



## IBM's Initiative Towards A New Education Paradigm

*(Cutting edge, industry aligned courses, delivered through a futuristic framework)*

IBM together with the leading Universities the world over are launching a series of new, futuristic B. Tech. CSE & MBA programs, under the IBM Innovation Center for Education program. The program courses are industry-aligned and the courseware is being redesigned ground up, with a new delivery mechanism put in place to enable the students to learn newer skill sets.

Together, this will impart outstanding industry-grade skills to our young students, and will make them prepare for any challenges that the Smarter Planet will bring to them in their exciting careers ahead. It's a whole new thinking, and a cutting edge approach to technology meritocracy.

IBM along with partners have developed a comprehensive Open Standards and Open Source online platform and ecosystem.

The online platform brings Industry and Academia together through close interaction between industrial professionals and students. Participating students get to increase their industry orientation through interactive use of the platform.

This innovative platform, and associated ecosystem of IBMers and IBM's partners:

- provide knowledge and experiences on understanding and using Open Standards,
- help in developing applications on an Open Source platform,
- refresh the knowledge on latest development in technology through news clips, discussion forums, FAQs, access to other related IBM and partner sites, etc,
- help connect the Community for support and interaction,

- provide linkages to Industry Mentors from SIs and IBM,
- track students' interaction and data for supporting and recognizing meritocracy, and,
- offers useful information about students to prospective Hiring managers from IT and User industry.

The platform also supports an eLearning engine which hosts the courseware and delivers them effectively, tracks and supports students. The associated ecosystem of SIs, ISVs and partners is a very key feature, for helping students to be industry-ready as they mature through the cycle.

## The IBM Innovation Center for Education Program

The following streams of Engineering are being offered under B. Tech. & MBA/PGDM:

For the Industry vertical domain tracks:

- B Tech in Computer Sciences with Specialization in e-Commerce, Retail and Automation
- B Tech in Computer Sciences with Specialization in Healthcare Informatics
- B Tech in Computer Sciences with Specialization in Telecom Informatics
- B Tech in Computer Sciences with Specialization in Oil & Gas Informatics

- B Tech in Computer Sciences with Specialization in Banking, Financial Services and Insurance

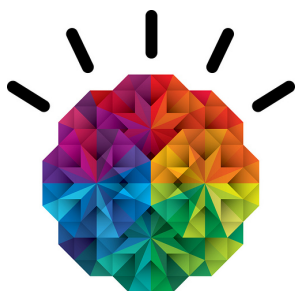
For the Technology tracks:

- B Tech in Computer Sciences with Specialization in Cloud Computing & Virtualization
- B Tech in Computer Sciences with Specialization in Mainframe Technologies
- B Tech in Computer Sciences with Specialization in Open Source and Open Standards Technologies
- B Tech in Computer Sciences with Specialization in Business Analytics and Optimization
- B Tech in Computer Sciences with Specialization in IT Infrastructure Management
- B Tech in Computer Sciences with Specialization in Cyber Security & Forensics
- B Tech in Computer Sciences with Specialization in Graphics & Gaming
- B Tech in Computer Sciences with Specialization in Manufacturing Systems
- B Tech in Computer Sciences with Specialization in Mobile Computing
- B Tech in Computer Sciences with Specialization in Internet of Things and Smart Cities

MBA program track:

- MBA/PGDM with Specialization in Business Analytics and Optimization

The courseware for the above Programs is at various stages of development at IBM. The curriculum design is taken up in close consultation with the University.



## Strategy for new Curriculum design

It's been observed that most Universities have been grappling with course curriculum obsolescence, especially in Computer Sciences streams. This is because the technology is changing rapidly, and universities have a real challenge keeping up to date with all the changes, and managing faculty skills and attrition.

This is where IBM teams up with the Universities to work on a new approach to the curriculum design. The curriculum design has been refreshed ground up for the above new Programs. There is more focus on Project based learning and Industry interaction. This will ensure that the students' work is constantly under review, and the IT specialist and architects from the industry help them in their learning.

Adequate training to the faculty and a support structure for their constantly being in touch with industry subject matter experts will mean that their own skills remain up to date all the time.

The industry interaction and community participation are inculcated right from the first semester. The projects are hosted on the online platform as well, and the community will add value to mentoring as appropriate. There are two touch points included for this starting from the first semester itself, along with the Core courses. Moving onto later semesters, the project based learning as well as industry interaction would go on increasing in proportion. So much so, that the students would become almost like a working professional when they pass out from the University.

This is the real philosophy behind the new curricula which have been designed. The intent is to groom the students to such an extent that when they are ready to meet the challenges of a real world: a smarter planet, the Industry would readily embrace their skills and talent and induct them into their project seamlessly.

## A futuristic delivery framework

Having a modern, state-of-the-art course curriculum is only the first part. It also needs to be delivered in a manner that makes the learning productive for the students.

### **Project based learning:**

The focus on projects will be from the very first semester. The theory courses are augmented by adequate project work, which will help the students apply the knowledge they gain in classroom.

Much of the project work will be hosted on the online platform as appropriate, for community support.

### **Teaming:**

Collaboration is the key to success in today's world. Teaming and partnerships make business sense, apart from the feel-good factor.

It's been observed that learning is also enhanced when students work in teams.

With this in view, the platform support will be provided where the students can form teams within their class or across other colleges as well... though the evaluation system will track their own deliverables and performance.

### **Student monitoring and tracking:**

The system tracks the work the student puts in the ecosystem. This includes all the project completion, all support that he/she provides to other team members, all the support that he/she receives, and all the comments they receive from their guides.

This is a very interactive program, much similar to the real life scenario where a professional is judged against some set parameters at every stage. This helps in honing up skills and communication in a

systematic manner. It's a recognition engine for meritocracy in the real world.

### **Vibrant concurrency of**

#### **courseware:**

The courses will be reviewed and adjusted at periodic intervals for their concurrency.

This is one of the key advantages of IBM's participation. This support comes from the IBM Labs and other connected groups which are doing leading work for us in technology areas.

#### **Online Discussion forums:**

The learning will be further enhanced by providing adequately structured Discussion forums against relevant topics / subjects.

These may be moderated by IBM and industry experts as needed, so that the discussions are not open-ended and certain decorum is maintained.

#### **SME visits and interaction:**

Visits to the Campus will be planned by IBM and partner SMEs, so that students can learn from their experiences and skills.

There will be adequate interaction planned during these visits so that it becomes an interactive learning experience for the students.

#### **Webinar sessions:**

There will be webinars conducted by IBM and partner SMEs. During these sessions, the SMEs will share the latest in technology with the students. The students also get to interact.

This is a key element in technology concurrency at the Campus. When the students and industry specialist's interact, in addition to the learning they receive from the skilled faculty and high quality courseware, it enhances the skills many fold.