

Extraction of Ayurvedic Herbs and Benefits using Deep Learning Algorithms

Sunitha S¹, Shiva Kumar N², Swathi³, UT Shravani⁴, Sudha Rani⁵

Assistant Professor, Department of Computer Science and Engineering¹

Students, Department of Computer Science and Engineering^{2,3,4,5}

Rao Bahadur Y Mahabaleswarappa Engineering College, Ballari, Karnataka, India

Abstract: *This study aims to explore the potential of deep learning algorithms in identifying and extracting Ayurvedic herbs and evaluating their benefits. The study proposes a deep learning model for extracting the herbs from images and identifying them using their unique features. The proposed model utilizes Convolutional Neural Networks (CNNs) to extract features from images and classify them based on their features. The model is trained on a large dataset of Ayurvedic herb images and validated using various performance metrics. The study also investigates the benefits of Ayurvedic herbs and their potential use in the treatment of various ailments. The benefits of Ayurvedic herbs are evaluated based on their traditional uses, scientific evidence, and clinical studies. The results suggest that Ayurvedic herbs have numerous health benefits, including anti-inflammatory, antioxidant, and immunomodulatory effects. The proposed model can be used for automated identification and extraction of Ayurvedic herbs, reducing the need for manual identification and improving the accuracy of identification. The study also highlights the potential use of Ayurvedic herbs in complementary and alternative medicine and suggests future research in this field.*

Keywords: Ayurvedic herb

REFERENCES

- [1]. Singh, S. K., & Kumar, A. (2019). Ayurvedic herbal plant recognition using deep convolutional neural network. *International Journal of Scientific & Technology Research*, 8(6), 1906-1912.
- [2]. Patel, V. M., Patel, R. D., & Patel, A. R. (2018). Classification of Ayurvedic medicinal plants using Convolutional Neural Networks (CNN). In *2018 International Conference on Inventive Computation Technologies (ICICT)* (pp. 610-614). IEEE.
- [3]. Chauhan, M. S., Kumar, S., & Sharma, R. K. (2020). Deep Learning-Based Classification of Ayurvedic and Western Medicines. In *Proceedings of the 4th International Conference on Computing Methodologies and Communication* (pp. 55-60). Springer.
- [4]. Bhowmick, S., Debnath, S., & Jain, A. (2019). Deep learning approach for plant recognition using leaf and flower images. In *Proceedings of 3rd International Conference on Intelligent Computing and Control Systems (ICICCS)* (pp. 1960-1964). IEEE.
- [5]. Nayak, R., Rastogi, M., & Kumari, R. (2020). Intelligent Ayurvedic drug discovery using deep learning techniques: a review. *Journal of Herbal Medicine*, 23, 100373.
- [6]. Sahoo, S. K., & Rath, S. K. (2021). Image-Based Recognition of Ayurvedic Herbs: A Comparative Study of Deep Learning Approaches. *Journal of Intelligent Systems*, 30(3), 564-582.
- [7]. Jaiswal, S., & Rai, V. (2021). Deep Learning-Based Classification of Ayurvedic Plants for Treating Diabetes. *Journal of Herbs, Spices & Medicinal Plants*, 27(1), 24-36.