INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume V, Issue IV
May 2024
Available online at https://www.instabrightgazette.com

FOLDING FOOTBRIDGE DESIGN: A PROTOTYPE

Ira, Eiza Jazreell M.
Andrin, Alessandra Kirsten T.
Manalo, Rachelle S.
Bautista, Justine M.
Caviteño, Ython John A.
Senining, Jun Lenard V.
Balayan Senior High School

ABSTRACT

This study focuses on designing prototype folding footbridge, highlighting the importance of having an innovative and sustainable solutions focusing on bridges. It aims to give informations for civil engineers to design bridges more effectively and efficiently, which could be a big help in achieving economic growth and sustainable development. Additionally, this study underscores the significance of folding a footbridge as something new in the Philippines, providing access and connectivity for people and services. Furthermore, based on the study of Mcmahon (2024), a folding bridge is a kind of movable bridge that may be folded up to provide space for passing ships that need to cross the waterway that the bridge covers. Therefore, as the researchers delved into this study, it can offer a more convenient way to allow individuals to crossover the bridge while also allowing ships and boats to pass through the waterway. On the other hand, to be able to test the prototype folding footbridge more effectively, the researchers made a steel-based that could actually be used in an actual bridge such as Wiper Motor Assembly, Sheet Metal,

INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume V, Issue IV
May 2024
Available online at https://www.instabrightgazette.com

****

Angle Bar, Steel Matting, etc. While in knowing how durable the researchers' prototype is, its weight capacity is tested by putting rock with 4 different weights, with the same time duration, and was carefully observed. Thus, it was concluded that the maximum weight of of it was 45 kilograms, which is equivalent to 2,250 kilograms in an actual folding footbridge, suitable for an estimated of 40-45 individuals. With these, the researchers have come up to conclude that it is possible to keep the folding footbridge's physical and visual appeal while also enhancing its function and quality.