

WISER sponsors lecture on wireless power transfer

Swasti Khuntia

LAYOUT EDITOR

As a part of "Seminar Series on Challenges and Opportunities in Energy", the Wanger Institute for Sustainable Energy Research (WISER) at the Department of Electrical and Computer Engineering at IIT and Galvin Center for Electricity Innovation organized a lecture on "Advancements in Wireless Power Transfer (WPT) Technology". The lecture was delivered by Dr. Srdjan Lukic of North Carolina State University and hosted by Dr. Mahesh Krishnamurthy of the ECE Department. The talk included recent advances in WPT in the areas of circuit topologies, mathematical modeling, and system design, control, and implementation.

Dr. Srdjan M. Lukic received his B.S., M.S. and Ph.D. degrees (2002, 2004, and 2007) in Electrical Engineering from IIT. Currently,

he is serving as an Assistant Professor in the Department of Electrical and Computer Engineering at North Carolina State University, Raleigh. Apart from that, he also serves as the distributed energy storage devices sub-thrust leader at the Future Renewable Electric Energy Delivery and Management (FREEDM) Systems Engineering Research Center.

Talking about the extensive research carried out at NCSU, Dr. Lukic gave an overview of the FREEDM center at NCSU, which is also a National Science Foundation (NSF) funded Research Center. The FREEDM center has other prominent research centers in the campus itself, like Advanced Transportation Energy Center, NC State Nanofabrication Facility, Analytical Instrumentation Facility and North Carolina Solar Center.

Dr. Lukic's major contribution is in the Advanced Transportation Energy Center where he focuses on Power electronics and motor drives. Starting his lecture on

Wireless Power Transfer (WPT) which has been an attractive research topic since its first experimentation by Nikola Tesla, Dr. Lukic said it is becoming one of the widely accepted means of transferring power over small to medium distances. Working on the concept of magnetic coupling, this theory continues to attract interest from the scientific community. Dr. Lukic along with his research team have developed a new way to fine-tune WPT receivers, making the systems more efficient and functional. He emphasized on the fact that WPT systems hold promise for charging electric vehicles, electronic devices and other technologies.

Taking the example of vehicular arena, the WPT concept has attracted much interest for stationary electric vehicle chargers due to the convenience and safety of the non-contact approach to vehicle charging. A more visionary application would allow for vehicle on-board storage to be charged as the vehicle is moving, obviating the need for large

capacity batteries. Taking on exceptions, he gave an example where current embodiments of practical WPT systems rely on tightly controlled coupling between the source and the receiver, which is usually achieved by mechanical restrictions on the movement of the receiver. But, innovative applications of WPT require that one or many receivers be freely moving and at a substantial distance from the source.

He concluded his talk by narrating about the recent advances in power electronics switching devices, where there is an opportunity to devise efficient wireless power transfer systems operating at higher frequencies and therefore, at larger distances. At the end of the talk, there was a healthy discussion where audience had numerous queries about this new advanced technology. Dr. Lukic answered all their queries and asked them to contact him for any of their future queries. The talk was well attended by ECE faculties and students.

David Stollman offers advice to IIT's Greek community

Ryan Kamphuis

EDITOR-IN-CHIEF

While Greek Life at IIT is considered by many to be a unique experience that is miles away from the experiences provided by state schools, the fact still stands that the stereotypes of Greek Life perpetuated by movies, TV shows, and more often are applied to IIT's Greek community.

To address this fact and give perspective to IIT's Greeks, Greek Council, the Student Activities Fund, and the Office of Residence and Greek Life brought speaker David Stollman to campus. Stollman is an active figure in Greek Life, both serving as a frequent volunteer for his fraternity, Sigma Phi Epsilon, and as chapter advisor to the Alpha Sigma Tau sorority at New York University.

Stollman gave a presentation entitled "Buy in, or get out!" that filled the MTCC Ballroom on the evening of March 6. Stollman spoke of the common values that all Greeks believe in, and how the stereotypes that exist about Greeks don't agree with these values. Stollman presented in a brutally honest way that both entertained and enlightened those watching.

Stollman spent a lot of time talking

about the many stereotypes that exist amongst Greeks to help drive home the point that they were not a good thing, but that we have them for a reason. He told stories of many different examples of Greeks living up to the stereotypes that have been placed upon them. Using this as a foundation, Stollman spoke of how important it was that all Greeks either buy into the values that they swore an oath to uphold, or choose to leave. He argued that almost all of the behavior that gives Greeks a bad name are perpetuated by the "loser" members of Greek organizations that choose not to uphold the organization's values and instead choose to belazy. Stollman also warned all in attendance not to fall into the trap of justifying bad behavior and a lack of standards by arguing that we are part of a social fraternity or sorority; he explained that while we may be a social organization, we still swore an oath to be better individuals, and that is the most important thing of all.

Stollman closed his presentation by challenging all Greeks to work together to be better individuals, to create a better Greek community, and to work to eliminate the stereotypes of Greek Life that exist. "Being Greek is the premiere form of leadership training you can possibly have," said Stollman, "so let's ensure that others know that."



Photo by Kevin Roemer

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SGA

SGA Updates:

New email policy, Executive Board nominations open

Harshita Iyer

SGA SENATOR

This column has been created with the aim of keeping the Illinois Tech student body more informed about the ongoing projects of their Student Government. It discusses what happens at Senate meetings every other Tuesday and includes new projects that SGA has taken on as well as what new student organizations were approved at the last Senate meeting.

No new student organizations were

approved at this past senate, but two new student organizations were approved at the one before that! The first one is the LTD (Love to Dance) Dance Club, which is a competitive dance club with auditions, and regular performances at IIT events, as well as outside competitions. The second, Nature Club, plans to indulge in the great outdoors by making visits to parks, cloud watching etc.

We also completed the project where we will be sending out emails specific to majors to the student body so that you'll know

your representatives. Look out for some cool fliers that one of our senators came up with in different languages.

SGA Executive Board nominations opened February 19, and will stay open until March 12th. The positions open are President, Executive VP, VP of Academic Affairs, VP of Student Life, VP of Communications and Finance Board Chair. Debates will happen March 25th, and the elections will happen all day on March 26th. So if you know someone who might be good in any of these roles, just

nominate them (or yourself) by emailing iitnominations@iit.edu

If any of the topics mentioned above interest you, you are always welcome to be a part of SGA! Everyone is invited to the Committee Meetings that happen every off week from the Senate Meeting! There will be meetings happening in the Colored Rooms in MTCC tonight at March 12, 2013, 9:15 p.m. You are also welcome to the Senate meeting that will happen be next Tuesday at 9:15 p.m. in the MTCC Auditorium.

Senator Spotlight:

College of Science & Letters, Raghav Girijala

Dorian Karter

SGA VP OF COMMUNICATIONS

Student Government Association is starting a new column in TechNews for the purpose of introducing your representatives in SGA Senate.

This week we are featuring senator Raghav Girijala.

Name: Raghav Girijala

College: College of Science and Letters

Major: Biochemistry

Email: lgirijal@hawk.iit.edu

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What prompted you join SGA?:

In order to effect change, you have to take action. There were many aspects of IIT with which I was unsatisfied, and I realized that SGA was perfect medium to communicate my concerns - in addition, it allowed me to understand what others felt.

Which projects have you worked/working on?:

Reading Week, Student Faculty Mixer, and TA Evaluations.

What aspect of the university experience are you most passionate about improving?:

The integration of student opinion into administrative decisions, as well as motivating individuals to take initiative in enacting change in the university.

Cool fact about you?:

I read a lot.



Photo courtesy of Raghav Girijala