

Richmond Joint Engineers' Council

NEWSLETTER November 2005

P.O. Box 8988, Richmond, Va 23225 www.rjec.org

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WELCOME TO NEWEST RJEC MEMBER! Virginia Chapter, Health Physics Society

We are happy to welcome a new member of RJEC, The Virginia Chapter, Health Physics Society (VCHPS)! Comprised mainly of radiation safety professionals, the chapter's current roster of forty members are dedicated to radiation protection and its related fields, including nuclear engineering, medical physics, industrial hygiene, and environmental health.

VCHPS is involved in a wide range of activities which are closely aligned with RJEC's mission and goals. VCHPS and their President, Carl Tarantino, provided a brief article on their society included with this newsletter. We look forward to a long and prolific association with VCHPS and the growth and future success of our organizations.

SCHOLARSHIP CHALLENGE !

The American Society of Mechanical Engineers (ASME) has issued a challenge to RJEC member societies that provides a major boost towards reaching our goal for establishing the I. Russell Berkness Endowed

Scholarship at Virginia State University.

ASME is donating \$1,000 and is offering to match other member society donations up to an additional \$1,000! This is only valid for donations received through December 15, 2005 – so please respond as soon as possible!

With this incredibly generous donation, and if the challenge is met, we would be halfway to reaching our final goal. The endowment will be established with an initial gift of \$10,000, received from RJEC when that amount is raised. VSU has agreed to match the \$10,000 for a total sum of \$20,000.

This gift is solely for the purpose of attracting and providing financial awards for students enrolled and matriculating at Virginia State University who are majoring in the field of engineering. Full details on the scholarship fund are provided at www.rjec.org.

Can Your Member Society Meet the challenge?

Please write payment to:
**I. Russell Berkness, P.E., Endowed
Scholarship Fund**
Please send to:
RJEC
P. O. Box 8988
Richmond, Virginia 23225.

WORKFORCE ALLIANCE OPPORTUNITIES

The Community College Workforce Alliance, a workforce development partnership of J. Sargeant Reynolds and John Tyler Community Colleges, seeks your assistance. For three years CCWA has served as host of the region's Engineering and Technology Explorer Post. This Explorer post,

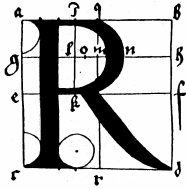
part of the co-ed career exploration division of Scouting (BSA), provides an important opportunity for high school students to learn about engineering and engineering careers via monthly "field trips" to various employer locations from 9-11 a.m. on Saturdays during the school year. Among the employers hosting meetings have been Dominion Virginia Power, Richmond Tooling, VDOT, Hercules, Dupont Teijin Films, as well as the architectural firms of Mosely McLintock and Ballou Justice Upton.

CCWA needs more diversity in their program offerings for Spring and Fall 06. Are you able to help bring engineering to life for a great group of kids by hosting an upcoming meeting? If it's a possibility, they would love to hear from you. Please contact: Lynn P. Wilson, Advisor - Explorer Post, at lwilson@jtcc.edu or 804/706-5072.

RADIO STATION NEEDS ENGINEERING ASSISTANCE!

WRIR, a local independent community 100 watt FM radio station here in Richmond at 97.3 on the dial is run by a group of volunteers and continues to staff its 24 hour a day operations entirely with volunteer help. The station's mission is to service underserved segments of the population and forms of expression. The station is in the process of planning and moving forward with facilities improvement and they would greatly appreciate assistance from area engineers towards implementing these changes. Additional information is provided in an attachment. Please contact George Bean if you are interested or for more information – 804-212-2021.

MEMBER SOCIETY DUES FOR 2005-2006



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An important part of RJEC's operations is the income from our member society dues. Dues notices have been sent out and we've started receiving dues for the 2005-2006 year. As we receive dues we annotate those that have paid by highlighting them on our "Societies" web page. You can use that list to check on your society. There are a number of valuable projects that we are trying to complete this year. Your dues are essential to those projects. And as we have said before, we are committed to making our member societies feel that they serve their constituencies better by joining RJEC. Please contact a board member or our Treasurer Hafsa Navarro if you have any questions!

