

## **Fostering Collaboration and Diversity by Hosting a Joint ASEE Section Conference**

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The American Society for Engineering Education (ASEE) has a fundamental vision that includes working with educational institutions and industry to improve engineering education and promote faculty development. A further vision is to facilitate productive collaborations among industry, academe, and the government. A traditional method of such pedagogical collaboration has been through the hosting of national and sectional ASEE conferences.

A customary challenge to any sectional conference is to seek a broad cross-section of diverse conference attendees. An innovative method of meeting such a challenge was achieved at Indiana University Purdue University Fort Wayne (IPFW) in the spring of 2006. IPFW hosted a single joint section conference between the Illinois-Indiana and the North Central sections of the ASEE.

Hosting a joint conference between two distinct sections raises logistical and idiosyncratic differences. For a successful conference, suitable for all attendees, each of these differences needs to be overcome or accommodated. Such variations can range from being very broad, like the process of paper reviews and the running of business meetings, to minor differences easily overlooked.

This paper addresses the challenge and success of hosting a joint section conference. The diverse aspect of characteristics and qualities of each section is examined and how the cultivation of these partners can help achieve the visions set forth by the ASEE.

### **Introduction**

The American Society for Engineering Education is committed to furthering education in engineering and engineering technology. This mission is accomplished by promoting excellence in instruction, research, public service, and practice; exercising worldwide leadership; fostering the technological education of society; and providing quality products and services to members. The Society seeks to encourage local, national, and international communication and collaboration; influence corporate and government policies and involvement; promote professional interaction and lifelong learning; utilize effectively the Society's human and other resources; recognize outstanding contributions of individuals and organizations; encourage youth to pursue studies and careers in engineering and engineering technology; and influence the recruitment and retention of young faculty and underrepresented groups. [1]

The above paragraph is the mission statement for the American Society for Engineering Education (ASEE). It further has outreaching vision to work with educational institutions and

industry to improve engineering education and promote faculty development. This can be done by facilitating productive collaborations among industry, academe, and the government.

A traditional method of such pedagogical collaboration has been through the hosting of national and sectional ASEE conferences. The national conference, held once a year in June, brings together ASEE members and non-member from across the nation to foster the vision of the ASEE. The nation is further broken down into five zones. The zones are then broken into twelve sections.

Section conferences, held once a year in the spring or fall, are used to advance the ASEE vision at the regional level. These conferences seek to bring together a broad cross-section of diverse conference attendees. This paper discusses how the vision of the ASEE was achieved at Indiana University Purdue University Fort Wayne (IPFW) in the spring of 2006. The campus hosted a single joint section conference between the Illinois-Indiana and the North Central sections of the ASEE.

### **Securing a Conference**

The College of Engineering, Technology and Computer Science (ETCS) at IPFW in a never-ending pursuit of excellence hosted a faculty and staff retreat day on April 12, 2004. The retreat generated and inspired many new ideas and directions for the College. One such idea proposed by senior faculty member was to host an ASEE section conference at IPFW.

Within a month of the retreat, the author attended his first Illinois-Indiana ASEE section conference at Illinois Central College (ICC) in East Peoria, Illinois. His attendance at the ASSE section conference was to accompany a group of students who would be presenting a poster. The annual business meeting at the conference consisted of a nice lunch, presentation by the ASEE President, election of officers, and solicitation of a location for the 2006 section conference. This call for 2006 location gave the author opportunity to volunteer IPFW to host the upcoming conference. The executive committee for the Illinois-Indiana section agreed.

Upon returning to IPFW, simple talks about the 2006 conference began. The conference was two years away so there would be plenty of time to plan. One of the first suggestions made by a senior faculty member was to invite another section to join the conference. Since Fort Wayne was located in the Northeastern corner of Indiana, the North Central section of the ASEE was close in physical proximity. The North Central section consists of Michigan just North, Ohio just East, West Virginia and portions of Pennsylvania. This seemed like a natural match between both sections and the Fort Wayne location.

The author, appointed chair for the 2006 conference, began email discussions between both section's officers. Both sections were enthused about having a single joint conference at IPFW in Fort Wayne sometime in the spring of 2006. Initial key points of the conference were framed, when the author met with the North Central officers during the national conference in Salt Lake City in 2004. Following this meeting, a joint conference was confirmed to happen in Fort Wayne.

