

American Society for Engineering Education

Industrial Engineering Division Newsletter

SPRING 2014

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This edition of the newsletter is devoted to the 2014 ASEE Annual Conference and Exposition to be held in Indianapolis. As you will read, the IED sessions will present 11 papers in three sessions that will appeal to people teaching across the IE curriculum. The IED sessions are supplemented by sessions sponsored by the *Engineering Economy, Engineering Management*, and *Systems Engineering Divisions*. In addition, be certain to buy a ticket for the Tuesday dinner held jointly with the Engineering Economy, Engineering Management, and Systems Engineering Divisions. We'll see you in Indianapolis!

IED 2014 ANNUAL CONFERENCE TECHNICAL SESSIONS

The IED is the lead sponsor of three sessions at the 2014 Annual Conference. Eleven papers will be presented in these sessions on topics ranging from improving the project management skills of our students, to crating collaborative lab environments. The papers and authors are identified below along with an abbreviated version of the original abstracts. Use this as a starting point to plan a conference program that will give you new ideas for your courses and suggestions that you can share with your colleagues. If you aren't able to attend the conference, look for these papers on the ASEE Proceedings web site.

Session W144-Industrial Engineering Division Technical Session 1

Wed. June 18, 2014 7:00 AM to 8:30 AM Indiana Convention Center, Room 101 Moderated by Dr. Rick Olson

Introducing Flexibility in an Engineering Curriculum through Student Designed Elective Programs

William J. Schell IV P.E., David Claudio, Durward K. Sobek II, Laura Stanley, Nicholas Ward (Montana State University)

<u>Abbreviated Abstract:</u> Two years ago, the Industrial Engineering faculty at Montana State University undertook a major project to revamp and update their curriculum. The results of the project represented a major curriculum revision, with nearly 30% of the course credits in the curriculum undergoing some level of change. The cornerstone of these updates sought to increase flexibility in the program through introduction of cognate electives. The cognate enables students to develop a customized focus area based on their interests that is outside yet complementary to core industrial engineering topics. This article examines the creation and implementation of this program and explores how students are using this new-found flexibility.

The Effect of Active Collaborative Learning on Instructor Evaluations: An Observational Study Terri M. Lynch-Caris (Kettering University)

Abbreviated Abstract: This paper describes an ergonomics lab course that was initially redesigned utilizing Bloom's Taxonomy to align lab report results with a depth of student knowledge. Small changes requiring very little instructor preparation time turned the class around into a high-scoring, active and collaborative learning environment. The IDEA Evaluation System is described and utilized to compare quantitative results of teaching effectiveness, teaching methods, course description and student description for two consecutive and nearly identical ergonomics courses. A substantial increase in perceived teaching effectiveness based on a 5-point Likert scale shows the positive effect of active collaborative learning in the ergonomics industrial engineering laboratory and classroom.

Designing Industrial Engineering Course Content and Delivery with an Understanding of the Learning Preferences and Factors Driving Satisfaction of Undergraduate Industrial Engineering Students

Paul C. Lynch, Cynthia Bober, Jennifer Louise Mines (Penn State University)

Abbreviated Abstract: This paper discusses the results of a study aimed to understand the learning preferences, motivation, and satisfaction of junior and senior level industrial engineering students. This paper will carefully examine the learning styles of industrial engineering undergraduate students and will study the course and instructional practices that motivate them, and in turn, bring them satisfaction with their undergraduate education. Suggestions for designing industrial engineering course content and delivery both in class and on-line are made in an attempt to improve the industrial engineering education experience and help keep students in industrial engineering through improved instructional methods and course delivery structure.

Impact of Mentoring and Coaching on Student Performance in an Operations Research Class

Masud Salimian, Yaseen Mahmud, (Morgan State University

<u>Abbreviated Abstract:</u> An innovative design of an Operations Research course's delivery and instructional methodology was developed using a cognitive learning model, and the general concepts of coaching and mentoring to enhance student learning. The evolution of the assessment and feedback methods for the course are presented along with details of the mentoring and coaching system that was implemented implemented.

W244-Industrial Engineering Division Technical Session 2

Wed. June 18, 2014 8:45 AM to 10:15 AM Indiana Convention Center, Room 116 Moderated by Dr. Lesley Strawderman P.E.

