

ISPE 75th ANNUAL CONFERENCE PROGRAM

June 29 - 30, 2012









Indianapolis Marriott North Hotel

3645 River Crossing Parkway Indianapolis, IN 46240 (317) 705-0000 (317) 819-1099 fax



WELCOME TO THE ISPE 2012 CONFERENCE

On behalf of the Board of Directors of the Indiana Society of Professional Engineers, I welcome members, guests, students and spouses to the 75th Annual Meeting. Once again, we meet in Indianapolis and the programming reflects both the diversity of the profession of engineering and our concentration on professionalism. We are also pleased to announce that **Michael Hardy**, P.E., F.NSPE, NSPE President, will be joining us.

Brad Bowen P.E., President, ISPE

INVITATION

Indianapolis, the Capital City of Indiana, home of world class educational and cultural attractions, the business center of the state, is instantly recognizable to sports fans everywhere as the Amateur Sports Capital of the United States. The city, known for the largest motor racing events in four different racing areas and home to professional teams in basketball, football, baseball and hockey, again is our host for the ISPE State Convention. The Hilton Indianapolis North Hotel provides a professional venue with a very personal touch.

LOCATION

The 75th Annual ISPE Conference will be held at the Indianapolis Marriott North. Located near the Keystone at the Crossing Center, guests may take advantage of the hotel's free on-site parking and visit nearby upscale shopping, unique boutiques, and fine dining all within walking distance from their rooms. If you don't mind traveling a few minutes, guests may enjoy visiting the Eiteljorg Museum, Indianapolis Children's Museum, Indianapolis Zoo, or the beautiful downtown canal. If ISPE guests would like assistance finding an activity that will best suit your family, we encourage guests to utilize the hotel's concierge, or visit: www.aroundindy.com

If you are looking for a relaxing getaway with your family, a weekend at the Indianapolis Marriott North and the ISPE Conference would be a perfect time.



ACCOMODATIONS

The Indianapolis Marriott North is conveniently located on the North side of Indianapolis, off I-465 and the Keystone exit, at 3645 River Crossing Parkway, Indianapolis, Indiana. On-Site amenities of the hotel include the following:

- Indoor Swimming Pool
- Outdoor Biking/Walking Trail
- Fitness Center
- Restaurant / Room Service
- Gift Shop



Reserve your room(s) on or before June 11, 2012, by contacting the Indianapolis Marriott North at (317) 705-0000. Make sure to tell them you are attending the ISPE conference. The <u>ISPE rate is</u> \$119, before taxes. The Indianapolis Marriott North is a smoke-free facility. Business casual dress is recommended except for Friday's evening Award Banquet. Business Standard applies. Any questions about the conference or functions, contact Laurie Howe at ISPE at indspe@gmail.com.

CONTINUING EDUCATION

Each seminar that you attend will entitle you to earn Professional Development Hour(s) (PDH's) that are recognized and approved by the Indiana State Board of Registration of Professional Engineers. ISPE is an "Approved organization" as defined by IC 25-1-4 that offers continuing education courses recognized by the Indiana State Board of Registration. Up to fifteen (15) hours of continuing education may be carried over as follows:

- (1) Continuing education obtained after the effective date of this rule and before August 1, 2010, may be carried over to the August 1, 2010, to July 31, 2012, biennium.
- (2) Continuing education obtained during a biennium beyond what is required for that biennium may be carried over to the next biennium.

Even if you will be able to meet this year's Continuing Education requirements, any hours that you earn at this year's conference may be carried over and applied to your next renewal. Therefore, there is no reason to miss out on this year's conference! Not only will ISPE celebrate the 75th anniversary of our organization, but it will be the first ISPE conference with multi-track sessions. We are excited that ISPE conference attendees will be able to select the session that best suits his/her profession and interest. There isn't a better year to attend, and no reason why you shouldn't attend.

JUNE 29th, 2012

MARK YOUR CALENDAR!!



