

**IMPLEMENTATION OF RAPID VISUAL SCREENING (RVS) IN  
THE VULNERABILITY ASSESSMENT OF INTEGRATED  
LECTURE BUILDING 2, BENGKALIS STATE POLYTECHNIC**

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**ABSTRACT**

*Indonesia is located in a seismically active region, making the evaluation of building vulnerability essential for disaster risk mitigation. This study aims to assess the seismic vulnerability of the Integrated Lecture Building 2 at Politeknik Negeri Bengkalis using the Rapid Visual Screening (RVS) method based on FEMA P-154, and to analyze the structural capacity against earthquake loads through a pushover analysis following FEMA 356 guidelines. The RVS method was conducted through visual observation and on-site evaluation forms, while the pushover analysis was performed using SAP2000 software with a three-dimensional structural model. The RVS evaluation resulted in a final score of 4.2, indicating a low level of seismic vulnerability. The pushover analysis showed that the structure achieved the Life Safety (LS) performance level in the X-direction and Immediate Occupancy (IO) in the Y-direction, with most plastic hinges remaining in safe categories and no hinges reaching total failure. This research serves as a preliminary reference for rapid assessment and structural capacity evaluation of existing buildings, particularly educational facilities located in seismic-prone areas.*

**Keywords** : Building vulnerability, earthquake, pushover analysis, Rapid Visual Screening, SAP2000.