A New Look at Involving Undergraduate Students, Real Life Applications, and Active Learning Activities in the Industrial Engineering Undergraduate Course Delivery Process

Paul C. Lynch (Penn State University), Joseph Wilck IV (East Carolina University), Cynthia Bober (Penn State University), Jennifer Louise Mines (Penn State University)

<u>Abbreviated Abstract:</u> This paper discusses a new approach taken in industrial engineering course delivery that brings real life case studies and active learning activities into the industrial engineering classroom. The paper summarizes work on modeling student satisfaction and motivation. The paper goes on to explain the current and ongoing work being carried out in an engineering economy course to upgrade the curriculum, while also improving student satisfaction in the course by improving course delivery.

Rounding-up the industrial engineering educational profile with adaptive soft skills framed by a cultural competency approach in an industry-university partnership

Imelda Olague-Caballero, Delia J Valles-Rosales (New Mexico State University)

Abbreviated Abstract: This paper details the creation and implementation of a industry-university partnership that complements traditional engineering education with educational experiences in industry. The proposed educational model is based in Methods Engineering & Facilities Planning. The new educational experience adds five components to develop the cultural competency required to produce a global engineer. The whole experience ensures the development of the students' ability to value diversity and to work effectively across cultures, while learning and practicing fundamental concepts of industrial engineering such us lean manufacturing, time studies, line balancing, quality control, and safety engineering in a real world scenario. This paper provides evidence of the main findings of this educational experience and it is expected that this model will be soon institutionalized as an apprenticeship program.

Toward Broadening Participation: Understanding Students' Perceptions of Industrial Engineering

Ms. Valerie Yvette Rito, Jessica Lynn Aschenbrenner, Jessica L. Heier Stamm (Kansas State University)

<u>Abbreviated Abstract:</u> In this paper, we describe the findings of a pilot study that measured current IE students' interest in solving operations research problems in different industry sectors and their perceptions about industrial engineering careers. The pilot study described here is part of a planned long-term effort to understand the perceptions of prospective (pre-college) students and those of students at multiple stages in the curriculum. The overarching objective is to design recruitment and retention activities that emphasize the ways in which industrial engineering is applicable in domains that are of interest to students. While the specific results are most directly applicable to the institution where the study was conducted, we comment on broad insights of interest to the industrial engineering education community. Thus, in addition to findings from the pilot study, we also discuss opportunities to use these preliminary results to guide future studies and to inform recruitment activities and curriculum design.

From Classroom to Online to Hybrid: The Evolution of an Operations Management Course

Letitia M. Pohl, Edward A. Pohl (University of Arkansas)

<u>Abbreviated Abstract:</u> This paper discusses the evolution of a required introductory operations management course in the Masters in Operations Management program in the Department of Industrial Engineerin. The authors discuss their experience in creating an online version of this survey course and then reversing direction and converting the online course into a hybrid class, where class is held live one day a week and the remaining course content is delivered online. The paper discusses the evolution of course content and assignments and the impact on student interaction and participation. Throughout, we discuss student response to each of the course delivery modes.

W444-Industrial Engineering Technical Session 3

Wed. June 18, 2014 12:30 PM to 2:00 PM Indiana Convention Center, Room 116 Moderated by Dr. Abhijit Gosavi

Flipping Engineering Probability and Statistics – Lessons Learned for Faculty Considering the Switch

Rick Olson (University of San Diego)

Abbreviated Abstract: During the Sr

Abbreviated Abstract: During the Spring 2013 semester, the Sophomore level probability and statistics class ISYE 330 at the University of San Diego was taught using the *Flipped Classroom* strategy. Compared to the Spring 2012 offering, the same material was covered in less time and test scores on a common final exam increased. This paper summarizes the lessons-learned by teaching ISYE 330 as a flipped class. Student performance is analyzed and compared to previous offerings. Finally, the advantages and disadvantages of using the flipped strategy are summarized along with suggestions for how class could be changed in the future to make even more effective use of class time and enhance student learning.

Project Management Learning Takes Flight

Victoria Townsend, (Ruth) Jill Urbanic P.Eng., (University of Windsor)

Abbreviated Abstract: This paper describes a student-centered, experiential learning project management workshop that has been developed and tested with industrial and mechanical engineering undergraduate students (in capstone courses) and industrial engineering graduate students (in a seminar) over a four year period. This workshop utilizes a relational Structure of Observed Learning Outcomes (SOLO) approach, which intentionally encourages learners to build connections between parts and the whole, to explore the significance and meaning behind these connections, and to connect theory and practice. By combining the SOLO relational and experiential learning approaches as a methodology for the workshop, a learning space is created for each student to challenge, test, find, question, and create project management relationships in a dynamic system.