ISPE 75th Annual Conference Schedule of Events General Outline

Friday, June 29th, 2012

| 7:00 a.m 7:55 a.m. | Registration & Continental Breakfast | |
|---------------------|---|---------|
| 7:55 a.m 8:00 a.m. | ISPE Welcoming Comments (Whitcomb Ballroom) | |
| 8:00 a.m 8:50 a.m. | General Session w/Chris Stone, PE, F.NSPE, F,ASCE, LEED® AP <i>Industrial Exemption & Professional Licensure</i> (Whitcomb Ballroom) | (1 PDH) |
| 9:00 a.m 11:50 p.m. | Breakout Sessions - Track 'A' or Track 'B' See Track Schedules for Session Information | (3 PDH) |
| 11:50 p.m 1:00 p.m. | Lunch (Whitcomb Ballroom) | |
| 1:10 p.m 2:00 a.m. | General Session w/Vince P Drnevich, Ph. D, PE, F. NSPE <i>Professionalism & Ethics in the Practice of Professional Engineering</i> (Whitcomb Ballroom) | (1 PDH) |
| 2:10 p.m 5:00 p.m. | Breakout Sessions - Track 'A' or Track 'B' See Track Schedules for Session Information | (3 PDH) |
| 5:00 p.m 6:00 p.m. | Reception w/ Cash Bar | |
| 6:00 p.m 9:00 p.m. | Awards Banquet Newly Licensed PE Certificates & ISPE Officer Installation Ceremony (Whitcomb Ballroom) | |

Saturday, June 30th, 2012

9:00 a.m. - 12:00 p.m. 2012 ISPE Annual Meeting of the Members

Breakout Sessions:

Attendees may select the Breakout Session of their choice, during the "Breakout Session" time slots outlined above. Please refer to the Track Schedule for the various Breakout Session topics.



ISPE 75th Annual Conference Breakout Sessions

| | General Session | Track A | Track B | |
|----------------------|--|---|---|--|
| Time | Whitcomb Ballroom | room to be determined | room to be determined | |
| 11110 | All Registrants | Registrant session choice (eit | ther Track A or Track B,) | |
| | Attendees will receive | e 1 (one) PDH for each 50 minute Session | listed below | |
| 8:00 am to 8:50 am | Industrial Exemption & Professional Engineer Licensure | | | |
| | NSPE President | | | |
| 9:00 am to 9:50 am | | Fire Protection / Building Codes - 1st Session | Concrete Overlays Best Practices | |
| 10:00 am to 10:50 am | | Fire Protection / Building Codes - 2nd Session | SiteOps: Rapid Site Design | |
| 11:00 am to 11:50 am | | Energy Management - In the Lab | Vacuum Sewer Design | |
| 11:50 am to 1:00 pm | LUNCH | | | |
| 1:10 pm to 2:00 pm | Professionalism & Ethics in the Practice of Professional Engineers | | | |
| 2:10 pm to 3:00 pm | | Energy Master Plan Process | NEPA: Basic Understanding for Project Managers | |
| 3:10 pm to 4:00 pm | | Arc Flash 101 | Slag: Indiana's Other Aggregate Source | |
| 4:10 pm to 5:00 pm | | Masonry 101 | Jeopardy: Indiana Public Bidding | |
| 5:00 pm to 6:00 pm | Reception (Cash Bar) | | | |
| 6:00 pm to 9:00 pm | BANQUET | | | |

Speaker & Sponsor Information

Registrants will receive a Conference Program when they register/check-in at the registration table. The Program will include Speaker Bio's and Contact information, and summary of their presentation.

The Conference Program will also acknowledge the ISPE Conference Sponsors, provide contact information for Booth Exhibitors, and other information of interest to conference attendees. Please be sure to say "Thank You" to all of our Sponsors and Booth Exhibitors, and be sure to support their business when the ISPE Conference is over! ISPE is grateful for their support of the state's only society dedicated to Professional Engineering Licensure!



General Sessions

8:00 am - 8:50 am General Session - Whitcomb Ballroom

Industrial Exemptions & Professional Engineer Licensure

Presenter: General Session w/Christopher M. Stone, PE, F.NSPE, F.ASCE, LEED® AP President of the National Society of Professional Engineers (NSPE).

Session will cover:

In several states, Engineers working in industry and performing Engineering Designs are exempt from licensure requirements. Of the states that offer Industrial Exemptions, many do not require or enforce licensure requirements for Engineers who are consultants to those industries, rather than employees. The Industrial Exemption is a major reason why roughly 20% of Engineers go onto to become licensed engineers after obtaining their degree.

Mr. Stone will cover the history of the Industrial Exemption and the significance to the profession of engineering, the differences in licensure across the 54 States and jurisdictions, issues with comity both nationally and internationally, impacts from the NCEES 2020 Model Law, and continuing education units. Additionally, Mr. Stone will discuss the history and mission of NSPE and its role to play in all of these topics.

