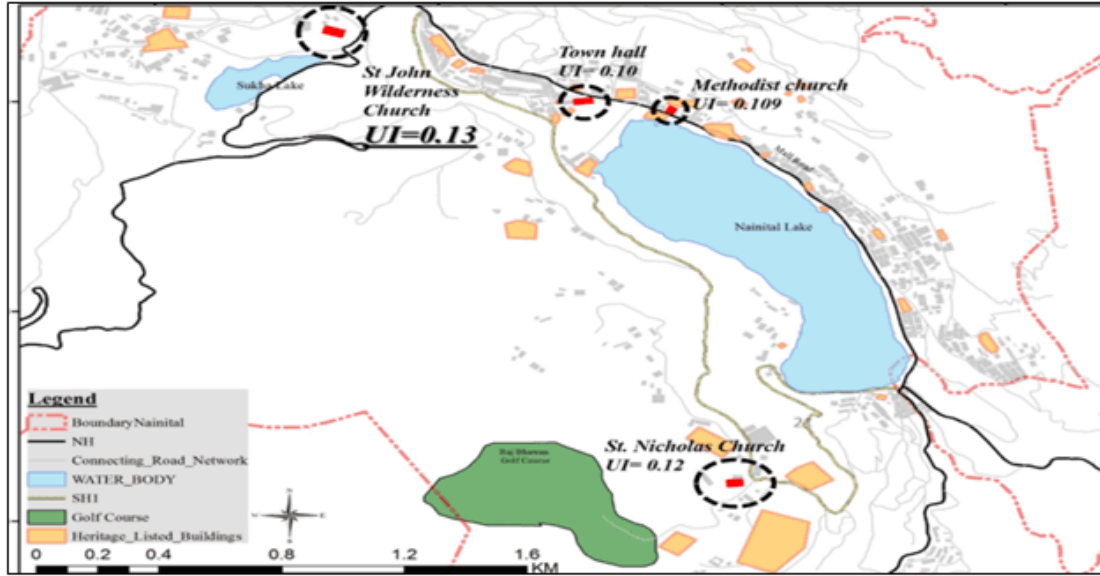


REVITALIZATION OF URBAN HERITAGE, NAINITAL

Major Objective: Applications of satellite images, Terrestrial Laser Scanner (TLS) and GIS based modeling for the development of Redevelopment Potential and Urgency Index for heritage sites conservation and monitoring.



Urgency Index Map

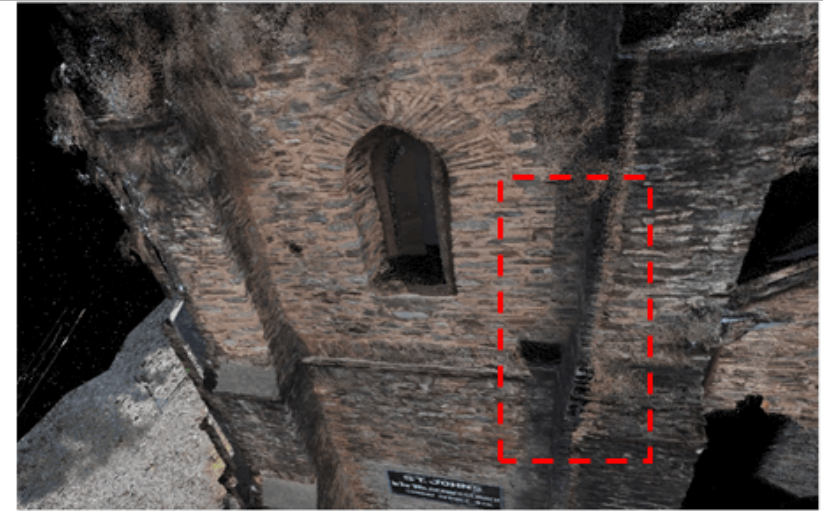
Urgency Index value of St. John Wilderness Church was highest, hence Laser scanning was done for assessment of structural deformation.

The developed urgency index can be used for prioritizing the heritage structures for conservation planning.

$$\text{Urgency Index (UI)} = \frac{\sum [(P_i) \times (W_i)]}{\max_{i/j} * x n}$$

* $\max_{i/j} = 1$

n = Number of Factors, $W_{i/j}$ = weight of parameters (i/j)



Assessment of structural deformation

Parameters for GIS based Analysis

Push Factors (P_i)

- Building age
- Building Physical Condition
- Building Height
- Construction Material
- Ownership Status

Pull Factors (Q_j)

- Market Demand- Distance from Lakes
- Connectivity with NH & SH
- Accessibility to Infrastructure(Bus Stand)

$$\text{Redevelopment Potential Index (RI)} = \frac{\sum [(P_i) \times (W_i)] + \{(Q_j) \times (W_j)\}}{\max_{i/j} * x n}$$

* $\max_{i/j} = 1$