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An investigation into the performance of metal coated additively manufactured polymer lattice structures

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The performance of polyamide lattices with electro-deposited metal was evaluated. This was achieved by irreversible compaction of the structures involved in the investigation. The versatility of additive manufacturing was utilized in order to fabricate the lattices. It demonstrated that metal coating of polymer lattices could significantly improve their compression properties. This methodology could provide new opportunities in terms of light weight energy absorbing structures in a wide variety of applications.

Biography

Muhammad Farhan Khan is a KTP Research Associate at IISE University of Derby. He has a background in Mechanical Engineering. Before joining the Derby University, he has worked on structural design optimization of a medical device at the University of Nottingham, where he was a member of the additive manufacturing and 3D printing research group (AM3DPRG). He holds a Master's degree in Engineering from Loughborough University.

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