

# THE REPORTER

Journal of the Central Indiana Section • The Institute of Electrical and Electronics Engineers, Inc.

## National Engineers Week 2005 February 21-27

National Engineers Week recognizes engineers and celebrates engineering achievements that have improved and advanced our lives. The Purdue School of Engineering and Technology at IUPUI will promote engineering careers to prospective and current students during National Engineers Week. A list of the scheduled activities appears below.



## Lists of Events for Engineers Week

- Nationally  
<http://www.eweek.org/>  
 Purdue:  
<http://news.uns.purdue.edu/>  
 NE Indiana  
<http://www.indiana-eweek.org/>  
 Indianapolis  
<http://www.acecindiana.org/>

### IUPUI Activities for Engineers Week

- Mon., 2/21** Hollywood and Engineers – ET 137
- 8:30 am – 1:30 pm, MacGyver – The First Season, sponsored by IEEE. Bagels and juice in the morning and pizzas and pop at lunch
- Tues., 2/22** Engineering and Tech. Open House
- 9am-11am Engineering – LD/SL 1<sup>st</sup> floor lobby
  - 11am-1pm Chili Bowl – ET 2<sup>nd</sup> floor lobby, featuring student organizations
  - 1:30 – 3:00 pm, Ivy Tech Program, getting to know IUPUI and the School of Engineering and Technology, TBD
    - In collaboration with Passport Office)
  - Technology Open House – ET 2<sup>nd</sup> floor lobby
  - 7:00pm, IUPUI Men's Basketball game (trying to get free admission for Ivy Tech Students)
- Wed., 2/23**
- 10:00am - 3:00pm, IUPUI 2005 Interns Connection Fair, University Place Hotel and Conference Center, Slate Hallway.  
<http://kelley.iupui.edu/careerops/CareerFairs.cfm>
  - noon - 1:00pm, NASA Live (Learning Through Interactive Videoconferencing) - So You Want to Be an Engineer, Now What, lunch will be served
    - Sponsored by AIAA

### IUPUI Activities for Engineers Week (cont'd)

- Thurs., 2/24**
- noon - 1:00pm, Olivia Freeman, Diversity Recruiter, Rolls-Royce – Three Ladders Presentation (reaching one's career goals)
    - Sponsored by SWE
  - noon - 2:00pm, Rock, Scissors, Paper Competition – 1<sup>st</sup> floor lobby in ET
    - AIAA fundraiser
- Friday, 2/25**
- 11:30am - 1:00pm, Engineers Can Do Anything – SWE luncheon – University Place Conference Center & Hotel, free for students.
- Sat., 2/26**
- 9:00am - 1:30pm, Engineering and Technology Scholarship Day,
- Sun., 2/27**
- 11:00am - 4:30pm, 10<sup>th</sup> Annual Bridge Design Competition – Business/SPEA building
    - Sponsored by the Department of Construction Technology at IUPUI  
<http://bridge.engr.iupui.edu/>

For more information about IUPUI's activities for National Engineers Week, contact Terri Talbert-Hatch [ttalbert@iupui.edu](mailto:ttalbert@iupui.edu).

**Central Indiana Section Active Volunteers**

|   |  |
|---|--|
| <b>Chairman</b><br>Jose Ramos   | (317) 274-0044<br>jaramos@iupui.edu                    |
| <b>Vice Chair</b><br>John Kassebaum                                       | (317)293-1242<br>John.Kassebaum@ieee.org               |
| <b>Secretary</b><br>Tom Bishop  | (317)306-2677<br>tnbishop@ieee.org                     |
| <b>Treasurer</b><br>Bill Lin  | (317)278-4559<br>lin@enr.iupui.edu                     |
| <b>Director</b><br>Alan Stillerman  | (317)263-8888<br>astiller@ihets.org                    |
| <b>Director</b><br>Ken Reid   | (317)263-6366<br>reid@ieee.org                         |
| <b>Power Engineering/Industry Applications Society</b><br>Dick Hildreth   | dhildreth@cityofanderson.com<br>(745)648-6589          |
| <b>Computer Society</b><br>Dan Allison                                    | (317)808-4221<br>dallison@ieee.org                     |
| <b>Signal Processing Society</b><br>Ilya Pollak                           | ipollak@ecn.purdue.edu                                 |
| <b>Engineering in Medicine and Biology Society</b><br>Ed Berbari          | eberbari@iupui.edu                                     |
| <b>Central Indiana Engineering Consultant's Network</b><br>Will Kassebaum | Will.Kassebaum@ieee.org<br>(317)299-0557               |
| John Kassebaum  | John.Kassebaum@ieee.org<br>(317)293-1242               |
| <b>Membership Development</b><br>Earl Hill                                | eshill@loma-consulting.com                             |
| <b>Professional Activities</b><br>Al Razban                               | (317)879-1561<br>al.razban@roche.com                   |
| <b>Student Activities</b>   | Open Position  |
| <b>Constitution and Bylaws</b><br>Ken Reid                                | (317)274-2362<br>reid@ieee.org                         |
| <b>Newsletter Editors</b><br>Shelly Born<br>Duane Mattern                 | (317)838-2717<br>s.born@ieee.org<br>d.mattern@ieee.org |

