

**ASEE Global Pavilion
Vancouver Convention Centre, Exhibit Hall C**

Monday, June 27

11:00 a.m. - 4:00 p.m. M306D: ASEE Global Pavilion

Don't miss these dynamic presentations by ASEE corporate and institutional partners highlighting globally focused programs and initiatives that address the critical issue of sustainability. There is no cost to attend pavilion sessions, but all sessions are ticketed. Visit the global pavilion promotional table located in the ASEE registration area to pick up your session tickets!

Featuring:

Autodesk: 11:00 a.m. – 11:45 a.m.

Using Sustainable Design to Help Solve Today's Grand Challenges

Among the Grand Challenges identified by the NAE is Sustainability - issues like materials waste, energy scarcity or access to clean water. One of the greatest opportunities for addressing and solving these problems is in the hands of today's engineers and designers making decisions about the future of our built environment. While current engineering curricula is beginning to teach students how to deal with the environmental issues at hand through project-based learning, design fundamentals, and integration of sustainable design strategies, there's opportunity for more supplemental learning in this area. The Autodesk® Sustainability Workshop was developed to support sustainability learning in engineering education. Sustainability Workshop is a free, online learning resource that uses videos, tutorials and case studies to teach basic principles of sustainable design and engineering. This session will delve into some of the sustainable design strategies that are presented on Sustainability Workshop, and will walk through how to integrate these learning tools into today's engineering curriculum. It'll also demonstrate how digital prototyping is being used to solve the Grand Challenges facing our world, and leave you with a deeper understanding of how to bring project-based, sustainable design learning into your teaching.

MathWorks: 1:00 pm to 1:45 pm

Model-Based Design for a Sustainable Future

Around the world, society is looking to engineers, both in academia and in industry, to help solve the world's "Grand Challenges". This presentation will touch on the ways in which Model-Based Design is helping engineers from multiple countries and disciplines make a world of difference by tackling difficult, multi-domain, and system-level design and development challenges related to sustainability, particularly to renewable energy.

Speaker: Jim Ryan

National Instruments: 2:00 p.m. – 2:45 p.m.

Do Engineering & Teach Sustainability with a miniGrid costing less than \$50

The Energy & Sustainability crisis have never been more pressing. Oil is at an all-time high. Renewable energy resources are being constantly researched on. Companies are pouring billions into alternative forms of energy for housing to transportation. It is vital to give the next generation of engineers the ability to tinker, explore and experiment with renewable energy systems, including generation and transportation. However, educators face severe limitations today in being able to bring these real-world experiences to the students in an affordable and accessible manner. Traditional techniques are either too large to fit into a classroom or too expensive for all schools to afford. In this session we will demonstrate how graphical system design approach leverages student owned hardware like the NI myDAQ and graphical programming like LabVIEW to bring the concepts of renewable energy and sustainability including solar power, wind power and energy distribution to be taught with systems that fit into the palm of their hand and cost less than \$50

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ASEE International Department: 3:00 p.m. – 3:45 p.m.

Consistent with ASEE's vision and mission to be a global leader in enhancing engineering education to meet global challenges, the ASEE International Department will provide a broad overview of its global activities and invite the key leaders of various key international efforts associated with ASEE to provide a brief summary of their respective work and strategies. Dean and Prof. Sarah Rajala, former ASEE president is the Chair-Elect of the Global Engineering Deans Council (GEDC) and will speak about its strategic plan and forthcoming second GEDC conference at Peking University, Beijing, China this October, which includes a session on sustainability as one of the key issues of concern for deans. Dean Emeritus and Professor Krishna Vedula, IFEES president and ASEE Fellow will discuss the strategic directions of the International Federation of Engineering Education Societies (IFEES), its forthcoming IFEES Summit in Lisbon and other critical activities such as the Indo-US Collaborative (IUCEE) related to sustainability reaching the global engineering education community. Ph.D. student and founder, former president of the global engineering student organization SPEED Ms. Jennifer DeBoer will present its key global activities including the development of the Singapore Declaration which was signed by many US and global engineering educators last year in Singapore and which serves as a basis for future global work and networks and global discussions re sustainability. Hans J Hoyer, Director of ASEE's International Programs, Secretary General of IFEES and Executive Secretary of the GEDC, will give a brief overview of the ASEE related international work including the Global Colloquia held throughout the world over the past decade. There will also be a brief question and answer period.

Speaker: Hans Hoyer

Tuesday, June 28

11:00 a.m. - 4:00 p.m.

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Using Technology to Enable Interdisciplinary Education

In the highly competitive commercial world, engineers of all disciplines must work together and do so effectively. As a developer of Design and Engineering technologies Autodesk is creating tools that allow people to work with tools that suit their individual needs while collaborating with others on the team. These same technologies can be an effective way for students to work with others and gain insight into the processes and workflows that they will encounter in a commercial setting. These tools can also help students to understand the application of theory and to inspire them to remain engaged in their education.

This session will give a brief overview of a number of tools available to students and faculty that can help to facilitate the process of Engineering education for several disciplines while inspiring attendees to explore the potential that these tools offer for real interdisciplinary education.

Speaker: Thom Tremblay, Education Solutions Specialist, MFG

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Dassault Systèmes: 1:00 to 1:45 p.m.

Ice Dream: Cool inspiration to make a difference

Global Water Crisis is on the horizon. The dream: Turning icebergs into drinkable water. The challenge: Moving them to dry places. Mission possible says 3D simulation.

www.3ds.com/icedream

Speaker : Charles Bonnassieux, Academia Project Manager for Dassault Systèmes

SolidWorks Sustainability

Sustainable engineering, like quality, time to market, and cost, will soon dictate how engineering students approach their future projects. Choosing materials based on their carbon footprint will be equally as important design validation. See in this demonstration how you can empower your students to make the right decisions www.solidworks.com/sustainability

Speaker: Marie Planchard, Director of Education for SolidWorks Corporation

Digilent: 2:00 p.m. – 2:45 p.m.

Tools and techniques to educate EE and CE students to solve tomorrow's problems

At Digilent, we expose students to educational experiences that lay a foundation upon which they can build their knowledge and skill set to address such complex topics as sustainability. Our products and education solutions enable students to effectively learn core technology areas needed to be a successful and contributing engineer. Clint Cole will discuss these issues and showcase how Digilent is solving them in classrooms, laboratories, and dorm rooms around the world.

Speaker: Clint Cole, President, Digilent

HP: 3:00 p.m. – 3:45 p.m.

Engineering Curriculum for the Sustainability Age

Sustainability is one of the most critical issues of the 21st century. During the next few decades, engineers will need to transform the cities of today into the sustainable ecosystems of tomorrow. This will involve technologies, infrastructure and management strategies that meet the needs of the globe while having less impact on natural resources. We believe that information technology (IT) is at the heart of Sustainable Cities of the future and that the engineering curriculum needs to be reformed/innovated to develop a professional that is able to design, build and manage these ecosystems.

The objective of this session is to share the focus of HP Labs' research on sustainable cities and a proposal to innovate/reform the engineering curriculum to develop the engineering professional through a hands-on, practice based curriculum integrated into the various engineering disciplines, with strong industry collaboration. We hope to engage the audience in an open discussion that will result in a list of questions that will guide universities in the development and innovation of engineering curriculum and student learning experiences needed to develop the human resources to collect and analyze data and make intelligent decisions in future cities.

Speakers: Lueny Morell, Program Manager, HP Labs Strategic Innovations and Research Services Office and Martina Y. Trucco, HP Labs Strategic Planning Manager