# IFAC TB Liaison to Education Report & Plans for the 2017 IFAC World Congress

Dear TC Liaisons, Dear Friends of Education,

I hope that you are doing well and your summer has been productive and enjoyable.

I just came back from the IFAC ACE2016 Symposium. It was fantastic!

You may enjoy seeing the photo gallery from it: [http://www.ace2016.sk](http://www.ace2016.sk/)

We had a very productive joint meeting of the TC 9.4 on Control Education & TB Liaison to Education

and TC Education Liaisons. We had also the Discussion Session Open to All Participants on our joint

plans for the 2017 IFAC Congress in July, 2017 in France.

I will attend the IFAC Council Meeting on June 22 - 24 in Istanbul, Turkey where I will report about

our continuing efforts in education across the Technical Board, and what we can do together for

the IFAC Congress.

The purpose of this message is to ask you for your engagement and help.

I never give up on my goals and dreams.

My goal and dream for this group has been to collect “Plain Talk” prepared by a wide range of the public

on the technical area of control which you represent. This “Plain Talk” may have a different forms such

as a short essay paper or a short attractive power point presentation or a short video in which you can

demonstrate that control in your area of research is a field that spans science, technology, engineering,

and mathematics (STEM).

“Plain Talk” needs to demonstrate what I call: “Control Education Matters: Let us Apply It!”

You may focus on an illustrative example or a course that you teach in your area of research to attract

other students to your area of research. These collected stories could have a potential for having an

invaluable product that could be used by so many.

My very recent passion is: Broader Impacts - Integrating Research & Teaching in a Wide Range of Communities

                                           and Settings.

I enjoy teaching stochastic adaptive control vertically and horizontally meaning having students from different levels

of studying and representing different fields and disciplines.

When I started this concept of having TC Education Liaisons I was dreaming about having collections of your stories

in which you will passionately and enthusiastically tell others what is particular area of research about in the language

that will be understood by non engineers, for example elementary or middle school or high school students and teachers.

**To reach my goal I would like to propose the following 2 projects for the IFAC Congress:**

1,  To have a track at the Congress with its initial title:

Integrating Research and Teaching at All Levels in Promoting Control as a Field that Spans Science, Technology, Engineering

and Mathematics (STEM).

The purpose is to bring the important visibility to integrating closely research and education. “We all do education” in our

progressive innovative methods of teaching that involve introducing research engagement of students at all levels: high

school, undergraduate, graduate and beyond.

2. To hold Special Panel Session on Education on “ Preparing Tomorrow’s Scientists and Engineers for the Challenges of the 21st Century":

as I did it at 2011 IFAC World Congress in Milan with 15 panelists:

<http://www.math.ku.edu/ksacg/IFAC/IFAC_WC_2011/IFAC%20Special%20Panel%20Session%20announce.pdf>

Over 800 delegates attended the session. The Panelists were remarkable. I received the feedback from

participants: organize it at every congress. I would like to organize it again and revisit the critical issues

in engineering or STEM and in particular control education.

For both projects I need your commitment of making contributions to it. Without your commitment the #1 project would be a failure.

Finally open for your suggestions, recommendations, and any proposals on the following topic.

 There has been an intensive discussion at the conference and at the meeting of EDCOM of the efficacy of the IFAC repository and what we need to do to make this more effective and to develop it further. We all agree that Broader Impacts that include outreach of our control research is very important and having very attractive web page with control resources library would have a potential to attract teachers and students to control. There was general agreement that the repository managed the content as such but the appearance was utilitarian and not attractive. Key point for us is to provide an exemplar of what it is we want and also some form of proposal discussed with all TC liaisons for how this could be implemented. Suggestion that it helps to have an enthusiastic volunteer skilled in website management/design. As I mentioned before, one project for you is to provide resources for the website which ‘sells’ the work of your technical committee to a general audience. I will need support from the chairs of TCs for this project. Ideally we need IFAC to form a template design that we can fit our contribution into. Then I believe that it would work with wider IFAC TC and members on this. I expect that through proposed IFAC Congress sessions focused on demonstrations as well as on Broader Impacts/Outreach/Plain Talks we will collect invaluable resources therefore something should be done with them.

I will be thrilled to hear from you soon. Share with me your ideas what we can do that will be unique and special together.

Thank you!!

With my very best,

Bozenna

TB Liaison to Education

<http://www.math.ku.edu/ksacg/IFAC/tc_edu_liaisons_members.html>

Dear Friends,

I have one more question/request to you.

As I wrote at the end of my message: "Ideally we need IFAC to form a template design that we can fit our contribution into. Then I believe that I would work with IFAC TC education liaisons on this. I expect that through proposed IFAC Congress sessions focused on demonstrations as well as on Broader Impacts/Outreach/Plain Talks we will collect invaluable resources therefore something should be done with them”.

The question that IFAC asked me is the following:

Can you provide estimation about the required manpower, time (and timing), to design the template in the first place, and to manage it afterwards?

Would you please help me with this?

Thank you!

With my very best,

Bozenna