

# THE REPORTER

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

## Awards Nominations Sought

CIS-IEEE awards committee request your help in nominating an "Engineer of the Year" and a "Member of the Year". The Engineer of the Year award is weighed towards technical contributions, where as the Member of the Year award is weighed towards services to the local IEEE chapter. See page 4 for more details.



**IEEE**  
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the World™*

## EX-COM Meeting Sept 22, 2005 CIS Executive Committee

The IEEE CIS Executive Operating Committee meetings are held 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.

## Catching a souvenir!



Susan Eldridge snags a ball off of the bat of the Indiana's pitcher, Vladimir Nunez, in the 3rd inning during CIS-IEEE's "Picnic at Victory Field" on Sunday, August 21. The ball hit the wall behind the IEEE seats and Susan caught it on the rebound. The Indians went on to win 5 to 4. More picnic pictures on page 3.

**Central Indiana Section Active Volunteers**

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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
<b>Editorial Policy:</b> Each issue of The Reporter references three months - the month in which it is published and the following two months. The Reporter is not published in June, July, and August because there are generally fewer 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 Editor 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.	

**4th ANNUAL "PICNIC WITH THE INDIANS" SUNDAY AUGUST 21, 2005**  
**Indianapolis Indiana vs the Scranton Red Barons (Philadelphia Phillies)**



The engineering hats and computers were thrown aside for an afternoon of fun and socializing as the CIS-IEEE hosted the 4<sup>th</sup> annual "Picnic at Victory Field" on Sunday, August 21. Families and their guests enjoyed a buffet of hamburgers, hot dogs, BBQ Chicken sandwiches, Pasta Salad, Baked Beans, Pepsi and Beer and then watch the Indianapolis Indians beat the Scranton Red Barons (Philadelphia Phillies).



Victory Field is recognized as one of the best minor league ballpark in America by Baseball America and Sports Illustrated magazines. Victory Field serves as home of the Indianapolis Indians, a Triple-A affiliate of the Pittsburgh Pirates. The ballpark is also the home of the annual City, County, and High School State Baseball Championships. With 12,500 permanent stadium seats, a 1,000-seat bleacher, and room for approximately 2,000 fans in the lawn, the ballpark can comfortably accommodate crowds of over 15,500



Inning	1	2	3	4	5	6	7	8	9	R	H	E
Scranton/WB	0	0	3	0	0	1	0	0	0	4	10	1
Indianapolis	0	0	0	0	0	1	1	2	1	5	12	2

In the ninth inning, Indianapolis loaded the bases on singles by Ty Wigginton and Graham Koonce and a walk to Jon Nunnally. De Caster, who drove in four runs, clinched Indianapolis' fifth straight victory by driving in the winning run for an exciting victory. What a great way to end the event.

## Nominations Sought for Engineer of the Year and Member of the Year Awards

The newly formed awards committee for the Central Indiana Section of IEEE seeks nominations for the annual "Engineer of the Year" and "Member of the Year" awards. Nominations are to be submitted to the CIS-IEEE Awards Committee at the address below (postal or e-mail). Format of nomination is open but limited to no more than four (4) typed pages (.doc, .txt, .pdf, etc) and no smaller than number ten (10) font. Nominations must include both the IEEE member numbers of the nominator and the nominee (self nominations are permissible).

Engineer of the Year evaluation criteria includes importance of technical contributions (50%); patents, designs, papers, & technical presentations (10%); years of technical distinction, responsible charge (10%); service to the Institute (10%); service to the engineering profession in professional organizations other than IEEE (5%) and recognition through awards (5%).

Member of the Year evaluation criteria includes service contributions to IEEE, including offices held (40%); significant IEEE activities (30%); non-IEEE activities (20%) and service to society, including civic organizations & charities (10%).

Lifetime achievement will be considered but emphasis will be on accomplishments within the year, (approximately October of year prior through September of the award year). Nominations should address these items in as much detail as possible within total pages limitation. Awards are open to all individuals holding full IEEE memberships (excluding student memberships) and located in the Central Indiana Section.

