**研究計畫書**

**研究題目：**

**暫時想不到**

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**暫時想不到標題**

1. **摘要**
2. **研究動機與目的**

因此本研究欲使用SOM進行pixel cluster，使用各種環境因子作為自變數，針對各cluster集群進行質性分析，判斷出各cluster的特性。接著將分群的pixel重新映射回地理空間，再使用LICD對地理空間的類別資料進行分析，以此找出HH、LL等集群，接著再對此結果進行質性分析。

1. **文獻回顧**

一、環境品質監測與指標發展

二、非監督式分群法與資料融合

非監督式分群法（Unsupervised Clustering）為機器學習的分支之一，

三、自組織映射神經網路

四、類別型資料的空間相依性

五、多時序趨勢檢驗

1. **研究架構與方法**

一、研究資料與區域

二、環境資料前處理

三、自組織映射神經網路演算法

四、類別空間自相關

五、Mann-Kendall趨勢檢驗法

1. **預期成果**

本研究藉由實作出GTWR模型，將其應用於空品推估上，並將其與原始GWR進行比較，以此來探討將時間維度納入模型推估時的優勢，預期成果如下：

1. 透過時空帶寬優化方法，產製出研究區間內最佳的時空帶寬，並用於空品模式的建模。
2. 將時空維度納入模型推估，並將GTWR與GWR進行模型適配度比較，以此探討時間維度於空品模式建模的優勢。
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