



## Global Learning in Engineering

NAFSA Global Learning  
Colloquium on STEAM'D

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Executive Director and CEO



# Topics

- Who is ABET?
- Need for Global Learners & Professionals
- Innovative Approaches



**Who Is ABET?**



# ABET Core Purpose

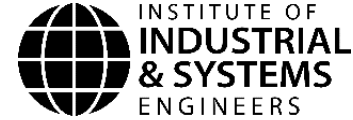
With ABET accreditation, students, employers, and the society we serve can be **confident** that a program meets the quality standards that produce graduates prepared to enter a global workforce.



# ABET Organizational Design

- ABET is a federation of 35 professional and technical societies
  - Peer review process
    - Team Chairs & Program Evaluators come from our societies
  - Develop program criteria
  - Appoint Board members and Accreditation Experts
- ABET relies on the services of almost 2,200 volunteer experts supported by 32 full-time and 14 part-time staff





# ABET's 35 Member Societies





US Army Corps  
of Engineers®



Newport News  
Shipbuilding



**PARSONS  
BRINCKERHOFF**



***NORTHROP GRUMMAN***



AREVA

## Industry Partners



Sandia  
National  
Laboratories

**SIEMENS**



McKIM & CREED

**AECOM**

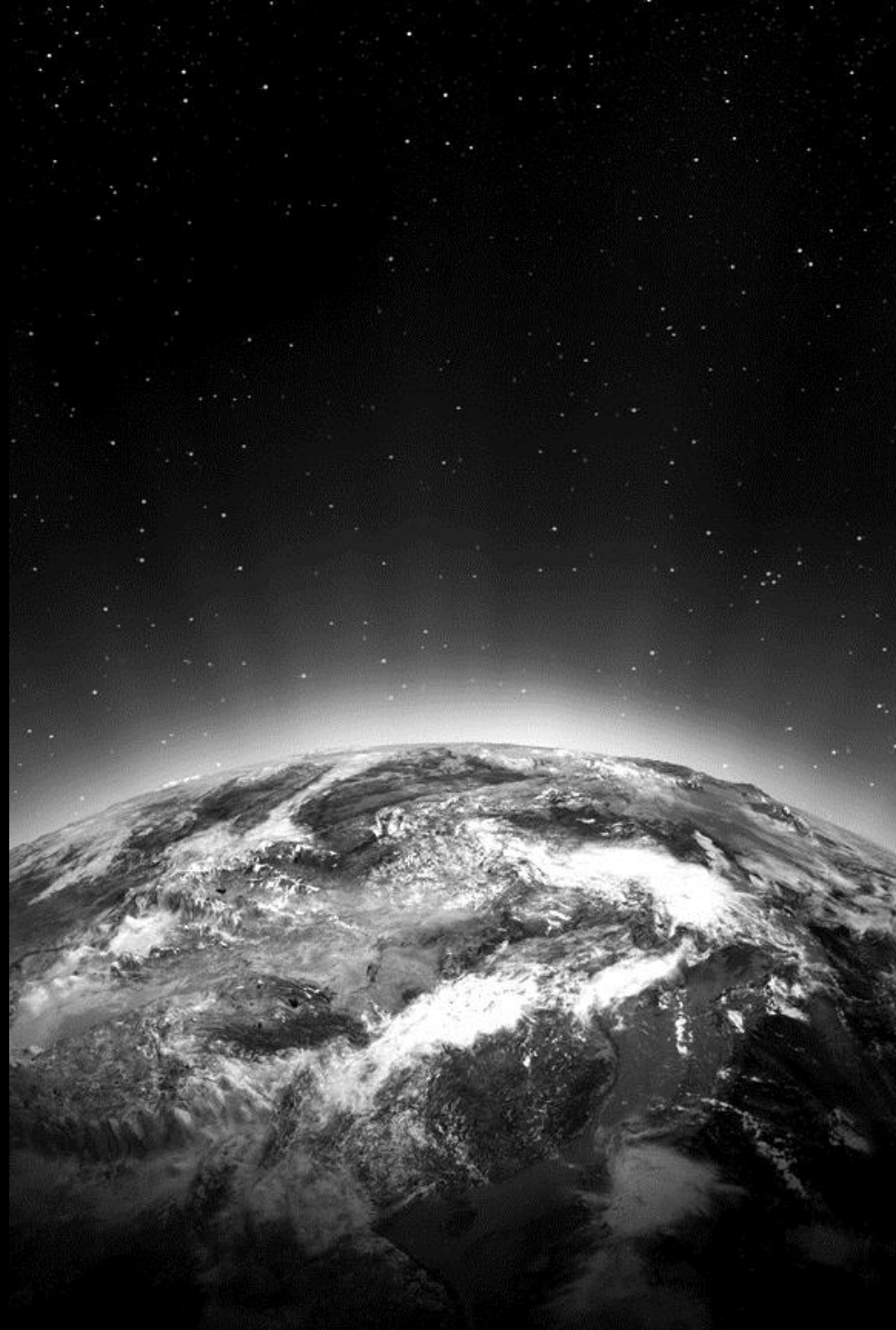


**BOEING**





# **ABET's Global Engagement**





# Global Engagement

- Memoranda of Understanding (MOU)
  - 18 international accreditors
- Mutual Recognition Agreements
  - Canada; Washington, Sydney, Dublin, Seoul Accords
- Accredited Programs
  - 3,709 Programs at 752 Institutions in 30 Countries
- Engagement with global education organizations
  - Intl Federation of Engineering Societies (IFEES)
  - Global Engineering Deans Council (GEDC)
