

**STUDY ON REHABILITATION EQUIPMENT USING CATIA SOFTWARE:
STANDING FRAME**

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A thesis submitted in partial fulfillment of the requirement for the award of
Bachelor Engineering (Hons) Mechanical

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MAY 2009

ACKNOWLEDGEMENT

In the name of Allah, the Most Gracious, the Most Merciful. Alhamdulillah robbil A'lamin, selawat and salam to our greatest Prophet Muhammad SAW, to all his family and also to his good companions. I would like to express thousands of thank to my supervisor Pn. Norliana binti Mohd Abbas for her supporting, guidance and advise during the completion of this final year project until it is completely done. I also like to express my sincere gratitude to my co-supervisor Pn. Nik Rozlin binti Nik Masdek and Dr. Nadia Binti Mohd Mustafah for their continue support, generous guidance, help, patience and encouragement during the preparation of this thesis. Furthermore, I would like to thank to Mr. Zulkifli B. Mohamed for his kindness in giving me information about the design and the application of using power screw that is very useful in completing this thesis. This project would not have been like this if all of them had not given great support and put pressure on me when other academic matter appeared to occupy both my mind and time. The best moment for me during accomplishing this project is when my project successfully completed according to the plan. Finally I would like to express my deepest gratitude to my beloved parents, my fellow friends. Therefore once again to all persons above, either direct or indirect, I would like to say thank you very much to all of them in helping me accomplished my project and love you all.

ABSTRACT

The objectives of this study are to design by redesign the previous standing frame and implement suitable parameters and specification for the new design of standing rehabilitation frame. The parameters and specification apply can maximize the efficiency as well as solve the problem that occur on the previous design of standing frame. To determine the best design in the process of developing the standing rehabilitation frame, CATIA software in order to do the CAD analysis and CAE analysis. In the design, three major characteristics are emphasized in developing the product: Lifter - to lift patient from the wheel chair using power screw located in the main frame, standing table and arm rest - to give hand and body support to the patient and main frame - to help and hold the patient in standing position. To select the best design, each sample sketch was briefly analyzed to suit the required specification. The sketches are then converted to CAD (Computer Aided Design) design and being analyzed using CAE (Computer Aided Analysis) that were integrated in CATIA Software. The design can be considered finished only after all of the analysis is done successfully. Hopefully with this new design of standing rehabilitation frame, it can promise an improvement in the current standing frame design. This design feasible, affordable and can easily manufacture especially when mass production.

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