Aren't Units Part of the Problem?

Matthew A Carr, (U.S. Naval Academy)

<u>Abbreviated Abstract:</u> This paper advocates developing more rigorous unit analysis skills and use of conventional units that will be seen by graduates entering the workforce as a part of the academic solution to the reported problem. Proficiency in calculations conducted in USCS reduces the job-specific training that must be accomplished by many American employers to get their new engineers ready to work. This paper reviews the history of American units and provides examples of dimensional analysis.

SPECIAL CONFERENCE EVENTS FOR IED MEMBERS

ASEE Division Mixer

Sunday, June 15, 4:15pm -5:45pm

Indiana Convention Center, Sagamore Ballroom

The *Division Mixer* provides a networking opportunity that encourages conference attendees to meet with members of the ASEE divisions in an informal setting with light refreshments. Officers from the IE Division will be staffing a table to answer your questions about IED sessions and activities, and you suggestions for how the IED can provide better value to you. Please come by and say hello!

Joint Dinner with EMD, IED, EED, SED (Ticketed Event) Tuesday, June 17, 7:00pm-9:00pm Weber Grill

This annual dinner is held along with the Engineering Management, Engineering Economy, and Systems Engineering divisions. Awards from all four divisions are presented at the dinner, so be sure to attend and share in the success of your colleagues and friends. It's a perfect way to wind down from the first days of the conference and charge your batteries for the IED sessions on Wednesday. This ticketed event costs \$55 with advanced registration and \$65 dollars on-site. Register now and apply the savings to refreshments.

Industrial Engineering Division Business Meeting

Wednesday, June 18, 2:15pm-3:45pm

Indiana Convention Center, Room 231

The annual business meeting of the IED always takes place on Wednesday afternoon. Division officers will be there, but it isn't just for officers. The IED sessions at the 2014 ASEE Conference will be influenced by the ideas you bring to this meeting, so plan on attending this session and helping to make the division even more effective.

ENGINEERING ECONOMY DIVISION SESSIONS

M131 Innovations in Teaching Engineering Economy

Mon. June 16, 2014 7:00 AM to 8:30 AM

Indiana Convention Center, Room 111

Moderated by Dr. Erick Jones P.E.

- 1. "Engineering Economics Jeopardy!" Mobile App Development Process and Student Satisfaction Prof. Weihang Zhu (Lamar University), Dr. Alberto Marquez (Lamar University), and Prof. Julia H. Yoo (Lamar University)
- 2. **Teaching Time Value of Money: A Few Winning Strategies from the Front Lines** Dr. Gillian M. Nicholls (University of Alabama, Huntsville), Dr. Neal Lewis (University of Bridgeport), and Dr. Ted Eschenbach P.E. (University of Alaska Anchorage)
- 3. The Use of Videos as a Tool to Reinforce Engineering Economy Course Topics: Lessons Learned Mr. Billy Gray (Tarleton State University), Dr. Gloria Margarita Fragoso-Diaz (Tarleton State University), and Dr. Erick Jones (University of Texas, Arlington)
- 4. Relationship of Final Grade and Use of Online Course Materials for an Engineering Economics Course Dr. Paul J. Kauffmann P.E. (East Carolina University) and Dr. Joseph Wilck IV (East Carolina University)

M431 Engineering Economy Division Business Meeting

Mon. June 16, 2014 12:30 PM to 2:00 PM Indiana Convention Center, Room 237

M531-Integrating Engineering Economy into Curricula

Mon. June 16, 2014 2:15 PM to 3:45 PM

Indiana Convention Center, Room 111

Moderated by Dr. Joseph Wilck P.E.

