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## Production of layered metallic parts with enhanced tensile properties using the process of composite metal foil manufacturing

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The majority of additive manufacturing methods use specific materials for the production of parts. The current methods employing powder metals have their limitations and are very expensive. This research presents a novel additive manufacturing process for the generation of high quality metal and composite parts. The process, referred to as Composite Metal Foil Manufacturing, is a blend of laminated object manufacturing and brazing. A calculated model of a machine in view of the new process has been outlined and its parts accepted for usefulness either by experimentation or recreations. The viability of the new process is accepted with comparative tensile testing. Distinctive metals, including copper and aluminum were used to demonstrate the adaptability of the process. The tensile testing demonstrated that the parts created by the process had fracture values that were 11%, 8% and 11% higher than the parent copper, aluminum and composite examples individually. These outcomes show that the new process is not just fit for delivering astounding metal parts efficiently but can create more grounded parts contrasted with customary subtractive techniques. The additive manufacturing identified with the generation of metal parts using the new process can work with an extensive variety of metals under typical conditions regardless of their joining capabilities. The feedback that parts delivered by added substance fabricating techniques are not sufficiently solid for genuine applications which can without much of a stretch be hushed with the results. Applications can extend from small bespoke parts to large scale functional products that can be utilized with no post handling.

### Biography

Javaid Butt is currently awaiting viva for his PhD from Anglia Ruskin University in the field of Additive Manufacturing. He has published 3 research papers in reputed journals and presented one research paper at an international conference. He has won best presentation and best poster awards at a number of intra-university conferences.

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