  - Latin American and Caribbean Consortium of Engineering Institutions (LACCEI)

Are we preparing our graduates to succeed in a Global Economy?



Globalization

By Guille3691

# THE WORLD'S MOST IN DEMAND PROFESSIONS

Across the developed countries of the world, skilled professionals are in high demand. Software engineers are needed in 24 countries, nurses are needed in 18, while 11 countries report a shortage of accountants. Explore the chart below to see which occupations are most in demand across the world and discover which skills are needed.



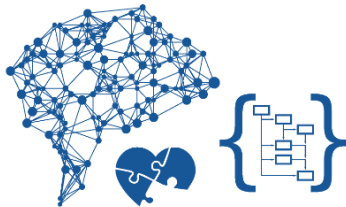
[www.recruitingtimes.org](http://www.recruitingtimes.org)

# Top 10 skills

## in 2020

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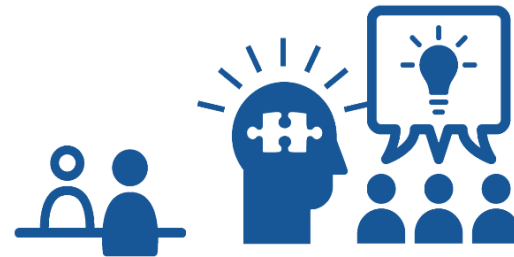
1. Complex Problem Solving
2. Critical Thinking
3. Creativity
4. People Management
5. Coordinating with Others
6. Emotional Intelligence
7. Judgment and Decision Making
8. Service Orientation
9. Negotiation
10. Cognitive Flexibility



## in 2015

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1. Complex Problem Solving
2. Coordinating with Others
3. People Management
4. Critical Thinking
5. Negotiation
6. Quality Control
7. Service Orientation
8. Judgment and Decision Making
9. Active Listening
10. Creativity



Source: Future of Jobs Report, World Economic Forum

# Washington Accord

## Global Graduate Attributes

- Engineering Knowledge
- Problem Analysis
- Design/Development of Solutions
- Investigation & Experimentation
- Modern Tool Usage
- The Engineer and Society
- Environment and Sustainability
- Ethics
- Individual and Teamwork
- Communication
- Project Management and Finance
- Lifelong Learning

