## **ENGINEERING INTEGRITY** SOCIETY YOUNG **ENGINEERS** FORUM

## WEBINAR: How to crash an efficient lightweight structure thousands of times and survive

Thursday 1 December 2022 1pm



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There are clear and defined benefits in automotive and aerospace sectors when it comes to lightweight structures. Whether it be: Weight vs payload in aerospace; Weight vs fuel consumption in automotive; or 10ths of a second in motorsport. However, the benefits of weight reduction is harder to quantify and understand in the off highway sector.

When machinery is ground penetrating, mass is required to provide stability and power. To create efficient lightweight structures in this sector, you must focus on the efficiency of the system not just system mass. This is especially important as exotic materials like carbon fibre and magnesium alloys are not commercially, and/or physically suitable in a vehicle designed to 'crash' thousands of times in its design life.

Jamie started at JCB as a graduate over 10 years ago. He quickly decided to focus his career on durability and fatique.

His experience ranges through structural simulation, physical testing & data collection, data analysis and process engineering. Jamie has been the technical lead of and participated in various grant funded research projects.

In addition, he is an EIS committee member and sits on both the Durability and Fatigue Group and the Young Engineers Forum and continues to lead structural innovation and education within JCB and the wider EIS communities.





