**Existing System**

Hair and scalp conditions may go unnoticed at first. A patient may occasionally be unable to distinguish between hair loss and normal hair fall [1,19]. It takes time to diagnose hair related disorders since expert dermatologists must do both physical and medicinal examinations. Asa result, the overall diagnosis is delayed, worsening the illness's severity. In order to anticipate fatal diseases like cancers and tumors, neural network-based solutions are utilized in a variety of industries, including healthcare and health informatics [12]. 150 photos were gathered from diverse sources and preprocessed to reduce error rates by denoising, image data balancing, equalization, and enhancement. These tools support medical professionals and patients while offering a preliminary understanding of early- stage symptoms. The three main types of hair lossand disorders associated with the scalp that we correctly predicted in this study were alopecia, psoriasis, and folliculitis. The endeavor was difficult, however, due to the paucity of research in the field, the lack of a suitable dataset, and the degree of variability in the photographs that were dispersed over the internet.

**Disadvantages of existing system:**

* The trichoscopy method, which involves extracting hair loss characteristics by processing scalp photos, was proposed; however, the results of the prediction were not clearly visible when using the photographs.

• In terms of the system, it was new. the diagnosis of alopecia areata using a mix of computer vision and image processing techniques.

• In a different study, artificial neural networks were suggested as a way of automated categorization for the early detection and treatment of alopecia. According to the conditions of the scalp, feedforward artificial work was used by the system to classify scalp photographs.

• A classification accuracy of 85% was obtained. In a different study, the severity of the Alopecia Tool score was used to perform textural analysis on scalp photos.

• The suggested technique enabled investigation of variations in hair density.

**Proposed System:**

In this research, the amount of hair loss is predicted utilizing the various influencing attributes. ML has been used to do this work. A total of 60% of the obtained data was used for training, 20% for validation, and the remaining 20% for neural network testing various training algorithm have been employed for this. These algorithms implementation outcomes have been contrasted. It appears that neural networks are effective at foretelling hair loss . A flexible and lightweight integrated development environment is Thonny.

**Advantages of existing system:**

* Unlike the existing trichoscopy method where the results of prediction were not clearly visible in scalp photos, the proposed system likely offers improved predictive visibility. This could be due to better image processing and computer vision techniques that enhance the identification and visualization of hair loss characteristics.
* The use of artificial neural networks for automated categorization in the early detection and treatment of alopecia offers the advantage of speed and efficiency.
* The proposed system represents a novel approach to the diagnosis of alopecia areata by integrating computer vision and image processing techniques. This innovative approach can potentially lead to more accurate and efficient diagnosis compared to traditional methods.