

摘要

1979 年，大学生方程式赛车竞赛（简称“FSAE”）第一次在美国的城市出现，逐渐成为一种国际性运动赛事。为了鼓励学生追求设计的精巧和各种各样的赛车的出现，因此比赛规则非常人性化。

按照 2020 年度大学生方程式竞赛的要求，我对赛车的设计和研究有了一定的认识，然后通过学习课本和查阅各种文献以及在老师的指导下，我确定了本次赛车的主要参数和总布置方案。通过分析计算，为了达到设计的完美，将赛车的各部位进行合理安排，完成了大学生方程式混合动力赛车的总体设计。

在设计中我主要运用了汽车设计、机械设计、汽车理论、电动汽车结构与原理等课目知识和外文文献，进行了本次混合动力赛车的总体设计。我不仅加强了自己的专业本领，而且也汲取到学习的营养，让我对本专业有了更深的了解和产生了更大的兴趣，对我以后的就业和学习都会有极大的帮助。

关键词：混合动力赛车；确定参数；总布置；总体设计。

Abstract

In 1979, the University Student Formula Race (referred to as "FSAE") first appeared in a city in the United States and gradually became an international sporting event. In order to encourage students to pursue the exquisite design and the emergence of various racing cars, the rules of the competition are very humane.

In accordance with the requirements of the Formula 2020 college student competition, I have a certain understanding of the design and research of the car. Then, by studying textbooks and consulting various literatures and under the guidance of the teacher, I determined the main parameters and general layout of the car. Program. Through analysis and calculation, in order to achieve the perfect design, the various parts of the car were reasonably arranged, and the overall design of the college student formula hybrid car was completed.

In the design, I mainly used the subject knowledge and foreign literature of automobile design, mechanical design, automobile theory, electric vehicle structure and principle, etc. to carry out the overall design of this hybrid car. Not only did I strengthen my professional skills, but I also learned the nutrition of learning, which enabled me to have a deeper understanding and greater interest in this profession, which will greatly help me in my future employment and study.

Key words: Dybrid racing; Determination of parameters; General arrangement; Overall design.

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