**IBM**

## IBM Innovation Center for Education
# Systems Center of Excellence ( SCOE )

Are you **Future** ready?

**IBM** Innovation Center for Education

Technology is the backbone of business innovation. Enterprises are looking to leverage this enabler to maintain a competitive edge in the market.

In Today's competitive business world, industry trends and challenges are driving business to adopt newer emerging technologies in a strategic and holistic manner.

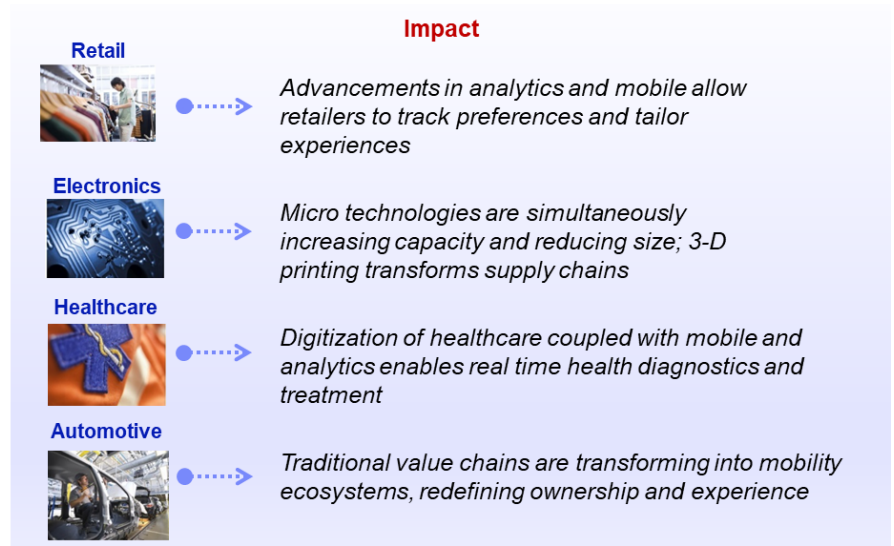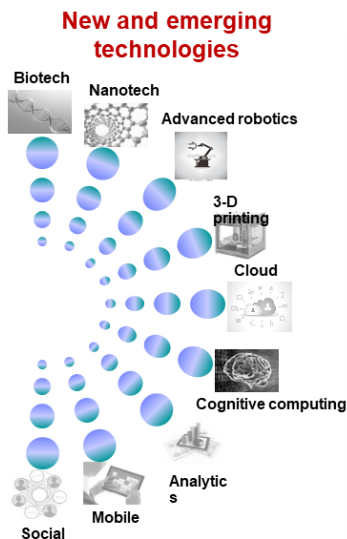New emerging technologies such as Artificial Intelligence, Blockchain, IOT, Cyber Security etc., have become most powerful catalysts in driving the businesses, and are disrupting the traditional business models by changing the value chains and rendering existing value chains redundant.

