Abstract

The conventional hand powered tricycle in the Indian market used by the aged and differentially abled (orthopedic) person considered for evaluation in this work. The existing conventional tricycle consumes high energy for paddling. In case of terrain climbing more energy is required for driving. So the orthopedic person gets exhausted. The current design also lacks ergonomic comfort as the crank is kept fixed and the non adjustable seat which leads to back pain and muscle fatigue. This paper aims at proposing new alternate design which overcomes all the limitations in the current design. The new design is provided with features of adjustable back rest, foot rest, and adjustable crank and related accessories. Thus the improved design meets the ergonomic issues which were lagging in the current design.

References

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**Index Terms**

Computer Science  
Information Sciences

**Keywords**

Orthopedic  
Tricycle  
Backrest  
Footrest  
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