

**Naughton REU FSTEM Application 2023: OFFER OF TRAINING FORM SUMMER 2023**

<b>Proposer details:</b>	
Title:	Assistant Professor
Name:	Yao Sun
Email:	yao.sun@ucd.ie
Website:	<a href="https://www.ucd.ie/civileng/">https://www.ucd.ie/civileng/</a>
If your grade does not allow you to supervise students, please supply the name of support PI:	N.A.

<b>Student required:</b>	
Specify any previous training / experience the student should have:	
Have a basic understanding of carbon emission and CO <sub>2</sub> equivalent	
Study level (3rd year, 4th year)	Either
Any other requirements:	None

<b>Traineeship offered:</b>	
Brief job description: (please include (1) type of work, (2) what student should hope to achieve at end of the process, (3) who will supervise student on daily basis (post-doc etc.))	
<p><b>(1)</b> The student will consider the key processes during the manufacture of stainless-steel products. The life-cycle assessment method will be employed to quantify the carbon emissions at different stages during the stainless-steel manufacture. The student will conduct a literature review, collect data from previous studies and industrial partners, analyse data available and quantify the carbon emissions.</p> <p><b>(2)</b> At the end of the process, the student is expected to be able to analyse the carbon emissions by means of life-cycle assessment. The student can also learn the details of stainless-steel products fabrication. Some other key research skills, such as literature review, data collection and analysis, and presentation skills, will be well developed.</p> <p><b>(3)</b> Dr Yao Sun from the School of Civil Engineering will supervise the student daily throughout their stay.</p>	
Link to research group or supervisor webpage:	<a href="https://people.ucd.ie/yao.sun">https://people.ucd.ie/yao.sun</a>
Location of lab:	Newstead Block B

<b>Working hours:</b>	
Number of Weeks offered:	10
Hours per week:	40
Earliest Start Date possible:	Tuesday, 30 May
Latest End Date possible:	Friday, 04 August