Global Collaborative Projects

Collaboration experiences for young engineers and designers are a primary focus of PACE. Global technical projects and competitions challenge students to learn how to work in global teams—overcoming language barriers, cultural differences and time zone issues. Students utilize the same tools and technologies found in industry, and use this common technical language as a foundation toolkit for working together, as they create the ultimate component, sub-system, or vehicle.

PACE projects provide students with the opportunity to expand and develop their professional skills as part of distributed virtual teams, advance their project planning and execution skills, and experience the same challenges that industrial designers, product engineers, and manufacturing engineers encounter in industry. Students participate in multi-university teams; utilize PACE state-of-the-art CAD/CAE/CAM and collaboration software; and apply product lifecycle management tools and concepts.

PACE sponsors industry-like collaborative team projects to enhance and advance the educational experience and promote university-to-industry and university-to-university global networking and collaboration, as well as to stimulate innovation. PACE projects bring together faculty, students, automotive subject matter experts, and company executives in a collaborative environment, both locally and globally. Projects provide hands-on, real-world experience, a source of new ideas and new ways of solving problems for industry, improved recruiting relationships, and identification of students early with skills in PLM areas.
Through projects, PACE strives to educate and inspire students on the necessity of global collaboration, to foster awareness of current social and economic pressures, and to stimulate innovation. PACE global collaborative projects further develop the future generation of engineers and designers, and the Product Lifecycle Management team of the future.

**Reconfigurable Shared-Use Mobility Systems (RSMS)**
Eight global teams representing 45 PACE institutions are to design vehicle solutions that incorporate a system of components or modules that can be combined into a variety of configurations to fulfill different mobility requirements. (2014-2016)

**Connected Mobility Solutions (CMS)**
Students from 16 PACE schools are challenged to create connectivity solutions that are linked with mobility that can create and promote sustainability, while solving either a problem or an unmet customer need. (2015-2016)

**Portable Assisted Mobility Device (PAMD)**
Students from 32 PACE institutions in 11 countries undertook the challenge to design a “first mile/last mile” transportation device for an urban market, and to build a functional prototype. (2012-2014)

**Sustainable Urban Transport (SUT) Vehicle**
Seven global teams competed to design and engineer a 2-occupant vehicle suitable for an urban market. (2010-2012)

**Emerging Market Vehicle (EMV)**
Student teams from 15 PACE institutions developed a vehicle for emerging markets through collaborative design of the vehicle subsystems and the manufacturing system for mass production. (2008-2010)

**Formula 1 Race Car**
Students from PACE institutions on five continents collaborated to design, analyze, build and test an actual racecar. (2006-2010)

**Human Machine Interface (HMI)**
Industrial design students from eight PACE institutions in five countries designed an HMI concept for a small luxury vehicle. Concepts focused on total user and vehicle experience. (2008-2009)