Civil Engineering Research Group

Invitation to Seminar

• Potential for Metal 3-D printing in structural Engineering

This research aims to develop the fundamental knowledge needed to enable the use of 3-d printing of metals in structural engineering. Through understanding the mechanical properties of 3-d printed steel as relevant to structural engineering by means of experiments. Aiming to Develop and validate a numerical model capable of simulating the behaviour of 3D printed steel structures and recommended design approaches for using the 3-d printed material in structural engineering.

Ms Zeina AL-Nabulsi PhD student, Civil Engineering, the University of Warwick

Ms Zeina Al-Nabulsi is a civil engineer specialising in structural steel design and interested in metal 3D printing and modern technologies. She has three years' experience as a structural engineer in Dar Al-Handaseh based in Jordan, where she was involved in designing international and large-scale structural steel projects. Designing challenging and costly structures made her realise that she needs to pursue this field at a more advance level, which encouraged her to look for postgraduate opportunities at Master and subsequently doctoral levels. She received he MSc with distinction form the University of Manchester.

• Immediate minimisation of impact from tunnelling on neighbouring structures

This project investigates how to immediately minimise the effects of ground settlement on the overlying structures, caused by adjacent tunnelling works. In particular this project is to explore the use of expansive geopolymers in place of traditional settlement mitigation practises. Traditional techniques, such as compensation grouting using cementitious grouts, require extensive and costly temporary works which could be significantly reduced using expansive geopolymers installed using less invasive installation methods. This presentation examines the feasibility of expansive geopolymers in this context and the technical challenges in the successful implementation of this technique in the tunnelling industry

Mr Luke Evans PhD student, Civil Engineering, the University of Warwick

Graduating with a MEng Civil Engineering from the University of Warwick in 2017, the speaker has experience working in highways, rail engineering and tunnelling. The author is currently undertaking a PhD at the Unviversity of Warwick as part of an Engineering and Physical Sciences Research Council (EPSRC) funded project in conjunction with Morgan Sindall Engineering Solutions (MSES).

Tuesday 4 December 2018, 12.00pm-1:00pm

Room A401 Engineering Building

The seminar is open to all.
For more information, contact Dr Rezania (m.rezania@warwick.ac.uk).