These technologies are impacting current occupations and skills across industries and is making it more imperative to gain skills and knowledge to stay relevant and perform in new occupations.
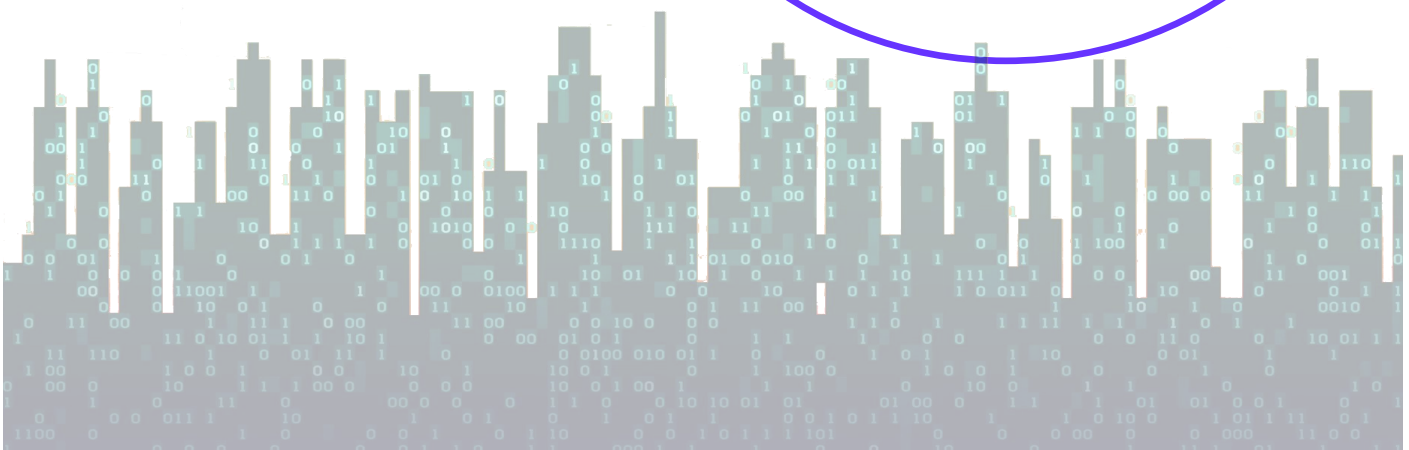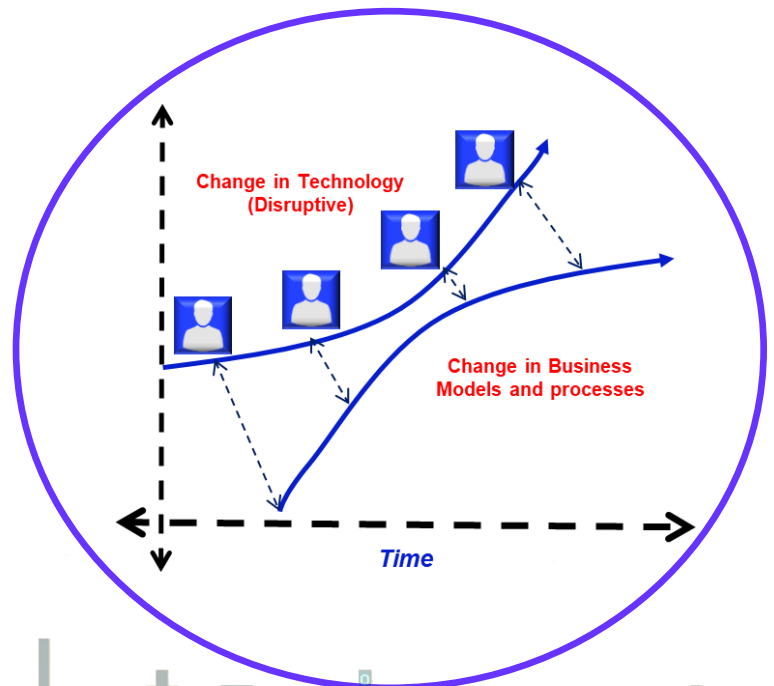
# Impact of Disruptive Technologies

New technologies are disrupting traditional value chains, business models and occupations across all industries. The impact of these technologies are felt in the way business transactions are done as well as strategic decisions taken.

## New and emerging technologies

Biotech
Nanotech
Advanced robotics
3-D printing
Cloud
Cognitive computing
Analytics
Social
Mobile

## Impact

**Retail**
Advancements in analytics and mobile allow retailers to track preferences and tailor experiences

**Electronics**
Micro technologies are simultaneously increasing capacity and reducing size; 3-D printing transforms supply chains

**Healthcare**
Digitization of healthcare coupled with mobile and analytics enables real time health diagnostics and treatment

**Automotive**
Traditional value chains are transforming into mobility ecosystems, redefining ownership and experience

This disruption that the new emerging technologies are creating in the industry scenario has resulted in a "Big Skill Gap." The GAP between the needs of the industry and academia is ever growing.

Academic institutions have to adopt newer technologies in their curriculum and impart industry skills to the students to fill in this gap.