**All nominations are due by September 30, 2005.** Award winners will be notified by November 1, 2005 and awards presented at the CIS-IEEE Annual Awards Banquet on Thursday November 17, 2005. Winners will receive two complementary banquet tickets, a plaque inscribed with the winners name, coverage in the Reporter newsletter and on the CIS-IEEE website and of course, the respect and admiration of your fellow IEEE members. Award winners will also be nominated by CIS-IEEE (nominations can be updated in the interim) for the corresponding IEEE Region IV "Outstanding Engineer Award" and "Outstanding Member Award" where nominations close the following March (identical evaluation criteria are used for these awards).

Thomas N. Bishop, PE  
tnbishop@ieee.org  
Awards Committee Chairman

Mail nominations to:  
CIS-IEEE Awards Committee  
c/o: Thomas N. Bishop, PE  
Fountaintown, IN 46130-9545

email nominations to:  
awards2003@cis-ieee.org

### Signal Processing Society (Indianapolis)

[Dr. Wei Wang](#) is the chairman for the newly formed Signal Processing Society in Indianapolis. This second section will work in conjunction with Signal Processing Society in West Lafayette but focus its meetings in Indianapolis. Wei is a professing in the Department of Electrical and Computer Engineering at IUPUI.



Look for up-coming meeting announcements on the CIS-IEEE website.

.Wei Wang ww3@iupui.edu

### Engineering in Medicine & Biology Society

[Dr. Jake Chen](#) is the new chairman of the Engineering in Medicine and Biology Society. Jake is an Assistant Professor of Informatics at IUPUI. Jake is taking over for Dr. Ed Berbari, Professor and Chairman of Biomedical Engineering at IUPUI. We'd like to thank Ed for all his hard work as chairman. Look for up-coming meeting announcements on the CIS-IEEE website.



Jake Chen jakechen@iupui.edu

## CIS-IEEE Cosponsors Software Quality Conference with IQAA

*Carries the Theme of Better Software Through Collaborative Development*

CIS-IEEE is pleased to co-sponsor with the **Indianapolis Quality Assurance Association (IQAA)** a one day Quality Enrichment Conference on Friday October,7 with a theme of ***Better Software Through Collaborative Development***. The event will feature separate presentation tracks for software development and testing / Quality Assurance and will be accompanied by a vendor expo as well. To be held at the Legacy Fund Learning Center at 515 East Main in Carmel, the conference costs \$110 per attendee, which includes continental breakfast and lunch. Full details and online registration are provided at <http://www.iqaa.org>.

With an emphasis on the emerging **Agile** development tendencies within the Information Technology (IT) community, the conference features keynote speakers with leadership presence and published works in agile and collaborative projects.

Three keynotes will be showcased:

- **Mr. Brian Marick** will speak on ***Tear Down That Wall: Testing and Programming in 2010***, describing the emerging trend of overlapping roles for testers and developers. Mr. Marick is one of the authors of the *Manifesto for Agile Software Development*, a past chair of the *Agile Alliance*, and an editor for *Better Software Magazine*.
- **Mr. Jonathan Kohl** will present ***Good Ideas Come in Groups***, relating his personal experiences of effective collaboration on software development. An independent software testing consultant from Calgary, Alberta, Mr. Kohl shares his testing experiences on his weblog on Collaborative Software Testing, <http://www.kohl.ca/blog/>.
- **Mr. Matthew Heusser** blends the serious with the fanciful through his talk on ***Magic Pixie Dust***, a presentation both technical and inspirational, as he discusses ways to motivate and empower your team to create the breakthrough solutions needed for a successful project. Mr. Heusser's published works include articles in *Software Test Performance Magazine*, *Better Software Magazine*, and *AngyCoder*. He is also moderator of the Yahoo discussion group SW-IMPROVE.

Of special interest to IEEE members is **Mr. David Holscher's** developer track presentation on ***Continuous Integration***. He will describe how it is used with Java Foundation Classes / Swing technology to build and evolve an application for **advanced vehicle electronics systems**. Mr. Holscher has designed and developed systems for **International Truck and Engine** for more than ten years, and has published papers for the **Society of Automotive Engineers (SAE)** on customizing and servicing vehicle electronics systems.

Other speakers will cover topics such as *Project Quality Assurance*, *Acceptance Test Automation in a Web/Java/C# Environment*, *Security Testing with Open Source Tools*, and more.

