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## **Emerging Fabrication Techniques for Vehicle Armour**

Ceramic-based composite is the state-of-the-art lightweight armour widely used in vehicle protection. To achieve multi-hit, multiple tiles are needed. However, bond lines between these ceramic tiles as well as the brittleness of ceramic are areas of weakness. This call is to explore scalable ways using 3D printing to realize novel material architecture and microstructures for monolithic lightweight armour that is able to provide equivalent level of performance as that of ceramic-based composite armour. The targeted application is vehicular protection against small caliber rounds in military and counter-terrorism operations.

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