MEMBER SOCIETY ACTIVITIES FOR EVERYONE

There are an increasing number of general interest activities on our "Society Activities" web page. These are events that to which non-members are cordially welcome. We strongly urge you to periodically look at this list for events that might be of interest to other members of your respective societies. Society Delegates and Presidents/Chairs, please make your members aware of these opportunities.

Send us a list of your upcoming activities that are open to other RJEC member organizations. We'll post them on our website.

FIRST LEGO LEAGUE COMPETITION NEEDS JUDGES AND REFEREES



Speaking of events of general interest, FIRST LEGO League, the robotics competition for 4th through 8th graders, is in need of adult volunteers to help out at the local qualifying tournaments. Local competitions are planned and the FIRST Robotics Regional Competition is March 3-6, 2006. This is our eighth season, and we expect to break the record again for high school teams in Virginia this year, with over 25 in the Richmond/Tri-Cities area.

We are looking in particular for judges and referees. Eight referees and 12-16 judges are needed for each tournament. Teams are evaluated on the technical merits of their robots, which are completely autonomous robots built from standard LEGO components. In addition to the technical judging, teams also present a research project to a group of judges.

Contact Dee Tomczak:
dbtomczak@aol.com or
robotstoo@aol.com



FIRST LEGO League travels into the depths of the ocean to explore the mysteries that lie below. The oceans are of vital importance to the health of the Earth and to everyone that lives on this planet; yet only 1% of these magnificent bodies of water have been studied.

Oceans provide inspiration, fun, and food. They absorb carbon and generate oxygen, profoundly affecting the global environmental system. A distress call has been issued to FIRST LEGO League teams around the world

to find solutions that will sustain the health, biodiversity, and productivity of the world's oceans for present and future generations.

The tournaments are open to the public at no charge, so if you cannot spare the whole day, but would like to see what it's all about, please come by for a peek at the action.

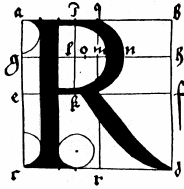
RJEC MEMBERS TELL L.C. BYRD STUDENTS ABOUT ENGINEERING

The Speakers Bureau is one of the most rewarding activities that RJEC participates in. The Chair of the RJEC Speakers Bureau, John Meola, is able to put professionals in touch with local schools that would like to have speakers come talk to students about their profession and workplace experiences. If you'd like to volunteer, contact John Meola at JMeola@vmsom.com.

Last year, Jerry Davis of Davis Materials & Mechanical Engineering visited a 10th grade class at L.C. Bird High School. He first talked about what kinds of work mechanical engineers do and what types of courses they might expect in college for a B.S.M.E. Then he gave a survey of his personal work. John also talked about the value of non-technical coursework (e.g., communication and writing) and the co-op program.

The students asked Gerry about other kinds of engineering, to which he responded as well as he could. They asked about recommended high school courses, the cost of an engineering education, and how long it takes. Surprisingly, they didn't ask how much money engineers make.

2005 RJEC WINE & CHEESE SOCIAL



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With over 60 people in attendance, the 2005 Wine and Cheese Social was a great success! This is a great kick-off meeting for Member Societies and RJEC for the upcoming year, and provides a great opportunity for networking among our groups.

We had an outstanding response to volunteer needs for upcoming events, and ideas for new activities are being planned. Stay tuned for contact and information for where you and your Member Society are needed.

1st Annual RJEC Golf Tournament

With great interest and an excited group of organizing volunteers, the RJEC Board approved moving forward with planning of the First RJEC annual golf tournament. Based on tentative planning, it will be held on April 26, 2006, at the Willow Oaks Country Club. Stay tuned for more information and opportunities to help make it a successful event!

START PLANNING NOW FOR CAREER DAY

Engineers' Week Career Day is February 26, but it's not too soon to begin planning a display for your organization. We recommend putting together a committee soon.

RJEC MEETING PLACE CHANGE

The December RJEC Regular Meeting location will be new location. We are in the process of finding a suitable location with enough room and good parking. Some ideas we are checking into include the Science Museum of

Virginia and the new C3 Center in Shockoe Bottom. Please forward any ideas.....new location will be.....

If you can't remember when or where our next meeting is, just go to the "RJEC Activities" page of our website, www.rjec.org.

