

ECE Seminar Series presents Bahram Nabet

Swasti Khuntia
LAYOUT EDITOR

As a part of the Seminar Series, the Department of Electrical and Computer Engineering organized a lecture on Friday, the 29th of March. This seminar was also a part of the search for ECE Department Chair. The lecture was delivered by Dr. Bahram Nabet of Drexel University and hosted by Dr. Vincent T. Turitto, Professor of Biomedical Engineering and Director of Pritzker Institute of Biomedical Science and Engineering. Dr. Nabet is also an ECE Chairman candidate.

Dr. Bahram Nabet received his BSEE degree with honors from Purdue University in 1977 and his MSEE and PhD degrees from the University of Washington in 1985 and 1989, respectively. He joined the faculty of Drexel University in 1989 where he is presently Professor of Electrical and Computer Engineering, and affiliated Professor of Materials Science and Engineering.

The first part of Dr. Nabet's talk was about his research work, i.e., development of optoelectronic devices that circumvent limitations of charge transport. Arguing over the fact that 'electronics' need not be limited to the transistor action of carrying charge from a source to a drain, he supported the work of Langmuir and Debye in 1920's.

Accordingly, Dr. Nabet and his research team have fabricated a semiconductor device in which reservoirs of electrons and holes respond to optical excitation through a wave that is generated in the reservoir, achieving speed that is impossible if it were based on transport of charge.

This large (> 8.5 micrometer) device has a full-width half-max of <2.5 ps and a tail of response <2 ps, which is the response expected from a 100 nm device. It also shows an unprecedented sensitivity of tens of thousands of photons, all performed at room temperature.

Explaining in terms of a layman, he show that kicking a ball in Newton's cradle

from one end to other end takes much longer than lining up balls between these points and kicking the first. Hence, they replaced the rapid transfer of energy, for the slow transport of mass, which allowed them to overcome limitations of the (drift) velocity and effective mass in present day (opto) electronics.

Applications of these micro plasma devices are in optical communications with nanowatts of light, photovoltaics with moon light, night vision, and detection of terahertz radiation. The result is that he is the co-author of two books and over 160 refereed publications, and has won 6 Best Professor teaching awards from students as well as a departmental and a university-wide teaching award.

The second part of Dr. Nabet's talk was about the 3 C's that can bring about a revolution in the society. The 3 C's represents: Computer, Content and Community. He discussed one of his experience with providing computer, content, and community (learning) for open access education that may be applicable to undergraduate education.

Talking about Gdium, he proved his thoughts. Gdium is an education social network, that lets the education community, from students to teachers to parents, create their own collaborative environments and access knowledge resources.

All users have their personal space, blog, notebook, and agenda, and they manage their network of friends and create groups. He suggested how this online community may collectively overcome inertia in a drastically changing academic landscape when courses are taken, for credit, by tens of thousands of students across the globe.

Dr. Nabet is also the representative for Gdium Foundation for the Americas.

Concluding his talk, Dr. Nabet discussed how faculty research and scholarly activities, closely correlated with graduate education, could be amplified through relevant collaboration, and response to the needs of a changing research scenario.

The talk was attended by ECE faculties and students.

Humanities Department writing competition deadline is today

**Lewis College of Human Sciences,
Humanities Department**

Full-time IIT undergraduate students are invited to enter the 48th Annual Writing Contest, sponsored by IIT's Department of Humanities. (Full-time is defined as being enrolled for at least 12 credit hours in the Spring 2013 semester.) Prizes will be awarded as Amazon.com gift cards. The deadline for submissions is at 12:01 p.m. on Tuesday, April 2, 2013. For more information, contact iitwritingcontest@gmail.com.

Winners will be announced Thursday, April 18, on the Humanities Website. Please do not call the Humanities Department to inquire whether you have won. Reception for all entrants, with awarding of prizes will be held on Thursday, April 25, 2013.

Contest Rules

- Entries may include fiction, poetry, plays, nonfiction (such as essays, reviews, and technical or scientific papers), and essays by freshman. Nonfiction (including essays by freshman) should be readable by an educated person with no special training in the subject of the essay.
- All entries must include an entry form as a cover sheet attached to each entry. Forms are available in 218 Siegel Hall, or you can download one on the Humanities Website at <http://goo.gl/KfOm3>.
- All entries must be submitted in duplicate. One should be typed, double-spaced, on 8.5 x 11 paper. Do not put your name on the paper copy itself or any of its pages. Deliver paper submissions to Susan Mallgrave at the Lewis Department of Humanities, 218 Siegel

Hall. The second copy should be submitted as an MS Word .doc or .docx file to iitwritingcontest@gmail.com. The file name should be Lastname.Nonfiction.doc, Lastname.Poetry.doc, Lastname.Fiction.doc, or Lastname.Freshman.doc, depending on the category it is to be entered into.