**Central Indiana Section Active Volunteers (cont'd)**

|  |                                      |
|--|--------------------------------------|
| <b>Webmaster</b><br>Bob Evanich                      | (317)838-2268<br>b.evanich@ieee.org  |
| <b>Communications Information Officer</b><br>Pam May | (317)274-2363<br>may2@tech.iupui.edu |
| <b>Historian</b><br>Marv Needler                     | (317)274-2362<br>needler@ieee.org    |

**Section Sponsored Entities**

UPUI Student Branch CIS-IEEE representatives  
Jose Ramos & Ken Reid

ITT Student Branch CIS-IEEE representative  
Open Position

Rose-Hulman Institute of Technology Student Branch  
CIS-IEEE representative Ed Wheeler,

Purdue University Student Branch  
CIS-IEEE representative Open Position

**Editorial Policy:** Each issue of The Reporter references three months - the month in which it is published and the following two months. Single sheet flyers are published occasionally when The Reporter is not published. These announce the monthly meetings. The Reporter is not published in May, June, July, and August because there are generally not any meetings held during the summer months.

Material to be included should be submitted mid-month prior to the month it is to be published. For example, material intended for the September issue should be submitted to the Information Coordinator by August 15. Material received after 2 weeks in advance of the publication month may be included on a space available basis, or only entered on the web page email distribution. The Communications Information Coordinator will send a reminder to all IEEE Central Indiana Section entities by the 15th of the month to submit their monthly updates. If no update is received for that month, only the mission statement and contact information will be published for that entity.

Copy should be submitted electronically, or typewritten and either double or triple spaced. If necessary, a legible handwritten copy is welcome. Photographs are most desirable and may be submitted in electronic format or color, black-and-white glossy, or Polaroid. Please note that black-and-white photographs reproduce best. Advertisements are welcome. Contact the editor for layout sizes and rates.

## ***The Chairs' Corner***

José A. Ramos, Ph. D.  
Chairman  
Central Indiana Section - IEEE



Dear CIS-IEEE Colleagues:

As I prepare to write this article to introduce myself as your new CIS-IEEE Chair, I first have to step back to the end of December 2004, when Alan Stillerman handed over the Chair's position. Alan moved up to the position of Director, where I'm sure he will continue to support the Section with his talent and experience. Being Alan's Vice-Chair during 2004, I learned a lot about IEEE issues, thanks to his constant encouragement and enthusiasm for the Society. Now that I've become the new Chair, I realize that it will be quite a challenging task to bring the Section to the next level. Just as Alan did during his two-year tenure as Chair, I will also rely on your talents, your enthusiasm for the Society, your desire to contribute to your profession and your community, your concerns affecting your profession and/or your job, and above all, your desire to excel as an engineer in the state of Indiana. With your help we can continue to take strides within our Society and our profession. As we all know, IEEE is the world's largest engineering society. To think that an army of dedicated engineers laid the foundation for what it is today, a Society that is second to none when it comes to issues related to engineering standards and the comfort of mankind. It is a Society that influences our daily lives by sponsoring conferences, setting standards for new products and processes, serving as advisors to Congress, and continually reforming engineering education, just to highlight a few. To believe that IEEE is a Society that operates on a volunteer basis, it has made remarkable contributions to society. As your new Chair, I call upon you to make an effort to volunteer some of your time, as our forefathers and peers have done in the past. We need to maintain the same upward momentum of the past two years. Alan's strong leadership, along with the help of all those who volunteered their time were recently commended at the last Chicago Sections meeting in October 2004, by honoring us the "Exemplary Section Award". Let's continue the good work. I would also like to take the opportunity to introduce some new members/changes to the CIS-IEEE Executive Committee. John Kassebaum will be the new Vice-Chair, Earl Hill will be the new Membership Development Officer, and Duane Mattern will be one of the two Editors of the Reporter.

