

ERDF Better Futures Internships

Permia Ltd

About the company

Permeable concrete pavements are used to alleviate urban flooding as they rapidly drain water through otherwise impermeable infrastructure. Conventional porous pavements are prone to clogging, requiring frequent maintenance, and have insufficient strength and durability. Permia, a startup from Imperial College London, has developed a new type of permeable pavement (Kiacrete) that is resistant to clogging, has higher permeability (ten times more) and strength (twice as strong) compared to conventional permeable pavements. Kiacrete has recently been deployed at Imperial College London's White City Campus to allow long-term performance monitoring. For more information, please visit our website: www.permiapave.com

About the role

The team is looking for a candidate to join Permia to undertake numerical modelling of heat transfer through Kiacrete to develop new applications. The candidate will be working on numerical modelling of heat transfer at small and large scales. There could be an opportunity to undertake laboratory experiments to validate the numerical modelling. This work will enable efficient ice/snow removal in a cost effective and sustainable manner to improve safety of our major infrastructure, including highways, railways and airports.

About the intern

The candidate must have experience in numerical modelling approaches and software. Ideal expertise includes: experience of using SOLIDWORKS, ABAQUS and/or OpenFOAM, however a candidate without these skills but willingness to develop them as part of the internship is also suitable. The intern must have a passion for resolving issues surrounding the global climate emergency, including flooding and drought. The candidate is expected to have good communication skills to present their work to the Permia team.

Length of internship: 3-4 months full-time funding

Remuneration: London Living Wage (£10.85 per hour)

To apply: please email h.flower@imperial.ac.uk and a.kia14@imperial.ac.uk