The other cosponsor and originator of the conference is the **Indianapolis Quality Assurance Association (IQAA)**, a not-for-profit organization affiliated with the national **Quality Assurance Institute**. IQAA has a membership of about three hundred individuals all in the Indianapolis area, representing more than twenty-five area corporations and development organizations. Membership is currently free upon online registration via their website.

A full description of the speakers and their topics, as well as the Conference Agenda and instructions on how to join IQAA, can be found at the organization's website, <http://www.iqaa.org/>.

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

presents  
**A TOUR OF THE  
 MIDWEST INDEPENDENT SYSTEM  
 OPERATOR (MISO)**



**TUESDAY, SEPTEMBER 20, 2005  
 5:30 ~ 6:30 PM Carmel, IN**

Please join the PES/IAS as we tour the headquarters of MISO on Tuesday, September 20. Because of the size of their viewing area, we will be limited to 30 attendees. If there is enough interest, a second tour may be added. Due to strict Federal Security Requirements, all attendees must register and be cleared for the tour. We will need to have reservations in by Monday, September 12 in order for MISO to clear the list of name. Some of our limitations are:

1. No one may attend who is employed in energy commodity trading.
2. We will need to list our field of employment.
3. We will need to supply our employer's name.
4. We will not be allowed to take photographs or use a video recorder.
5. We will need to follow all instructions and direction from MISO at our tour.
6. Each attendee will need to show a photo I.D. (drivers license) for admission.

Please visit <http://www.cis-ieee.org/pes/event.asp?eventid=miso> for more information and to register, or contact Dick Hildreth at 765-648-6589 or e-mail at <mailto:dhildreth@cityofanderson.com>.

\* \* \*

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

Co- Chairmen: John Kassebaum and William Kassebaum

The Central Indiana Engineering Consultants' Network is an affiliate of the Alliance of IEEE Engineering Consultant Networks and is sponsored by the Central Indiana Section of the Institute of Electrical and Electronics Engineers (IEEE). Formed in May/June 2004, CIECN provides a forum for Indiana Engineering Consultants to share information about their specialties and business practices. The next meeting will be held on Thursday October 6, 2005. See <http://www.indy-engineer.net/> for time and location.

**Past Meeting**

August	Speaker: Cris Halter - Personal Financial Planning
July	Speaker: Stan Trout - Nearly Painless Sales & Marketing for Technical Consultants
June	Roundtable discussion and workshop on standard contract terms.

## The Indy Robot Racing Team

By: Joy Fischer



In just a few short weeks, the Indy Robot Racing Team, and their **autonomous** vehicle "IRV" (Indiana's Robotic Vehicle), will be transplanted to the Mojave Desert as competition begins for the [2005 DARPA Grand Challenge](#). The challenge is a 175-mile race across the Mojave Desert through tough terrain and searing heat. The event is part of a Department of Defense initiative to fund research into autonomous technology that will one day help save American lives on the battlefield.

The Indy Robot Racing Team is a volunteer group of Hoosiers founded by Scott Jones and Doug Traster. The members work in distributed teams to develop the technology required for the DARPA Grand Challenge. While the team's short-term goal is to perform well at the Grand Challenge, the Indy Robot Racing Team hopes its success will create a greater focus on Indiana's talented engineering and robotics community and position the state for greater high-tech industry growth.

Indiana's Robotic Vehicle sits on a 2004 Jeep Rubicon platform. It is specifically designed for off-road driving. It is equipped with a drive-by-wire (DBW) system used to enable mobility for the physically handicapped. The DBW and its associated vehicle control system (VCS) provide triple redundancy for steering and two level of backup for brake and throttle release.

"The first obstacle we faced was to determine how to enable IRV to drive itself," stated Doug Traster, co-team leader of the Indy Robot Racing Team. "Through a partnership with the [Ahnafield Corporation](#), we utilized existing technology, already available in the marketplace, that helps the handicap community. By attaching the Drive-by-Wire electro-servo-motors to the steering, gearshift, and gas and brake pedals, IRV can literally drive itself."

