V.S.B.ENGINEERING COLLEGE, KARUR

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LITERATURE SURVEY

TITLE : Fertilizers Recommendation System for Disease Prediction

DOMAIN NAME : Artificial Intelligence

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ABSTRACT

Agriculture is the main aspect of country development. Many people lead their life from the agriculture field, which is fully related to agricultural products. Plant disease, especially on leaves, is one of the major factors of reductions in both quality and quantity of the food crops. In agricultural aspects, if the plant is affected by leaf disease then it reduces the growth of the agricultural level. Finding the leaf disease is an important role of agriculture preservation. After preprocessing using a median filter, segmentation is done by Guided Active Contour method and finally, the leaf disease is identified by using Support Vector Machine. The disease-based similarity measure is used for fertilizer recommendation.

INTRODUCTION

Detection and recognition of plant diseases using machine learning are very efficient in providing symptoms of identifying diseases at its earliest. Plant pathologists can analyze the digital images using digital image processing for diagnosis of plant diseases. Application of computer vision and image processing strategies simply assist farmers in all of the regions of agriculture. Generally, plant diseases are caused by the abnormal physiological functionalities of plants. Therefore, the characteristic symptoms are generated based on the differentiation between normal physiological functionalities and abnormal physiological functionalities of the plants. Mostly, the plant leaf diseases are caused by Pathogens which are positioned on the stems of the plants. These different symptoms and diseases of leaves are predicted by different methods in image processing. These different methods include different fundamental processes like segmentation, feature extraction and classification and so on. Mostly, the prediction and diagnosis of leaf diseases are dependent on the segmentation such as segmenting the healthy tissues from diseased tissues of leaves.

LITERATURE SURVEY   :

The author describes [1]The methods and applications of artificial intelligence more and more are linking with technologies of precision agriculture. The classical and modern approaches to artificial intelligence used for problem solving in the technologies of precision agriculture. Searching methods include uninformed and informed search methods which is a better way to achieve optimality. Expert systems are typical classical approaches to artificial intelligence and they can be applied for problem solutions. Decision making in precision agriculture includes different data collection and data analysis. Hierarchical relationships exist between, data, facts, information and knowledge. Knowledge can be defined as the processing of information to enable intelligent decision making. Both logic and fuzzy logic are discussed. An important aspect of the field of artificial intelligence is the ability of computers to learn from experience and change their behavior in different ways. Some of the modern approaches to artificial intelligence are: artificial neural networks, genetic algorithms, evolutionary computing and agent architectures. One of the exciting developments in the field of artificial intelligence appeared through the developments of robotics, which largely related to precision agriculture. The author describes [2] the social and ethical impacts of using artificial intelligence (AI) in the agricultural sector. It will identify what are some of the most prevalent challenges and impacts identified in the literature, how this correlates with those discussed in the domain of AI ethics, and are being implemented into AI ethics guidelines. This will be achieved by examining published articles and conference proceedings that focus on societal or ethical impacts of AI in the agri-food sector, through a thematic analysis of the literature. The thematic analysis will be divided based on the classifications out-lined through 11 overarching principles, from an established lexicon (transparency,

justice and fairness, non-maleficence, responsibility, privacy, beneficence, freedom and autonomy, trust, dignity, sustainability, and solidarity). While research on AI agriculture is still relatively new, it aims to map the debate and illustrate what the literature says in the context of social and ethical impacts. Its aim is to analyse these impacts, based on these 11 principles. The author describes [3] Artificial Intelligence is noiselessly but progressively entering Indian farming and hence affecting our society. Artificial intelligence methods are creating inroads in all arenas including Farming. Artificial Intelligence techniques like auto-translation among various languages, text to speech and speech and speech to text in Indian languages can help the poor farmers in accessing the required knowledge generated by National Agricultural Research and Education System.The new technologies will be desirable to ease the assignment on agriculturalists operations will be completed at all, procedures will be mechanical, risks will be recognized and issues resolved. In the future, every farmer's skills will increasingly be a mix of huge technologies and biology skills rather than pure agriculture. The author describes [4] The application of AI in agriculture has been widely considered as one of the most viable solutions to address food inadequacy and to adapt to the needs of a growing population. Agricultural robots targeted at diverse aspects in the agricultural industry have been developed and improved greatly in the past years, and although pointing out the hardship of applying machines and algorithms tested in experimental environments to real environments, the review highlights an already prosperous development and a promising prospect of application.

REFERENCES:

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