During the month of January CIS-IEEE sponsored a tour of the Holcomb Observatory at Butler University. We had 15 people attend the event. We were entertained for an hour long with a multimedia presentation covering the current night sky, the history of our solar system, and a star show. There was also an interesting presentation about Saturn's largest moon Titan, where after a 2.2 billion mile journey, the Huygens probe landed on its surface on January 14, 2005. Finally, we were able to visit the robotic telescope and see Saturn. This month we celebrate National Engineer's week and CIS-IEEE is participating in a host of activities that you can read about in this issue. We are currently planning a couple of PACE activities for March and April, including a presentation by Russ Harrison about how IEEE is involved in activities on Capitol Hill. We are also planning to have a seminar about Purdue University's Executive MBA program around April. Another activity that is being planned is a one-day leadership seminar. This seminar will be similar in style and cost to the seminar held by the Consultants Network in May 2004. We are also starting a bi-yearly professional seminar series where IEEE recommended speakers would come to Indianapolis to offer technical presentations on topics of interest to CIS members. For this we will need suggestions for future topics.

## The Chairs' Corner, (con'td)

I would also like to call to your attention some information from Russ Harrison. IEEE-USA is hosting a Washington Fly-In on March 8th and 9th in Washington, DC. Approximately 50 IEEE members from around the country will be going to DC on those days to meet with their members of Congress to discuss the state of America's technology engineering profession. IEEE-USA is especially concerned about the use of H-1B visas and offshoring. Most of the participants will be paying their own expenses. However, IEEE-USA has a limited budget for sponsoring IEEE members from specific Congressional Districts. One of the districts IEEE-USA is targeting is the eighth district of Indiana - Rep. Hostettler's district. He is a key voice (and vote) on immigration issues, and so his support is essential. Russ Harrison will be able to pay the travel expenses for one IEEE member from the eighth district to the IEEE-USA's Fly-In. This will include the plane ticket and hotel for one night (two if necessary). The Fly-In begins on the afternoon of March 8th, allowing you to travel in that day. The activities will begin with an extensive training program to prepare you for your meetings. IEEE-USA staff will explain the current political environment, the state of the issue, and offer tips on how to conduct your meetings. Then on March 9th, all participants will go to Capitol Hill for private meetings with their legislators and staff. The meetings will be arranged by IEEE-USA. Most meetings will be completed by 2:00pm on the 9th, allowing you to return home that evening. The only qualifications for participants are an IEEE membership and enthusiasm for helping the profession. No previous experience is necessary. In fact, few of the participants will have ever before met with Legislators. Students and retired engineers are welcome. You can find more information about the Fly-In at <http://www.ieeeusa.org/policy/Careerflyin/default.asp>. A map of Indiana's Congressional districts is also found at: [http://www.in.gov/sos/elections/pdfs/congressional\\_map.pdf](http://www.in.gov/sos/elections/pdfs/congressional_map.pdf). Any help you can offer finding a willing participant would be greatly appreciated. Last year's event went extremely well; with most participants saying their experience was well worth the time and expense. Face-to-face meetings are, without question, the best way to influence Legislators. But voters must do the meetings.

In closing, I would like to quote from Alan's last year's wish list "My goal is to improve the accountability and integrity of the Executive Committee". I will also make this statement part of my wish list for 2005. Following Alan's suggestions, I also recommend that you

- 1) Attend all ExCom meetings.
- 2) Attend all sub-committee meetings that you are a part of.
- 3) If you cannot attend, send word that you cannot attend.
- 4) If you cannot attend, send a report on your area so that the rest of the ExCom can be updated.
- 5) If there is nothing new in your area, send a report saying that there is nothing new.
- 6) If you feel that there are too many pressures going on in your life (i.e. family, work, school, etc...) and you cannot commit the time needed for your position, then make the decision that best fits you and the CIS-IEEE.

Sincerely,

José A. Ramos, Ph. D.  
Chairman  
Central Indiana Section - IEEE

## IEEE Central Indiana Section

Chairman: Jose' Ramos

Past Meeting Tues. Jan. 25, 2005

### Tour of the J. I. Holcomb Observatory and Planetarium, Butler University

#### Planetarium Tour Out of This World

by Bob Evanich, PE  
Cinergy, Operations Engineering

On Tuesday, January 25, fifteen CIS-IEEE members and their guests attended a tour of the J. I. Holcomb Planetarium and Observatory located on the Butler Campus. The recently remodeled observatory, one of the largest public observatories in the world, houses a 38-inch Cassegrain reflector.

