

## Invited Talk

Department of Computer Science and Engineering

IIT Kanpur

Date: 30 October 2018

Time: 5 pm

Venue - KD 101

Title: *Elephant in the academic room*

Speaker: Prof. Deepak B. Phatak, IIT Bombay

**Abstract:** An 'elephant in the room' proverbially refers to an obvious problem or risk that no one wants to discuss. In a recent keynote at WOSA 2018, I had described three of such elephants, in the context of the state of MOOCs and Blended MOOCs. The first is complete lack of focus and attention to the quality of MOOCs and quality of their conduct, associated with their non-recognition and non-accreditation. The second refers to the entire body of teachers and students, who are confused on how to effectively deal with, and benefit from, this paradigm. The third is the largest elephant, and represents the lack of understanding of what, why, and how people need to learn in this century. I propose to further generalize the third elephant.

21<sup>st</sup> century, widely recognized as the digital century, has been showing its true colours for past two decades. The disruption that started in the last decade of the previous century was primarily due to evolving web, and extensive connectivity reaching out to most end-users. Products and services were hitherto hidden behind silos of monolithic applications. Interoperable and integrated applications have caused disintermediation in commercial services. Emergence of aggregators has completely revolutionized the economic and financial world as we had known it. Mobiles and WhatsApp have disrupted the way human interaction happens. Healthcare is supposed to be next in line for disruption. Genome sequencing has been tackled. IoT is here to stay and expand. One can go on.

Technologies are becoming obsolete faster than the human ability to learn, master, and use these. Multi-faceted R&D in science, engineering, and technology, is increasingly required to produce useful results with immediate applications, that too in shorter time spans. Conventional jobs are disappearing. Those which continue will demand newer skills. Life-long learning will no more be a nice statement for professionals to make, but will be essential for their very continued relevance.

Everyone is aware that the world is changing more rapidly than it ever did. Some understand these changes well. Our youth and our professionals see these and are apprehensive. Most ordinary people suspect these. What about our academic Institutions - not just the ordinary ones, but the elite Institutions?

As teachers, researchers, and students in these Institutions, we are - or should be - far better aware of the challenges of this century, than most Indians are. And yet, we at best continue to do 'more of the same' in our education and research, hoping to do it better. This talk will list our basic academic processes which ought to be re-examined. It will then suggest alternatives which may help us to tame this biggest academic elephant, which simply sits in our midst ignored by one and all.

**Speaker Bio:** Deepak B Phatak is a teacher from IIT Bombay (1971-2018). He is an Indian computer scientist and academic, and a recipient of the Padma Shri Award for his contribution in science and technology in 2013. He is known for his notable work for upgrading Aakash, advertised by its manufacturer as the 'world's cheapest tablet'. In 2009, he was ranked one of the 50 most powerful people in India. Phatak completed secondary school at Dayanand Arya Vidyalaya, graduated third in his class with a degree in electrical engineering from Shri Govindram Seksaria Institute of Technology and Science (SGSITS) Indore, completed his master of engineering (specialising in instrumentation, control and computers), and received his PhD in computer science from Indian Institute of Technology Bombay. His thesis was titled *Digital Simulation and Identification of Linear Continuous Systems*. Prof. Phatak has worked at IIT Bombay since 1 December 1971. From 1991 to 1994, he was the Head of the Department of Computer Science; from 1995 to 1998, he was the Dean of Resource Development; from 1998 to 2002, he was the Head of the Kanwal Rekhi School of Information Technology; in 2004 and 2005, he was head of Shailesh J Mehta School of Management; and he was the Subrao Nilekani Chair Professor of the KReSIT/department of CSE. He has been a consultant and adviser to many organizations on various issues related to Information Technology. In the late 1980s he was involved in a major effort by Industrial Development Bank of India to use relational data bases on Unix platforms. He has been an I.T. adviser to the State Bank of India for several years. He has also been a consultant to several other financial and industrial organizations. He works on several advisory committees to government departments on issues related to computerization.