



On the Web: <http://www.etaengineering.com/ieezphx.html>

The Advisor

Newsletter of the
IEEE Phoenix Area
Consultants Network

June 2001

Volume 8

Number 6

IEEE PHOENIX AREA CONSULTANTS NETWORK MEETING NOTICE

WHEN:

Thursday, June 14th, 2001

Social and check in at 6:30 PM, Dinner at 7:00 PM

Choice: Meeting participants may order from the regular menu. Options include soups, salads, burgers and fries, veggie plates, and American classics such as chicken-fried steak, baby-back ribs and pot pie.

Business meeting starts about 8 PM

WHERE:

The Black-Eyed Pea Restaurant in the Scottsdale Pavilions. Located just off the Pima Freeway (Highway 101), at 8909 E. Indian Bend in Scottsdale. Phone: (480) 348-0337

COST:

Meal cost is between \$7 and \$12 per person. If you come at 7:30 or so and do not eat, there is no charge.

NOTE: Since January 2000, each visitor has been allowed three "free" meetings (that is, same cost as members), after which there is a \$10.00 surcharge.

PROGRAM:

THE HYDROGEN ECONOMY: Roy McAlister from the Hydrogen Association who will speak to us on the potential of hydrogen as an energy storage medium, and as a possible solution to the problems of pollution and energy shortages.

RESERVATIONS APPRECIATED:

We need to make proper arrangements with the management at the Black-Eyed Pea. Therefore, *please call Bruce Johnson at 480-759-2826 (or e-mail bruce.johnson@ieee.org) if you know you will attend.* If you decide to come at the last minute, please do so. Any restaurant can always serve one more meal.

PRESIDENT'S MESSAGE

C. B. Johnson

Regretfully, our planned picnic did not materialize last month. There were just too many conflicts at the last minute to make this happen. So on to the activity for this month. Our speaker for our meeting on June 14, 2001 will be Roy McAlister from the Hydrogen Association who will speak to us on the subject of a Hydrogen Economy. With the ever increasing demand for new energy sources and systems, Roy's message will be of great interest. The details on this dinner meeting are given elsewhere in this newsletter.

Your executive committee works to offer presentations and develop programs of general interest and usefulness to our members. Somehow we also need to find ways to make our practices more successful. With this in mind, please attend our meetings as an active member whenever possible. Bring your consulting practice improvement ideas and comments with you to share with the network, and be prepared to discuss new ideas and approaches for improving the consulting activity for our members.

Board member Paul Everett has converted membership information to an Access Database, and a summary of the latest inputs from PACN members will be provided in a future newsletter.

As always, all members are encouraged to submit newsworthy items to our hardworking Vaughn Treude, for inclusion in our newsletter, so please be on the lookout. The Advisor is available for viewing or downloading from <http://ewh.ieee.org/r6/phoenix>. Humor is welcome as well, especially if it relates to consulting. [Note: Executive Board meetings are usually held at 8:30 am on Saturday mornings 12 days prior to each monthly meeting. These meetings are open to all members. Please contact Bruce Johnson if you wish to attend.]

Our informal meetings are designed for networking, to communicate with each other on a personal and professional level, and to enjoy a program and a meal together as a group with a common interest and dedication to the enterprise of consulting. Summaries of the next few monthly meeting programs are listed separately in this newsletter.

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URL's Of Possible Interest

The following URL's may be of interest to IEEE PACN members:

❖ www.ieeeusa.org/business/

This is the home of the IEEE's Consultant's Networks, plus resources for entrepreneurs, researchers, and others seeking information on grant and business opportunities

❖ www.consultme.com

This web page provides a directory of consultants. Services are listed by skill, specialty, name company name or professional title, and by location and availability. There is a fee for this service.

❖ www.ieeeusa.org/employment/global

Here is the place to access the IEEE-USA's Web Employment. These services, a benchmark in the industry, are being made available and promoted to IEEE members worldwide. A new global employment services Web page describes how job seekers and employers outside the United States can avail themselves of the organization's Job Listing Service, Resume Referral service and consultants database. The site also contains an invitation for non-U.S. regions and sections to contact IEEE-USA for assistance in promoting these services to their members.

❖ www.ieeeusa.org

The above is a good general website for all of us in the PACN. All IEEE PACN members, who are IEEE members, are strongly encouraged to obtain an IEEE email address, i.e. SMTP. You may do this quickly by starting at this URL.

❖ www.JobsArizona.com

This local URL often contains requests for consulting services.



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Executive Board

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EDITOR'S NOTES

First I want to apologize for the lateness of the newsletter. My excuse is that I've been working long hours toward an impending deadline. In the interests of getting this out, the newsletter will be a short one this month: no membership list, no future meeting schedule. Next month when things calm down a bit, we should be able to return to our usual format.

In previous years, we were very good about scheduling meeting topics for several months in advance, so everybody had an idea about what was coming up. This year we've unfortunately deviated from that practice. One problem is that we in the Executive Board have all been so busy, it's been difficult to get together for periodic meetings, which is where we take care of these things. Because I haven't been listing meetings for July and August, a lot of people assumed we were taking a summer hiatus. For the time being, these meetings are still scheduled at their usual time (second Thursday of the month). Hopefully we'll be able to do a little advance planning at our next regular meeting.

News from the home front: I've finally gotten my DSL service working reliably. Our home security system was not behaving itself. If the DSL modem was powered on and connected at all (even if it wasn't active), and somebody called us, the security system would suddenly seize the line. I had to wire a new line around it, and that problem went away. After some confusion, I also got it working on my Linux-based firewall system. I'd originally thought I needed a PPPoE (point-to-point protocol over Ethernet) client program, because that's how the modem is set up. How wrong I was! I tried a PPPoE program I got on the Web, and it refused to function no matter what I did. I posted on problem to the Phoenix Linux User's Group mailing list, and a kind soul informed me that what I actually

needed was DHCP (dynamic host configuration protocol.) The PPPoE client is for *internal* DSL modems. Now I have to figure out how to give Internet access from the firewall to the other systems on my LAN—if I ever have the time to do it.

In the work arena, I've been getting some experience in a new old area. Back in the 1980's, embedded processing my specialty, but lately I've done nothing but PC-based development. I finally got a chance to get back into that, but this time, the platform is a digital signal processor (DSP.) A lot has changed. Back in the 80's, C compilers for embedded systems were so inefficient that it was better to code in assembly. This wasn't so bad, because the instruction sets were very simple. Modern DSP instruction sets are so complex, a compiler is practically a necessity. Even with a Windows-based development environment, it's tricky. DSP's are designed for high-speed performance, and they accomplish this by instruction pipelining (parallel execution.) Doing any kind of branch or stack access (as opposed to register manipulations) interrupts the pipelining and eliminates any speed advantages. Unless you're able to tune the program well (and the compiler won't do it for you), you're better off doing number-crunching in a PC with lots of RAM and a high clock speed. It's definitely been a learning experience.

Enough about computers: this month's meeting topic has nothing to do them. With all the recent fuss about alternative fuels, it will be good to hear from a group that has given a little more thought to a possible solution. Hydrogen is a renewable resource (it can be made from water), produces zero green house gases, and is no more explosive than gasoline. The problem is, where will buy it, and how will we fit those big tanks in our vehicles? Maybe Roy will have some answers for us on Thursday. Hope to see you there.

Vaughn L. Treude, Editor

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