The tour began in the planetarium with a trip to Saturn (courtesy of the [Cassini-Huygens space probe](#)). Our tour guide took us up close to Saturn's rings as we flew by many of Saturn's 33 known moons. We next went in for a closer look at Titan. Titan is of particular interest to scientists because it is one of the few moons in our solar system with its own atmosphere. The moon is cloaked in a thick, smog-like haze that scientists believe may be very similar to Earth's before life began more than 3.8 billion years ago.

After arriving back to earth, we viewed the January nighttime sky inside the planetarium with our tour guide pointing out several different constellations (locating the constellations in the actual sky was left up to the tourists). Since we were blessed with a clear sky (a rarity in Indianapolis this time of year), the tour concluded with the group going up to the observatory and looking through the telescope to view Saturn.



Image source: <http://www.butler.edu/holcomb/>

Past Meeting Thursday Jan. 27, 2005

#### CIS Executive Committee (EX-COM) Meeting

On Thursday, January 27, 2005, the Executive Committee (Ex-Com) of the central Indiana section of the IEEE met on the campus of IUPUI to discuss upcoming meetings and to plan future events.

#### Upcoming Meeting February 24, 2005 CIS Executive Committee (EX-COM) Meeting

The Executive Committee meetings on the fourth Thursday of every month. at 6:00 pm in room ET-209 on the [IUPUI campus](#) at 799 W. Michigan Street, Indianapolis, IN 46202. This meeting is open to all members. Pizza is typically served, so if you plan to attend, please let us know so we can order enough pizza.

### 3<sup>rd</sup> Annual Banquet a Success Alan Stillerman, Director CIS-IEEE

November 18, 2004 – The Central Indiana Section hosted its 3<sup>rd</sup> annual Awards Banquet at the Ritz Charles in Carmel, IN. 60 people attended the event. This was, by far, our largest and best-attended awards banquet yet. The night started with piano accompaniment by Allison Evanich and a full four-course meal of soup, salad, entree and dessert. This was followed by a “State of the Section” address given by Chairman Alan Stillerman. The State of the Section address covered the highlights of the events in 2004 and gave an update on the health of the section. The keynote speaker, Scott Jones of Gazelle TechVentures, provided the next segment of the evening. Scott Jones talked about where Indiana was is and where it needs to go, from an entrepreneurial aspect as it related to electrical engineering. Scott Jones then focused on one aspect of growth that could impact Indiana in the future through the DARPA Grand Challenge. (see a discussion of the DARPA Grand Challenge later in this newsletter).



The night then continued with the awards. Dick Hildreth and Tom Bishop gave out awards for:



Engineer of the Year  
Fred Brockhurst



Members of the Year  
Will Kassebaum



Members of the Year  
John Kassebaum

Our 2004 Scholarship Recipients:

ECET, PU, Matt Kramer  
ECE, PU, Karl P. Herb  
EET, ISU, Chris Bartlow  
ECET, IUPUI, Sidney E. Balaska  
ECE, IUPUI, Michael Haas  
ECE, Rose-Hulman, Krishna Ersson



3<sup>rd</sup> Annual Banquet a Success, (cont'd.)

Members who acquired Senior Member status in 2004  
As of the A&A report dated September 2004  
(Those in attendance appear in the photo on the left)

Daniel B. Allison, Tom C. Bonsett, David S. Ebert, Rudolf Eigenmann, Parvathy K. Hadley, John A. Kassebaum, William R. Kassebaum, Gerhard Klimeck, Ben Manning, William H. Mengel, Yousef W. Nijim, Jose Ramos, Paul Salama, Thomas E. Scott, Yong Sheng, Pingnan Shi, Timothy R. Shoemaker, John Smith, James B. Sumpter, J. C. Tallant II, Thomas P. Weber, Julia M. Williams, Zhaoxia Xie and Yaming Zhu.

Special recognition was awarded to Dr. Marvin A. Needler for his 42 years of service and support to IEEE and the Central Indiana Section. Also, a special thanks was given to Scott Jones for being our keynote speaker. Congratulations were also presented to the entire Central Indiana Section for winning Region 4's Exemplary Section 2003 Award. The evening ended around 9:30 p.m. with everyone receiving a CIS-IEEE coffee mug and a CIS-IEEE brochure. Our fourth annual awards banquet will happen again in November 2005. See you there.