Nearly forty laptop computers serve as the "brains" for IRV. The computer array processes the sensor data and uses artificial intelligence to make decisions that control the speed and heading to keep IRV at an optimal speed while safely avoiding obstacles in its path. Three Differential Global Positioning System (DGPS) units provide positional information. The design, and placement of the units, helps assure fail-over integrity and identify GPS error sources. A series of LIDARs, cameras and scanning radar are attached to an instrument platform on the front of the vehicle. The sensing equipment helps detect terrain contours and obstacles. A stabilized platform keeps the sensors tracking straight and compensates for IRV's pitch and roll.

## The Indy Robot Racing Team, continued

Each of the four cameras perform a unique function: color feature detection, water detection, road finding and localization aiding using optical flow for detecting IRV's speed and orientation. To test the vehicle's performance, the team built an obstacle course in a cornfield in Carmel. The testing course is equipped with a route path that is similar to desert terrain. The course includes several boulders, a tunnel section (shielded to block GPS), two cars, two tank traps, dirt moguls, imitation concrete barriers, berms and a cattle guard.

Recently IRV ran a 105-mile endurance test in less than 6 hours. "We've basically built a course in Carmel that simulates the terrain and obstacles we expect to face in the Mojave," stated Traster. "Like the Wright brothers some 100 years ago, we're building, and testing, the next generation of automobile technology in a cornfield right here in Indiana," concluded Traster.

To learn more about the Indy Robot Racing Team, and to track their progress on-line, you can visit their Website at: <http://www.indyrobotracing.com/>.

[editor's note: Lots of interesting videos at [indyrobotracing.com](http://www.indyrobotracing.com/).]

\* \* \*

### D.L.S. expands Military & RTCA Capabilities to include Lightning Induced Transient Susceptibility

D.L.S. Electronic Systems Inc. of Wheeling, IL now offers complete cable testing for RTCA DO-160 E, Section 22 Multiple Burst/Multiple Stroke Lightning Induced Transient Susceptibility for all wave forms. For more information go to [www.dlsemc.com/lightning.htm](http://www.dlsemc.com/lightning.htm) or contact Jack Black at [jblack@dlsemc.com](mailto:jblack@dlsemc.com) or 847-537-6400.



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**IEEE Presidents' Scholarship to be Awarded**  
at the  
**2006 Intel International Science and Engineering Fair**  
in Indianapolis, May 7-13, 2006



The Intel International Science and Engineering Fair is coming to Indianapolis. The Central Indiana Section will provide judges to select the 2006 Presidents' Scholarship winner for the Indianapolis ISEF. The IEEE Presidents' Scholarship Fund supports the largest pre-university scholarship offered by the IEEE. The IEEE Presidents' Scholarship recognizes a deserving student for an outstanding project that demonstrates an understanding of electrical engineering, electronics engineering, computer science, or other IEEE fields of interest. The scholarship is presented during the annual Intel International Science and Engineering Fair (ISEF). Administered by IEEE Educational Activities, with assistance from IEEE volunteers who serve as the judges during the ISEF, this scholarship includes US\$10,000 payable over four years, complimentary IEEE Student and Student Society memberships, a framed certificate, and an engraved plaque.

The Intel ISEF is the world's largest pre-college science competition and the world's only science project competition for students in the ninth through twelfth grades. The Intel ISEF brings together students, teachers, corporate executives, and government officials from around the world. Students compete for over \$3 million in scholarships, tuition grants, scientific equipment, and scientific trips.



Since 1950, ISEF has played a key role in bringing young people together and generating interest in the sciences. The competition will attract 1,500 top science and technology high school students representing the 50 U.S. states and 40 global countries. Visiting Indianapolis for the first time with the students will be their science advisors and parents. The event will also attract 1,200 expert judges and a panel of Nobel Laureates, building an attendance of 5,000 enthusiasts for celebrating the recent discoveries of tomorrow's youthful leaders.

Brad Snodgrass will serve as the Lead Judge for the IEEE Presidents' Scholarship presentation for the Indianapolis fair. The judging process will require 15-20 volunteer judges from CIS who can commit up to two days to the competition. Anyone interested in judging should contact Brad by email at <mailto:bsnodgrass@prodigy.net>. In preparation for next years judging, Brad was invited to participate in the 2005 ISEF in Phoenix, Arizona. "The quality of projects and the enthusiasm of the Finalists is something I will always remember. The Fair is extremely well run and organized and was one of the most incredible presentations I have ever seen. This was an extremely uplifting experience and one that I look forward to again next year in Indianapolis."



