

IBM-NAALAIYA THIRAN

AI-BASED LOCALIZATION AND CLASSIFICATION OF SKIN DISEASES WITH ERYTHEMA

LITERATURE SURVEY

Faculty Mentor

Mr. Rajagopal T K P

Team Leader

Pavithraa M R - 19104126

Team Members

Pragadeshwar V - 19104128

Prasad K - 19104130

Ganesh S - 19104801

1.AI-based localization and classification of skin disease with erythema

Author: Han Min Son,Wooho Jeon,Jinhyun Kin, Chan Yeong Heo,Hye Jin Yoon, Ji-Ung Park& Tai Myoung Chang.

<https://www.nature.com/articles/s41598-021-84593-z>

The segmentation and classification of skin diseases has been gaining attention in the field of artificial intelligence because of its promising results. Two of the more prominent approaches for skin disease segmentation and classification are clustering algorithms and support vector machines (SVMs). Clustering algorithms generally have the advantage of being flexible, easy to implement, with the ability to generalize features that have a similar statistical variance.

2.Computer-Aided diagnosis for CT colonography

Author:Hiroyuki Yoshida

<https://doi.org/10.1053/j.sult.2004.07.002>

CT Colonography or virtual colonoscopy, is a promising alternative screening tool for Coloncancer . Computer-aided diagnosis (CAD) for CT colonography has the potential to increase radiologists' diagnostic performance in the detection of polyps and to reduce variability of the diagnostic accuracy among readers. Technical developments have advanced CAD for CT colonography substantially during the last several years. This paper describes the key techniques used for CAD for detection of polyps and masses in CT colonography, the current detection performance, and challenges and the future of CAD.

3.SKIN DISEASE DETECTION USING DEEP LEARNING

Author: Sruthi Chintalapudi, Vikas Prateek Mishra, Shubham Sharma, Sunil Kumar.

<https://www.irjet.net/archives/V8/i4/IRJET-V8I4588.pdf>

Deep Learning (DL) is that part of Artificial Intelligence (AI) where a computer algorithm calculation investigations crude information and consequently learns different highlights required for recognizing concealed patterns in them. In the course of recent years, this field has seen striking progression in the capacity of Deep Learning-based calculations to dissect different sorts of information, particularly pictures and regular language. Medical care and medicine have been incredibly profited by ongoing advances in picture characterization and item recognition, in a general sense those clinical controls where conclusions are founded on the identification of morphologic changes, for example, pathology, radiology, ophthalmology and dermatology, and so forth In such clinical fields, computerized pictures are caught and given to DL calculations to Computer-Aided Diagnosis (CAD). These development calculations have just made their imprint and got fruitful on robotized identification of diseases like tuberculosis, bosom harm, glaucoma, diabetic retinopathy and, genuine mind discoveries, for example, stroke, discharge, and mass impacts.

