National Institute of Technology Rourkela

Synopsis Seminar

Seminar Title	: A Methodological Framework for a Multi-Dimensional Value Assessment of Architectural Heritage: A Case of Odishan Temple Architecture, India
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Venue	: Online mode through MS Teams (Team code: 2dimpiw)
Date and Time	: 12 Aug 2021 (11a.m.)
Abstract	: Preserving all architectural heritage (AH) of a country or region is practically not feasible, and thus a value assessment is required. The ranking and grading of AH are common in management and conservation processes. While selecting AHs, on many occasions, decision makers intuitively make decisions that may not be systematic and may focus only on a few aspects of AH. The Odishan Temple Architecture (OTA) was identified as a case example for this study. OTA is known for its magnificent colossal, beautiful structures, consisting primarily of living temples with regular performance of rituals. The city of Bhubaneswar, the state capital of Odisha (previously known as Orissa), provides all OTA varieties and exhibits various preservation stages (protected with central and state ASI) and shows different phases of its evolution process. Ekamrakshetra, the old town area of Bhubaneswar, is the primary area of observation for this research. The selected temples, 37 temples, were selected from Ekamrakshetra, whereas the Sun temple at Konark (the only World Heritage Site in Odisha) and the great Jagannath Temple from Puri are the other two temples included in the selected temples for their value assessment. A total of 39 temples were selected for this research, among which one World Heritage Site (WHS), 18 Central Archaeological Survey of India (ASI) protected monuments, 14 state-ASI protected monuments, and six unlisted temples. For the evaluation of OTA, the parameters and dimensions were initially identified in the literature. To select the final list of parameters, this research adopted a two-round expert opinion survey (Delphi method). Finally, five dimensions, nine sub-dimensions, and 41 parameters formed a hierarchical structure for the value assessment of the OTA. For value assessment, this research relied on the opinions of stakeholders, primary observation by the researcher, and information gathered from secondary sources. The responses of the five identified groups of stakeholders were collected for three broader dimensions: architectural and esthetic value, economic value, and socio-cultural value. Based on the value of the parameters (the unit of measurement), this study focuses on the discrepancies in the opinions of stakeholders through Kruskal – Wallis and Mann–Whitney U tests. The results show that the current decision-makers have a conflict of view with all other groups. However, this research identified the significance of all types of stakeholders in a robust decision-making process regarding AH. To identify the relative importance of the parameters and sub-dimensions, this research considered the opinions of experts and an analysis without experts for an unbiased assessment. For analysis with experts, the analytical hierarchy process (AHP) was implemented, and aggregations were established using various MCDM methods however, AHP+TOPSIS was found to be the most suitable method. For analysis without experts, the inter-criteria correlation (CRITIC) method was implemented, and aggregation was performed using the grey relational analysis (GRA) method. Finally, the aggregated dimensional values obtained from the AHP+TOPSIS and CRITIC+GRA methods were grouped according to the composite index values from AHP+TOPSIS and gray relational grade values from the CRITIC + GRA method. These groups were then compared with the current level of protection for the validity of this study. Comparing the ranks of OTA derived through AHP+TOPSIS and the existing state of protection, 22 out of 39 temples, i.e., 56% of the cases found matching with each other. The ranks obtained through the CRITIC+GRA methods, 25 out of 39 temples (i.e., 64.1% of the cases) matched the current level of protection. Finally, this thesis summarizes the OTA dimension-wise and group-wise findings for their overall development regarding conservation and management purposes. This thesis also discusses the theoretical and practical implementation of the real ground scenario and provides scope for future research. Although this study was limited to the Odishan temple architecture, this methodology can be adapted to other similar cases.