Astronaut Sally Ride, the first American woman in space, challenged students to "dream big" during opening ceremonies of Intel ISEF 2005

2006 Intel International Science and Engineering Fair, continued

### 2005 IEEE President's Scholarship Camera Stabilization: Take 2



Adam Daniel Sidman's "Camera Stabilization: Take 2" project was awarded the 2005 IEEE Presidents' Scholarship at the 56th Intel International Science and Engineering Fair, held 8 to 14 May in Phoenix. The 17-year-old, soon to enter his senior year at Palmer High School in Colorado Springs, Colo., has been involved in filmmaking and engineering since the sixth grade, so perhaps it was only natural that his project merged his favorite disciplines. Sidman uses his device to shoot his own videos. He has worked on two feature films and has produced approximately 25 commercials and dozens of short films, documentaries, and TV installments.

Sidman's patent-pending device stabilizes a motion picture camera about two axes using Analog Devices' MEMS (microelectrical mechanical system) rate gyroscopes. The gyros are mounted to a gimbaled camera rig to measure the angular rate of each axis. The gyro signals are amplified to drive corresponding servo motors coupled to the camera's rotational axes in the opposite direction of sensed rotation.

Sidman says his device is more compact, lightweight, and maneuverable than others on the market, eliminating the need for a body brace to help carry the camera. Visual tests have confirmed the effectiveness of the device, he says.

He has spent 700 hours to develop his invention, and he is working on improvements. He is readying a three-axis design and is trying to reduce power consumption by using speed-reduced motors to create a battery-powered handheld device.

He is waiting for his patent application to be granted before he begins marketing his product. He says his device could be manufactured at a fraction of the cost of similar products already on the market because it could be built with relatively inexpensive parts, such as the MEMS gyro sensors.

Please contact Brad Snodgrass by email at [bsnodgrass@prodigy.net](mailto:bsnodgrass@prodigy.net) for more information on being a judge at the 2006 ISEF in Indianapolis.

This article contains excerpts from the July 2005 "The Institute" (<http://boldfish.ieee.org/u/469/80181473>) and information taken from the Indianapolis ISEF, (<http://www.intelisef2006.org/>), Science Services, (<http://www.sciserv.org./isef/>) and Intel (<http://www.intel.com/education/isef/index.htm>) web sites.

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## Eliminate the Guesswork!

- \*Gain knowledge in all EMC design aspects.
- \*Put what you learn to immediate use.



Don Sweeney & Roger Swanberg  
leading a workshop

**To register call Carol at  
847-537-6400 or email her  
at [cgorowski@dlsemc.com](mailto:cgorowski@dlsemc.com).  
For more information click  
on [www.dlsemc.com](http://www.dlsemc.com).**

Tired of taking classes that don't give you real world application and hands-on opportunities to use what you learn?

Here's what students have said about DLS's new EMC seminar/workshop:

"Best program I've seen. Software provided is worth the price of the seminar." Scott D.  
"This course would be helpful for any design engineer". Shane S.  
"Good information, presented well, extremely relevant." Bryan P.  
"It satisfied my requirements - practical application & problem solving." Jack R.

This seminar/workshop is taught by EMC engineers with 75 years combined experience in real world engineering. Spend three days learning EMC requirements and design techniques and a fourth day designing a real life product. Take home the computer program designed by the instructors. As an added extra value with no additional charge, apply what you have learned in an optional 45-minute design review of your own product following the workshop.

EMC Practical Applications  
Seminar/Workshop  
Northbrook, Illinois  
October 20-21 & 24-25, 2005



## New Proprietary Computer Programs to Solve the Most Complex EMC Issues

As part of the curriculum in Donald Sweeney and Roger Swanberg's new EMC Practical Applications Seminar/Workshop students will use, and then take home, a copy of the computer program designed by the instructors. It addresses design considerations from component level, through circuit boards, to enclosure level. The seminar/workshop is presented in a practical, hands-on style providing the step-by-step design process to avoid EMC problems. Attendees can then put their acquired knowledge to immediate use in an optional free 45-minute design evaluation of their own product. To register call Carol at 847-537-6400 or email her at [cgorowski@dlsemc.com](mailto:cgorowski@dlsemc.com). For more information visit <http://www.dlsemc.com>.

