Gujarat Technological University

Round Table Meet
on
The Role of Disruptive Technologies – A Step towards Making India a $ Five Trillion Economy

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Date & Time: 11th April, 2022 (10 AM to 1 PM)

Venue: Gujarat Technological University, Chandkheda, Ahmedabad.

GUJARAT TECHNOLOGICAL UNIVERSITY in association with Department of Education, Department of Science & Technology and Department of Industries, Government of Gujarat organised the Round Table Meet on "The Role of Disruptive Technologies – A Step Towards Making India A $ Five Trillion Economy" on 11th April, 2022 at Chandkheda campus.

Chief Guest: Shri Satish K. Marathe, Director, Reserve Bank of India (RBI)

Guest of Honour: Shri S. J. Haider, Principal Secretary, Education Department, Government of Gujarat

Participants:

1. Dr. Jaimin Vasa, President, Gujarat Chemical Association
2. Shri Rajubhai Shah, Managing Director, Harsha Engineering, Ahmedabad, Gujarat
3. Shri Viranchi Shah, Sr. Vice President, Indian Drug Manufacturers' Association (IDMA)
4. Shri Padmin Buch, IPR domain Expert Ahmedabad, Gujarat
5. Shri Tejinder Oberoi, Chairman, GESIA IT Association
6. Shri Hitendra Joshi, Convenor – Centre for Research in Strategies & Policies & Ex-President, Laghu Udyog Bharati, Gujarat
7. Shri Kirit Soni, President, Saurashtra Chamber of Commerce, Bhavnagar
8. Shri Sunil Shah, Chairman, Gujarat Innovation Society
9. Mr. Amit Parikh, Founder & Director, Harmony FinEx Pvt. Limited
10. Dr. Ram Nath Prasad, Director, The Centre for Entrepreneurship Development (CED)
11. Mr. Hiranmay Mahanta, CEO, i-hub.
12. Ms. Priyanka Kumar, Senior Manager, GIDB
13. Mr. Jogin Joshi, Deputy Director, ICT
14. Dr. Kajal Suthar, Executive – Promotion Gujarat Informatics Limited

GTU Officers:

1. Prof. (Dr.) G. P. Vadodaria Dean, Faculty of Engineering & Technology, GTU
2. Dr. Trupti Almoula Dean, Faculty of Management, GTU
3. Dr. Chetan Bhatt Dean, Faculty of Computer Application, GTU
4. Dr. Paresh Raval Dean, Diploma Engineering, GTU
5. Dr. Pankajray Patel Professor & Director, Graduate School of Management Studies, GTU
6. Dr. Sanjay Chauhan Professor & Director, Graduate School of Pharmacy, GTU
7. Dr. Keyur Darji, Director, Department of International Relations, GTU
8. Dr. A.M. Prabhakar Principal, GPERI, Mehsana
9. Dr. Vaibhav Bhatt, Director, SAST, GTU
10. Dr. Sarika Srivastava, Assistant Professor, GSMS, GTU & Program Coordinator.

Team of Rapporteurs & Liaison Officers were also present.

Meeting Flow:

- Inauguration of the Event & Introduction of Invited Guests
- Felicitation of Guests
- Welcome Address by Dr. K.N. Kher Registrar, GTU
- Address by Shri S. J. Haider, Guest of Honour Principal Secretary Education Department, Government of Gujarat
- Presidential Address by Prof. (Dr.) Navin Sheth Hon'ble Vice Chancellor, GTU
- Address by Shri Satish K. Marathe, Chief Guest Director, Reserve Bank of India (RBI)
- Concluding Remarks by Dr. Pankajray Patel Professor & Director, Graduate School of Management Studies, Gujarat Technological University
- Vote of Thanks by Dr. Keyur Darji Director, Gujarat Technological University

Glimpse of the Event:

The round table meet was started with the opening remarks of **Shri. S. J. Haider (IAS) Principal Secretary, Education Department, Govt. of Gujarat**. He stated that the goal of dollar Five Trillion economy up to year 2025-26 is very much achievable task and he is pretty sure that the country can attain this goal quite fast. He said that there are three growth centric sectors namely agriculture (primary), manufacturing (secondary) and servicing (tertiary) which has a potential to deliver the sustainable growth of five trillion dollar. The primary sector has already played a pivotal role whereas the secondary sector is performing exemplary in which the state of Gujarat is already a role model for entire country. There is a need to tap the scope in tertiary sector with specific attention on different sub-sectors which accelerate the future growth.

