# THE CONSULTANT

The Newsletter of the IEEE Consultants Network of Long Island

Volume 23, Number 6 June 2006

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## Chairman's Corner — John Dunn, President, Ambertec, Inc.

This was actually e-mailed to me one day:

"output voltage 0 to 240 vac at 25 khz ,45 amps , in put voltage 208 ,240 , 460 60 hz.single 0r three phase.most likely three phase except when supply is used at reduced power. regulation should not be an issue since it will have dc feedback.pot. controlled voltage ramp up would be nice overcurrent and overvoltage trip would be good but i can add that if need be.what i basically need is an inverter.output waveform ,i was wondering what are the other manufacturers doing,i was thinking of a sawtooth. the sharp drop to zero would help the reverse recovery time of the diodes?what do you think.the faster the diodes the higher the cost.chat back larry."

I haven't changed anything. Every last ASCII character is exactly as it came and so the sad question here is: "Wha' hoppen??????"

Still, as extreme as this writing is, there are lots of lesser examples of the same thing all around us:

There are several signs posted on the local supermarket to tell truckers: "No Idleing".

There is a garden supply store a short distance from here that had a sign: "Sale! Lawn Mower's"

I detect in some people an attitude that says these errors don't matter because you get the idea, don't you? You get the gist of it, right?

What I get is frightened.

I have to go for foot surgery in a few weeks and I truly, truly hope that the people who will be responsible for my care are NOT among those who don't mind the stuff above.

.....

John, we wish you good care and a successful outcome.

The Gang

## Meetings

### July 2006

7:00 PM, Wednesday, July 5, the first Wednesday of the month. Briarcliffe College, 1055 Stewart Avenue, Bethpage, NY See website for directions: www.consult-li.com

Topic: "Globalization: Are You Ready?"

Speaker: Mr. Dana DeMeo of Lake Grove, NY

Admission is free (no charge). No pre-registration is required. For further information, contact the Chairman, John Dunn, by e-mail: ambertec@ieee.org, or by telephone: (516)378-2149.

This short presentation is intended to initiate discussions about globalization, and how it affects consultants, engineers, our children, and our country.

Globalization's origins, benefits and impacts are discussed. The presentation concludes with some suggestions for surviving in a globalized world.

Be prepared to share your own experiences, opinions, and suggestions.

## Another Organization

The New York Society of Professional Inventors held its regular monthly meeting on June 28. The topic was "Partnering with an Invention Development Company" by Mr. Edward Ryan, a partner in Bear Mountain Marketing in Vermont. He and his partner, Warren Tuttle, brought to market in 2004-2005 two best sellers with a combined sales total of 7.5 million units, or \$150 million retail value. These are products that would be seen on infomercial TV, QVC, HSN, or sold by mass retailers, catalog sales, and direct mail response.

Identical orders are placed with as many as five manufacturers in China to insure adequate supply of product and competition to stabilize prices.

Some marketing tips: Try to reach the highest person in the targeted organization. Go in person. Perfect your "elevator pitch" to deliver your message in 30 seconds.

THE CONSULTANT is published monthly by the IEEE Long Island Consultants Network and is available free of charge to its members.

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#### **Deadlines: Flexible**

Articles for publication in *THE CONSULTANT*: Send them in. We need them.

The IEEE Consultants' Network of Long Island maintains a referral service of engineering, computer, managerial, and technical professionals. Call or write for more information. There is no charge to the client for this service.

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## Geo-engineering — Dr. Richard LaRosa, sealevelcontrol.com

A recent article on geo-engineering in the New York Times resulted in a posting on the RealClimate.org blog. It can be accessed at <a href="https://www.realclimate.org/index.php?p=320">www.realclimate.org/index.php?p=320</a>. A variety of schemes for combating global warming have been proposed and discussed. I posted a comment (No. 19) about pumping cold water up from the ocean bottom to cool the surface, but only one person seems to have noticed it. He asked some questions about how much water would have to be brought up and I added Comment No. 52 about shaving 3.5 deg C off the surface of the Loop Current in the Gulf of Mexico by pumping up 1.2 million cubic meters per second. No response yet. It's a hard sell.

## Hurricane Suppression—Loop Current Deflector

There are times when the Loop Current does not penetrate into the Gulf of Mexico. It goes directly from the Yucatan Passage to the Florida Straits. But then it wanders into the Gulf and loops around on its way to the Florida Straits. Over a period of months, the loop elongates toward New Orleans. Then something makes the loop pinch together so that the current takes a shorter path to the Straits. The rest of the loop continues to circulate around its closed path due to inertia. The path changes from a small loop plus a closed ring back to a single elongated loop, and then back to the loop + ring configuration. After a number of these cycles, the ring detaches and drifts slowly to the west.

This Loop Current behavior is bad for at least two reasons: 1. When the rings drift past the oil and gas platforms, the fast circulation causes disturbances that force the operations to shut down. 2. The Coriolis force sweeps water to the right of the current path. The force is proportional to the current's velocity, so the fastest water is moved to the interior of the current path. But the velocity increases approximately linearly from zero at 800 m depth to a maximum at the surface. So does the temperature. Therefore, warm water is collected in the interior of the Loop Current or a warm-core ring that will eventually detach and drift away from the Loop. These pockets of warm water are about 200 km across and 150 m deep and can energize a hurricane, which is what happened in the case of Katrina.

This newsletter has had articles about pumping cold water up from 1000 m depth to cool the surface using OTEC-powered pumps, and pumps powered by current-driven turbines dispatched into the drifting rings. The idea of using drag chutes to dissipate the ring power occurred between newsletter issues so the reader has been spared from the Drag Chute Derby. Instead, we might consider the possibility of a passive fence or screen that would direct the current from the Yucatan Passage directly to the Florida Straits. The screen would be a vertical wall whose depth is controlled by cables anchored to the bottom and terminated in floats at the surface or slightly below the surface. The screen would have to reverse the momentum of the Loop Current attempting to enter the Gulf. These horizontal forces would be resisted by slanted cables from the screen to bottom anchors.

This seems like a great idea because I have not yet done any discouraging calculations. And I will send out the newsletter while enjoying the thought of no eddies disturbing offshore operations and no pockets of warm water to feed hurricanes. Then it will be necessary to work up some numbers to see if this is possible.