- 1. Engineering Economics as a General Education Course to Expand Quantitative and Financial Literacy Dr. Joseph Wilck IV (East Carolina University), Dr. Paul C. Lynch (The Pennsylvania State University, University Park, PA), and Dr. Paul J. Kauffmann P.E. (East Carolina University)
- 2. A Cross-Discipline, Project-Based Approach to Teaching Engineering Economy Dr. Heath J. LeBlanc (Ohio Northern University) and Dr. Bryan O'Neil Boulanger (Ohio Northern University)
- 3. Integrating Economic Analysis into Capstone DesignDr. Gene Dixon (East Carolina University) and Dr. Joseph Wilck IV (East Carolina University)
- 4. Case Study Application of After Tax Analysis to a Renewable Energy Project Mrs. Christina Jauregui Barboza (Stevens Institute of Technology (SSE))

ENGINEERING MANAGEMENT DIVISION SESSIONS

T236-Engineering Management Division Technical Session 1

Tue. June 17, 2014 8:45 AM to 10:15 AM Indiana Convention Center, Room 115

Moderated by Dr. Amy K. Zander

- 1. **History of the Online Master of Engineering Management Program at Rowan University** Dr. Ralph Alan Dusseau P.E. (Rowan University)
- 2. Why Did the EM Study Abroad Program Become one of the Most Popular on Campus? Dr. Kate D. Abel (Stevens Institute of Technology (SES)) and Mr. Eric Specking (University of Arkansas)
- 3. **Computer Aided Design and Project Management** Prof. Martin William Weiser (Eastern Washington University), Dr. Hani Serhal Saad (Eastern Washington University), and Dr. Kyle Frederick Larsen P.E. (Eastern Washington University)
- 4. **Teaching Engineering Project Management via Capstone Designs that Develop a Viable Product** Don Bowie P.E. (Aurasen Limited), Dr. Xuping Xu (California Baptist University), and Dr. Anthony L. Donaldson (California Baptist University)

T536 Engineering Management Division

Tue. June 17, 2014 2:15 PM to 3:45 PM Indiana Convention Center, Room 240

T636-Engineering Management Division Technical Session 2

Tue. June 17, 2014 4:00 PM to 5:30 PM Indiana Convention Center, Room 239 Moderated by Dr. Craig G Downing

- 1. An Implementation of Continuous Improvement of the Engineering Management Program at California State University, Northridge Dr. S. Jimmy Gandhi, Dr. Ahmad R. Sarfaraz, and Mr. Sina Talebian (California State University, Northridge)
- Applying Six Sigma in Higher Education Quality Improvement Dr. Quamrul H. Mazumder (University of Michigan, Flint)
- 3. A Strategic Engineering Management Approach to Innovation and Organizational Sustainability: An Addition to the Engineering Management Curriculum? Dr. Michael Browder (Bristol Tennessee Essential Services), Dr. Andrew J. Czuchry (East Tennessee State University), Ms. Leslie Boughers (Bristol Tennessee Essential Services), Ms. Caroline Deutsch (East Tennessee State University), and Nina Muehl (East Tennessee State University)
 - Innovative Teaching of Product Design and Development in an Engineering Management Program
- 4. Dr. Sangarappillai Sivaloganathan (United Arab Emirates University) and Dr. Ali H. Al-Marzouqi (United Arab Emirates University)

SYSTEMS ENGINEERING DIVISION SESSIONS

M766-Systems Engineering Division Annual Business Meeting

Mon. June 16, 2014 6:15 PM to 7:45 PM Indiana Convention Center, Room 233

T266-Systems Engineering Division Technical Session 1

Tue. June 17, 2014 8:45 AM to 10:15 AM

Indiana Convention Center, Room 110

Session Description: Design, project-based learning, developing and teaching multidisciplinary systems courses Moderated by Dr. Pablo Biswas and Dr. Tonya Lynette Smith-Jackson

- 1. Introducing Systems Competencies During Undergraduate Design Dr. Ashley Bernal (Rose-Hulman Institute of Technology), Dr. Scott Kirkpatrick (Rose-Hulman Institute of Technology), and Mr. William D. Schindel (ICTT System Sciences)
- 2. Implementing Problem-Based Learning in a Senior/Graduate Mechatronics Course Dr. James A. Mynderse (Lawrence Technological University) and Dr. Jeffrey N. Shelton (Purdue University, West Lafayette)
- 3. Developing and Teaching a Multidisciplinary Course in Systems Thinking for Sustainability: Lessons Learned through Two Iterations Dr. Fazleena Badurdeen (University of Kentucky), Dr. Dusan Sekulic (University of Kentucky), Bob Gregory (University of Kentucky College of Engineering), Mr. Adam Brown (University of Kentucky), and Mr. Hai Fu (University of Kentucky)

T566·Systems Engineering Division Technical Session 2

Tue. June 17, 2014 2:15 PM to 3:45 PM

Indiana Convention Center, Room 107

Session Description: Multiple Delivery Methods, Software and Systems, Embedded Systems Practices, Marketplace to Form Capstone Teams

Moderated by Dr. James A Nemes and Dr. S. Gary Teng P.E.

