



M Eng Project Opportunity:

Material Science or Mechanical Engineering – *investigate synthetic rope materials for helicopter rescue cable*

Advanced Design Consulting is working on an exciting new project with the Navy Aviation Rescue Swimmers to replace the steel cables currently being used in their helicopter rescue hoists with synthetic ropes. Although using a synthetic rope in a hoist application has not previously been possible due to the behavior of synthetic rope under high tension spooling, recent technological developments made by ADC have opened up the door to this opportunity. However, developing a hoist system using synthetic rope creates a multidisciplinary design challenge that will require innovative engineering in uncharted territory. For this reason, ADC is looking to partner with MEng students at Cornell University who are interested in helping to develop this exciting new technology with important real world applications.

ADC is looking for an MEng student in Material Science or Mechanical Engineering to help ***investigate and develop synthetic rope materials*** that will be used in the Navy helicopter rescue hoist system. The person developing this rope will have the opportunity to work closely with local rope manufacturers to do rapid prototyping and testing in order to develop a synthetic rope that meets all of the necessary requirements for this critical application. The rope must be non-conductive, similar in diameter to the existing steel cable, and neutrally buoyant or slightly negatively buoyant. The rope must also meet the requirements for strength, fatigue, abrasion resistance, and resistance to bunching. If this opportunity interests you please contact Ms. Rebecca Schindler or Prof Phoenix (slp6@cornell.edu) for more information.

Please send resume to:
Advanced Design Consulting USA, Inc.
Ms. Rebecca Schindler
126 Ridge Road
PO Box 187
Lansing, NY 14882
Email: rebecca.schindler@adc9001.com
<http://www.adc9001.com/>

Cornell University Faculty Advisor
Mechanical and Aerospace Engineering
Prof. S. Leigh Phoenix
slp6@cornell.edu
<http://www.mae.cornell.edu/people/profile.cfm?netid=slp6&back=&view=allpubs>
Room 321 Thurston Hall
Phone: 607 255-8818