

# ***PARISE RESEARCH TECHNOLOGIES***

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Ms. Catherine Colwell  
Mainland High School  
125 South Clyde Morris Boulevard  
Daytona Beach, Florida 32114

February 29, 2008

Dear Ms. Colwell:

Thank you very much for providing me with the chance to work with your students on their project for the Internet Science Technology Fair (ISTF) sponsored by the University of Central Florida. I believe this has been a unique opportunity for the students to work on a cutting edge technology that will be coming into fruition over the next several years. The information provided on their website is practically a tutorial for this up-and-coming technology and on what it is all about – I commend them on their great job and diligent research.

Unfortunately, the practical application of wireless power transmission (WPT) is in its infancy; and although there have been many bench scale to very large demonstrations and proof of concept showings of WPT's efficacy, no "off-the-shelf" hardware is available at this time. All hardware system components have been "built to order", a very expensive and time consuming process. I am aware of projects that have cost on the order of \$75,000 for bench-scale work by graduate students with all hand-made components (and very cheap labor!) to several millions of dollars for large scale working prototypes of the system. Once the technology of WPT becomes more main stream, many components will be standardized and become available off the shelf, which we hope to accomplish in the next four to five years. However, at this time it is very difficult to put together any type of accurate cost estimate for such a system without many, many hours by skilled engineers and cost estimators for such specialized components and equipment. And in some cases, there isn't even enough technical data yet available to make such estimates. Even as we speak, much of this research is taking place in the bowels of universities, company laboratories, and military R and D facilities, to find these answers – well out of the reach of the general public – or your students.

Wireless communication has been the latest craze in new technology; wireless power transmission will be the technology of tomorrow. Your students are fortunate to be on the cusp of this newest technology. Thank you for allowing me to be a part of this process; I wish you and your students much success in the future.

Sincerely,  
PARISE RESEARCH TECHNOLOGIES



Ronald J. Parise, Ph.D., P.E.  
President