**December 8, 6:00-7:00 PM,
New location !**

**2500 West Broad Street
Richmond, VA 23220**

**Meetings are intended for all
member society delegates,
RJEC officers and RJEC
committee chairs. We also
encourage individuals from
both member and non-
member societies to attend.**

Virginia Chapter, Health Physics Society

SUBMITTED BY CARL TARANTINO
VIRGINIA CHAPTER, HPS DELEGATE

The Virginia Chapter, Health Physics Society (VCHPS), chartered by the national Health Physics Society (HPS) in July 1975, is one of 62 chapters throughout the country. Comprised mainly of radiation safety professionals, the chapter's current roster of forty members are dedicated to radiation protection and its related fields, including nuclear engineering, medical physics, industrial hygiene, and environmental health. These disciplines are diversely represented from academia, private industry, government, and consulting business communities, each working towards improving public understanding and awareness of the problems and needs in radiation protection.

Through the support of the national HPS, the Virginia Chapter is able to reach out to local communities, promoting the safe use of radioactive materials and educating the general public in radiation and nuclear technologies. One of the ways in which the chapter has successfully been accomplishing this initiative is by conducting annual Science Teacher Workshops throughout the Commonwealth. Using the resources of the HPS, (<http://www.hps.org/>) coupled with the chapter's networking with other professional groups, such as the American Nuclear Society and North American Young Generation Nuclear, as well as obtaining private and government sponsorships, the VCHPS has been able to host workshops for seven years, educating over 200 science teachers (predominantly middle and high school) in the fundamentals of nuclear radiation.

The chapter conducts periodic technical meetings throughout the year, including joint meetings with the ANS, inviting speakers and vendors to disseminate information

Attachment 1 – RJEC November 2005 Newsletter

about radiation protection, promote the latest technologies, and present current research. The VCHPS encourages other member societies of RJEC to actively participate in its technical meetings, network with its members, and share technologies, which will unify the goals and objectives of all our technical societies.

Parties interested in learning more about the VCHPS may contact Carl Tarantino through e-mail at carl_tarantino@dom.com or telephone, 804/273-3068. The VCHPS plans to have its meetings and activities posted to the RJEC website.

Attachment 2 – RJEC November 2005 Newsletter

Mr. Walke,

I am working with WRIR, a local independent community 100 watt FM radio station here in Richmond at 97.3 on the dial. The station went on the air in January of 2005 through the efforts of a dedicated group of volunteers and continues to staff its 24 hour a day operations entirely with volunteer help. The station's mission is to service underserved segments of the population and forms of expression. The strong response to our two pledge drives has shown us that we are fulfilling an important community need. However, there is much more that we can do for the community and we intend to steadily improve and expand our offerings.

We are entering into an exciting phase having made our temporary home permanent and begun planning for a major expansion of our facilities and capabilities. I am involved in planning and implementing improvements in the infrastructure including the signal chain, communications, security, and safety as well as changes to the facilities. While I have been involved in communications, facilities and infrastructure design for many years, I am not trained as or licensed as an engineer. We have several projects that would benefit from the recommendations of one or more skilled professional engineers, mainly in the areas of structural and mechanical engineering but with a little electrical engineering as well. These projects include the following work.

- relocation of our transmitter and antenna to an existing cellular tower or rooftop
- relocation of our current satellite dish to the roof of our building and the addition of a second dish
- replacing the flimsy rooftop pole holding our current antenna with a sturdier tower that can hold a microwave link to our new transmitter site as well as the current antenna as a backup
- installing a generator behind the building to allow the station to remain on the air during power failures
- soundproofing our studio walls, ceiling and floor

We might need some drawings signed off for submission to the city, mainly relating to the rooftop antenna systems but that is unclear at the moment. Our primary need is for recommendations on how to safely and securely install structures and equipment and make sure they don't end up in the parking lot across the street if a relative of Gaston blows into town.

I noticed on your web site that you have a community outreach volunteer program. I am hoping that you can mention our need for volunteers in the RJEC newsletter or your monthly meeting or both. As I mentioned earlier, we are a 100% volunteer operation and we are trying hard to keep it that way. If we can get someone to volunteer a few hours of their time to assist us with these projects it will help us better serve the Richmond community.

If you have any questions or have interested volunteers to send our way, please feel free to write or call me at home at 804-212-2021.

Sincerely yours,

George Bean