**Request Form for 3D Nanofiber Winding for Senior Design Project  
Dr. Karen Lozano  
July 27, 2015**

* **Project Title: 3D nanofiber winding environment**
* **Is the project CONFIDENTIAL? No**
* **Pl. identify critical Design Component(s)?**

**Designing 3D stencil/mold suitable for winding**

**Make the 3D structure**

**Test it for integrity & utility**

* **Expertize needed to address the design component (pl. circle ALL that apply)**

**Statics, Dynamics, Thermo, Fluids, Controls, K&D, Heat Transfer, Materials, FEA, …..**

**Pl. add anything else you feel needed. Thanks.**

**Filament winding, Nanofibers**

* **Special software expertise needed?**

**Matlab, LabView, Algor, Solidworks, …..**

**Pl. specify if there’s anything else? Thanks.**

* **Is Machine shop expertize needed? Yes / No**
* **Pl. mention MINIMUM Measurable Outcome(s): 3D Vessel**
* **Is there any Key Performance Indicator (KPI) you plan to use to measure progress towards Measurable Outcome?**

**Students will need to fabricate for example a stencil made out of nanofibers. The stencil understood as a cylindrical shape (3D) part as a result of nanofiber winding. The stencil or component could then be impregnated with a resin to maintain shape if needed. It will need to be characterized for strength, burst pressure....**

**If you’ve a write-up you want to add, pl. do so either as an attachment or type/write below & over. Thanks.**