8:00 am - 11:50 am
See "Morning Breakout Sessions" page

1:10 pm - 2:00 pm General Session - Whitcomb Ballroom

Professionalism and Ethics in the Practice of Professional Engineering

Presenter: Vincent P. Drnevich, Ph.D., PE, F. NSPE

Member, Indiana State Board of Registration for Professional Engineers and ISPE Past President

Session will cover:

- Codes of Ethics and the roles they play
- Indiana Statutes and Rules associated with professional conduct in engineering practice
- Systematic process for solving ethical dilemmas
- Role of professional and technical organizations in the engineering profession as it relates to ethics and professionalism

In accordance to Title 864 IAC 1.1-15-1, this session will meet the Indiana requirement for licensed engineers to obtain one (1) hour of continuing education required each biennium on the topic of "Ethics applicable to the practice of Professional Engineering". The other mandatory course topic that is required by the Indiana State Board of Professional Engineers will not be offered at this year's conference; however, if Registrants need the other required course before their license renewal, they may obtain the other mandatory topic, or other topics, online by visiting ISPE's website: www.indspe.org

<u>2:10 pm - 5:00 pm</u> See "Afternoon Breakout Sessions" page



Morning Breakout Sessions 9:00 am to 11:50 am

Breakout Sessions - Track 'A'

9:00 am - 9:50 am

Fire Protection & Building Codes - Part 1

Presenter: David Kish, PhD, PE

This 2-hour program will provide an introduction to the Indiana Building Code & NFPA 13, Standard for the Installation of Sprinkler Systems. Building code discussions will focus on use and occupancy classification, allowable building heights and areas, types of construction, fire protection systems and mean of egress. Sprinkler system topics include definitions, system components, system types and installation requirements, classification of occupancies and commodities, plans and calculations, and water supplies.

10:00 am - 10:50 am

Fire Protection & Building Codes - Part 2

Presenter: David Kish, PhD, PE

A continuation of Part 1, this hour will continue the outline provided for Part 1. Time at the end of the 2nd hour will be reserved for a discussion of the new code adoption process including the need for a fiscal impact statement.

11:00 am - 11:50 am

Energy Management in the Lab

Presenter: Luci Keazer, PE, LEED® AP

This presentation covers the criteria, strategies, several case studies, and lessons learned in reducing lab energy at Purdue University. Lessons learned contain universal principles which are broadly applicable to professional engineering.

Breakout Sessions - Track 'B'

9:00 am - 9:50 am

Concrete Overlays - Best Practices

Presenter: Mike Byres, Concrete Paving Assoc.

With rising oil prices, concrete overlays are becoming viable options for Indiana pavement rehabilitation projects. Concrete overlays minimize the cost of prepaving prep such as milling and crack repair, while also reduces the need for full-depth or partial removal of the existing pavement, which are typically major pay items that are incidental to bituminous rehabilitation projects. With the reduction in surface preparation that is typically required in order to , the concrete overlay is becoming a competitive alternative to asphalt rehabilitations.

10:00 am - 10:50 am

SiteOps: Rapid Site Design

Presenter: TBA

Learn about the latest engineering software that will allow engineers to spend more time on engineering solutions rather than drafting. SiteOps gives Engineers the tool to move roads, buildings, parking lots and other structures with the click of the mouse, and allow the software to auto-draw the site around the object that you moved, within seconds. This latest tool will give Site Engineers the ability to balance earthwork quantities, provide their clients with more alternatives and options for their projects, and answer every "what-if" scenario that arises.

**Come with the address of your current site project, and let the SiteOps presenter show you how to design your project in just minutes. Engineers, get ready to be amazed!!!

11:00 am - 11:50 am

Vacuum Sewer Design

Presenter: - Denny Moss, AirVac

Vacuum Sewer Systems provide a cost competitive alternative to gravity driven septic systems. Engineers now have more options available for septic installation when faced with flat topography, high ground water, rock excavation, or long distances, This session will cover the benefits of the vacuum sewers and explain how they work. It will also review the design requirements for the Airvac Vacuum System product.



Afternoon Breakout Sessions 2:10 pm to 5:00 pm

Breakout Sessions - Track 'A'

2:10 am - 3:00 pm

Energy Master Plan Process

Presenter: Blake E. Ellis, PE, DBIA, LEED® AP

The presentation will cover energy master planning considerations and principles for district energy systems, including industry trends, expansion plans, capacity addition, thermal energy storage, demand side management, thermal distribution improvements, combined heat and power, district energy system upgrades, equipment renewal plans, system efficiency improvements and reliability/redundancy improvements. This presentation will include energy master plan examples for O'Hare International Airport and Purdue University.

3:10 pm - 4:00 pm

Arc Flash 101

Presenter: Steve Miller, Purdue University

This course will provide a basic overview of Arc Flash: what it is, why it's important, and what engineers, architects, owners, and contractors should know about it. Additionally, this course will share some basic fundamentals of arc flash analysis and describe the process of planning and implementing an arc flash hazard identification program on a university campus. This course will also discuss considerations for arc flash mitigation.