## Planning

Even with the conference two years away, pulling together a good team for hosting the conference was very important. The core team for IPFW would consist of three individuals. They would be the conference chair, an experienced senior faculty member to handle the paper process, and another faculty member to handle the student poster session. Even though they had distinct roles, each worked on many different aspects pertaining to the conference. It should be noted that North Central appointed a co-chair for their representation but it was left to IPFW to design and run the conference.

From the beginning, the core team wanted to keep a small concise group for planning the conference. To further facilitate the needs of the core group, two additional members were added for support purposes. One was a business administrator to handle the finances and the other was an administrative assistant who knew the IPFW system thoroughly. Both of these individuals were valuable assets to the team. As conference time approached, additional employees of IPFW were used for hosting and facilitating the conference.

The core team formulated the type of conference to be hosted. Distinct goals for the conference were discussed. These goals included:

- Provide a forum for engineering and technology faculty and staff to present the results of their professional work in a profession peer-reviewed setting.
- Provide opportunities for students to present significant projects.
- Facilitate discussion between regional educational institutions.
- Recognize and encourage excellence in engineering and technology education.
- Foster the sharing of ideas about innovative educational models among ASEE members.
- Involve regional industrial partners within the conference.

A fundamental difference in the 2006 conference from its predecessors was the joint nature of the conference between two sections. The differences between the sections would raise a challenge to the core team that had been previously not encountered.

## Differences

Hosting a joint conference between two distinct sections raises logistical and idiosyncratic differences. For a successful conference, suitable for all attendees, each of these differences needed to be overcome or accommodated. Early on these differences were addressed.

The author of this paper attended both the Illinois-Indiana and North Central section conferences in the spring of 2005. The Illinois-Indiana conference was held at Northern Illinois University in DeKalb, Illinois and the North Central meeting was held at Ohio Northern University in Ada, Ohio. The author found both of these conferences enjoyable, well attended, worthwhile and very well presented. While the ultimate goal of each of the conference were the same, matching the vision of the ASEE, how they went about hosting the conferences were different.

The first difference encountered was the date of the conferences. Both sections held the conference during similar times in late March or early April but held them on different days of

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the week. Illinois-Indiana had always held their conference on a Friday afternoon and Saturday with North Central holding the conference on a Thursday afternoon and Friday. It was agreed that the 2006 conference would be held across two full days on a Friday and Saturday. Paper presentation would be on both days because of the expected number of papers from both sections.

Another key difference in the sections was how the paper process was handled. The Illinois-Indiana section has always had a peer-reviewed paper process. The abstracts are reviewed for acceptance or rejection, draft manuscripts are reviewed for acceptance or rejection, and then the final manuscript is submitted. The North Central section only reviewed the abstract and never the paper. The paper was included in the proceedings no matter the content. North Central was eager to accept the method used in the Illinois-Indiana peer-review process for the 2006 conference.

Organizing the paper process between two different sections, especially when one section is doing a peer-review for the first time, can be a challenge. Each section was responsible for managing their peer-review processes with the paper chair from IPFW managing the overall progression. Abstracts and papers were submitted through an online system, a first of its kind for either section, and then were distributed by the paper chair.

The student poster session portion of the joint conference was arranged to accommodate the interests of each section. The Illinois-Indiana Section had a history of a student poster session. The North Central Section did not have a history of a student poster session. The North Central Section had a history of a student paper session and competition. The Illinois-Indiana Section did not have a history of a student paper session or competition. A student paper session and competition was also part of this joint conference. The student poster session was modeled after past student poster sessions held at ASEE Illinois-Indiana Section Conferences. [2]

The conference schedules for both sections were also unique. Typically, Illinois-Indiana would have a formal lunch with business meeting and speaker followed by a light dinner (pizza) with award presentation. North Central, on the other hand, would have a light lunch with a formal dinner containing the business meeting and award presentations. As a compromise, the 2006 conference consisted of a lunch including a speaker and the business meetings. The dinner was formal and included the award ceremonies.