- 1. **Development of a Systems Engineering Course for Multiple Delivery Methods** Richard Sugarman (United States Air Force), Dr. Kellie Schneider (University of Dayton), and Dr. Edward F Mykytka (University of Dayton)
- 2. A "Software and Systems" Integration Framework for Teaching Requirements Engineering Radu F. Babiceanu (Embry-Riddle Aeronautical University)
- 3. **Embedding Systems Engineering Practices into Systems Engineering Classes** Dr. S. Gary Teng (University of North Carolina, Charlotte)
- 4. Using a Marketplace to Form Multidisciplinary Systems Engineering Capstone Project Teams Mark Ardis (Stevens Institute of Technology), Dr. Christina L. Carmen (University of Alabama in Huntsville), Mr. Michael DeLorme (Stevens Institute of Technology), and Eirik Hole (Stevens Institute of Technology (SSE))

T666-Systems Engineering Division Technical Session 3

Tue. June 17, 2014 4:00 PM to 5:30 PM

Indiana Convention Center, Room 206

Session Description: Practice and assessment, blended learning, case-based courses, multidisciplinary design optimization, and design of experiments in systems engineering.

Moderated by Dr. Radu F. Babiceanu and Dr. Sven G. Bilen P.E.

- 1. Practicing and Assessing Formal Systems Competencies in ECE Senior Design Dr. Mario Simoni (Rose-Hulman Institute of Technology), Mr. William D. Schindel (ICTT System Sciences), Dr. Xiaoyan Mu (Rose-Hulman Institute of Technology), Dr. Dan Moore (Rose-Hulman Institute of Technology), and Dr. Wayne T. Padgett (Rose-Hulman Institute of Technology)
- 2. Evaluation of Blended Learning Technologies in a Large Enrollment Case-based Systems Engineering Course Yue Bi (University of Virginia), Prof. Reid Bailey (University of Virginia), and Dr. Michael C. Smith (University of Virginia)
- 3. Multidisciplinary Design Optimization of Robotic Football Players by Undergraduate Students from Multiple

Science and Engineering Programs Mr. Adam Said El-Rahaiby (Indiana University Purdue University, Indianapolis) and Dr. Andres Tovar (Indiana University Purdue University, Indianapolis)

4. Inclusion of Renewable Energy Topics in the Design of Experiments Course for Industrial and Systems
Engineering Students Yong Wang (University of Illinois, Chicago) and Dr. Lin Li (University of Illinois, Chicago)

W466·Systems Engineering Division Technical Session 4

Wed. June 18, 2014 12:30 PM to 2:00 PM Indiana Convention Center, Room 109

Session Description: Graduate Preparation, Fundamentals, Web-based Application to Improve Retention of Hispanics, and Mobile Cloud Computing Approach to Real-time Assessment of Teaching Moderated by Dr. Radu F. Babiceanu and Dr. Sven G. Bilen P.E.

- 1. **Preparing Our Graduates to be More Effective Leaders In a World of Systems-Oriented Risk** Dr. Eva Andrijcic (Rose-Hulman Institute of Technology), Mr. William D. Schindel (ICTT System Sciences), and Dr. Craig G Downing (Rose-Hulman Institute of Technology)
- 2. Introducing the Fundamentals of Systems Engineering to Freshman through Various Interactive Group Activities Ms. Madeleine C Brannon (George Washington University), Prof. Zoe Szajnfarber (Affiliation unknown), and Dr. Thomas Andrew Mazzuchi (George Washington University)
- 3. Agile Development Process of a Web-Based Application to Improve Retention of Hispanic STEM Students Dr. Pablo Biswas (Texas A&M International University) and Dr. Runchang Lin (Texas A&M International University)
- 4. **lectureLess: A Mobile Cloud Computing Approach to Near Real-time Teaching Assessment** Lt. Col. Steven J Henderson (U.S. Military Academy) and Dr. Kenneth McDonald P.E. (Dept of Systems Engineering, United States Military Academy, West Point)

IED AWARD CRITERIA

The division offers four awards to recognize excellent papers presented at the ASEE Annual Conference and acknowledge outstanding service on behalf of the division. Please be aware of the paper awards as you review submissions for the Annual Conference, and note the qualifications for the Outstanding Service and Lifetime Achievement award so that you can nominate your well-qualified colleagues.

