



PRODCUTIVITY DAY (12TH FEB, 2018)

Summary Proceedings of Foundation Day Celebration's "Industry 4.0- Leapfrog Opportunity for India"

- **Sh. Abhishek Singh, Sr. Consultant, RBEI, Bosch India** elaborated upon the concepts of Industry 4.0 and its importance. He also talked about the planning part of Industry 4.0 projects for an organization and the challenges while implementing the same in an organization.
- **Dr. H.K. Suhas, Retd. DDG, NIC** talked about adopting Artificial Intelligence in manufacturing sector which will result in Revolutionizing Manufacturing Environment on the Lines of Industry 4.0 or IoT. Few points upon which he deliberated upon are as follows:-
 - Many mid-sized Manufacturers, such as those making Mechanical and Electrical Components / Products, Paints, Cosmetics etc., are facing Increasing Demands from their Customers for Small, Customized Batches of Products to be delivered.
 - The aim is to Reduce Idle Time of Machines and Labour to near ZERO
 - The use of real-time artificial intelligence (AI) methods can dramatically simplify and lower the cost of deploying these real-time Manufacturing Execution Systems (MES) and Manufacturing Operations Management (MOM) systems, making them affordable and usable by small and mid-sized process manufacturing organizations.
- **Sh. Sudhanshu Mittal, Director-Industry4.0, NASSCOM-** talked about Center of Excellence (CoE) for IoT, a joint initiative by Ministry of Electronics and Information Technology (MeitY), Education and

Research Network (ERNET) and NASSCOM. He also discussed about various components of Industry 4.0 and delved into few themes of Digitalization. Few points about the Center of Excellence upon which he deliberated upon are as follows:-

- It is the largest existing Innovation Platform for enabling IOT revolution through connected devices using emerging technologies such as Sensors, Big Data, Analytics, AI/ML, AR/VR and Robotics.
 - It will help Indian start-ups and Small & Medium Businesses (SMB) leverage cutting edge IoT technologies to build market ready product and solutions for absorption by the Enterprises and Public.
 - It will help build start-up community and entrepreneurial ecosystem for IoT.
 - It will provide environment for product creation, testing and validation.
- **Dr. V. R. Mishra, HOD, ME – G. L. Bajaj Institute of Technology & Management** talked about Industrial Revolutions including Industry 4.0 & its characteristics, and integrated value chain through SAP (ERP).
 - Through some case studies, he demonstrated statistics showcasing the lack of understanding of Industry 4.0 concepts among the university students and the need to fill this digital gap through training via Industry and Academia collaborations.
 - He also discussed about SAP Initiatives towards Industry 4.0 for Academia. i360 program is an Innovation 4.0 Accelerator program for the academic sector. As part of this initiative, SAP will set up innovation labs to train & certify students in the next-generation technologies. Also, SAP will leverage its industry connect with INDUS (SAP User Group for the Indian subcontinent).
- The Presentations were followed by Panel Discussion on Industry 4.0- Leapfrog Opportunity for India. The panellists were:-
 - Dr. Santhi Kanoktanaporn**, Secretary General, APO
 - Sh. Dattatri S.R.**, Vice President-Digital, RBEI, Bosch
 - Dr. H.K.Suhas**, Retd. DDG, NIC

- **Sh. Sudhanshu Mittal**, Director-Industry4.0, NASSCOM-Center of Excellence for IoT

-**Sh. S.K.Dwivedi**, Group Head (Industrial Engineering)

The discussion was moderated by Sh. Abhishek Singh, Sr. Consultant, RBEI, Bosch India

- **Dr. H.K.Suhas** told that for transformation to happen in Indian Manufacturing scenario, Indian needs to leverage upon the Make in India initiatives. The industry needs an independent design construct, build a material and then link to ERP for transforming the manufacturing scenario. This Manufacturing Ecosystem then should be integrated with Industry 4.0.He also emphasized upon the importance of product diversification, monitoring job orders, maximize usage of machine and labor and bring domain experts(for man machine interface). He also stressed upon Frugal Innovation for new technological interventions. He stressed the use of Open Source solutions (like Apache Foundation) and mooted upon the possible collaboration between NPC and NIC to provide technological solutions at a low cost to Industries.
- **Sh. Sudhanshu Mittal** talked about the CoE-IoT Lab set up at Bangalore whose main purpose is to provide a platform for developers who want to develop solutions for real world scenarios. The lab is working on a Hub and Spoke model and Industry veterans are a part of this initiative.
- **Dr. Santhi Kanoktanaporn** elaborated upon the role of APO in helping its member countries to achieve transformation through capacity building. He told that APO is assisting various countries build such institutes like the Center of Excellence on IT for Industry 4.0 established in India at NPC, New Delhi. He also stressed upon the need to enhance the labour productivity and skill set according to changing global scenarios. He added upon the need for using APO platform for cross country trainings and applying the best practices in one's own country for productivity improvement. He also deliberated upon various aspects of Future Food.
- **-Sh. Dattatri S.R.** pressed upon the changing necessities of the Industries today which are running for survival and relevance in the

globalized market place. He told that the industries need to focus on the mantra of forward integration whereby business activities are expanded to include control of the direct distribution or supply of a company's products. By these means, the companies will work in a self controlled manner. He also told the merits of digitalization for improved performance of the enterprises.

- **Sh. S.K.Dwivedi** told that to take the things forward, a detailed plan needs to be identified to take Industry 4.0 activities forward. For this, NPC along with all collaborators need to work together based on the Roadmap identified for the Center of Excellence (CoE) on Industry 4.0, established at NPC, New Delhi. This will enable the smooth implementation of Industry 4.0 initiatives in Manufacturing Sector especially for MSMEs.