

Project 4

Project Name/Research Title	Stiffening regimes for maximum damage/impact resistance
Project Description	<p>There has been a tremendous growth of utilizing Automated Fibre Placement (AFP) to manufacture highly precise components and large structures like fuselage panels and wing skins for high-end applications in aircrafts and next generation of space vehicles. This additive manufacturing technology is gaining popularity due to its fast rate of material deposition, repeatability, ability to produce parts with complex geometry and reduction of material waste.</p> <p>The PhD candidate will perform cutting edge research in identifying and developing stiffening regimes to improve the damage/impact resistance in composite structures. A numerical and experimental methodology will be developed and implemented in addition to experimental testing of composite structures under crush and impact loading conditions.</p>
Academic Expectations	<p>The Ideal candidate will have the following qualities:</p> <ul style="list-style-type: none"> • you have a strong motivation for (and preferably a history of) conducting scientific research and working with complex questions; • you possess structured and creative problem-solving abilities; • you possess strong analytical and technical skills and take responsibility for the development of your work; • you can work independently as well as in team; • you have excellent English communication skills (written and presentation); • knowledge of fibre reinforced polymer composites is an advantage; • experience with experimental work is an advantage;