World Academy of Science, Engineering and Technology International Journal of Architectural and Environmental Engineering Vol:20, No:08, 2026

Application of Proper Foundation in Building Construction

Authors: Chukwuma Anya

Abstract : Foundation is popularly defined as the lowest load-bearing part of a building typically below the ground level. It serves as an underlying base which acts as the principle on which every building stands. There are various types of foundations in practice which includes the strip, pile, pad, and raft foundations, and each of these have their various applications in building construction. However due to lack of professional knowledge, cost, or scheduled time frame to complete a certain project, some of these foundation types are some times neglected or used interchangeably resulting to a misuse or abuse of the building materials, man power, and sometimes altering the stability, balance and aesthetics of most buildings. This research work is aimed at educating the academic community on the proper application of the various foundation types to suit different environments such as the rain forest, desert, swampy area, rocky area etc. A proper application of the foundation will ensure the safety of the building from acid grounds, damping and weakening of the foundation, and even building settlement and stability. In addition to those, it will improve aesthetics and maintain cost effectiveness, both construction cost and maintenance cost. Finally, it will ensure the safety of the building and its inhabitants.

Keywords: foundation, stability, balance, aesthetic

Conference Title: ICBAU 2026: International Conference on Building, Architecture and Urbanism

Conference Location : Lagos, Nigeria Conference Dates : August 09-10, 2026