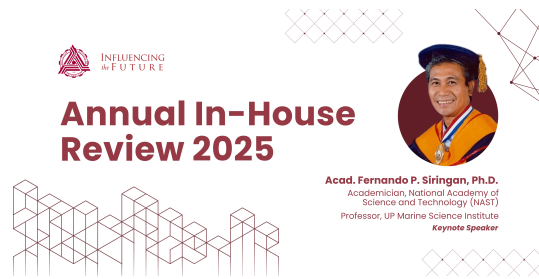


23rd MSU-IIT Annual In-House Review of Research and Development Projects



Contribution ID: 38

Type: not specified

Exploring Smart Village Readiness in Local Contexts: A Case Study using Technology, Organization, and Environment Lens

Monday, October 20, 2025 1:00 PM (4 hours)

Abstract: This study explores the readiness of two barangays in Iligan City to adopt smart village initiatives using the Technology–Organization–Environment (TOE) framework. A qualitative case study design was employed, drawing on semi-structured interviews with barangay officials and secondary data. The findings show that while both barangays have started digital initiatives, differences emerge in their technological capacity, organizational structures, and environmental support. Barangay 1, with its larger population and agricultural-business profile, has invested in advanced ICT tools and partnerships, while Barangay 2, a smaller coastal barangay, remains in a transitional phase but has identified ambitious plans for ICT-based services. Common challenges include limited budgets, weak institutionalization of ICT roles, and dependency on external actors. The study contributes to the growing literature on smart villages by highlighting how local context shapes readiness and by emphasizing the need for integrated strategies that combine infrastructure, human capacity, and multi-level governance support.

Key Words: smart village; readiness; case study; TOE framework

Authors: BAUTISTA, Andrea Nicole (Department of Information Technology, College of Computer Studies); BERMUDO, Mary Ann Gliefen (Department of Information Technology, College of Computer Studies); ECLEO, Jerina Jean (Department of Information Technology, College of Computer Studies); GALIDO, Adrian (Department of Information Technology, College of Computer Studies)

Presenter: BAUTISTA, Andrea Nicole (Department of Information Technology, College of Computer Studies)

Session Classification: Poster Presentations

Track Classification: Ongoing Projects: Business, Engineering, and Technology