## Engineering Medicine Biology Society(EMB)

Chairman: Ed Berbari

Past Meeting Thursday Dec. 2, 2004

### **Modern Clinical Imaging Systems, A tour of the IU Medical Radiology lab showing the different imaging systems.**

The EMBS Chapter will be hosted the CIS meeting on December 2 at 6:30 PM. Dr Gary Hutchins, the Director of the Imaging Sciences Section of Radiology made a short presentation on modern clinical imaging systems followed by a complete tour of the clinical/research imaging systems in their Department, including large and small bore PET and MRI systems as well a new PET/CT clinical imaging system. About 25 IEEE/EMBS were present.

Past Meeting Thursday Dec. 17, 2004

### **Biomedical Engineering Seminar**

On December 17, the EMBS Chapter met in conjunction with the Biomedical Engineering Seminar at IUPUI (SL-165). Dr Jake Chen (IEEE Senior Member) a new faculty member in the School of Informatics presented a Seminar on the topic of Bioinformatics. Total attendance was about 25 with about 10 IEEE/EMBS members present.

**IEEE Computer Society**

Chairman: Dan Allison

Past Meeting Thursday Dec. 16, 2004

**Software and Algorithms Used for the Human Genome Program****Speaker: Dan Allison**

The Human Genome Program was one of the most significant scientific events in recent years. It was completed ahead of schedule and under budget mostly due to technical advances in instrumentation and software. Software plays a key role in various stages of genomic sequencing. This talk gave an overview of the sequencing strategy and how software and algorithms are used to support it. The speaker, Dan Allison, has 18 years of experience in systems engineering and algorithm development in the life sciences industry. Dan currently works on genomic products in Indianapolis for Beckman Coulter. He was the chief basecalling algorithm developer at Applied Biosystems while the Human Genome Program (HGP) was underway and was involved in the design of the automated DNA sequencers used in the HGP.

**Upcoming Meeting Monday, March 7th 2005****Dot Net Nuke for Web Site Development****Speaker: Tim Sherrill**

[DotNetNuke](#) makes web development accessible to users without a strong technical background. This ASP.Net (Microsoft) web application with its database back end allows a user to publish content by creating pages which contain predefined modules, such as an image gallery, RSS reader, fill-in forms, survey, discussion module, etc. With the integrated security features, each user will only see the content appropriate for his/her role. Using a collaborative open source approach, the technology can be extended in a simple fashion to change both the appearance and the function of the website. This talk will focus on the features of DotNetNuke, portal setup, and related technologies.

Tim Sherrill is a software supervisor for Beckman Coulter, Inc. with experience in software development, databases, and web-based technology. Tim's DotNetNuke intranet website has been running for more than a year and includes both simple and complex extensions to the technology.

|        |   |           |   |
|--------|---|-----------|---|
| DATE:  | Monday, March 7th 2005  | COST:     | Members, Guests - Free  |
| PLACE: | Pike Twp Library<br>6525 Zionsville Road<br>Indianapolis, IN 46268      | TIME:     | Overview - 6:00 pm<br>Topic - 6:15 pm<br>Discussion - 7:00 - 7:30pm |
| MAP:   | <a href="http://www.imcpl.org/pik.htm">http://www.imcpl.org/pik.htm</a> | Register: | <a href="http://www.cis-ieee.org/">http://www.cis-ieee.org/</a>     |

## Power Engineering/Industry Applications Society (PES/IAS)

Chairman: Dick Hildreth



Past Event: November 11, 2004  
**Indiana Technology Sizzle**



On November 11, Purdue University and the Central Indiana Corporate Partnership hosted the “Indiana’s Energy Technology Sizzle” at Purdue’s West Lafayette campus. Electricore and the Hudson Institute were also instrumental in organizing this symposium. This colloquium brought together leaders from government, private industry, universities, federal agencies and economic development to explore how Indiana can prosper in the advanced energy field.

### Conference Purpose:

- Assemble and acknowledge Indiana’s assets in this area
- Highlight the next frontiers in research and commercialization
- Strengthen networks and foster future collaborative action, especially in “leapfrog” R&D

In short, this colloquium is a vehicle by which industry leaders can “scope the promise” and mobilize for next action. The primary focus of each breakout session was “How/where can Indiana be a leader in this space?”