EMC Practical Applications Seminar/Workshop, October 20-21 and 24-25, 2005, Hilton Hotel, Northbrook, IL

\* \* \*

## CIS-IEEE Annual Awards Banquet on November 17, 2005

Put the date on your calendar. The annual CIS-IEEE Annual Awards Banquet will be held on Thursday 17 November, 2005.

\* \* \*

## Don't forget to Vote!

The IEEE 2005 Annual Election and IEEE-USA Election Ballots have been sent out. Ballots are due by 12:00 noon CST on November 1<sup>st</sup>. You can submit a paper ballot or vote online at <https://www.directvolt.net/ieee>.

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.

## *Meeting Calendar*

Date	Host	Subject	Location
9/7-9/11	CEDIA	<a href="#">Custom Electronics Design and Installation Association Trade Show (Home Automation)</a>	Indy Convention Ctr
9/15, 6-8pm	IQAA	<a href="#">Discussion Panel on Computer Systems Validation in Regulated Environments</a>	Anthem Insurance Building
9/16 8am-4pm	PMI CIC	<a href="#">Practical Project Management, a Focus on Results</a>	Embassy Suites
9/20 5:30-6:30pm	CIS IEEE	<a href="#">Tour - Midwest Independent System Operator (MISO)</a>	Carmel, IN
9/21	Techpoint	<a href="#">Open Source Software For Business Peer Group</a>	OfficeScape - Indy
9/22 6:00pm	CIS IEEE	▽ Executive Committee Meeting	IUPUI ET-209
9/27 - 10/6	DARPA	<a href="#">2005 Grand Challenge, Qualifiers</a>	Mojave Desert
9/30	CIS IEEE	Deadline for Nominations <a href="#">CIS-IEEE</a> Engineer of the Year and Member of the Year Awards	
10/6 6:00pm	CIECN	▽ <a href="#">Central Indiana Engineering Consultants Network</a>	to be determined
10/7	IQAA	<a href="#">IQAA Quality Enrichment Conference</a>	Legacy Fund Cmty Life & Learning Ctr, Carmel, IN
10/7 8:30-4:30pm	PMI CIC	<a href="#">3rd Annual Professional Devlpment Day &amp; Vendor Fair</a>	UAW / Rolls Royce training center
10/8	DARPA	<a href="#">2005 Grand Challenge Event</a>	Mojave Desert
10/12 8am-5pm	INTECH	<a href="#">Voice &amp; Data Network Technology Concepts Workshop</a>	INTECH Park 1
10/20-21 10/24-25	DLS	<a href="#">EMC Practical Applications Seminar/Workshop</a>	Northbrook, Illinois
October 24-26	<a href="#">EIC / EME</a>	<a href="#">Magnetics 2005: Advancement in Magnetic Applications, Technology &amp; Materials &amp; Electrical Insulation Conference/ Electrical Manufacturing Expo</a>	Indianapolis Convention Ctr & Marriott Downtown
11/1 7:30-4:30pm	INTECH	<a href="#">Indiana Technology Summit 8</a>	Indiana Convention Ctr
11/1 12:00 CST	IEEE	2005 Election Deadline	Worldwide
11/9	IHETS	<a href="#">2005 IHETS Tech Summit</a> Indiana Higher Education Telecommunication System	IUPUI
11/17 Thursday	CIS-IEEE	<a href="#">CIS-IEEE Annual Awards Banquet</a>	
May 7-13, 2006	Intel	<a href="#">Intel International Science and Engineering Fair</a>	Indianapolis, IN
Nov 16	Ball State	<a href="#">Vision 2006 Tech Summit</a>	Muncie, IN

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

▽ - indicates a reoccurring monthly meeting.

### Weekly

[Scientech](#) - Every Monday except major holidays at the Children's Museum, 12 noon, Lunch at 11:30am.

### Monthly

ExCOM

[IEEE Executive Committee](#)

CIECN

[Central Indiana Engineering Consultants Network](#)

PIMCIC

[Project Management Institute - Central Indiana Chapter](#)

# THE REPORTER

CIS-IEEE

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