Great care was taken to ensure that each section retained their individuality. Even though each section was a part of the greater whole, the ASEE, they needed to remain distinctly separate. Each section would select their own "Teacher of the Year" and "Conference Best Paper" to be forwarded for possible national ASEE recognition. The North Central section also presented an "Outstanding Campus Representative" award and Illinois-Indiana presented an "Outstanding Service" award. The only combining of competitions between the two sections was for the "Outstanding Student Poster" award.

## **2006 Illinois-Indiana and North Central Joint Section Conference**

After much sweat and toil, the 2006 joint section conference took place on March 31 and April 1, 2006. This was a two day conference with paper presentations taking place on both days. The conference was designed in a way to keep the individuality of each section while cultivating the diverse partners for productive collaboration among industry and academe.

Statistically the conference showed diversity with over 120 different registrants representing 11 different States. Other attendees included approximately 80 students for the poster competition, 10 representatives from industrial and 25 volunteers of staff and students. The conference had over 235 attendees in one form or another.

Each attendee was greeted at registration with an embossed portfolio containing, the conference schedule, listing of conference presentation tracks, a CD containing the proceedings, student poster abstracts, and other goodies. The two day conference schedule (Appendix A) was filled with presentation and social time. The schedule was also found as a poster within the hallways and near the door of each presentation room.

The technical sessions for the conference consisted of five tracks: A - B on Friday and tracks C-E on Saturday. Each track consisted of 6 breakout groups containing a variety of different topics. There were a total of 89 presentations with 80 technical paper presentations, 6 student paper presentations and 3 abstract only presentations. Each presenter was allotted 15-20 minutes to present depending upon the time allotted for each A-E track.

A couple of special breakout sessions occurred at the conference. The first was an abstract only session. This breakout session, requested by North Central, would allow faculty to discuss an idea concept without having a paper. The other special breakout session allowed students to present technically written papers in an award competition. Illinois-Indiana did not have these types of sessions at past conferences.

The student poster session was modeled after past student poster sessions held at ASEE Illinois-Indiana Section Conferences. Efforts were made to increase participation and improve upon poster sessions from past conferences. A total of 19 entries were present at the conference. Most of the entries were very impressive. There was great diversity in the type of entries, number of students involved with the entries, and grade level of the students. Approximately half of the entries came from each section. [2]

## **Success**

There are countless successes associated with the joint section conference held in Fort Wayne. The goals of the conference was met by providing a forum for both students and faculty to present their work, encouraging discussion between intuitions, recognizing excellence in engineering and technology education, fostering innovations between members, and involving industrial partners.

The core committee had reached several of the goals with little intervention. From the beginning, the committee knew that by just providing enough space and time to attendees, some goals would be met. When you place two or more educators in a room and lay an idea before

them, magic happens. A wonderful exchange of invocations, concepts, models and direction takes place. This bartering of information between educators ranges from the smallest classroom ideas to those of global concern. Furthermore by sprinkling in students, the educator as well as the student, will listen, learn and teach which supplements goals of the conference and ASEE.

The core committee, in the scheduling of the conference, allowed time for the valuable exchange of information. Extra time was allotted in each breakout session to accommodate questions, a central refreshment area was setup to allow people to gather between tracks, and the main assembly area (ballroom) was large, central and almost always available to the attendees. Other things such as a successful late night social program, free time during meals, and holding the conference in just a single building all helped aid the nurturing of exchange.

The College of Engineering, Technology and Computer Science here at IPFW is lucky to have an active industrial advisor board. Like many institutions, our advisor board gives guidance on degree programs within the College. From the outset, the core committee was in contact with members of the board considering how their companies might become involved. Level of participation could range from sponsoring attendees, giving financially, setting up workshops, displaying company information, providing tours or any combination.

A total of \$14,000 was raised from external resource for the conference. The sponsorships came from five different companies with a single company giving the largest majority. American Electric Power (AEP) sponsored all meals and refreshments at the conference. International Truck and Engine also gave financial support and also provided tours of their engineering truck center. Other contributors setup informational displays and booths for the conference attendees to visit. Because of such generous support, both the Illinois-Indiana and North Central sections profited over \$4000.00 each.

