

ECEDHA's 24th Annual Meeting in San Diego, California



ECE 2020: Fresh Image, Fresh Ideas

Join us for ECEDHA's 24th Annual Meeting at the Loews Coronado Bay Resort in beautiful San Diego, California, March 14–18, 2008. San Diego is home to more than 90 fascinating museums, SeaWorld, the world-famous San Diego Zoo, LEGOLAND, and much more. Take a stroll along the beach and enjoy the sunshine of San Diego.

Your guests will not want to miss this opportunity to accompany you! There are plenty of shops and attractions for them to enjoy while attendees participate in the outstanding meeting program the ECEDHA board of directors has planned. Meet new colleagues and renew acquaintances with old friends.

Don't wait to make your travel plans! Once the hotel rooms in our block are gone, regular rates will apply. Call +1-619-424-4000 and reference the ECEDHA Annual Meeting to receive the outstanding rate of \$189 (single) or \$209 (double). Visit <http://loewshotels.com/> and click on San Diego under destinations!

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Save the Dates for 2008

Membership Renewal | January 1, 2008
2008 membership invoices will be mailed to each member.
Checks can be sent to the ECEDHA office, or
call +1-312-559-3724 to pay by credit card.

ECEDHA Globalization Workshop | February 4–5, 2008
Santa Clara, California

ECEDHA ABET Workshop | March 14, 2008
Loews Coronado Hotel, San Diego, California

ECEDHA 24th Annual Meeting | March 14–18, 2008
Loews Coronado Hotel, San Diego, California

Meeting Registrations Accepted
On-line: www.ecedha.org | Fax: +1-312-559-3329
Mail: ECEDHA
300 West Adams Street, Suite 1210
Chicago, Illinois 60606–5114, USA

Hotel Reservations
Phone: +1-619-424-4000
On-line: [http://loewshotels.com/en/Hotels/
Coronado-Bay-Resort/Overview.aspx](http://loewshotels.com/en/Hotels/Coronado-Bay-Resort/Overview.aspx)
Be sure to reference the ECEDHA meeting when making your reservation to receive the rate of \$189 (single) or \$209 (double).

Reservation deadline for receiving the ECEDHA rate:
February 15, 2008 or until the room block is full, so call early!

ECEDHA Office
300 West Adams Street, Suite 1210
Chicago, Illinois 60606-5114, USA

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Globalization Workshop Part II
ECEDHA Award Nominations
ECEDHA Tagline and Logo Contest

From the President ...

Dear ECEDHA members:



This academic year promises to be an exciting one for ECEDHA, as we build on the various initiatives launched during previous meetings. Hosting the second workshop on globalization, disseminating

new tools and materials for recruiting ECE students, and engaging industry suppliers of educational materials during our annual ECEDHA meeting in March are just a few examples of the activities we have planned this academic year.



Jon Bredeson, ECEDHA past president, passes the gavel to Mark Smith, incoming president, at the annual meeting in St. Augustine, Florida.

One of the most significant developments that you'll observe is in the reporting of annual survey data. Our goal is to make the ECEDHA survey the single most useful and important benchmarking resource in our community. Currently the survey records a wide variety of metrics, including enrollment data, faculty salaries, graduate stipends, space allocations, graduation statistics for graduate and undergraduate students, research expenditures, and much more. For the first time this year ECEDHA issued a survey report that provides data arranged by peer cohorts in graphical form. This report is the first step in a series of upgrades that we believe will make the ECEDHA survey an indispensable resource.

As we continue to enhance our Web-based survey tool, we are becoming better positioned to make longitudinal observations. Following the discussion on ECE student recruiting during the last annual meeting, we tracked a cohort of U.S. schools with respect to enrollment history.

According to the reported figures, enrollments have continued to decline but appear to be leveling off. Similar conclusions were reached by our Canadian colleagues in CHECE (the Canadian ECE Department Heads Association). CHECE observed small indications of enrollment recovery overall, mostly among the electrical engineering programs. While there is reason to be optimistic, we must be diligent in our efforts to promote our profession to pre-college students. Student recruitment and the external image of ECE will continue to receive attention at future ECEDHA events.

We look forward to your involvement as we tackle our various challenges and hope to see you in beautiful San Diego for the annual ECEDHA meeting in March 2008.

Mark J. T. Smith

ECEDHA President 2007–2008

Michael J. & Katherine R. Birck Professor and
Head of Electrical and Computer Engineering
Purdue University

2007–08 ECEDHA Board of Directors and Committee Chairs

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ECEDHA Tagline and Logo Contest

The ECEDHA board of directors is soliciting ideas from the members for a new logo and tagline¹ for the organization. We invite all members to submit their suggestions to Gerald Kane at grk@utulsa.edu by **February 15, 2008**.

