

# Main campus plays host to Build-It Competition, CAURS, AIAA events

**Utsav Gandhi**  
CAMPUS EDITOR

Saturday, 6 April 2013 was a very busy day on the IIT main campus, with a host of large-scale events planned alongside the culmination of Greek Week and Preview weekend. Primarily organized and coordinated by students, the fantastic weather allowed the events to run along smoothly and visitors to leave with a positive and successful learning experience.

Armour College of Engineering (in partnership with the Themes Student Council) and the IIT Chapter of Tau Beta Pi organized the first ever IIT Build-it Competition: An Impromptu Design Competition from 8:30am to 3:00pm. This design competition was an applied science competition where teams competed against each other to design and build the best solution to an engineering problem using the materials provided.

More than 70 high school students

from 8-10 different high schools in the area were present to test out their budding design and engineering skills. The materials provided were simple daily items like clothes pins, paper clips, balloons, pencils, plastic spoon, straws, Play-Doh, rubber bands and tin foil. The event marked the culmination of months of planning on behalf of the TBP President, Luis Angelo Larco. Participants were treated to a lunch in the Commons and parents were also given an architectural tour of the campus. The event concluded with a successful design testing of the models created in Siegel Hall and a presentation about inspiring students to pursue STEM education.

The Idea Shop was host to the annual American Institute of Aeronautics and Astronautics (AIAA) Region III (Midwest regional) conference which provided an opportunity for students from universities in the Midwest to come together and share the latest research and developments in the aerospace and aeronautics fields. There was some great competition as students presented papers for

cash prize incentives.

The conference also provided students an opportunity to network with experts in the field and peers as well as practice their public speaking skills. In connection to AIAA's mission ("to sponsor student conferences in each AIAA Region as a means to encourage students in aerospace related fields to discuss research, exchange knowledge and generate interest in the field of aerospace engineering"); papers were presented in different category: undergraduate, graduate, team, freshman/sophomore and student branch outreach.

Finally, Hermann Hall was also host to the Chicago Area Undergraduate Research Symposium (CAURS), the premier research presentation and networking event founded in 2005 to 'promote, encourage, and celebrate the efforts and dedication of undergraduate students conducting research at institutions in and around the Chicagoland area'. Organized as a day-long, student-managed event, the annual research symposium event follows a model that offers a unique blend of networking,

event management and minimal financial or administrative costs to partnering institutions. The daylong event consisted of two poster sessions (morning and evening) featuring all student participants, as well as oral presentations from students selected to give 10-minute talks.

In addition, a dedicated time for poster-viewing, a networking session with graduate school representatives, and informal roundtable discussions with various other academic and industry representatives provided students ample opportunity to discover the work being done by their peers and to network. The event concluded in the evening with dinner, a keynote address from a distinguished researcher from one of the CAURS member institutions and an awards ceremony recognizing the achievements of the day's outstanding presenters. Judged by graduate students and faculty members, the event also saw conversations on topics such as underrepresented minorities in science, the graduate/professional school application process, internships and stepping into academia.

## ECE Seminar Series presents engineer Juin J. Liou

**Swasti Khuntia**  
LAYOUT EDITOR

The search for Electrical and Computer Engineering Department Chair continued this past week wherein Dr. Juin J. Liou of University of Central Florida delivered his talk and fought for his candidacy. It was also a part of the Seminar Series of ECE Department organized on Friday, April 5 2013. The lecture was hosted by Dr. Vincent T. Turitto, Professor of Biomedical Engineering and Director of Pritzker Institute of Biomedical Science and Engineering.

Juin J. Liou received the B.S. (honors), M.S., and Ph.D. degrees in electrical engineering from the University of Florida, Gainesville in 1982, 1983 and 1987 respectively. In 1987 he joined the Department of Electrical and Computer Engineering at the University of Central Florida (UCF), Orlando, Florida where he is now the Pegasus Distinguished Professor and UCF-Analog Devices Fellow. His current research interests

are Micro/Nanoelectronics Computer-Aided Design, RF device modeling and simulation and electrostatic discharge (ESD) protection design and simulation.

Dr. Liou holds 8 U.S. patents (3 more filed and pending) and has published 9 books, more than 250 journal papers (including 17 invited review articles), and more than 200 papers (including 84 keynote and invited papers) in international and national conference proceedings. He has been awarded more than \$11.0 million of research contracts and grants from various federal agencies (v.i.z., NSF, DARPA, Navy, Air Force, NASA, NIST), the state government, and the industry (v.i.z., Semiconductor Research Corp., Intel Corp., Intersil Corp., Lockheed Martin, etc.), and has held consulting positions with research laboratories and companies in the United States, China, Japan, Taiwan, and Singapore. In addition, Dr. Liou has served as a technical reviewer for various journals and publishers, as a general chair or technical program chair for a large number of international conferences, as a regional editor (in USA, Canada

and South America) of the Microelectronics Reliability journal, and as a guest editor of 3 special issues of Microelectronics Reliability and Solid-State Electronics.

The presentation by Dr. Liou had three parts, namely, his background, research activities and vision statement. After presenting his academic background, he presented an overview of his ESD research activities. Starting with the basics, Dr. Liou explained how electrostatic discharge (ESD) is one of the most prevalent threats to electronic components. ESD is an event where a finite amount of charge is transferred from one object (e.g., human body) to the other (e.g., microchip). This process can result in a very high current passing through the microchip within a very short period of time.

