

**Title of Research Project** Hybrid nanofibrillar polymeric composites with improved physical-mechanical properties.

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**Brief description of the project**

Light-weight hybrid nanofibrillar polymeric composites with superior physical-mechanical properties are good potentials for advanced automotive, aerospace, and medical applications. This research involves the processing of these hybrid nanofibrillated composites through extrusion blending various polymers followed by spinning them into the-island-in-the-sea nanofiber in microfiber morphologies via different methods of meltspinning and meltblowing. The next step includes the physical and mechanical characterizations of those novel composites along with investigating their micro and nanostructures, which would result in such superior properties.