

Successful Practice/Academe Collaborations

- The objective has been:
 - Collect and analyze data from specific collaboration projects.
 - Identify best practices and disseminate as a guide to others.
- Taskforce Members:
 - David A. Anisi, Associate Professor, NMBU/UiA, Oslo, Norway
 - Philippe Goupil, Aircraft Control System Expert, Airbus, France
 - Chris Manzie, Professor, The University of Melbourne, Australia
 - R. Russell Rhinehart (Russ), Professor Emeritus, Oklahoma State University, USA
 - Bran Selic, President and Founder, Malina Software Corp., Canada
 - Atanas Serbezov, Professor, Rose-Hulman Institute of Technology, USA
 - Jaroslav Sobota, Control System Engineer, Centrum LTD, Czech Republic



Survey Responses

- Developed and posted a survey.
- Received about 240 survey attempts, of which about 125 were useful.
- 85 unique collaborations were identified.
- Survey participants statistics:
 - 24 countries were named.
 - 31% academe only, 20% practice only, and 26% both.
 - Over 11 academic disciplines, and 13 application domains were represented.
 - We are pleased with the experience balance.
 - Responses were universally consistent.



Incentives and Benefits for Participants: Successful Collaborations Must Produce a Win for Every Participant

Practice Entity

- New ideas
- Recruiting talent
- Brand name recognition
- Societal responsibility

Practitioners

- Professional development
- Career promotion
- Personal satisfaction

Students

- Practical Knowledge
- Better employment opportunities

Faculty

- Professional development
- Funding
- Practical relevance of curriculum
- Personal satisfaction

Academic institution

- Funding
- Reputation
- Societal responsibility



Ten Keys for Successful Collaboration between Academia and Practice

- 1. Address a joint problem and share a vision that provides a win for all.
- 2. Define success and deliverables.
- 3. Define objectives, goals, schedule, and milestones.
- 4. Gain support of leadership.
- 5. Secure adequate funding and staffing.

- 6. Define responsibilities.
- 7. Appoint a project manager / program director.
- 8. Build realistic expectations.
- 9. Stay engaged and connected.
- 10. Develop mutual trust, respect, and lasting personal relationships.



Publications

- Serbezov, A., R. R. Rhinehart, P. Goupil, D. A. Anizi, "Academic-Practice Collaborations in Automation and Control: Keys for Success" IFAC Symposium on Advances in Control Education 2022 (Hamburg, Germany, 24-27 July 2022, https://ace2022.org/), will be published in *IFAC-PapersOnLine*, open access publication
- Rhinehart, R. R., "Best Practices for Collaboration Between Industry and Academe", InTECH, Vol. 69, No. 5, Oct 2022, pp 18-22 (InTECH is the International Society for Automation periodical, a practitioners' magazine).
- Serbezov, A., and R. R.Rhinehart, "Keys for Success of Academic-Practice Collaborations", IFAC Newsletter, August 2022, No.4, page 2.



Activity

- The taskforce mission of creating and interpreting the survey and creating presentations and publications has been accomplished.
- The Taskforce is closed.
- Survey and Data are to be posted at https://sites.ifac-control.org/industry/committee-reports-and-presentations/indcom-publications-and-reports/industry-and-academe-collaboration to be available for others to use.