Best Paper Award

The purpose of this award is to encourage and recognize industrial engineering educators for the preparation and presentation of outstanding papers at sessions sponsored by the IE Division during the ASEE Annual Conference. The award consists of a plaque of recognition for first place, and a letter of recognition for second.

<u>Qualifications and Eligibility Requirements:</u> To be eligible, papers should be presented at sessions sponsored by the IE Division and be accepted for publication in the conference proceedings. Selection among individual or team nominees will be primarily based upon the quality of the written paper and its relevance to IE education.

<u>Nominations:</u> Announcement of the award competition will be included in the call for papers for the IE Division. Papers eligible for this award must be peer reviewed and recommendations for consideration be submitted by reviewers or review coordinator (Program Chair). Special Nomination Instructions: The Award Selection Committee will select an award winner and a runner-up. The award winner will be automatically nominated for competition for PIC I Best Paper Award. In the event that the IE Division nominee shall receive the PIC I Award, the runner-up would be selected for the IE Best Paper Award.

New Industrial Engineering Educator Outstanding Paper Award

The purpose of the award is to encourage and recognize new industrial engineering educators for the preparation and presentation of outstanding papers at sessions sponsored by the IE Division during the ASEE Annual Conference. The recipient will be awarded \$250 per author up to \$500 per paper. Senior faculty are eligible for the award as co-authors, but not for the monetary award. The award also includes a plaque of recognition.

<u>Qualifications and Eligibility Requirements:</u> Papers should be submitted and presented by tenure-track faculty or faculty having less than seven years of full-time teaching experience. The paper should be presented at a session organized by the IE Division, and be accepted for publication in the conference proceedings. Selection will be primarily based upon the quality of the written paper and its relevance to IE education.

<u>Nominations:</u> Announcement of the award will be included in the call for papers for the IE Division. Questions regarding eligibility will be sent to any author whose abstract is accepted for presentation during the ASEE conference. Papers eligible for this award must be peer reviewed and recommendations for consideration be submitted by reviewers or review coordinator (Program Chair).

Distinguished Service Award

This award recognizes exemplary service to the Industrial Engineering Division and is presented to a member of the division who has provided significant service to the division. The award consists of an engraved plaque and can be received only once by any individual.

<u>Award Criteria:</u> While service as an officer in the division will be a common trait of recipients of this award, it is not routinely awarded to outgoing officers. Selection for this award will be based on:

- Current and continuing active membership in the Industrial Engineering Division. Exemplars of this would include (1) presenting papers at the annual conference, (2) attendance at the annual business meeting, and (3) participation in the annual banquet at the annual conference.
- Exemplary service to the Industrial Engineering Division over an extended period of time. Service to the division, both before and after service as an officer in the division, is required. Exemplars would be (1) service elsewhere in ASEE as a representative of the division, and/or (2) service to the division directly or indirectly.

Lifetime Achievement Award

This award recognizes an outstanding industrial engineering educator in recognition of the educator's contributions to the profession. The award, which recognizes lifetime achievement in industrial engineering education, is presented annually to an individual who has made significant contributions over an extended period of time to the discipline and the division, and who exemplifies the highest standards of the professorate in industrial engineering. The award consists of a suitably engraved plaque presented at the annual Joint IE/EMD/EED Division Dinner. The award can be received only once by any individual.

Award Criteria:

Current or past membership in the industrial engineering professorate, which is defined for this award as teaching in a university program that offers one or more degrees in industrial engineering.

- Exemplary service to the industrial engineering discipline. Exemplars would be (1) service as a chair, head, or program director of a major industrial engineering program; (2) service as editor, associate editor, reviewer of a peer-reviewed publication in the discipline; or (3) a national reputation for promoting the academic discipline of industrial engineering.
- Exemplary service to the Industrial Engineering Division of ASEE. Exemplars would be (1) service in a leadership role in ASEE or the Division, (2) active support of Division programs and initiatives, (3) service to the professorate in industrial engineering, and/or (4) service to the students in industrial engineering programs.
- A national reputation in industrial engineering through service to the practice of industrial engineering. Exemplars of this would be (1) membership and office in a relevant industrial engineering professional organization, (2) a publication record promoting industrial engineering practice, or (3) other service to industrial engineering practitioners.

