



IEEE Systems Council Workforce Development Committee

Hello.

I wish to introduce the Workforce Development Committee under the IEEE System Council. The goal of this committee is to broadly identify and prepare for the technical environment of the future. We wish to derive technical needs from this environment and apply them to the enhancement of engineering and computer science curricula at various learning levels from K-12 to late career professionals.

As our committee is small with limited areas of expertise and with workload restrictions, we wish to reach out to the broader community to tap into their knowledge base and then use this knowledge to accomplish our goal.

To achieve this goal, we are embarking on a multi-stage process:

- 1) Stakeholders
 - a. Identify a wide range of stakeholders in STEM (IEEE Technical Societies, Committees, American Chemical Society, et al)
 - b. Ask each stakeholder to list their focus areas with their current research, likely emerging technologies, and subsequent future technical needs using a standard template
- 2) Concurrently, with universities/schools/colleges
 - a. Identify minimum curriculum standards and core curriculum for accreditation
 - b. Examine a common set of available engineering programme curricula
 - c. incorporate curricula into a standard template
- 3) Using both sets of templates, utilize experts to verify accuracy of results and remove redundancies
- 4) With verified results from stakeholders, compare their identified technologies and needs with corresponding elements in curricula in order to identify gaps. Based on these gaps, recommend changes to curricula to enable graduates to meet new challenges of emerging technologies head-on

A tentative timeline to accomplish this is as follows:

<u>Dates</u>	<u>Task</u>
April, 2016	Obtain feedback from stakeholders and incorporate into central data store
May & June, 2016	Implement system
July-Sept, 2016	Compile document of recommendations

We hope that you will be able to assist us in our endeavour.

Thank you.

Prof Richard C Millham
Dept of IT, Faculty of Accounting and Informatics
Ritson Campus
Durban University of Technology
Durban, South Africa, 4001
Richardm1@dut.ac.za
+(27) 031 373 5542