Change in Technology (Disruptive)

Change in Business Models and processes

Time

# Vision and Roadmap

IBM ICE Systems Center of Excellence provides a vision and blueprint for adoption of industry align skills and also provides capability for academic institutions to promote research and entrepreneurship.

The primary aim of any premier education institution is to create capability amongst students to become successful by adopting latest technologies and acquiring skills that enable them to help the enterprises reach goals efficiently.

However, striving for this type of excellence is often easier said than done. IBM ICE Systems Center of Excellence (SCoE) is a key component of success in this direction.



Industry and Education providers must collaborate to offer a significant curriculum, relevant skill training, and increase the experiential learning quotient in education. By gaining information on the job roles, job needs, matching of skills imparted to job functions, transparency in education and employment opportunities get enhanced.
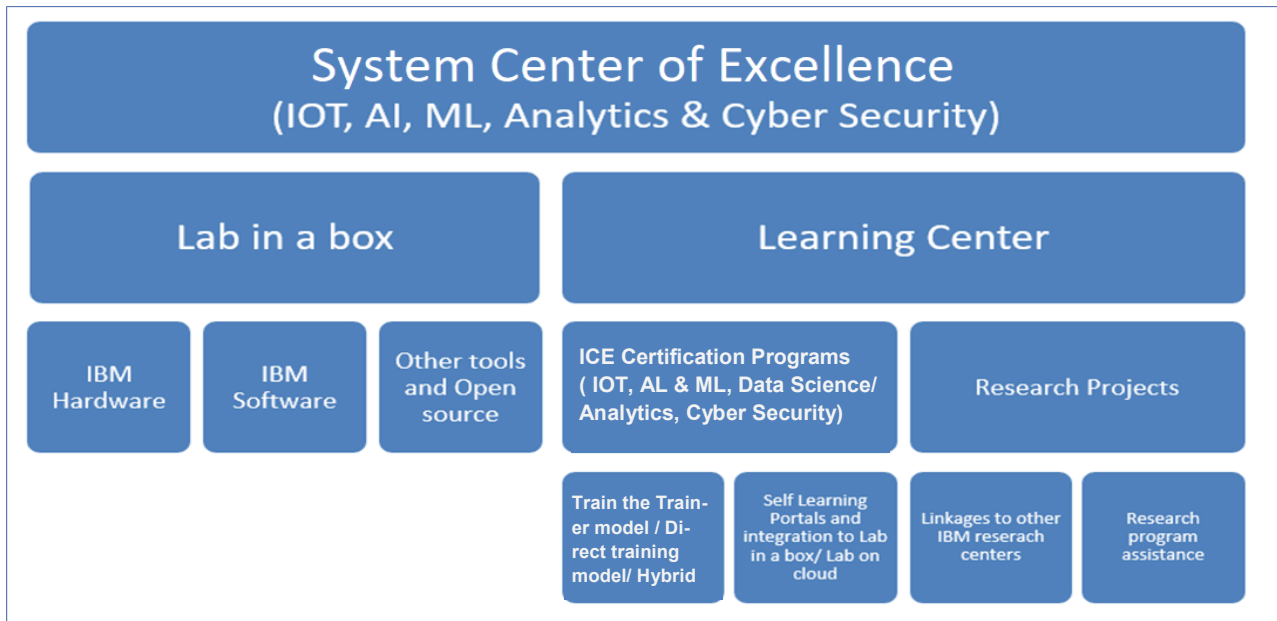


In a three step approach, IBM Systems Center of Excellence offering provides a platform to increase the capability in skills which not only increases employability but also promotes entrepreneurship and innovation. Further, the research capability within the institution stands enhanced.

