-Affected Disease Classification.https://www.mdpi.com/2227-7080/11/5/134
  - Fakrul Islam Tushar, Vincent M. D'Anniballe, Rui Hou, Maciej A. Mazurowski, Wanyi Fu, Ehsan Samei, Geoffrey D. Rubin, Joseph Y. Lo . Classification of Multiple Diseases on Body CT Scans Using Weakly Supervised Deep Learning.https://pubs.rsna.org/doi/full/10.1148/ryai.210026
  - Mona Hmoud Al-Sheikh, Omran Al Dandan, Ahmad Sami Al-Shamayleh, Hamid A. Jalab Rabha W. Ibrahim .Multi-class deep learning architecture for classifying lung diseases from chest X-Ray and CT images.https://www.nature.com/articles/s41598-023-46147-3