Engine and Auxiliary Systems

Edited by
Prof. Dr. A.K.M. Mohiuddin

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2nd Generation IIUM Buggy Car – Part II: Fabrication

A.K.M. Mohiuddin
Department of Mechanical Engineering, International Islamic University Malaysia

Abstract

This chapter provides the detailed information involved in the fabrication of the Secon generation IIUM buggy car project. Part II includes all details regarding the fabrication process Background research and literature review have been done in order to provide a basic referenc for this buggy car design. Analyses have been carried out extensively in developing an optimu fabrication for the buggy car. These analyses help to validate and determine the right setting o the dynamic aspect, especially for the suspension, braking and steering system. For bo preliminary and detailed analyses finite element method and hand calculations are being used Collaboration between these forms of analyses is important in obtaining the overall accuracy o the car design.

Introduction

Initially buggy was designed for desert or beaches. However, buggy cars have become mo diversified in terms of the terrain they can handle and are being built for more generic off ro tasks, such as core or score indoor track racing. Some are even built for and used as on-ro vehicles. Typically the function is determined before the buggy is created in order to maxim the comfort or abilities of the vehicle (Albert & William, 2006).

The whole concept of this project is mainly referred on four aspects of engineering that safety, durability, performance and cost. Therefore, extensive research and study have been don in order to get the most suitable and efficient fabrication for the buggy car.

Objectives

The project focuses on the design and fabrication of second generation IIUM buggy car. T objective of this chapter is to fabricate and construct the buggy car which would be lightwei and cost effective.