More than 35% of chip damages can be attributed to such an event. Citing the high priority of ESD in the semiconductor industry, he emphasized designing on-chip ESD structures to protect integrated circuits against the ESD stress. The continuing scaling of CMOS technology makes the ESD-induced

failures even more prominent and one can predict with certainty that the availability of effective and robust ESD protection solutions will become a critical and essential component to the successful advancement and commercialization of the next-generation CMOS-based electronics.

Talking about how to make IIT one of the top schools, Dr. Liou said that he would emphasize on three important components, i.e., faculty, resources and leadership. Setting a high goal, inspiring faculty members to be passionate and proud of what they do, believing that team work and interdisciplinary collaboration are critical components are just a few components of his vision statement. He stressed on value integrity, freedom and creativity.

Concluding his talk, Dr. Liou discussed how faculty research and scholarly activities, closely correlated with graduate education, can be amplified through relevant collaboration and can respond to the needs of a changing research scenario. The talk was attended by ECE faculty members and students.

## TEDxIIT prepares for main event

**Shreeyeh Rajan**  
TECHNEWS WRITER

With just one week to go, the whole TEDxIIT team has been all over the place. Whether it's deciding what posters to go up on the main event, what food to buy, or what should the volunteers do on Saturday, things have been rather busy.

We had one of our two volunteer sessions on April 4, 2013 and it went great. While some of them opted to be speaker buddies, the others were perfectly fine with helping out in setting up, ushering and cleaning up. With around 40 volunteers, the team's getting all the help we can. As Amy Lee Segami puts it, "Volunteers help us in bringing the IIT community and the IIT alumni together, beyond the borders of IIT."

The volunteers showed so much interest in being speaker buddies (an IIT student who assists the speaker the entire day). I emailed all the volunteers on Thursday night to select the speaker of their choice (if they wanted to) and then I went to grab some dinner at the BOG. An hour later, I checked my email to find 10 unread emails about speaker buddies. The spots were taken in less than an

hour! I thank all the volunteers for taking part in this event.

The amount of interest that the volunteers have been showing the past few days is really contagious. We're now more excited than ever.

The TEDxIIT event will be on April 13th 2013 starting from 9:30 a.m. until 6:00 p.m. in the IIT Tower Auditorium. There are limited seats so start applying now! The link to apply for the event is:

[https://docs.google.com/forms/d/1k8uS-y2aFC66wN2N9\\_P6KIdvclqx-QVFc6ovccI-M6WI/viewform?pli=1](https://docs.google.com/forms/d/1k8uS-y2aFC66wN2N9_P6KIdvclqx-QVFc6ovccI-M6WI/viewform?pli=1)

Since it's a full day event, will there be food? Of course, we will have free breakfast, free lunch and snacks. How many speakers will be there? There will be 12 speakers including faculty, alumni, students and members non-affiliated to IIT. What if I'm really interested but I can't make it? No problem. We will have live streaming available on the TEDxIIT website: <http://mypages.iit.edu/~tedxiit/>

So, tell your family, friends and relatives from all over the world that they can watch it on the website. It doesn't matter if your family is in India, if your friends are in Korea or if your relatives are in Africa, tell them all.

Let's be exponential!

## IEEE second general body meeting

**Swasti Khuntia**  
LAYOUT EDITOR

IEEE@IIT organized their second general body meeting of the Spring semester on Thursday 4th April. The agenda of meeting included discussion about projects funded by IEEE, T-shirt design contest, election/nominations for the executive board, upcoming company tours and IEEE spring barbeque. Kicking off the meeting, George Williams, Secretary of the Student's Chapter, welcomed everyone at the second meeting of IEEE@IIT.

The students were very enthusiastic about the T-shirt design contest. Around 10 design nominations were shown to the audience, and the winner would be awarded a whopping \$100 and the winning design would also be printed. There are a few upcoming company tours organized by IEEE@IIT. The first one is the ComEd West Loop Substation Tour, which was organized Friday 5th April. There is also another company tour to S&C Electric on 19th April and the deadline to sign-up is 15th April. Moreover, possible future tours to companies like Motorola Mobility, Nokia-Siemens Networks, GE are being discussed.

Discussing the projects that are funded by IEEE, like Raspberry Pi, Quadcopter, the Mutitouch project, Guitar Amp and Ar-

dupilot, George asked the interested students to attend the project meeting in the Galvin Center at IIT Tower, 16th floor on 11th April. A video showcasing the Raspberry Pi project was shown in the meeting too. Although the design is not going to be the same as in video, a general idea about what to do in the project was easily inferred from the video.

Juan Wang, PhD scholar talked about the Multitouch project that she will also be responsible for heading. Showing a video on creating a Multitouch tablet, she said that the project would have some similar design steps. Interested students can still join any of the projects by signing the online sheet created for project participation, and attending the next project meeting on 11th April.

The nominations for IEEE@IIT executive board were open till 7th April. Elections will be held on 22nd April until 25th April, right before the next general meeting. Till the election date, one can campaign for his/her nominee. The IEEE Spring barbeque will be held on 26th April at the Siegel Field, where you have the opportunity to meet the new executive members as well interact with other group members. All queries regarding IEEE@IIT can be forwarded to [ieee@iit.edu](mailto:ieee@iit.edu). Students will be notified about upcoming events via email and Facebook group.