The logo for our organization should be suitable for use on our Web site, printed in our program, and screen-printed or embroidered on garments. Any appropriate graphics file format in high resolution (e.g., .eps, .tif, .jpg) is acceptable. The logo should also be reproducible at 2" by 4" at 72 DPI. A maximum of two colors is preferred. Please include "ECEDHA logo" in the subject field and include your university's name as part of the file name.

The tagline will be considered separately from the logo. You may include a tagline as part of the logo design, but the tagline selected by the membership will be substituted for that text in the ultimate design. Please include "ECEDHA tagline" in the subject field for these submissions.

Our students, faculty, and staff are multi-talented; it is acceptable to use whatever resources you desire on your submissions. As is typical in contests, all submissions will become the intellectual property of ECEDHA and subject to review for trademark and copyright registration.

After narrowing down the choices, we will prominently display the suggestions for both the logo and tagline at the annual meeting. The 2008 meeting attendees will vote for our "new image" during the Open Forum session.

¹ Sample taglines from two major corporations are: "Progress is our most important product" and "Babies are our business, our only business."



ECEDHA guests renew old acquaintances and meet new friends as they prepare for a full day of museums and shopping in Old St. Augustine, Florida, in 2007.

First Time Attendees and Guest Program

One reason ECEDHA members love going to the annual meetings is the networking opportunities. This year, the ECEDHA board will host a First Time Attendees Reception prior to the ECEDHA Welcome Reception. If you are new to the meetings or want to welcome new chairs or old chairs who have been unable to attend a meeting before, please join us prior to the general ECEDHA Welcome



2007 annual meeting attendees enjoy a panel discussion about freshman seminars and international programs.

Reception Friday evening. As always, registered guests are encouraged to participate in the Welcome Reception, all meals and activities Saturday, dinner and entertainment Saturday evening, and the awards banquet Monday evening. For only \$200 this is a great deal. Guest program details will be posted on-line soon (www.ecedha.org).

Eta Kappa Nu

ECEDHA was proud to recognize Eta Kappa Nu members and their department head supporters at the 2007 Annual Meeting. Department Heads from 15 Outstanding Chapter Awards accepted plaques on behalf of their chapters, and the Outstanding ECE Student Award was presented to Benjamin Moss, University of Missouri – Rolla. At the 2008 annual meeting, the Outstanding Chapters, Outstanding ECE Student, and Outstanding Professor will receive their awards at a private reception and then be recognized at the ECEDHA awards banquet. ECEDHA members are encouraged to get involved in their chapters and support engineering excellence.

If you are an Eta Kappa Nu member, please update your contact information on the HKN Web site (www.hkn.org). If you are interested in installing a chapter at your university and developing a closer connection with the top ECE students who perform service at the department, university, and community levels, please contact Melissa Miller (mmiller@iec.org).



Department heads from 15 Eta Kappa Nu Outstanding Chapter Award winners accepted their plaques at the 2007 Annual Meeting.

Award Nominations

Dr. Gary May, junior member-at-large on the ECEDHA board, is the current Awards Committee chair. He is soliciting nominations for the Robert M. Janowiak Distinguished Leadership and Service Award as well as the Innovative Program Award. Please submit a nomination letter to the ECEDHA office by **January 15, 2008**. (E-mail to information@ecedha.org).

- **Robert M. Janowiak Outstanding Leadership and Service Award**—Presented to current or former ECEDHA members who have provided outstanding leadership and exceptional service to the organization
- **Innovative Program Award**—Given to a department or individual(s) that has developed and implemented a particularly innovative program in EE/ECE education

ECEDHA is grateful for the support of its dedicated members, and this is a great opportunity to acknowledge them. Please nominate someone you feel is worthy of recognition.

View the press release for Dr. James Aylor's Outstanding Leadership and Service Award, presented at the 23rd ECEDHA Annual Meeting in St. Augustine, Florida, in March 2007. www.iec.org/about/050307_ols_award.html



James Aylor accepts his Outstanding Leadership and Service Award from ECEDHA officers in St. Augustine, Florida.

Globalization Workshop, Part II: Implementation

Part II of the three part Globalization Workshop series supported by the NSF will be offered in conjunction with DesignCon, a design engineering program presented by the International Engineering Consortium, February 4–5, 2008, in Santa Clara, California. (Visit www.iec.org for information about DesignCon and the tuition grants offered through the University Program.) Part II of the series will focus on implementation of the discoveries made in Part I in 2005. These specialized workshops are a great benefit of ECEDHA membership, and the board is pleased to continue the series of these timely and important discussions.

