



ONE Planet Undergraduate Research Experience Placement (REP) Scheme

Placement title: Tracking Net Zero Progress: A Meta-analysis of Carbon Emissions Statistics

One Planet Research Theme:

Climate & Climate Change | Earth System Processes | Anthropocene |
Environmental Informatics

Supervisor: Cheng Siew Goh

School/Department: Architecture and Built Environment

University: Northumbria University

Placement Description:

Carbon emissions are a critical contributor of the global climate crises. To achieve carbon neutrality, it is important to understand the calculations of carbon emissions and conduct critical analysis of the national/international carbon emissions. This project aims to examine the change of carbon emissions in different source sectors and fuel types. The project will employ the government statistics of carbon /greenhouse gas emissions to conduct a meta-analysis on data. Statistical analysis will be used to decompose the relationships of carbon emissions between source sectors and fuel types.

Timescale:

1 July: Start of Placement

1 - 2 July: Briefing about the project background & the project objectives

3 - 7 July: Subject topic training to understand carbon emissions/greenhouse gas emissions

8- 17 July: Literature review/Secondary data collection/Desktop Study

18 – 31 July: Training on quantitative data & statistical analysis

1 – 10 August: Conducting quantitative data analysis

10 - 15 August: Reporting and Conclusion

Itemised Budget for the Project:

Student placement for 6 weeks - £3,357.

Research and training expenses - £500

- £350 for accessing data that are not readily accessible/engagement with external partners for data collection (if required)
- £150 for relevant skills trainings for quantitative data analysis and statistical analysis

Prerequisites:

Skills of using Ms Excel are essential. Skills in quantitative study and statistical analysis are desirable.

For more information, please contact Dr Cheng Siew Goh (cheng.s.goh@northumbria.ac.uk).