PhD post in Environmental Engineering at Imperial College London

Supervisor: Professor Evina Katsou

About the Post

Applications are invited for a PhD scholarship in the area of environmental engineering at Imperial College London. The research focuses on harnessing big data and advanced computing for the track and traceability of sustainability and circularity impacts within biobased value chains. The endeavor is to design innovative data models and infrastructures that prioritize the comprehensive tracking and tracing of these impacts. Biobased value chains, with their unique intricacies, present gaps such as seamless data integration across multiple stages, addressing uncertainties in evaluating circularity, and capturing the full spectrum of sustainability dimensions. The overarching aim is to employ computational intelligence in the development of a robust track and traceability platform tailored for biobased value chains. This platform, envisioned to harness advanced computational methodologies, seeks to not only monitor but also to quantitatively analyze and interpret the multifaceted interactions within biobased systems. By doing so, it aspires to set a rigorous, evidence-based benchmark that encapsulates genuine sustainability and circularity, further advancing the scientific understanding and operational practices within the realm of biobased value chains. The student will benefit from world-class facilities, a world-leading and friendly research environment and industrial support.

Requirements

1. **Educational Background:**
    - A First-Class Degree (or International equivalent) in computer science, environmental science, data science, or a related domain
2. **Master's Degree:**
    - Specialization in sustainability, data modelling, computational intelligence
3. **Research Experience:**
    - Prior work on projects or studies related to track and traceability, biobased systems, sustainability assessment, or circularity metrics.
4. **Technical Skills:**
    - Proficiency in data modelling techniques tailored for sustainability and circularity.
    - Understanding of advanced computational methods and their application to biobased systems.
    - Familiarity with state-of-the-art techniques in data interpretation and system modelling.
5. **Soft Skills:**
    - Strong analytical mindset with an emphasis on scientific rigor.
    - Exceptional communication skills, both written and verbal.
    - Ability to collaborate effectively within a multidisciplinary team and engage with academic and industry stakeholders.
6. **Language Proficiency:**
    - English language requirements (e.g., IELTS 6.5 overall, minimum 6.0 in all components) or equivalent.

About the Funding

The studentship will provide funding for up to 3.5 years, including home tuition fees (3 years) and a tax-free stipend at the standard UKRI London rate, £20,062 for the 2023/24 academic year, for 3.5

years. Full funding is available to Home students. The funding can also be used to partly support an international student.

Other scholarships can be found on the university website:

www.imperial.ac.uk/study/fees-and-funding/scholarships-search/

How to Apply

Applicants wishing to be considered for these opportunities should send the information listed below to Professor Evina Katsou via e.katsou@imperial.ac.uk

- Cover letter, explaining their motivation and suitability by addressing the requirements.
- CV, including UG and MSc transcripts with average grades, class ranking and research experience (if any).
- English testing results, i.e. IELTS or TOFEL (if any).
- Contact details of two referees (including name, affiliation, phone number and email address).

Review of applications will begin immediately and continue until the positions are filled. Application via the Imperial College Registry is not necessary at this stage.