He further pointed that 65% of Indian population is below the age of 35 and it is full of energy which can be utilized for the nation building programs such as Aatmanirbhar Bharat. The state government is going to support and nurture the ideas of youth in different verticals such as i-Hub and SSIP. The role of disruptive technologies is enormous in achieving the desired goal of five trillion-dollar economy. In the efforts to encourage education and training on disruptive technologies, a Centre of Excellences in Block-chain Technology, IoT, AI & ML and Drone Technology are being planned to set-up at Gujarat Technological University, L.D. College of Engineering, IITRAM, Sanskardham respectively with planned budget allocation by the state government. For achieving the five trillion-dollar economy goal he also emphasized that there should be a healthy government-academia-industry-market connect.

Prof. (Dr.) Navin Sheth (Hon. Vice Chancellor, GTU) started his address by quoting the speech of Hon. Prime Minister on the Independence Day of 2019 where he envisioned The *Five Trillion Dollar Indian Economy.* For the role of disruptive technology, he has given example of online education platforms before & after pandemic. He also stated that before pandemic, only about 3% of teachers at the university were aware and using online teaching tools whereas after March 2020, almost 100% teachers have started using online platforms which now became integral part of teaching-learning process. The disruptive technologies have shown the new pathway to the industries to continue their operations through work-from-home culture. He also pointed that in the beginning of 17^{th} century, India was the leader in the technology driven products and in the industry 4.0 also, technology has pivotal role to play.

The Chief Guest of the meet Shri. Satish K. Marathe (Director, Reserve Bank of India) focused on two major aspects, first current status of Indian economy and second, role of disruptive technology in Indian economy. He mentioned that India has become a role model for initiatives to control the pandemic effects through technologies such as excellent creation of mobile app “Aarogyasetu” for providing real-time information of COVID-19 and “COWIN” to register for vaccination where 119 cr. registrations were witnessed. It showcases India’s capacity in “SOFTPOWER”. He stated that the current inflammation in India is due to external

factors. He said that in order to support the economy in terms of liquidity in the market during pandemic, RBI has infused 17 lac cr. to the market. This infusion is a very strategic decision with a provision of planned withdrawal also which balances the growth of economy in an expected manner. He mentioned that during the pandemic, GST collection in India is continuously rising with indication of economy bouncing back. The capacity utilization is 72%, credit pick-up through IPOs & government bonds has been increased.

He visualized the disruptive technologies as an innovation in a simple form and emphasised sensible use of the same to achieve five goals: (i) clean & adequate water (ii) sustainable energy (iii) manage & protect natural resources (iv) mitigate the effects of climate change (v) effective compliance and governance.

After above opening remarks from the guest of honour, president of the round table Meet and the chief guest, the forum was open for further views of invited experts from industries and sectors.

Open Forum Discussion:

- Territory sector to be developed from 1 trillion to 3 trillion.
- Youth should be facilitated with enough resources.
- Student Start-up Innovation Policy up to 35 years extended without any particular academic records.
- Its journey from Mind to market.
- Solar rooftop, renewable energy sources should be promoted.
- Defence requirements should be meet within the country itself.
- Clean food, air and water processes should be implemented.
- Need to build faith for self-development which will be resulted in national growth at large.
- Increase manufacturing at low cost with better quality.
- Creating skilled people at every stage of organization.
- Remove gap between policy formulation and implementation.
- Put-up IT industry at first place. So, weaker organizations can be replaced.
- Develop education institutions with global competitive standards.
- Pollution control certification process should be fast.
- Patient driven technology should be introduced and empowered.
- Incubation centres should be more efficient and effective after regular re-visits and mapping analysis.
- Farm to foreign land should be promoted.
- Single point of connection should be introduced.
- Data protection should be taken care in India.
- Mass unemployment and mass employment due to disruption technology should be handled carefully.

