美赛论文格式规范

《美国数学建模竞赛》

完整课程请长按下方二维码

目录页

目录
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For office use only
T1 _____
T2 _____
T3 _____
T4 _____

Team Control Number

1900074

Problem Chosen

B

2019
MCM/ICM
Summary Sheet

Research on Airborne Responsive Response

Puerto Rico was hit by a hurricane, causing major damage, t
completely paralyzed, and medical needs continued to increase. At pr
need to develop an aerial disaster relief respond system with the help
the existing data and requirements, this paper studies the UAV op
establishes an air disaster rescue response system to provide rapid
region.

For question 1, design the relevant packaging solutions for
containers. We have built a three-dimensional containerized transp
according to the demands, the drones are sorted by the principal co
evaluation method, and the initial allocation quantities of the
according to the distribution ratio. Optimize the number of drone dist
containers, and finally the number of different drones required and th
medical kit are obtained. The specific results are shown in Tables 1 to

For question 2, determine the best location for the cargo conta
rescue location model. First, the image is discretized, and the latitu
cluster are determined according to the position of the known latitu
thereby obtaining the distance between the cluster and the demand p

Content

1 Introduction

1.1 Background

The Puerto Rico region was hit by a hurricane in 2017, causing severe damage to the island. A large number of utility poles and transmission lines were damaged, causing the island to lose power. In addition, the storm destroyed most of the island's communications network. Floods blocked and destroyed highways and roads on the island, making ground emergency rescue impossible to plan and navigate routes. The survival of Puerto Rican residents is seriously threatened and the demand for health care continues to surge. In order to provide medical supplies, the non-governmental organization HELP, Inc. took relief actions. Use the drone to transport medical supplies to parts of Puerto Rico and to take aerial video reconnaissance to repair the road. Drone will be shipped to Puerto Rico in an

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7 Appendix

Appendix 1

Question one

```
clear;clc;
Load=[14 15 22 20]'; %Max Payload
Capability(C E F G)
Meth1=[2 0 0;0 0 2;1 0 1;0 4 0; 1 2 0; 0 2
1];
WA=2;    WB=2;    WC=3;
Meth2={};
for i=1:length(Load)
    w=[];
    for wai=11:-1:0
        for wbi=11:-1:0
            for wci=11:-1:0
                    break;
                end
        end
end
%% Find the load of the first and second
principal components
result=[6,3];
for d=1:length(znum)
    for q=1:length(leval)

result(q,d)=sqrt(neval(znum(d)))*fvec(q,znu
m(d));
    end
end
```

页面格式

- 1. 最终文档一定是pdf，用官网生成的控制号命名
- 2. 建议就用word进行编辑，也可以用latex
- 3. 正文一定不要超过20页
- 4. 目录页可有可无
- 5. 概要页建议不超过1页

论文构成

写作的基本要素

首页：题目、摘要、关键词

标题 Please Center *use Arial 14*

概要 Summary ：三部分，第一是背景介绍，2-4行左右就行，第二是主体部分，第三是结尾，一般阐述模型的优点与不足

关键词 3-5个

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1）问题的介绍　Introduction

　　问题的背景 Background of the Problem

　　文献综述（先前的工作） Previous Works

　　本文的工作 Our Work

2）符号的说明　Symbol　Descriptions

3）模型的假设　Model Hypothesis　也可放在每个问题里面

4）模型的建立与求解 Our solutions:

　　　　问题的分析（分析框架、数学原理等）

　　　　模型建立（建模思路、模型建立）

　　　　模型计算（程序说明、结果阐述）

　　　　模型检验与灵敏度分析（可防止后面统一）

　　　　形成结果的原因分析

论文构成

5）模型的推广　Model Extensions

6）讨论与结论 Discussions and conclusions（政策性题目）

7）模型的不足 The strengths and weaknesses of the
model

8）参考文献 References　　建议10篇以上，文中最好注明

9）附录 Appendix　附上核心代码