



**INFORMATICS
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INFORMATICS INSTITUTE OF TECHNOLOGY

In Collaboration with

UNIVERSITY OF WESTMINSTER

MODERN LANDSCAPING

**Website for Sri Lankan Customers who wants to design their
own garden using Augmented Reality Technology**

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ABSTRACT

This thesis presents the development of a website called “Modern Landscaping”, which aims to help Sri Lankan consumers design their garden using augmented reality (AR) technology. The website provides features such as search functionality for landscape architects, plant distributors, and garden decoration item distributors based on the customer's location and the website offers an AR-based feature that enables customers to match garden decoration items with the real environment.

The aim of this project was to address the challenges faced by customers who want to design their home landscapes by developing an IT-based solution that combines advanced technologies with the current process. To create an innovative IT solution, the project utilized research and analysis through interviews with garden professionals and questionnaires conducted with clients and landscape professionals. As a result of this research, the digital solution " Modern Landscaping " was developed.

In the testing phase of the project, a comprehensive evaluation of the website was conducted through various tests, resulting in significant findings. Usability testing involved six users who successfully navigated the website, selected products, and experienced the augmented reality feature. Impressively, 100% of the users successfully completed the tasks. Compatibility testing was carried out on a range of devices with different screen sizes, resolutions, and Android versions. The website displayed correctly on all devices tested, achieving a compatibility rate of 100%. Performance testing focused on measuring the QR code scanning times, with an average scanning time of 13.5 seconds. These results indicate the website's efficient and responsive augmented reality capabilities. Overall, the testing phase confirmed the robust functionality, usability, compatibility, and performance of the website.

Keywords: home landscape, IT-based solution, customer dissatisfaction, advanced technologies, consumer preferences, landscape plans, financial factors, technological aspects, garden professionals, questionnaires, innovative IT solutions.

Subject Descriptors:

Human-centered-computing → Visualization → Visualization application domains → Visual analytics

Augmented reality → Home Garden design → User experience → QR code scanning