

ABSTRACT

A STUDY ON ASSESMENT ON GREENSHIP HOME THROUGH SMART HOME TECHNOLOGY INTEGRATION

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Global warming, with its tangible impacts such as rising sea levels, extreme climate changes, and unpredictable weather patterns, demands concrete measures to mitigate its effects. The housing sector contributes 17% of global carbon emissions and 27% of global energy consumption, while in Indonesia, electricity generation still largely relies on fossil fuels, further increasing greenhouse gas emissions. The implementation of smart home technology serves as an effective solution to enhance energy efficiency and reduce carbon footprints, as demonstrated in the ASN housing in the new capital city, Ibu Kota Nusantara (IKN), which integrates automated systems and renewable energy sources. However, the adoption of this technology in Indonesia faces several challenges, including a lack of public awareness and the perception that smart home solutions are exclusive to certain socioeconomic groups. Therefore, efforts in socialization and the development of more affordable smart home technology are crucial. This study focuses on Cluster Azzura in Bintaro Jaya, which integrates smart home technology with sustainability principles based on GreenShip Home standards. The research findings indicate that the implementation of smart home devices, such as smart door locks, smart CCTV, IR remotes, and solar panels, significantly contributes to energy efficiency, resource management, security, and occupant comfort. As a result, the homes in Cluster Azzura have achieved a Silver rating in the GreenShip Home assessment, affirming their potential as a model for modern and sustainable housing. This research is expected to encourage the adoption of smart home technologies and eco-friendly concepts in Indonesia's residential developments.

Keywords: Smart Home, GreenShip Home, Eco-friendly House