|  |  |
| --- | --- |
| Research Article and Title | A method of Skin disease detection using image processing and Machine learning |
| Author | Elsevier B.V |
| Published Addressed/Identified | 2019 |
| Aim and Objectives | The cost of such diagnosis is still limited and very expensive. So, image processing techniques help to build automated screening system for dermatology at an initial stage. |
| Models /Algorithm used | Support Vector Machine |
| Results | The system is implemented in MATLAB 2018b. We used a platform of Intel Core i3 processor 2.10 GHz with 4-  GB RAM.    The Implementation results are shown in Figure 6. Initially, the input images are preprocessed, then features are  extracted using pretrained CNN. Finally, classification is performed using SVM classifier  The system is implemented in MATLAB 2018b. We used a platform of Intel Core i3 processor 2.10 GHz with 4-  GB RAM.    The Implementation results are shown in Figure 6. Initially, the input images are preprocessed, then features are  extracted using pretrained CNN. Finally, classification is performed using SVM classifier  The system is implemented in MATLAB 2018b. We used a platform of Intel Core i3 processor 2.10 GHz with 4-  GB RAM.    The Implementation results are shown in Figure 6. Initially, the input images are preprocessed, then features are  extracted using pretrained CNN. Finally, classification is performed using SVM classifier  Initially, the input images are preprocessed, then features are extracted using pretrained CNN. Finally, classification is performed using SVM classifier. |
| Reference | <https://www.researchgate.net/publication/338759556_A_>  Method\_Of\_Skin\_Disease\_Detection\_Using\_Image\_Processing\_  And\_Machine\_Learning |

|  |  |
| --- | --- |
| Research Article and Title | A method of Skin disease detection using image processing and Machine learning |
| Author | Elsevier B.V |
| Published Addressed/Identified | 2019 |
| Aim and Objectives | The cost of such diagnosis is still limited and very expensive. So, image processing techniques help to build automated screening system for dermatology at an initial stage. |
| Models /Algorithm used | Support Vector Machine (SVG) |
| Results | The system is implemented in MATLAB 2018b. We used a platform of Intel Core i3 processor 2.10 GHz with 4-  GB RAM.    The Implementation results are shown in Figure 6. Initially, the input images are preprocessed, then features are  extracted using pretrained CNN. Finally, classification is performed using SVM classifier  The system is implemented in MATLAB 2018b. We used a platform of Intel Core i3 processor 2.10 GHz with 4-  GB RAM.    The Implementation results are shown in Figure 6. Initially, the input images are preprocessed, then features are  extracted using pretrained CNN. Finally, classification is performed using SVM classifier  The system is implemented in MATLAB 2018b. We used a platform of Intel Core i3 processor 2.10 GHz with 4-  GB RAM.    The Implementation results are shown in Figure 6. Initially, the input images are preprocessed, then features are  extracted using pretrained CNN. Finally, classification is performed using SVM classifier  Initially, the input images are preprocessed, then features are extracted using pretrained CNN. Finally, classification is performed using SVM classifier. |
| Reference | <https://www.researchgate.net/publication/338759556_A_>  Method\_Of\_Skin\_Disease\_Detection\_Using\_Image\_Processing\_  And\_Machine\_Learning |

|  |  |
| --- | --- |
| Research Article and Title | Skin Disease Recognition Method Based on Image Color and Texture Features |
| Author | [Li-sheng Wei](https://pubmed.ncbi.nlm.nih.gov/?term=Wei%20Ls%5BAuthor%5D),[Quan Gan](https://pubmed.ncbi.nlm.nih.gov/?term=Gan%20Q%5BAuthor%5D), and [Tao Ji](https://pubmed.ncbi.nlm.nih.gov/?term=Ji%20T%5BAuthor%5D) |
| Published Addressed/Identified | 2018 |
| Aim and Objectives | Here,three type skin diseases such as herpes, dermatitis, and psoriasis skin disease could be identified by a new recognition method |
| Models /Algorithm used | Support Vector Machine (SVG) |
| Results | The system is implemented in MATLAB 2018b. We used a platform of Intel Core i3 processor 2.10 GHz with 4-  GB RAM.    The Implementation results are shown in Figure 6. Initially, the input images are preprocessed, then features are  extracted using pretrained CNN. Finally, classification is performed using SVM classifier  The system is implemented in MATLAB 2018b. We used a platform of Intel Core i3 processor 2.10 GHz with 4-  GB RAM.    The Implementation results are shown in Figure 6. Initially, the input images are preprocessed, then features are  extracted using pretrained CNN. Finally, classification is performed using SVM classifier  The system is implemented in MATLAB 2018b. We used a platform of Intel Core i3 processor 2.10 GHz with 4-  GB RAM.    The Implementation results are shown in Figure 6. Initially, the input images are preprocessed, then features are  extracted using pretrained CNN. Finally, classification is performed using SVM classifier  The accuracy of the result will be 60% and we cant fully depend on this model to detct the skin disease. |
| Reference | https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6129338/ |

