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## ITECHNARY

Journey of Technology in Shaping Civilization

Celebrating  
National Technology Day &  
National Level Competition

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PROF. S. S. S. S. S.

MMK & SDM Mahila Maha Vidyalaya  
Krishti 2, Murthypuram, Mysore-570 002



***Proceedings of the***  
***“ITECHNARY”***  
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Celebrating

**NATIONAL TECHNOLOGY DAY**  
**&**  
**NATIONAL LEVEL COMPETITIONS**

**30<sup>th</sup> April to 31<sup>st</sup> May, 2022**



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Krishnamurthypuram, Mysuru - 570004

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# REBOOTING ECONOMY THROUGH SCIENCE, TECHNOLOGY AND RESEARCH TRANSLATIONS (RESTART)

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## Introduction

“Every sunset is an opportunity to reset”. Modern India has had a strong focus on science and technology, realising that it is a key element for economic growth. The formula of 4Ts needs to be strictly adhered to for the opening up of the economy, that is, **Testing, Tagging, Tracing, and Tracking**. The entire spectrum of economic activities one way or another is dependent on technology.

## Rebooting Economy

**Self-reliance:** In order to mitigate the widespread economic impact due to the present crisis and to prepare for a stronger recovery, **self-reliance** has to be the new mantra.

- There is a need to minimize the dependence on imports and the Indian industry to play a major role in the global supply chain, encourage domestic firms to make fermentation based APIs.
- The Indian pharmaceutical industry is the world's third-largest drug producer by volume and the country's market manufactures 60 percent of vaccines globally, industries are dependent on ingredients for antibiotics and vitamins. Promotion, plays a major role.

## Research and Development

Research needs to be brought closer to the Industry in overcoming the present challenge. The pandemic is a great opportunity for R&D and needs to be used for strengthening it.

- The Covid-19 crisis has unfolded some of the best medical advancements and innovations in history like **drug discovery, vaccines, and diagnostic tools, and other medical devices**, as well as ways to preserve electronic health records.
- Plausible translations, prototyping, start-ups, and Industry have seen immense growth, readymade solutions are not available.

## Industries and Advanced Materials:

The novel materials such as special-purpose alloys, engineering polymers & blends, graphene, composites, etc. will be the key to revamping the industry's product lines in the future. Investment in such knowledge-based value-added materials will go a long way in accelerating the economic activities and ensuring an attractive return for the industry.

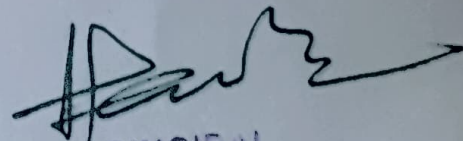
## Digital transformation in Manufacturing:

The manufacturing companies are undergoing digital transformation due to the Covid-19 pandemic.

- The world is moving towards mass customization and mass specialization today, and technology (3-D printing) plays ).
- Artificial intelligence , machine learning , the Internet of Things , and robotic process automation are among the technologies that will make **Industrial Revolution 4.0**.
- The **fifth generation of mobile network** communication technology or 5G holds the promise of applications with high social and economic value, leading to a 'hyper-connected society' in which technology will play an even more important role in people's lives.
- **5G will also add a new dimension to the missions like Digital India and Smart Cities.**, through 5G Test Bed at IIT Chennai.

## Conclusion

Covid-19 is here to stay for a longer duration, this means that we need to develop long-term mechanisms to sustain our efforts of social distancing and ensuring that crowding does not occur at any place, **Policy Initiative, Collaboration** and cooperation between industry and academia are most important in this period, **Relook FDI policy** are some of the major things that has to be concentrated for the connectivity. In today's scenario, virtual collaboration is the key to connect globally to fight against the common challenge of Covid-19, and collaboration between countries must continue with much vigour.



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