

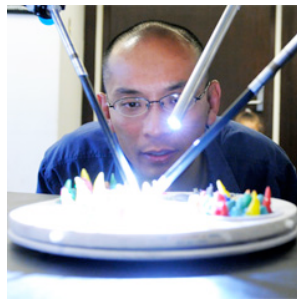


Biomedical Engineering Division

Summer 2012

A Message from the Chair

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Greetings! My name is Conrad Zapanta, and I am the current Biomedical Engineering Division (BED) Chair. I have been involved in the BED since 2006 as a presenter, moderator, reviewer, Member at Large, and 2012 Conference Chair. I can honestly say that I have found a home with this special group of educators who are truly passionate about educating biomedical engineering students.

A major point of emphasis for the upcoming year is to increase the number of submissions to the 2013 ASEE Annual Meeting, June 23 - 26, 2013, in Atlanta, GA. This will be done through the following ways:

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BED Conference Program

2012 ASEE Annual Conference & Exposition
"Spurring Big Ideas in Education!"
San Antonio, Texas • June 9-13, 2012

Contributed by Conrad Zapanta
2012 BED Program Chair

The Biomedical Engineering Division (BED) had another exciting and diverse conference in San Antonio this past June. Although we had a smaller number of presentations and sessions than in past years, we still had a great time! Highlights of the conference included the following:

1. A joint panel with the New Engineering Educators Division entitled "I Was Once a New Engineering Educator and Lived to Tell About It: Stories of Survival." This session was well attended and well received.
2. Eleven (11) papers that were presented in three sessions: Laboratory and Project Experiences, Course and Curriculum Development, and Ethics Education, Global Health, and Outreach in Biomedical Engineering
3. Town Hall meeting to discuss issues facing BME departments. These issues included accreditation, professional licensure, the pending changes to pre-med requirements, and BME textbooks
4. Awards Banquet: The 2012 awards were as follows:

Theo C. Pilkington Outstanding Educator
Arthur Johnson, University of Maryland

Biomedical Engineering Teaching Award
Eric Kennedy, Bucknell University

Best Paper Award
Steve R Marek, William Liechty and James W. Tunnell, all from the University of Texas, Austin.

I would like to express my sincere thanks to all of the reviewers, presenters, moderators, and attendees who made the 2012 conference a success.

BED Call For Papers

Contributed by **J. Aura Gimm**

BED 2013 Program Chair

The **Biomedical Engineering Division (BED)** of ASEE invites papers for the 2013 Annual Conference and Exposition in Atlanta, GA (June 23-26, 2013). Engineers in academia and industry from across the world are encouraged to submit papers on relevant topics focusing on biomedical engineering (BME) education.

The topics listed below are intended to serve as a guide for authors. However, authors are encouraged to submit papers on any relevant topic in biomedical engineering education for inclusion in the BED portion of the conference:

- Innovative pedagogies and use of technology in the classroom
- Integration of experimental design and application of statistical analysis
- New directions in core BME courses
- BME-related K-12 outreach activities and hands-on demonstrations
- Biomedical engineering design and entrepreneurship
- Globalization and international programs and collaborations
- Experiential/learning /immersive experiences (clinical, research, industrial, and/or service)
- Professional development for faculty and/or graduate students
- Novel assessment/research methods for student learning and program evaluation/improvement

This year's papers will include the possibility of two tracks. Papers will either 1) report the results of research or systematically collected outcomes assessment (i.e. data will be expected by reviewers) or 2) present "works in progress."

Submissions should indicate clearly in the abstract which of these two tracks are appropriate by including "Works in Progress" in the title of the abstract. Works in progress may have a higher likelihood of being assigned to a poster session and should have innovative aspects that have not been previously published by others. Works in progress selected for the poster session will only require an extended abstract (3 page limit) instead of a full paper. In both cases, ***an abstract and full paper or extended abstract must be submitted and accepted, and the publication fee must be paid.*** Acceptance of abstracts and papers will be judged based on the level of innovation, technical merit, demonstrated outcomes, and relevance to biomedical engineering, science, and technology education.