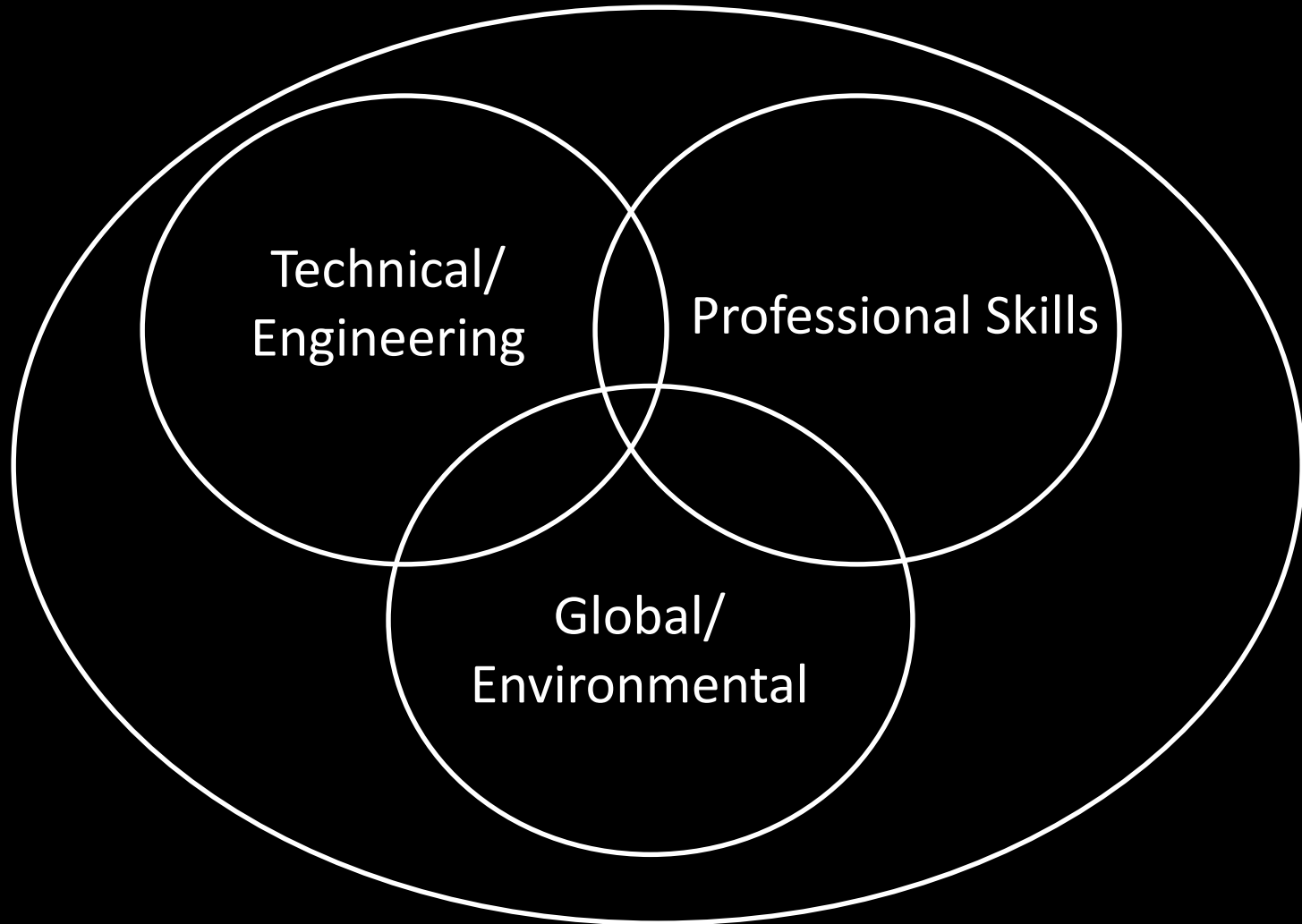


# UN Sustainable Development Goals

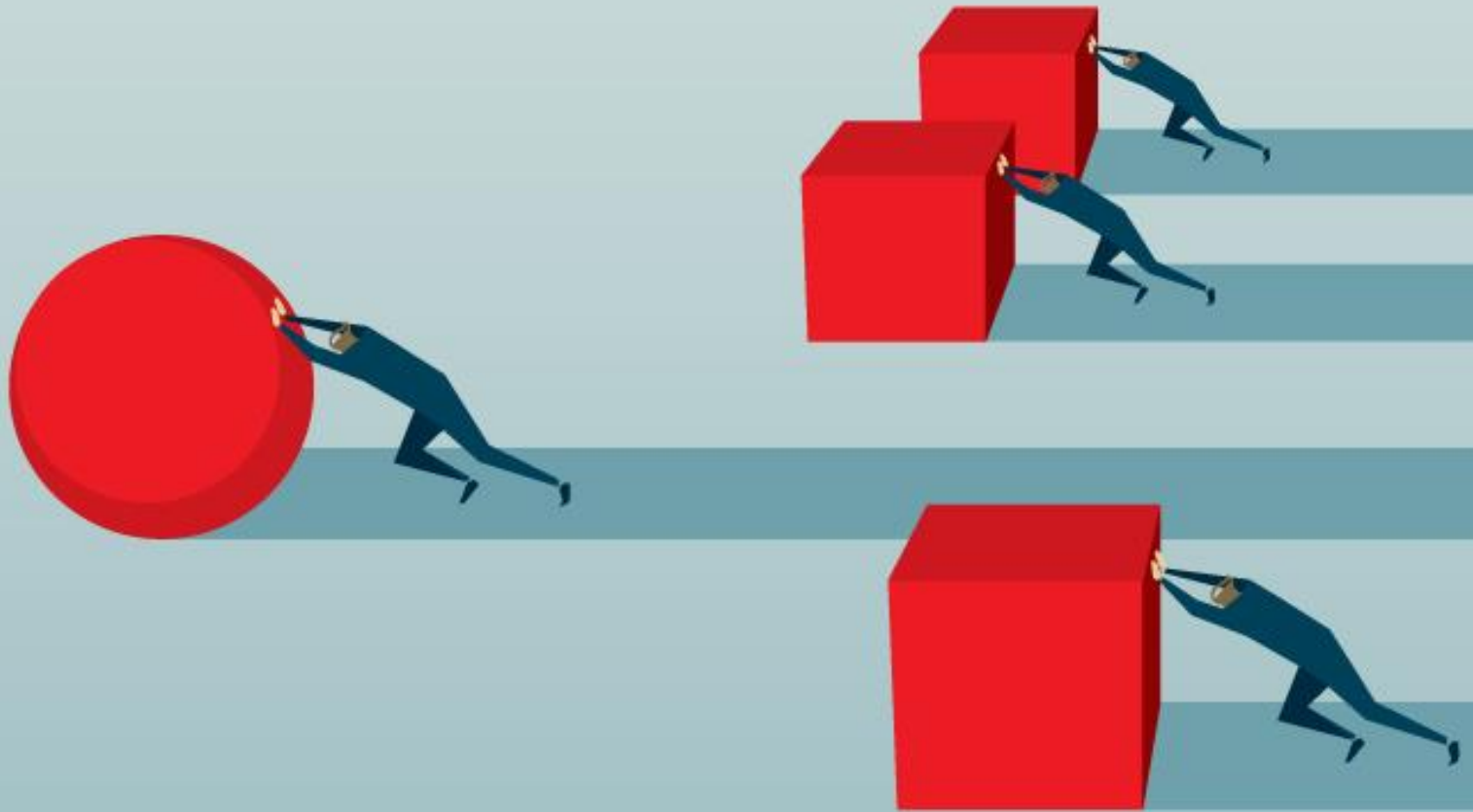


# Holistic Approach to Education

## Knowledge, Skills, Attributes (KSA)



# Innovative Approaches



[www.gatesnotes.com](http://www.gatesnotes.com)



# *Engineers Without Borders*

- International solidarity organization for engineering and technology
- National groups of engineers & engineering students
  - Engineering projects to assist disadvantaged communities
- 64 EWB organizations throughout the world
  - Over 700 Projects in 45 countries
  - 300 Student Chapters in the USA

*[www.ewb-international.com](http://www.ewb-international.com)*



# engineering FOR CHANGE

- Online platform
- International community of engineers, scientists, non-governmental organizations, local community advocates and other innovators working to solve global development problems
- Use platform's online tools to share knowledge, collaborate
- Facilitates the development of affordable, locally appropriate and sustainable solutions to the most pressing humanitarian challenges and shares them freely online as a form of open source appropriate technology
- Founded by ASME, IEEE and EWB

*[www.engineeringforchange.org](http://www.engineeringforchange.org)*



# WPI

- Global projects-based learning
- Science, engineering, and business students travel to more than 40 off-campus locations across six continents.
- Immersed in new cultures, they tackle unstructured problems in ways that are meaningful to local sponsors in real communities
- Interdisciplinary and major capstone projects, and humanities and arts projects. As well, students can participate in language immersion and exchange programs.

