

IEEE Systems Council

Workforce Development Technical Committee

Feb 18, 2016, 3.40pm Eastern

Present: Richard Millham Roger Oliva

1. Minutes of previous meeting accepted
2. Brainstorming of ideas for future directions of committee
 - a. Mention of current issues in US
 - i. iPhone: different viewpoints (Apple: protect consumer privacy; law enforcement: build case against defendant)
 - ii. air traffic congestion: basics of stable platform
 - iii. climate issues: warming of ice packs results in release of billions of microbes which help balance the atmosphere (further research needed)
 - b. Previous ideas for workshops taken up by other committees
 - c. Ethical issue of emerging tech
3. Possible idea of white paper on how to transform workforce
4. Hundreds of technical committees; 39 societies plus American Chemical Society, et al (huge range of resources to be tapped)
 - a. Identify sub-technologies within field
 - b. Identify probable emerging tech in the future
 - c. Identify tech solutions or directions (if no solution yet) needed to address problems (both present and future)
 - d. Use triangulation/referees to ensure veracity and remove bias
5. From a small number of prominent universities (40 universities worldwide), identify all STEM areas and condense into core areas (avoid overlap)
6. Create a knowledge site; ask IEEE Education Society for assistance
7. Develop framework
 - a. Tech Society
 - i. Develop standard framework
 - ii. Taxonomy of related and inter-related info
 - iii. Reach out to tech societies/op leaders for current research, emerging technologies, and needs of solutions
 - iv. Recommend curricula changes to meet these
 - b. Standards (Fundamentals)
 - i. Minimum standards to pass ABET accreditation
 1. Identify metrics to evaluate course
 2. Demonstrate basic requirements
 3. Recommendations for future improvement
 - ii. core curriculum
 - c. Engineering Deans
 - i. Curricula
 - ii. Review relevant current research, emerging tech, needs, and curricula change

- iii. Realign curricula to meet new needs for workforce
 - d.
 - 8. Ask System Council to populate template with hired help
 - a. Template
 - i. Each element – link
 - ii. Modify – can accept changes
 - iii. Editor – can approve changes
 - b. Split work into limited set of areas; each area assigned an editor
 - 9. Tasks: short writeup on what to do, bottlenecks, what we wish to know and how (Rich)

Roger: review and recommend writeup
 - 10. Meeting ended