Indiana has lost a significant number of manufacturing jobs in the last few years. This conference looked at a number of opportunities for Indiana business to move into areas that can bring back to the state the types of good manufacturing jobs lost in the past. Some of the areas included fuel cell development, renewable/alternate energy sources, and military applications. The most promising appears to be power electronics, which is already strong in Indiana due to the automobile industry. Power electronics is the application of electric circuits to energy conversion – it’s how power is processed, filtered and delivered with maximum efficiency. For alternative energy sources, power electronics has a critical gap to fill: once energy is generated from a fuel cell or solar panel, how is it converted into a usable form? It’s clear that power electronics will play a vital role in translating alternative energy into a realistic option for everyday use.

While there is no recognized leader in power electronics, Indiana has many of the right assets to seize this position. Indiana companies such as Allison Transmission, Delphi, Raytheon, Rolls Royce, Remy and others are already working in advanced energy technologies. In southern Indiana, the Crane Naval Base hosts the U.S. Department of Defense’s largest collection of power systems resources; Crane has been traditionally open to commercial partnerships. Academic institutions like Purdue, Rose-Hulman, and Notre Dame give Indiana unparalleled research capabilities in power engineering.

Another area where Indiana is well positioned is in the area of hybrid-drive vehicles (which use both electric and fossil fuel drive systems). Allison has already sold a number of these vehicles, including a few in the Indianapolis market. Many of the presenters expressed their belief that hybrid vehicles will be a rapidly growing market segment in the near future. Hybrids provide a “technology bridge” to more advanced systems, such as fuel cells, and to the hydrogen economy. In fact, a number of speakers expressed the opinion that advanced batteries are the most likely drive systems to be developed.

Indiana is also developing corporate-academic partnerships, such as the Flagship Enterprise Center, the state-certified technology park located in Anderson, Indiana, where Remy, Anderson University and Purdue University are exploring a potential Power Electronics Center. Indiana is also home to Electricore, a unique non-profit organization that has successfully developed and managed over \$150M in federally funded research and development activities conducted through collaboration among industry and universities. One of the key insights from the conference is the need to further develop these partnerships to aid Indiana in becoming a leader in these fields. The conference provided an opportunity for professionals in these areas to network and to begin to explore the types of public/private enterprises Indiana may need to move forward.

Following the presentations, Dr. Paul MacCready, whose innovations have changed the course of aviation and automotive technology, gave the keynote speech. Dr. MacCready was selected by Time magazine as one of the 100 most influential people of the 20<sup>th</sup> century. Five of his vehicles are in the Smithsonian, including the first successful human-powered aircraft (the Gossamer Condor). Dr. MacCready has also created solar powered aircraft (including the Gossamer Penguin, the world's first successful totally solar-powered airplane), and high performance solar and battery powered automobiles (including the GM Sunraycer and the GM Impact).



Shown above are Bill Wylam, Chairman of Electricore; Stephen Moore, Delphi; Dr. Paul MacCready; and Ike Bayraktar, AeroVironment,  
(source: <http://www.electricore.org/news14.html>)

Dr. MacCready spoke at length on how many parts of our industrial society could operate with significantly fewer energy resources. The key question is whether we have the will to make the changes necessary to implement Dr. MacCready's vision.

Presentation materials are also available from Earl Hill of CIS-IEEE at [eshill@loma-consulting.com](mailto:eshill@loma-consulting.com). For more information on this meeting, please contact Amelia West of the Hudson Institute at [amelia@hudson.org](mailto:amelia@hudson.org). The agenda, presentation materials and additional information can be found at the following websites:

<http://www.purdue.edu/research/vpr/research/techsizzle.html>

[https://engineering.purdue.edu/AEE/News/Events/20041111BoeingLec\\_Maccready](https://engineering.purdue.edu/AEE/News/Events/20041111BoeingLec_Maccready)

<http://www.electricore.org/news14.html>



Power Engineering/Industry Applications Society (PES/IAS) (cont'd)

**Upcoming Meeting Tuesday Feb. 8, 2005  
DTE Energy Technologies (formerly iPower)  
and XADS (Xtreme Alternative Defense Systems)**



DTE builds internal combustion engine-driven generators for use as power backup and distributed generation. They will show us their assembly and testing facilities and discuss current technology and applicability. They will be running units to demonstrate sound levels and their effectiveness in improving acceptability of the equipments operation. XtremeADS is involved in the development of Alternative Defense Systems that are typically disabling, but not fatal to combatants. One of the trade names is "StunStrike" and they also work with lasers. One of the higher power devices uses a resonance transformer (with some similarity to a Tesla coil) to generate a disabling ionized stream. XADS has R&D contracts with the Marine Corp and the Navy and a production contract with the Army.