- You may enter several categories, and you may submit more than one entry in a category. Limit of one prize per category to any one student.
- You are encouraged to submit work that has been the subject of a class assignment, but be sure to send a clean copy, free of any comments, marks, or grades.
- Entries will not be returned, so keep a copy.
- All submitted short stories and plays will be considered for the Edwin H. Lewis Prize for Fiction. Submissions must be limited to no

more than 25 double-spaced pages.

- All submitted poems or groups of poems will be considered for the Mollie Cohen Poetry Prize, which seeks to honor the effort to master the art of poetry rather than the exhibition of emotions. You may submit all the poems you wish; however, multiple poems by the same student will be judged as a single entry.
- All submitted nonfiction will be considered for the Edwin H. Lewis Prize for Nonfiction.
- All submitted freshman essays will be considered for the Freshman Essay Prize. Freshman is defined as any student who is in their first year of full-time college enrollment.
- Authors retain all rights to their works; however, the authors grant IIT, the Humanities Department, and TechNews the rights to publish their works for one calendar year, from April 4, 2013 - April 4, 2014.

NCCWSL 2013

**Office of Campus Life
& Women's Services**

I know what you are asking yourself at this very moment: What is NCCWSL?? Great question! NCCWSL is the National Conference for College Women Student Leaders that will be hosted at the University of Maryland-College Park from May 30 to June 1, 2013. This annual conference provides a platform for women students to grow and better understand themselves as women leaders in society today. IIT's Women Service's department within Campus Life will sponsor a couple of women students to attend this inspirational conference over the summer. Here are some testimonials from 2012 conference attendees:

"Attending the NCCSWL was enlightening. I have never before experienced quite so vividly that women have made such great progress, even in the last decade. Most of my life I have been very content with my position in society. I've had above average success in school, and full support of my advisors, supervisors, and peers in almost all my endeavors. This conference held an interesting commentary that made me realize that what I have experienced in my life is not necessarily unique, but is different than the experiences of many other women." –Kelly Lohr, SGA Presi-

dent, Materials Science and Engineering Major

"I was surrounded by liberal arts and science majors, public policy, women's studies, political science; it was refreshing to say the least. The most useful events of the entire conference, in my opinion, were the workshops. We had a young professional share with us the "Do's and Don'ts" of working in the professional world, topics such as how to have a good handshake, how to deal with sexual harassment/gender discrimination at work, and even how to speak to make ourselves seem confident. Another workshop that was amazing was discussing how to negotiate your salary when you receive a job/internship. I will NEVER forget that workshop..." –Rani Shah, SGA Vice President, Chemical Engineering Major

This conference is a great way to meet students from around the country who are working towards being the best leaders within their universities and communities. More information about what the conference has to offer, keynote speakers for this year, and much more can be found on the NCCWSL website www.nccwsl.org. If you are interested in attending the conference please contact Alex Garrett in Campus Life alex.garrett@iit.edu with the subject heading of "NCCWSL Registration".

Bog pre-event successful for TEDxIIT

Shreeyeh Rajan
TECHNEWS WRITER

Last Thursday, TEDxIIT hosted a pre-event at the BOG to give more insights on the main event. With the help of the BOG Committee and the Campus Conference Center, we were able to run the event without any major problems. With Soobin Kim and Luling Li helping us publicize the event through posters, we had a great turn out with more than twenty-five people who showed extreme interest in getting more involved in TEDxIIT this year.

While Isabelle Romero encouraged the students to sign up, Chanese Smith made sure that the overall event was going on smoothly. After everyone grabbed some of the pizza and cookies that were delivered by Sodexo, Yoetzin Diaz and I took the stage to introduce ourselves and the team who created this event. We then spoke minimally about our speakers so that we don't give out too much information. Before we watched a couple of TED Talks, I spoke about what you get for signing up as a volunteer for this event.

With just two weeks until the big event, all we need is you. Volunteers who will help us make this a global event. Why should

you volunteer? You build immense leadership skills by working with a small team for a huge event. You also build solid relationships with the alumni, students, faculty and staff. You can also be a speaker buddy and team up with one of your favorite speakers to get to know more about why they're passionate about what they do! Due to the limited seating, only a handful of students are selected to be at the event. But not you; as a volunteer, you get to be a part of this event without applying!

Assist us in creating a friendly atmosphere for the speakers who have travelled miles to be here at IIT.

To get weekly updates on what's going on with the event, sign up on the TEDxIIT 2013 mailing list at TEDxIIT.com and attend our weekly meetings on Friday mornings from 9:30-10:30 at the SW conference Room on the 16th Floor, IIT Tower.

The more people we have, the better! Sign up on the TEDxIIT Volunteer Form:

https://docs.google.com/a/hawk.iit.edu/spreadsheet/viewform?formkey=dERLaDRTUkktSGiNSzU2S3FIWDhPU1E6MQ&utm_source=TEDxIIT+2013+Mail+ing+List&utm_campaign=e88d0e06a5-Yo+ur+TEDxIIT+Br+ain+11_25_2012&utm_medium=email#gid=0