

ABSTRACT

The lack of public facilities that are friendly to people with special needs, especially wheelchair users, is still a common challenge. Wheelchair users are faced with difficult access that affects accessibility and mobility. Currently, not all public facilities have adequate and standardized access for wheelchair users, preventing them from accessing various places and services. Access provision such as ramps or special elevator access provision for entry should be available for wheelchair users. when wheelchair users are faced with a situation where they only have the option of entry via stairs, this becomes a serious challenge for them. Existing wheelchairs are not designed to pass through stairs easily, so their mobility is severely limited in such situations. Designing a wheelchair with a triple wheel system that is able to pass through stair access is one of the solutions to the problem. The accessibility of wheelchair users will increase with a system that is able to pass stair access when other road access is not able to be passed or is not available. Using a qualitative approach method, and in its design using the User Centered Design (UCD) method which is user-centered. The designed product focuses on improving accessibility and facilitating user mobility, which is expected to be a solution to overcome obstacles related to road access that is not friendly to wheelchair users, and is able to provide comfort and safety for its users.

Keywords: Disability, Elderly, Wheelchair, Accessibility, Stairs