Some members know we were planning a tour of the MISO facility in Carmel as our February meeting. They are in the process of going online with trading in the next few months and felt they could not host us at this time. We may be rescheduling this for April of after.

We are sure that the DOUBLE BARRELED presentation scheduled for Tuesday, Feb. 8, will be very interesting and informative (especially if you're interested in seeing where the Buck Rogers and Star Wars ray guns are going).

Please contact! Mike Darnell, (317-261-8610, [james.darnell@AES.com](mailto:james.darnell@AES.com)) or Dick Hildreth), 765-648-6589, [dhildreth@cityofanderson.com](mailto:dhildreth@cityofanderson.com)) by Monday the 7th to give us an idea of how many to prepare to host. If you can't contact use before the meeting, you can come at the last minute. We are looking forward to seeing you Tuesday Feb. 8. You may register on line at <http://www.cis-ieee.org/dtexads.asp>

From Indy, use Exit 22 from I.S.69 and go North on Martin Luther King Blvd, (S.R. 9 which was Pendleton Ave.) Meeting is at 6:00pm at [4640 Martin Luther King Blvd.](#) in **Anderson, In.** It is located north of 53rd Street and South of 38th Street on the East side. The "iPower" company name is still on the building.

Power Engineering/Industry Applications Society (PES/IAS)  
*Cancelled* Event: January 11, 2005  
**Distributed Power Generation**

Due to the ice storm that hit Central Indiana 2 weeks ago, the PES/IAS meeting that was scheduled for January 11 on Distributed Power Generation was cancelled. Please watch the website for a new date.

**Central Indiana Engineering Consultants' Network (CIECN)**

Co- Chairmen: John Kassebaum and William Kassebaum

Past Meeting Thursday Dec. 2, 2004

**10-Minute Business Close-Up:** Mr. Michael Root made a presentation the Gabriel Group and Gabriel Entertainment. The Gabriel Group is both a game development company and specializes in Interactive Marketing Communication and Training. [www.insidegabriel.com](http://www.insidegabriel.com), [www.gabrielentertainment.com](http://www.gabrielentertainment.com)

**Featured Speaker and Topic:** Doug Traster, Team Leader of the Indy Robot Racing Team provided an overview of the work on the vehicle that will compete in the 2005 DARPA Grand Challenge. The team is still seeking experienced volunteers, (see <http://www.indyrobotracing.com/>)

Past Meeting Thursday Jan. 6, 2004

**Featured Speaker and Topic:** Cathleen Nevin is a shareholder with the Indianapolis law firm of Katz & Korin, PC. Ms. Nevin covered issues relating to the potential advantages vs. disadvantages of using independent contractors rather than employees in the workplace. Additionally, Ms. Nevin discussed steps that should be taken to protect confidential and trade secret information from misappropriation and disclosure by employees and/or independent contractors.

Past Meeting Thursday Feb. 3, 2004

**10-Minute Business Close-Up:** Duane Mattern presented his product development company, Sampled Systems, LLC to the group and gave an example of the type of work that they do.

**Featured Speaker and Topic:** Tom Walsh is a partner in Ice Miller's Intellectual Property Group. He talked about intellectual property created through the course of their work for a client or created by the consultant in service to a client. Tom Walsh discussed the basics of patents, copyrights, trademarks, and trade secrets, and practices for protecting each.

**Up Coming Meeting Thursday March 3, 2005****Scott Willis, Vice President of Creative Performance Solutions****Sales Techniques for the Non-Sales Professional**

Dinner: 5:15-6:30pm at TGI Friday's, Meeting: 6:45-9:00pm at IUPUI, [Parking is available at West Drive Garage \(XE26\)](#), the meeting is in the Nursing Building at 1111 Middle Drive on the [Campus of IUPUI](#), Indianapolis, IN. For more information, see: <http://www.indy-engineer.net/>

## Indy Robot Racing Team

By: Joy Fischer

BlueFisch Communications



The Indy Robot Racing Team will enter a Jeep Rubicon, nicknamed [IRV \(Indiana's Robotic Vehicle\)](#), in the DARPA Grand Challenge

