

2016 ASEE Annual Conference Call for Papers Multidisciplinary Engineering Division

The Multidisciplinary Engineering Division invites abstracts on subjects of particular interest to those involved with multidisciplinary engineering programs and the promotion of multidisciplinary approaches in engineering education. Multidisciplinary is interpreted by the division in the broadest sense to include education-related scholarly work that integrates various engineering disciplines as well as the sciences and humanities. The division accepts abstracts from a wide and varied group of researchers, educators, and practitioners. Subjects of particular interest include the following:

- The structure and effectiveness of multidisciplinary engineering programs at the undergraduate and graduate levels
 - Best practices for accreditation and assessment
 - Perspectives of multidisciplinary engineering program constituents, particularly employers
- Curricular designs that incorporate multidisciplinary aspects, particularly recent innovations that address the Engineer of 2020 aspirations
 - Student learning related to ABET outcomes *and* multidisciplinary teams
 - Evaluation of on-line and non-traditional programs and courses
- Multidisciplinary engineering course design, implementation, and assessment
 - Multidisciplinary capstone design experiences
 - Multidisciplinary service-learning courses and experiential learning approaches
 - First-year engineering courses with a strong multidisciplinary integration
 - Nano-technology courses and curriculum
 - Robotics and mechatronics courses and projects
- The impact of multidisciplinary experiences on student development, particularly on learning, self-efficacy, diversity, teaming, and the ability to innovate
 - Multidisciplinary courses that promote inclusiveness of under-represented groups
 - Extracurricular student projects and contests in multidisciplinary engineering
 - Innovative uses of emerging technologies in multidisciplinary teaching
- Integration of engineering and the liberal arts
 - Best practices in fusing liberal arts and engineering in curricular and co-curricular activities
 - Assessment of current liberal arts and engineering curricular and co-curricular activities with emphasis on retention of students and ABET outcomes
 - Innovative approaches that intentionally promote development of professional, non-technical skills
- Current technological problems that necessarily require multidisciplinary approaches, including global sustainability, energy production and distribution, and other grand challenges.

Submission deadlines will be announced on the ASEE website. Questions regarding abstract and paper submission may be directed to the Multidisciplinary Engineering Division Program Chair:

Dr. Jean Kampe
Associate Professor
Materials Science and Engineering
Michigan Technological University, Houghton, MI
kampej@mtu.edu 906-487-3046