The report for the 2005 Globalization Workshop has been posted on-line (www.ecedha.org/reports.html). Thanks to Ken Jenkins, Ken Connor, Steve Goodnick, and many others for organizing this successful event!



ECEDHA members and guests renew acquaintances at the ECEDHA Welcome Reception during the 23rd annual meeting.

Newsletter Update

The ECEDHA Board of Directors would like to thank Paul Devgan for his services as ECEDHA Newsletter editor. The board decided at its summer meeting to continue the editorial role as a rotating position from within the board of directors, thus bringing fresh ideas and articles to the membership with each new editor. This newsletter marks Terri Fiez's first newsletter, and she is looking for more ideas for articles and topics that are important discussion points among ECE department heads. Short article submissions or topics can be sent to information@ecedha.org for the editor's consideration in future newsletters. Stay tuned to future e-newsletters as well, keeping the ECEDHA membership informed of timely topics of interest by e-mail and on the ECEDHA Web site.



The 2007–08 ECEDHA Board of Directors met in Santa Fe, New Mexico, for their annual summer meeting.

2007–08 ECEDHA Board of Directors

Two new board members joined the ECEDHA board at the summer meeting in Santa Fe, New Mexico. Issa Batarseh, University of Central Florida, is the secretary-treasurer for the 2007–08 year and Gary May, Georgia Institute of Technology, is the new junior member-at-large. Our thanks and appreciation go out to Ken Jenkins, Pennsylvania State University, and Pamela Leigh-Mack, Morgan State University, whose terms have ended. At the summer board meeting, the group started planning the 2008 Annual Meeting and discussed membership benefits, including the Annual ECEDHA Survey, communication among members, regional meetings, the annual meeting, specialized workshops, and industrial relations.



Retention efforts include upperclassmen mentoring freshman ECE students and introducing freshman to the ECE faculty.

Recruitment and Retention Efforts in ECE – at University of Nebraska

– *Bing Chen, Chair Computer and Electronics Engineering, UNL at Omaha*

Flat to declining enrollments and graduate rates in electrical and computer engineering (ECE) amid a graying population of ECE professionals considering retirement is leading to an increasing need for more electrical and computer engineers [1]. To address this need UNL's CEEN department in Omaha has developed a two-pronged recruitment program. The first is an outreach program. Current students and faculty attend college fairs held at local high schools and the university. Additionally, they visit Advanced Placement (AP)–level math and physics classes and industrial-arts programs.

During these visits, they present why these subjects are important to engineering and/or they engage the high school students in hands-on projects. The second prong of the recruitment program is a longer-term investment. It involves teaching engineering fundamentals to middle school science and math teachers in summer workshops where the primary activity is having the teachers build a robot that teaches the fundamentals of ECE [2, 3]. The teachers take a set of four robots back to their respective schools. They develop lesson plans to try out in their classrooms and report back their results to educational consultants.

In its second year, this program is already affecting the local high schools, which are inquiring about the robotic platform. As a side benefit, many of the participating middle schools are making requests for ECE students to come to their schools to help with robotic competitions and to make presentations to explain what engineers do. As part of a service learning requirement in our seminar class, freshman students serve as mentors to elementary and middle school students in their science fairs and make presentations about their experiences being an engineering student in college. This activity has the benefit of bolstering the commitment of our freshman students to their program of study.

Once recruited, retention of freshman students becomes our primary focus. The first activity is a summer freshman camp where students are introduced to the ECE faculty, teacher assistants (TAs), and seniors. This is followed by a campout where they pre-bond with one another and get to know their freshman instructors in an informal setting prior to fall classes. Students are divided into pod groups of four students with a senior mentor assigned to meet each pod on a weekly basis. At the center of our retention efforts is a counseling assistant (CA) who has access to student performance (grades, attendance) in courses and laboratories in the major. The CA can contact any of the students if a student's performance needs to be addressed. The CA can provide feedback to pod leaders, TAs, and course instructors if certain students need special attention with the chair as the final person in the support chain. Problems with subject matter deemed to be class-wide can be fed back to course instructors for further re-emphasis in lectures. In the first year of trials, a very high percentage of freshman students passed the ECE introductory courses and have remained in the department (including those students who did not pass the course but elected to stay with the program anyway). To further stimulate student interest and retention, a robot platform for learning known as TekBots is issued upon first entering in the fall [3]. The TekBot is built upon as students progress through the program.

[1] T. Fiez, "ECE Job Market Concerns May Be Unwarranted," ECEDEHA Newsletter, www.ecedha.org/Newsletters/ECDHA06.pdf, 2006.