Stealth aircraft. Unmanned aerial vehicles. The Internet. All of these modern day technological advancements were made possible through research programs sponsored, in part, by the Defense Advanced Research Projects Agency (DARPA). It's quite possible the next mode of transportation, the autonomous vehicle, will be developed right here in Indiana and will join the impressive list of DARPA sponsored programs that have changed the lives of millions. The DARPA Grand Challenge is the result of a mandate by Congress and the Department of Defense (DoD) that by 2015, one-third of all operational ground combat vehicles of the armed forces must be unmanned. The first DARPA Grand Challenge took place in March 2004. Fifteen vehicles entered the race and attempted to traverse the 142-mile course through the Mojave Desert. No team successfully completed the race.

On January 25, [IndyRobotics, LLC](#), parent company of the Indy Robot Racing Team, officially announced their entry in the [DARPA Grand Challenge 2005](#). The competition is open to individuals and organizations who will compete in a 175-mile field test across the Mojave Desert in an effort to develop the world's first autonomous ground vehicle. In October 2005, Grand Challenge teams will once again compete in the Mojave Desert. The first team to finish the course, in the 10-hour time limit, will receive a \$2 million prize. Race coordinates will be given to the teams approximately two hours prior to the event. At no time during the event will teams be allowed to communicate with their vehicles.

In announcing the Indy Robot Racing Team's entry in the race, team leader Scott Jones stated, "The race is more than just the prize money. It's an opportunity to create intellectual property that could lead to the development of high-tech companies in Indiana."

The Indy Robot Racing Team is comprised of engineers, including members of IEEE, software developers, project managers and marketing professionals. For additional information on Indy Robot Racing, or to volunteer for the 2005 Grand Challenge, please visit their Web site at: [www.indyrobotracing.com](http://www.indyrobotracing.com).

*SECTION MEETINGS*

| Date            | Host             | Subject  | Location                               |
|-----------------|------------------|--|--|
| Feb., 8 -6pm    | PES/IAS          | DTE Energy Technologies (iPower) and XADS (Xtreme Alternative Defense Systems)   | 4640 MLK Blvd.<br>Anderson, IN         |
| Feb 17          | PMICIC           | Project Controls and Their Use in Predicting, Measuring, and Facilitating Project Success<br>Five Seasons Country Club, 1300 E 96th St | Indianapolis                           |
| Feb., 24 -6pm   | CIS              | Ex-Com   | IUPUI, ET-209                          |
| Mar., 3 -6:45pm | CIECN            | Sales Techniques for the Non-Sales Professional<br>Scott Willis, Creative Performance Solutions  | IUPUI<br>NU auditorium                 |
| Mar. 7 -6pm     | Computer Society | Dot Net Nuke for Web Site Development<br>Speaker: Tim Sherrill   | Pike Twp Library<br>6525 Zionsville Rd |
| Mar. 24 -6pm    | CIS              | Ex-Com   | IUPUI, ET-209                          |
| Mar 31, 11:30am | Rose Hulman      | Meg Storrow of Storrow-Kinsella Associates on Green Engineering  | Kahn Room,<br>Rose Hulman              |
| April 1, 7:00pm | Rose Hulman      | Prof. Guangxi Zhu of Huazhong University of Science and Technology on Research and Development in Remote Education Systems             | M137<br>Rose Hulman                    |
| Sat., April 17  | Rose Hulman      | Fundamentals of Engineering Examination  | TBD                                    |
| Oct 7.          | PMICIC           | 3rd Annual PMI Central Indiana Chapter Professional Development Day<br>UAW/Rolls Royce training center                                 | Indianapolis                           |

 Check the [Section web page](#) for current information. .

Shaded sections are non-IEEE events in Central Indiana.

**IEEE CIS Executive Operating Committee (Ex-Com):** Executive committee meetings are open to everyone and regularly scheduled for the fourth Thursday of the month at 6 pm in ET 209 on the IUPUI campus. Pizza is usually provided, so if you plan to attend please let the chairperson know.

Distribution: The Reporter is distributed to approximately 1700 IEEE members within the Central Indiana Section including student members and faculty of Purdue, IUPUI, and Rose-Hulman. The Reporter may be selectively distributed to non-members when it serves the aims of the Section. Examples include public, industrial, and school libraries, and other engineering societies and professional organizations. Inquiries for complimentary subscriptions should be made to the Editor.

# THE REPORTER

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