

Lightning safety scheme for sheltering structures in low-income societies and problematic environments

ABSTRACT

This paper discusses various practical difficulties of implementing internationally and nationally recognized lightning protection standards on small shelters. In aiming to minimize human injuries and deaths due to lightning related accidents for people who take shelter in unprotected structures during thunderstorms, this study proposes out-of-the-box solutions that may save many lives in societies that cannot afford packages of total solution. However, the proposed protection schemes can be applied even in developed countries or wealthy societies where strategic problems such as remoteness of the sites of concern and practical solutions beyond the peripherals of standardized recommendations are demanded. It should be noted that these are last resort solutions rather than replacement for recommendations in international standards.

Keyword: Lightning safety; Housing structures; Natural hazards; Injury prevention; Low-cost solution; Recreational sites