## Why Engineering Companies Must Establish Thought Leadership by Research

## Dr. Amartya Kumar Bhattacharya

BCE (Hons.) ( Jadavpur ), MTech ( Civil ) ( IIT Kharagpur ), PhD ( Civil ) ( IIT Kharagpur ), Cert.MTERM ( AIT Bangkok ), CEng(I), FIE, FACCE(I), FISH, FIWRS, FIPHE, FIAH, FAE, MIGS, MIGS – Kolkata Chapter, MIGS – Chennai Chapter, MISTE, MAHI, MISCA, MIAHS, MISTAM, MNSFMFP, MIIBE, MICI, MIEES, MCITP, MISRS, MISRMTT, MAGGS, MCSI, MIAENG, MMBSI, MBMSM Chairman and Managing Director,

MultiSpectra Consultants, 23, Biplabi Ambika Chakraborty Sarani, Kolkata – 700029, West Bengal, INDIA. E-mail: dramartyakumar@gmail.com

Website: https://multispectraconsultants.com

It is imperative that engineering companies establish thought leadership by their research. What are the reasons? Firstly, thought leadership positions an engineering company as a leader in its field. Secondly, with educational institutions doing very little innovative research, the burden of doing innovative research leading to patents has shifted to engineering companies in the last quarter century.

Why do so few patents result from research conducted at educational institutions? It is because much of the research conducted at academic institutions are mere permutations and combinations of previous published research, often differentiated from previous research by variation of just one engineering parameter. Needless to say, patents cannot result from this kind of often useless research having no practical utility and value.

As a result, quite unlike the situation prevailing when I was pursuing my three engineering degrees, the burden of doing research eventuating in patents has shifted to engineering companies. Engineering companies that aspire to dominate their market must set up a research division immediately if they have not done so already. They must do practical research resulting in patentable outcomes. Clients are drawn towards engineering companies that have demonstrated thought leadership in the form of published journal and conference papers and patents.

An innovation is made with a view to penetrating a market, capturing a market and dominating a market. An engineering company that does not take the trouble to innovate runs the risk of becoming outdated and losing clients and marketshare. Even if such a company had a significant marketshare previously, it will find that its marketshare is eroding and clients are shifting away from the company to more modern companies.

In the future, research and innovation are going to become even more important for engineering companies. Companies that are laggards when it comes to research can hardly be expected to succeed while companies that do good research are bound to be successful.

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