

ABSTRACT

DESIGN OF AN INDOOR PLANTING DEVICE INTEGRATED WITH A SMARTPHONE APPLICATION FOR APARTMENT RESIDENTS

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Rapid urbanization has led to a decline in green spaces within residential environments, negatively affecting the psychological well-being and quality of life of urban dwellers. Indoor planting activities in apartments have become an increasingly popular solution, especially for aromatic plants due to their aesthetic value and relaxing effects. However, limited space, time constraints, and a lack of plant care knowledge remain major challenges. This study aims to design an indoor planting device integrated with a smartphone application, equipped with an air condensation-based self-watering system and IoT-based sensors for efficient plant monitoring and management. The research methods include questionnaires and interviews with residents of Cisauk Point Apartment, along with literature studies and observations of similar products. The findings reveal a strong interest in planting activities, with a preference for aromatic plants, medium-sized pots, and practical features such as automated watering and remote monitoring. The device is designed with a focus on functionality, user-friendliness, and promoting a human-nature connection. This innovation is expected to provide a practical and enjoyable solution for apartment residents who wish to stay connected to nature despite space and time limitations.

Keywords: Indoor Planting Device, Apartment, Self-Watering, UI/UX, Internet of Things (IoT)