Title: Reimagining Traditional Technologies with AIoT for Sustainable Solutions: From Ancient Stone Mills to Cutting-edge Drones

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Abstract:

In this talk, we propose AI driven traditional technologies to achieve a sustainable society. Traditional technologies often form the foundation for new technological achievements. However, their lack of modern features makes them less appealing to younger generations. In our pursuit of technological progress, we frequently overlook the environmental and social costs associated with modern advancements. Recognizing the need to redefine development and human progress in terms of sustainability, this study explores integrating sustainable principles within technological innovation. We apply AI and IoT to traditional technologies without compromising their essential properties. By examining traditional technologies, we uncover inherent sustainable features at risk of being lost due to modernization's neglect.

We propose a novel approach to re-engineer these traditional technologies by infusing contemporary techniques, thereby preserving their essence while enhancing efficiency and sustainability. Our methodology is exemplified by revitalizing stone mills, a cornerstone which we believe is not only applicable in rural communities of Nepal, India, Bhutan, but also in

Japan and European countries and beyond, demonstrating the potential for harmonizing tradition with innovation for a sustainable future.

Finally, we apply gesture control techniques to drones to explore how these modern features can be integrated into traditional technologies, making them sustainable and contributing to a sustainable society. By maintaining the core values and functionalities of traditional technologies while incorporating AI and IoT, we highlight the importance of preserving cultural heritage and traditional values, thereby promoting sustainable development in the AI era. We strongly believe that our approach not only revitalizes traditional practices but also provides innovative solutions to contemporary challenges faced by aging populations and economically strained communities in Japan and European countries.

Biography

Bishnu Prasad Gautam received his master's and Ph.D. in Computer Engineering from Shinshu University, Japan. He has published over 60 papers in international journals and international conferences. He has been invited as a key speaker in several International Workshop, Conferences and Universities. He is currently working as Professor (Full) at Suwa University of Science, Japan, and he is a member of IEEE, IPSJ and IAENG. His current research interest includes AI Driven Sustainable Computing, Distributed Computing Architecture, Network Architecture, Network Security, and IoT. He was a recipient of Highest Score Award (IPA), Highest Championship award and Championship Prize (General) of ET Robotic Championship Contest in 2018, Japan. He has obtained several awards in international conferences and academic societies.