|  |  |
| --- | --- |
| Research Article and Title | Skin Disease Detection using Machine Learning |
| Author | Kritika Sujay Rao, Pooja Suresh Yelkar, Omkar Narayan Pise, Dr. Swapna Borde |
| Published Addressed/Identified | 2018 |
| Aim and Objectives | Here they have used Deep Learning to train our model, Deep Learning is a part of Machine Learning in which unlike Machine Learning it uses large dataset and hence the number of classifiers is reduced substantially. |
| Models /Algorithm used | Convolutional Neural Network (CNN) |
| Results | The system is implemented in MATLAB 2018b. We used a platform of Intel Core i3 processor 2.10 GHz with 4-  GB RAM.    The Implementation results are shown in Figure 6. Initially, the input images are preprocessed, then features are  extracted using pretrained CNN. Finally, classification is performed using SVM classifier  The system is implemented in MATLAB 2018b. We used a platform of Intel Core i3 processor 2.10 GHz with 4-  GB RAM.    The Implementation results are shown in Figure 6. Initially, the input images are preprocessed, then features are  extracted using pretrained CNN. Finally, classification is performed using SVM classifier  The system is implemented in MATLAB 2018b. We used a platform of Intel Core i3 processor 2.10 GHz with 4-  GB RAM.    The Implementation results are shown in Figure 6. Initially, the input images are preprocessed, then features are  extracted using pretrained CNN. Finally, classification is performed using SVM classifier  Validation set is independent from the Train set, Validation set is used for selecting parameters. Just for an instance if your model has 90% train accuracy and 89% validation accuracy then your model is expected to have 89%accuracy on new data. |
| Reference | https://www.ijert.org/skin-disease-detection-using-machine-learning |

|  |  |
| --- | --- |
| Research Article and Title | Skin Disease Detection And Classification |
| Author | V. Pugazhenthi, Sagar K. Naik, Amruta D. Joshi, Shreya S. Manerkar, Vinita U. Nagvekar, Kalpita P. Naik, Chinmay G. Palekar, K Sagar |
| Published Addressed/Identified | 2019 |
| Aim and Objectives | The main idea of this project is to improve the accuracy of diagnostic systems by using Image Processing and classification techniques.The process begins with pre-processing an input image using contrast enhancement and grayscale conversion. The contrast enhanced image is converted to a grayscale image. Global Value Thresholding technique is used to segment the grayscale image through which the actual affected region is obtained. |
| Models /Algorithm used | Decision tree, ID3 Algorithm |
| Results | The system is implemented in MATLAB 2018b. We used a platform of Intel Core i3 processor 2.10 GHz with 4-  GB RAM.    The Implementation results are shown in Figure 6. Initially, the input images are preprocessed, then features are  extracted using pretrained CNN. Finally, classification is performed using SVM classifier  The system is implemented in MATLAB 2018b. We used a platform of Intel Core i3 processor 2.10 GHz with 4-  GB RAM.    The Implementation results are shown in Figure 6. Initially, the input images are preprocessed, then features are  extracted using pretrained CNN. Finally, classification is performed using SVM classifier  The system is implemented in MATLAB 2018b. We used a platform of Intel Core i3 processor 2.10 GHz with 4-  GB RAM.    The Implementation results are shown in Figure 6. Initially, the input images are preprocessed, then features are  extracted using pretrained CNN. Finally, classification is performed using SVM classifier  This system can be used by dermatologists to give a better diagnosis and treatment to the patients. The system can be used to diagnose skin diseases at a lower cost |
| Reference | https://hal.archives-ouvertes.fr/hal-02141241/document |

|  |  |
| --- | --- |
| Research Article and Title | Skin disease detection using computer vision and machine learning technique |
| Author | Leelavathy S, Jaichandran R, Shobana R, Vasudevan, Sreejith S Prasad and Nihad |
| Published Addressed/Identified | 2020 |
| Aim and Objectives | To provide results in short period of time, we propose a hybrid approach combining computer vision and machine learning techniques. For this the input images would be microscopic images (i.e)histopathological from which features like color, shape and texture are extracted and given to convolutional neural network (CNN) for classification and disease identification. |
| Models /Algorithm used | Convolutional Neural Network (CNN) |
| Results | The system is implemented in MATLAB 2018b. We used a platform of Intel Core i3 processor 2.10 GHz with 4-  GB RAM.    The Implementation results are shown in Figure 6. Initially, the input images are preprocessed, then features are  extracted using pretrained CNN. Finally, classification is performed using SVM classifier  The system is implemented in MATLAB 2018b. We used a platform of Intel Core i3 processor 2.10 GHz with 4-  GB RAM.    The Implementation results are shown in Figure 6. Initially, the input images are preprocessed, then features are  extracted using pretrained CNN. Finally, classification is performed using SVM classifier  The system is implemented in MATLAB 2018b. We used a platform of Intel Core i3 processor 2.10 GHz with 4-  GB RAM.    The Implementation results are shown in Figure 6. Initially, the input images are preprocessed, then features are  extracted using pretrained CNN. Finally, classification is performed using SVM classifier  The proposed system is able to detect the skin disease with promising results combining computer vision and machine learning techniques.It has also a simple user interface for the convenience of the user. The image processing and machine learning algorithms were successfully implemented. |
| Reference | https://ejmcm.com/article\_2063\_f2d63a2c4d81a4a58e8a25b20779c770.pdf |