[2] "SPIRIT Silicon Prairie Initiative for Robotics in Information Technology," NSF ITTEST grant #0525111 awarded to University of Nebraska Lincoln.

[3] R. L. Traylor, D. Heer, and T. S. Fiez, "Using an integrated platform for learning™ to reinvent engineering education," *IEEE Trans. on Education*, vol. 46, no. 4, pp. 409–419, November 2003.

[4] R. Sash, H. Detloff, B. Chen, N. Grandgenett, and D. Duran, "Retention of Freshmen Computer and Electronics Engineering Students," *ASEE Frontiers in Education Conference*, San Diego, California, October 28–31, 2006.



High school students become interested in pursuing ECE from their college mentors and through a hands-on robotics program.

ECEDHA ABET Workshop for the Class of 2009

Friday, March 14, 2008

7:00 am – 7:30 am	Registration and Continental Breakfast	1:15 pm – 1:45 pm	General Session – Criterion 4: Continuous Improvement
7:30 am – 8:00 am	Introductions and Opening Remarks	1:45 pm – 2:30 pm	General Session and Breakouts – Criterion 5: Curriculum
8:00 am – 8:30 am	ABET Update	2:30 pm – 2:45 pm	General Session – Group Presentations on Curriculum
8:30 am – 9:50 am	General Session and Breakouts – Criterion 2: Program Educational Objectives	3:00 pm – 3:30 pm	General Session – Issues and Solutions
10:00 am – 10:30 am	Group Presentations on Program Educational Objectives	6:30 pm	ECEDHA Annual Meeting Welcome Reception
10:30 am – 11:55 am	General Session and Breakouts – Criterion 3: Program Outcomes	7:30 pm	Dinner for Workshop Participants and Registered Guests
12:00 pm – 1:00 pm	Working Lunch – Group Presentations on Program Outcomes		

Separate registration is required for this workshop.

Please contact Melissa Miller at the ECEDHA office at +1-312-559-3724 or mmiller@iec.org.

ECEDHA 2008 Annual Meeting – Tentative Schedule

ECE 2020: Fresh Image, Fresh Ideas

Friday, March 14, 2008

7:00 am – 3:30 pm	ABET Workshop for programs to be visited in 2009; general and breakout sessions
3:00 pm – 6:00 pm	Registration
3:30 pm – 5:30 pm	New Chairs Workshop
3:30 pm – 5:30 pm	Board Meeting
6:00 pm – 6:45 pm	First Time Attendees Reception hosted by ECEDHA Board
6:30 pm – 8:00 pm	Welcome Reception for All Attendees and Guests

Saturday, March 15, 2008

7:45 am – 4:00 pm	Registration
7:45 am – 8:30 am	Attendee Breakfast
8:30 am – 8:45 am	President's Welcome (Mark Smith) and Conference Overview (Gerry Kane)
8:45 am – 10:00 am	Keynote I: Innovative Approaches to Recruitment and Retention
10:30 am – 12:00 pm	Plenary Panel I: Industrial Partnerships in Recruitment and Retention
1:30 pm – 3:00 pm	Plenary Panel II: Global Initiatives in Innovation
3:30 pm – 5:00 pm	Breakout Sessions: Best Practices for ABET
6:30 pm	Reception/ Dinner/ Entertainment
9:00 am – 4:00 pm	Guest program —see www.ecedha.org for details

Sunday, March 16, 2008

Activities on your own

Monday, March 17, 2008

7:00 am – 4:00 pm	Registration
7:00 am – 8:45 am	Regional Department Meetings Canada Northeast Central Southeast Great Lakes Southwest Mid-Atlantic Western
9:00 am – 10:00 am	Keynote II: Funding Innovation
10:30 am – 12:00 pm	Plenary Panel III: Industrial Support for Innovative Learning Methodology
1:30 pm – 2:30 pm	ECEDHA Business Meeting
2:30 pm – 3:00 pm	Best Practices for ABET Reprise
3:30 pm – 5:00 pm	ECEDHA Open Forum
6:00 pm – 6:45 pm	Eta Kappa Nu Awards Reception
6:30 pm	ECEDHA Reception and Awards Banquet

Tuesday, March 18, 2007

7:00 am	Registration
7:00 am – 7:45 am	Attendee Breakfast
7:45 am – 9:15 am	Breakout I: Use of Educational Technology in the Large School Environment Breakout II: Innovative Programs in Small Schools
9:30 am – 10:45 am	Plenary Panel IV: Curricula to Encourage Innovation
10:45 am – 11:15 am	Closing Remarks and Adjourn