*[www.wpi.edu](http://www.wpi.edu)*



## THE LANGUAGE FLAGSHIP

*Creating Global Professionals*

- A national effort to change the way Americans learn languages.
- Pathways for students of all academic majors and language levels to pursue advanced-level language study in one of ten languages: Arabic, Chinese, Hindi Urdu, Korean, Persian, Portuguese, Russian, Swahili, or Turkish.
- 27 Flagship programs at 22 institutions of higher education, and 10 Overseas Flagship Centers

[www.thelanguageflagship.org](http://www.thelanguageflagship.org)



- Exchange program for engineering students
- Study abroad while continuing to pay tuition at home
- Member universities in 24 countries
- Students at over 70 universities have the opportunity to study abroad
- 250-300 students a year

*[www.iie.org](http://www.iie.org)*

*[www.globale3.studioabroad.com](http://www.globale3.studioabroad.com)*



- Online application provides comprehensive cultural and business information designed to increase your competitive advantage in today's global business environment
- Cultural assessment tool, the Cultural Orientations Indicator, is organized into three dimensions
  - Interaction Style, Thinking Style, Sense of Self
- Help you identify your cultural preferences
- The assessment and report are available in 12 languages

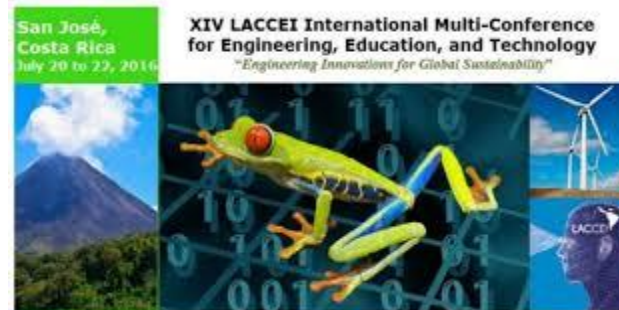
*[www.culturalnavigator.com](http://www.culturalnavigator.com)*



# Get Students Involved !



Student Platform  
for  
Engineering Education Development



# Questions?





**ABET**

**BE CONFIDENT<sup>SM</sup>**

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