- Focus on emerging technologies and industry skills

- Adopting solution approach to industry problems using latest tools and technologies

- Providing capability for research

- Providing skills & industry certifications

- Promote & incubate startups / entrepreneurs

- Offering guidance, consultancy to industry

- Create reusable assets, frameworks and processes
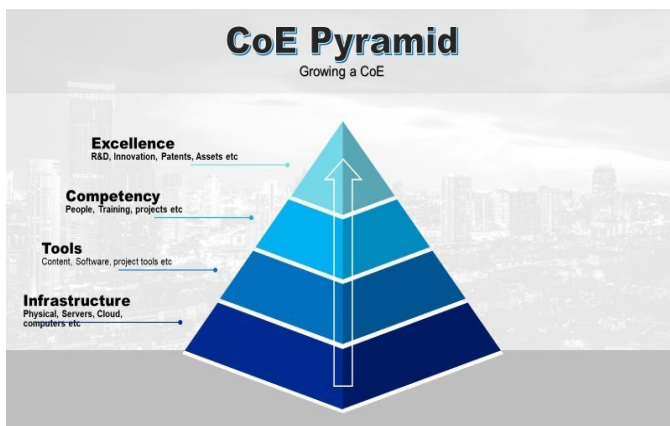
- Promote ideation and innovation

**What is SCoE?**

SCoEs provide a focal point for knowledge management, with the overall goal being the ability to capture new knowledge and practices.

# IBM SCoE FrameWork



SCoE provides a central source of standardized products, centralized cloud framework with two layers: Learning Layer on public cloud providing access to all learners across the university colleges and Research Layer on dedicated infrastructure at the specialization centers.



IBM SCoE offering comes with an infrastructure layer required to setup the SCoE.

The tools and software relevant to the emerging technologies are preconfigured into the infrastructure of the SCoE.

Globally recognized IBM ICE programs with the structured skill training, rich content, industry relevant Labs enhances the competency of users.

Excellence by promoting research and innovation can be achieved by the academic institutions by using the SCoE Framework.

# IBM Digital Badge

IBM SCoE globally certified programs have traction across several industry players mainly because of the rich and relevant content aligned with industry technologies and the experiential learning.

IBM will provide global certification to successful students and faculties who undergo IBM ICE program successfully. Sample IBM badge is alongside.



**Globally recognized IBM Digital Badge (Certificate)**

# IBM ICE SCoE offerings

IoT is an ever-growing field and, consequently, offers to enhance the career opportunities. IoT establishes an advanced connectivity (with the aid of internet) among several devices or systems or services and automates the functions in all areas. IoT plays a vital role in the digital economy as it focusses on utilizing new technologies.

Cyber security across various digital channels of the communication and transactions is of paramount importance to businesses in order to retain the trust of customers on one hand and to reduce losses on the other. Increase in criminal activities through computer network has led to the focus towards protecting sensitive business and personal information, as well as safeguard national security. Cyber security professionals have huge opportunities in data protection systems.

AI and ML have reached a new space in the industry where the whole workplace is getting better. AI, machine learning, deep learning and automation are no longer future technologies, they've already found traction in the enterprise. Whether it's to organize data, to uncover trends or to make human's lives easier, AI can have a positive impact on the enterprise. Artificial intelligence (AI) makes it possible for machines to learn from experience, adjust to new inputs and perform human like tasks.

Data Science is a more forward looking approach, an exploratory way with the focus on analysing the past or current data and predicting the future outcomes with the aim of making informed decisions. It answers the open-ended questions as to "what", "how" and "why" events occur.

# IBM Edge

International Business Machines Corporation (IBM) is an American multinational information technology company headquartered in Armonk, New York, started in 1911.

IBM produces and sells computer hardware, middleware and software, and provides hosting and consulting services in areas ranging from mainframe computers to nanotechnology.

- Largest technology employer in the world and employ 350,000+ IBMers serving clients in 170 countries.

- A Century of innovation – One of only 2 companies to remain in the top 25 Industrial companies since 1900.

- IBM invested more than $6 billion a year in R&D, and just completed the 23$^{rd}$ year of patent leadership.

- IBM is also a major research organization, holding the record for most U.S. patents generated by a business (as of 2019) for 26 consecutive years.

- In January 2019, IBM introduced its first commercial quantum computer IBM Q System One.

# Join hands with

# IBM Innovation Center for Education

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