4:10 pm - 5:00 pm

Masonry 101

Presenter: Fritz Herget, PE

This course will cover several of the most typical problems observed in masonry façade construction and how they can be avoided with proper design and workmanship.

Breakout Sessions - Track 'B'

2:10 am - 3:00 pm

NEPA: Basic Understanding for Project Managers

Presenter: Jason Hignite

As an Environmental Consultant for various types of construction programs, Jason Hignite will walk us thru the environmental permitting process and the regulations that impact our projects as Engineers and Project Managers. Requirements for Categorical Exclusions (CatEx), Environmental Assessments (EA's), Environmental Impact Statement (EIS), and how to preliminary determine which one will be required in order to provide your clients with a clear depiction of the process and what may be required for their project(s).

3:10 pm - 4:00 pm

Slag: Indiana's Other Aggregate Source

Presenter: TBA

Indiana Engineer's may not know, or forget, that there are alternate aggregate resources available within Indiana other than limestone. Several regions within Indiana offers numerous slag resources, which may also provide a cost-effective alternative for your next project.

4:10 pm - 5:00 pm

Jeopardy: Indiana Public Bidding Laws

Presenter: Deanne Ross, PE & Guest

Engineers, test your knowledge on Indiana Public Bidding Laws. Without Alex, strange personnel stories, and cash prizes, attendees will be challenged to provide answers in the form of a question! The topic will be Indiana Public Bidding Laws, with a few "surprise" answers on other Indiana Codes that Engineers should know off the top of one's head, without referring to the written Codes.

The session will also provide information on recent revisions and additions to Indiana Codes that impact Engineers involved with Public Works & Public Bidding within Indiana!

ISPE 2012 CONFERENCE REGISTRATION

Registration for Registrant

(Circle the appropriate Fees that apply, and provide Total in right column)

Full Day Registration - Friday, June 29th

Includes Breakfast & Lunch **Does NOT include Awards Banquet**

Awards Banquet ** Friday Evening, June 29th

(See Notes Below)

| | | | | | ` | , |
|-------------|--|---|---|---------------------|--------------------------------------|-------|
| | Registration | | Late Registration | Evening | Order of the Engineer Ring | |
| | If payment received between: May 1st - June 16th | If payment received by April 30 th | If payment received after June 16th | Banquet Dinner** | Ceremony** Provide Ring Size Below | Total |
| ISPE Member | \$195 | \$190 | \$200 | \$58 | \$22 | |
| Non-Member: | \$285 | \$270 | \$300 | \$58 | \$22 | |
| Student: | \$30 | \$30 | \$30 | \$58 | \$22 | |
| ** 1 | | | | | | |

**Awards Banquet:

Payment for the Banquet Dinner is required for those that wish to attend the Awards Banquet. Seating will be limited, so please reserve you and your guests dinner ASAP!!

| RING SIZE | |
|--|-----------|
| Will you participate in PE Certificate Ceremony? | YES or NO |

| | Friday Lunch (\$25) | Friday Banquet (\$58) | Total | | | |
|--|---------------------------|-----------------------------|--------------------------------|--|--|--|
| Name: | Name: | | | | | |
| Name: | | | | | | |
| Name: | | | | | | |
| Name: | | | | | | |
| *Enterprise Membership: | | SUBTOTAL: | | | | |
| If your firm has ISPE Enterprise Membership, you may take 10% off the "Grand Total". Enterprise Members taking advantage of the discount | | | ND TOTAL: s + Guest Totals) | | | |

"Grand Total". Enterprise Members taking advantage of the discount must submit their "Registration" Forms to Laurie Howe at:

indspe@gmail.com

| ı | | | Method of Payment: |
|---|------------------|----------------|--|
| | Name: | | |
| | Organization: | | Pay by Check Enclosed |
| | Mailing Address: | | Pay by Debit / Credit Card utilizing |
| | City: | State: | <u>www.paypal.com</u> option. Remit payment to the following email |
| | Phone: | ZIP: | address: |
| | Email: | ISPE Member ?: | indspe@gmail.com |
| 1 | | | |

| | Mark the Sessions that you plan to attend (Mark with "x") | | | | | | | |
|--|---|--|--|--|--|--|--|--------------|
| Session Sessio | | | | | | | | Session 8 |
| TRACK A | General | | | | | | | |
| TRACK B | Session | | | | | | | |

Save Time!! Register online!! Visit:

www.indspe.org