HOW CAN YOU HELP THE IED?

As is the case with every Division in ASEE, the success of the IED depends on the participation of its members. We are hoping you can help us to achieve these goals in specific ways. If you'd like to help, or have ideas on how the IED can help you, talk to one of the officers at the *Division Mixer* at the conference or one of the technical sessions in Indianapolis, or send a message to an officer. Contact information is at the end of the newsletter.

- Make certain you renew your IED membership.
 - As you renew your ASEE membership this year, make certain that you check the box for the IED. The nominal dues provide the money needed to appropriately recognize the award recipients, but even more importantly, your membership in the IED sends a signal to ASEE that the Division is important and deserving on continuing to receive four technical paper sessions at the conference.
- Make a special effort to encourage your colleagues to join ASEE, and the IED.
- Submit a paper to the Annual Conference

 High quality submissions means high quality sessions, and a management of the conference.

 Output

 Description:
 - High quality submissions means high quality sessions, and a more valuable conference for everyone. Plan on submitting a paper to the next ASEE conference.
- Volunteer to review abstracts and papers submitted to the IED.
 - Everyone appreciates a thorough review of the papers they submit. Those reviews have to start somewhere. By offering a few hours of your time, you'll help to improve the quality of the IED program even if you aren't able to attend the conference.
- Identify a deserving recipient for IED awards.
 - Outstanding papers don't receive the recognition they deserve unless the reviewers are aware of the awards, and then identify the best papers for the awards. When reviewing papers, keep an eye out for outstanding work. At the same time, review the criteria for the Distinguished Service and Lifetime Achievement awards. If you can identify deserving colleagues, please tell the Division leadership.
- Attend IED sessions at the Annual Conference, and rate the sessions.
 Among the factors that ASEE uses when allocating technical sessions are the attendance at the session and the evaluations of the quality of the sessions. By attending the sessions you will ensure the IED's place at future conferences; and you'll become a better IE educator.
- Represent IE at Regional ASEE Conferences
 Regional conferences often offer forum for your work that is close to home and may be more convenient for you than the National Conference. Keep your eyes out for the Call for Papers from your local section and submit paper there. This may also prove to be an opportunity to find a future collaborator.
- Share your ideas with the board.
 - We're always looking for new ideas that can make the IED more valuable for the members. Your ideas are as good as anyone else's. Please share them with the board. If you don't know how to contact us, keep reading.

NEWSLETTER SUBMISSIONS WELCOME!

The most valuable newsletters are the ones that contain actual news submitted by the members. If you have something that you'd like to share with the IED, please forward the details to me at \underline{r} olson@sandiego.edu. Anything that might be of interest to the members is welcome including:

- Calls for Papers for conferences related to engineering education including ASEE regional conferences
- Reminders of deadline submissions to agencies funding educational research
- Announcements of members receiving teaching awards or other related accolades
- Announcement of papers related to IE education

This is your newsletter. Please help to make it valuable. Thanks for your help—

IED BOARD MEMBER CONTACT INFORMATION

Until the end of the ASEE Conference, the IED officers are:

Awards/Past Division Chair: Lesley Strawderman (strawderman@ise.msstate.edu) (662) 325-7214

Division Chair: Rick Olson (<u>r_olson@sandiego.edu</u>) (619) 260-6853

Program Chair: Heidi Taboada (<u>hataboada@utep.edu</u>) (915) 747-5734

Program Chair-Elect: Leonardo Bedoya-Valencia (I.bedoyavalencia@colostate-pueblo.edu)

(719) 549-2788

Secretary/Treasurer: Letitia Pohl (lpohl@uark.edu) (479) 575-3667

Directors: Jessica Matson (<u>matson@tntech.edu</u>) (931) 372-3260

Kim LaScola Needy (<u>kneedy@uark.edu</u>) (479) 575-6029 Terri Lynch-Caris (<u>tlynch@kettering.edu</u>) (810) 762-9859

Lawrence Whitman (Larry.whitman@wichita.edu) (316) 978-5907

Newsletter Editor: Rick Olson

Webmaster: Lawrence Whitman

After the conference, the Division Chair, Program Chair, Program Chair-Elect and Secretary/Treasurer will move up one position. Who would you like to nominate for Secretary Treasurer?

The ASEE IED web site is at: http://ied.asee.org/ASEE IED/Welcome.html