All abstracts and papers must be submitted electronically via ASEE's Monolith system via the following website:
<http://www.asee.org/conferences-and-events/conferences/annual-conference/2013/program-schedule/call-for-papers>

Questions regarding the abstract and paper submission can be directed to the BED Program Chair:

J. Aura Gimm, Ph.D.
ASEE-BED Program Chair 2013
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ASEE BED 2012–2013 Officers

PAST CHAIR: Timothy E. Allen, Biomedical Engineering Department, University of Virginia, Box 800759, Health Ssystem, Charlottesville, VA 22908, 434-982-6751, teallen@virginia.edu

CHAIR: Conrad M. Zapanta, Department of Biomedical Engineering, Carnegie Mellon University, 5000 Forbes Ave, DH 2100, Pittsburgh, PA 15213, 412-268-9061, czapanta@cmu.edu

CHAIR-ELECT and PROGRAM CHAIR: Aura Gimm, Department of Biomedical Engineering, Duke University, 136 Hudson Hall, Box 90281, Durham, NC 27708, 919-660-8267 j.a.gimm@duke.edu

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AWARDS CHAIR: Richard Goldberg, Department of Biomedical Engineering, University of North Carolina at Chapel Hill, CB 7575, Chapel Hill, NC 27599, rlg@unc.edu

MEMBER-AT-LARGE: Naomi C. Chesler, Department of Biomedical Engineering, University of Wisconsin, Madison, 1550 Engr. Drive, 2146 ECB, Madison, WI 53706, 608-265-8920, chasler@engr.wisc.edu

MEMBER-AT-LARGE: Michael J. Rust, Department of Biomedical Engineering, Western New England University, 216C Sleith, Springfield, MA 01119 413-782-1419, mrust@wne.edu

MEMBER-AT-LARGE: William H. Guilford, Department of Biomedical Engineering, University of Virginia, Box 800759, Charlottesville, VA 22908, 434-243-2740, guilford@virginia.edu

1. **Host Booth at Biomedical Engineering Society (BMES) Annual Meeting.** We will be hosting a booth (for the first time) at the 2012 BMES Annual Meeting in Atlanta, GA, from October 24 to 27. This booth will introduce BMES attendees to our division and our mission of providing a vital forum for those interested in biomedical engineering education. If you plan on attending the 2012 BMES Conference and are willing to man the BED booth for one or two shifts, please let me know!
2. **Poster Session for “Works in Progress” for 2013 ASEE Meeting.** This year’s papers will include the possibility of two tracks. Papers will either 1) report the results of research or systematically collected outcomes assessment (i.e. data will be expected by reviewers) or 2) present “works in progress.” Works in progress may have a higher likelihood of being assigned to a poster session and should have innovative aspects that have not been previously published by others. More information can be found in the 2013 Call for Papers on Page 2.

I would encourage each of you to participate by submitting an abstract, volunteering to review abstracts or draft papers (or both!), or attending the 2013 ASEE conference. Please feel free to contact me if you have any questions or suggestions for our division. I look forward to working with you in the upcoming months.

Conrad M. Zapanta, Ph.D.
2012-13 ASEE BED Chair

Newsletter

Please submit suggestions or submissions for the ASEE Biomedical Engineering Division newsletter via e-mail to Joe Tranquillo at jvt002@bucknell.edu

Thanks to everyone who contributed to this issue.

Recognition of 2012 BED Award Winners

Contributed by Richard Goldberg

BED Awards Chair

The BED is pleased to recognize achievements of outstanding members with three Division-sponsored awards.

The Theo C. Pilkington Outstanding Educator Award for 2012 goes to Dr. Art Johnson for his leadership in biomedical engineering education throughout his career. Dr. Johnson has taught at University of Maryland since 1975, starting in Agricultural Engineering, and switching to Biomedical Engineering when the department was formed. He has been a leader in BME course and curriculum development, and he has published 19 papers (out of a total of 132) in education topics. He is a fellow of the ASEE, AIMBE and BMES, as well as other organizations. He is also recognized for excellence in the classroom, as one of his students commented, “Dr. Johnson’s creativity and liveliness in the classroom demonstrate his passion for education. His approachability and knowledge make him a great source of advice for engineering and other areas of education.”

The Biomedical Engineering Teaching Award for 2012 goes to Eric Kennedy, Assistant Professor of Biomedical Engineering at Bucknell University. Dr. Kennedy arrived at Bucknell just as the young department was graduating its first students, and he helped to build a new track in biomechanics. He launched several new courses in biomechanics and also enhanced the prototyping and fabrication aspects of the curriculum. He is recognized as “one of the most talented and engaging professors on a campus of dedicated educators”, and a student commented that, “Dr. Kennedy always makes an effort to engage the class with his energy and real-life examples related to current class content. He always is enthusiastic to share anecdotes.”

The Best Paper Award in 2012 goes to Steve Marek, William Liechty, and James Tunnel, all of the University of Texas, Austin, for their paper, “Controlled Drug Delivery from Alginate Spheres in Design-Based Learning Course”. Their paper described a successful design course for first year students that features “experiments in biomaterials design and drug delivery”. You can read their paper by searching for it online at <http://www.asee.org/search/proceedings>

Congratulations to all of the award winners of 2012!