The conference attendees also seemed to enjoy the conference. Conference evaluations were handed out at the beginning of the conference and attendees were encouraged to fill them out. The ranking range was a 1=Deficient, 2=Adequate, 3=Good, 4=Very Good, and 5=excellent. Attendees found both the "Quality of the Conference" to be 4.0/5 and the "Value of the Conference" to be a 3.9/5. The attendees also found the joint conference to be effective with a 4.2/5 for "Effectiveness of a Joint Section Conference". Furthermore, the attendees gave an "Overall Rating of this Conference" a 4.2/5.

The feedback provided from conference attendees was very informative. Overall markings for the conference were high with the average attendee rating the conference as "very good". The written comments on the evaluations provided positive and constructive feedback. Constructive comments such as "more student posters", "more papers", "better driving direction", and "larger rooms" were noted. Positive comments showed that attendees "loved meeting new people", "enjoyed the technical sessions", "liked the available time for social interaction", and "the conference organization".

From comments made, evaluations written and self-reflection on the conference the core committee achieved its goals. A successful conference was held between two distinctly different ASEE sections that helped to improve engineering education and promote faculty development.

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The conference also facilitated productive collaborations among industry and academe. It further provided a forum for both faculty and students to present their professional work and efforts.

The 2006 ASEE Illinois-Indiana and North Central joint Section Conference held at Indiana University Purdue University Fort Wayne was success. The conference demonstrated how diverse partners with a commonality can join together to foster collaboration. A conference such as this is no small task but took the dedication of many individuals. Thanks go out to all the attendees, students, reviewers, countless volunteers, industrial partners, executive board members, and core committee members who have made this a first-of-its-kind accomplishment for both sections.

- [1] Retrieved January 8, 2007 from <http://www.asee.org/about/mission.cfm>
- [2] Devine, David. P., *Conducting a Student Poster Session Contest*, 2007 ASEE Illinois-Indiana Section Conference, Indianapolis, IN. (submitted)

## Appendix A



Indiana University–Purdue University Fort Wayne • March 31–April 1, 2006

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## Conference Schedule

<b>Friday, March 31<sup>st</sup>, 2006</b>	<b>Event</b>	<b>Location</b>
11:00am – 6:00pm	Registration	Walb Union Lobby
11:45am – 1:45pm	International Truck and Engine Technical Center Tour	Meet at Walb Union Lobby
1:00pm-2:00pm	IPFW Campus Tours	Walb Union Lobby
2:00pm-2:30pm	Refreshments	Walb Ballroom
2:30pm -2:45pm	<i>Welcome and Opening Comments</i>	<i>Walb Ballroom</i>
3:00pm – 4:15pm	Technical Session-A	Walb 114, 116, 222, 224, G21
4:15pm-4:30pm	Refreshment Break	Walb Fireside Lounge
4:30pm – 5:45pm	Technical Session-B	Walb 114, 116, 222, 224, G21
6:00pm-7:00pm	Reception with Entertainment	Walb Ballroom
9:00pm - ?	Social Program	Don Hall's Guesthouse Lounge
<b>Saturday, April 1<sup>st</sup>, 2006</b>		
7:30am-12:00pm	Registration	Walb Union Lobby
7:30am-8:30am	Continental Breakfast	Walb Ballroom
8:30am – 8:45am	<i>Welcome and Opening Comments</i>	<i>Walb Ballroom</i>
9:00am – 10:30am	Technical Session-C	Walb 114, 116, 222, 224, G21
10:30am-10:45am	Refreshment Break	Walb Fireside Lounge
10:45am-11:30am	Student Poster Session	Walb Union Hallway 2 <sup>nd</sup> Floor
11:30pm-1:15pm	<i>Lunch with Keynote Speaker Ronald Barr 2005-2006 ASEE President</i>	<i>Walb Ballroom</i>
1:30am-2:45am	Technical Session-D	Walb 114, 116, 222, 224
2:45pm-3:00pm	Refreshment Break	Walb Fireside Lounge
3:00pm-4:15pm	Technical Session-E	Walb 114, 116, 222, 224
4:30pm-6:00pm	<i>Awards Banquet</i>	<i>Walb Ballroom</i>