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Virtual Herbal Garden for AYUSH Medicinal Plants

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Abstract: *The AYUSH Medicinal Plants Virtual Herbal Garden is a new groundbreaking online platform that will help to preserve, promote and popularize the Indian heritage of the knowledge of medicinal plants of the AYUSH systems Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy [5],[7] .Informative, however, the traditional herbal gardens have the limitations of physical access and geography. This project fills that gap creating an interactive and educative virtual herbal garden which recreates a real world setting of a herbal garden in cyberspace. The site provides 3D models of the medicinal plants, which are of high quality,[1],[5] and the users have an opportunity to rotate, zoom in and out as well as explore each component of the plant with very detailed and hoverable information points that indicate the medicinal properties of the plant. Individual plant profiles contain all the data, including botanical description, habitat, medicinal application using AYUSH, preparation and cultivation techniques and guides and multimedia features like images, videos and audio manuals in various languages to make the learning process more inclusive. It has a sophisticated search and filter system that allows the user to search the plants based on ailment, part of the plant, region, or AYUSH discipline. The platform also presents one Disease-to-Plant Recommendation Engine that is capable of suggesting disease-specific herbal recommendations as well as pharmacological actions, preparing methods, dosages, and safety measures[3]. They also allow the users to engage in thematic virtual tours, bookmark their favorites, add personal notes, and share the information about the plants easily. The desired result will be a mobile application that will provide an interactive, immersive, scientifically validated knowledge base with more than 200 medicinal plants. It also strives to benefit the students, researchers, health care practitioners and general population through the greater awareness, access and conservation of traditional medicinal resources. In the end, this project will close the divide between the traditional knowledge of herbs and new digital technology to promote better healthcare and heritage conservation[2][5].*

Keywords*:* Virtual Herbal Garden, AYUSH, Medicinal Plants, Ayurveda, Siddha, Unani, Homeopathy, Naturopathy, 3D Visualization, Interactive Learning, Digital Heritage Preservation, Virtual Reality, Mobile Application

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