

Seminar - "Dr. Balwant S. Joshi Distinguished Visiting Professorship"

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A Personal Perspective on Industry-Academia Interaction in R&D

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Synopsis

R&D is recognized to be central to successful competition in the global innovation economy where scientific knowledge is growing exponentially while the current managements systems cannot cope with it. University based researchers need to be incentivized to utilize their ability to generate new knowledge to create wealth and new jobs for the national economy. Transferring university-developed research into commercial applications needs close interaction with industry and joint R&D collaboration. Following a short statistical summary and discussion of R&D effort by both developed and emerging countries, this presentation will outline the need for R&D in general, the role of academia in generating advanced knowledge and highly trained researchers capable of developing new technologies. This requires development of use-inspired research and an entrepreneurial curriculum since the next generation technology innovations will come from today's students. My personal experience in developing close interactions with diverse industries will be summarized with the goal of arriving at lessons learnt from successful as well as not-so-successful collaborative projects. Academic successes can be deemed commercial failures if they do not meet economic criteria. Examples of successful collaborations and how they can be accomplished will be presented in the light of personal experience. Suggestions will be made on how faculty members and academic institutions can develop synergistic research collaborations with industry that result in win-win propositions for both parties.

About Professor Arun S. Mujumdar

A 1965 graduate of ICT (then UDCT), Prof. Mujumdar obtained his PhD degree from McGill University in Canada before proceeding to a short industrial R&D stint as Aerodynamicist in The USA. He returned to Montreal and joined the chemical engineering faculty of McGill University before moving to the National University of Singapore in 2000. He is currently professor and Director of Minerals, Metals and Materials Technology Centre (M3TC) which deals with industry-relevant R&D. Author of over 480 journal papers, three books and over 100 book chapters, Dr Mujumdar is Editor-in-Chief of Drying Technology journal since 1988. His Handbook of Industrial Drying is now undergoing 4th edition. He

consulted for over 70 companies in diverse areas while at McGill University. He has unusually rich and multidisciplinary experience in academia-industry interaction, innovation and impact of globalization on education as well as R&D. He has won numerous international awards for excellence in research in heat/mass transfer and industrial drying. He has been awarded Doctor Honoris Causa by Lodz Technical University, Poland (2008) and University of Lyon1, France (2012).