- Prototype development centre should be developed.
- Encourage Micro industrial village in every village and promote import substitution.
- Promote India centric thought process rather than individual centric process.
- Create a bridge between Academia and Industry requirements.
- Emphasis on professor cohesion in Industries to utilise the knowledge in a better way.
- Financing and funding the start-ups with respect to SSIP having invent-make-use in India concept.

Actionable points from the discussion:

- The MSME sector is vital contributor for achieving the goal of 5 trillion $ economy. Therefore, there should be extended support from government to uplift the MSME sector in this post-pandemic situation especially where MSMEs are not able to compete globally due to high input cost.
- The government should also ensure the time bound procedure for enhancing ease of doing business for MSE sector.
- The Indian industries should focus on automation to improve quality of the manufacturing sector with the competitive prices which can make India as a manufacturing hub like China. The proposed actions to achieve the same are:
    - There is need for government policy to utilize the automation in manufacturing sectors like Robotics, IoT, 3-D printing etc.
    - The skill-based courses such as AI & ML, Robotics, IoT, 3-D printing should be developed & delivered through collaboration among government, education institutes and industries in order to prepare the manpower with required skills.
    - There should be efforts to bridge the gap between the existing government policies and its implementation.
    - There is need to strengthen the linkage between industry-academia.
- The universities should have dedicated research team to solve the real time industry problems and it should be sponsored by industries.
- The disruptive technologies and related industries have scarcity of skilled manpower so the HEIs should focus on the various courses and training programs which can generate industry-ready manpower.
- For the industries like APIs, there should be appropriate policy to shorten the statutory approval processes (such as approval from pollution control board)
- The industries should develop the adequate know-how using disruptive technologies for the areas like efficient supply chain management and patient compliance as a part of healthcare eco-system.
- Pharmaceutical industries should be encouraged to work on bigger and complex biologics which can contribute more to get revenue.
- The globally competitive pharmaceutical research & academic institutions should be developed.

- Looking at the existing policy and actual work carried out at the Incubation centres, there is a need to review & reframe the Incubation centres to make them more dynamic, efficient and smart.
- The Incubation centres should be used as central facility for development of know-how regarding disruptive technologies for all the industries.
- The incubatees should develop the approach of “Research to Revenue” with respect to protect their IPs and make it commercialize with an objective towards contributing in national economy.
- Along with disruptive technologies, the government, academia and industries should also focus on disruptive thinking.
- Academic institutions should continuously organize and provide the platform to bridge the communication gap between innovators, policy-makers and technology users.
- Considering the prospective contribution of agro business in the economy, academic institutions should establish the Centre of Excellences or Centres for organic farming and promote the interactions among government, industries, universities, APMCs and FPOs.
- There should be time bound transition plan developed in form of policy which should address the mix of talent and technology for future disruption due to mass unemployment expected as a result of automation.
- The chambers of commerce should play a vital role as a facilitator to disseminate the benefits of various policies at the last mile stakeholders even situated at a remote end.
- There is a need for data protection bill in place to protect the interest of individuals and small-scale business houses for ensuring data privacy, to curb and control the undue advantages availed by big businesses.
- To achieve five trillion $ Indian economy, the biggest scope lies within the substitution of imports through implementing wise strategies and disruptive technologies.
- There is need to establish prototype development centres at the engineering colleges especially for imported products used by the SMEs.
- In every institution, a Professor of Practice should be appointed to ensure real time industry updates and academia connections.
- A policy frame work of a mandatory internships of IT professionals need to be ensured with all MSME units.
- Women and differently abled youth from rural India, can be engaged in relatable manufacturing or service units to utilize their potential to the fullest through focused schemes/policies and awareness.
- The financial support system for the Start-ups and innovators working in the disruptive technologies domain should meet the requirement of the long-term life cycle.
- Removal of the digital divide is very important for removal of disparity among rural and urban education and services. Education for all, anywhere, anytime using IT platforms is needed to be adopted for the shortage of qualified teachers and resourceful good schools.