

Interaction between Academia-Research and Industry

Concluded on 23 rd August 2014, at Vadodara

during

Industry-Academia Meet, Organized by ICC (WZ)

A panel discussion was conducted amongst the various senior members of the ICC community and industry partners in order to understand the missing link between the Cryogenic industry in India and the Research/Academic community. In the background of various projects taking off in India in the Cryogenic Engineering domain, there seems to be relatively less interaction between academic institutes and the industry. This important issue was highlighted for the first time during this meet and following are the salient points which came out of this discussion:

Panel Members:

Dr R.K. Bhandari, Dr. T.S.Datta, Dr R.G. Sharma, Prof S. L. Bapat, and Shri Trilok Singh represented the Academia/ Research Institutes.

Shri Panjawani of Inox Ltd. and Shri Munjal Mehta of Shell and Tube Pvt Ltd, represented the Industry.

The audience comprised of representatives from both the industry as well as from the research and academic spheres.

The panel discussion was coordinated by Prof M D Atrey.

1. The panel members and the industry personnel accepted the fact that there is very little interaction amongst the industry and the research community. The only successful interaction has been with respect to the development of Cryo container industry. The other interaction is limited to fabrication of cryogenic piping, jointing, and successful development of allied technology like leak detection, welding etc.
2. The members argued that during late 1980s and early 90s, impressive technologies were developed at NPL, IIT Bombay with regard to Superconducting Magnet development and Stirling cycle based Nitrogen (air) Liquefier. However, the industry was never sensitized to the developments, and therefore the technology transfer never happened in a concrete manner. BHPV had taken the technology from IIT Bombay but the liquefier could not see the light of the day. Prof Bapat highlighted that this was, in spite of the fact, that these devices were very much required during those days.
3. Today, several products are ready in India; e.g. small sized Pulse Tube Cryocoolers and MRJT coolers from IIT Bombay, G-M type Pulse tube Coolers from IISc Bangalore, Cryogen free Magnets from IUAC, etc. which have potential to be used in the Indian

market and the industry needs to come forward to take up this challenge due to its cost effectiveness and requirements.

4. When the industry panelists were asked if they lacked trust in research in India, they lamented the fact that the gap between the researchers and industry is quite wide and it needs to be reduced. Another complaint that came out was that the industry does not get enough exposure to such technology; and that they are not the chosen partners during development of such technology and therefore they lack confidence in the technology itself.
5. Dr. Datta opined that one need not insist on developing complete technology in India. It could even be assembled by buying parts or subunits from other companies or may be imported if required. However, Dr Bhandari voiced the need for development of the complete technology in India.
6. Everyone accepted the fact that ICC could play a very important role in the industry-academic interaction, now that ICC is maturing and India is party to major international projects like CERN and ITER. It was also felt that ICC should take the lead in converting the laboratory developments into commercial products and some 'seed' grants may be given if industry and institute could come out with a proposal together.
7. It was also thought that ICC should approach DST for re-inducting 'Cryogenics' as thrust area for funding, a provision which had existed earlier. This would encourage people to write project proposals and increase funding. However, Prof Bapat and Prof Atrey highlighted the fact that they hardly received proposals from Cryogenics community.
8. The meeting concluded on a positive note; it was equivocally agreed that never before the time was so ripe, so as to further such interaction considering the overall Cryogenics research activities in India.
9. It was also felt that such Industry-academia meets should happen more frequently; the interaction could take place during the year between the two National conferences which are organized once in two years. It was also felt that a session of 3 hours may be set aside during each NSC for such interaction so that others also get benefited.

Compiled By:

Coordinator: Prof. M D Atrey

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