



International Conference on

# ‘Industry 4.0 in the Developing World: Challenges, Gaps and Opportunities’

16-17 March 2022 | Colombo, Sri Lanka

**Colombo Time: 09:00-17:30 hrs / GMT: 03:30-12:00 hrs**



## INTRODUCTION

The fourth industrial revolution (Industry 4.0 or 4IR) is not just a continuation of previous industrial revolutions; it is the start of a new one. Industry 4.0 is gaining momentum and practically disrupting every sector of industry as well as our lives. Two decades in the 3rd millennium, it is well established that the Big Data and AI analytics, Internet of Things, automated robots, cloud computing, sensors simulation, augmented reality, and several other groundbreaking innovations have largely reconfigured global industrial landscape and will continue to do so in the foreseeable future.

Industry 4.0 is built on technology-driven transformations creating a nexus among the digital, biological, and physical domains and are no longer limited to technology related industries. It is the start of a new era in human progress that marks a significant shift in how we live, work, and interact with one another. The inevitable role of Industry 4.0, providing technology driven information-intensive systems, is revolutionizing foundation of manufacturing and related industries which include devices, machines, production modules and products, ensuring improvements in automation and operational efficiency, as well as their effectiveness and impact. Industry 4.0, as a concept, has also offers huge potential of economic protection as seen by the rapid digitalization during the COVID-19 pandemic.

Owing to its cost-effectiveness, virtual nature and disruptiveness, Industry 4.0 can benefit both developed and developing economies around the world, regardless of their degree of development or location. These benefits will not be without challenges, rapid technological advancements will affect future patterns of productivity, competitiveness and employment. They will exert a strong influence on education and skill requirements, as well as income distribution, and they will also play a role in determining the evolving international economic division of labour, inter alia through their impact on global value chains, and thus the future position of developing countries like Sri Lanka in the global economy. The biggest concern will be the impact new digital technologies will have on jobs in developing countries since increasing automation of production processes and the displacement of workers by machines is likely to eliminate routine jobs. This will likely result in the polarization of the labour market. Despite inevitable job losses, developing countries can find their niche, adapt and leapfrog. With the advent of recent pandemic and other disasters; the importance of latest technology is vindicated. The need is to utilize the new technologies to the best benefit of human beings.

With a view to providing an interdisciplinary forum to policy makers, scientists, technologists, researchers, academia, and industry enterprises to deliberate upon the potential of Industry 4.0, as well as the contemporary concept of Society 5.0 on sustainability and sustainable development, International

Conference on 'Industry 4.0 in the Developing World: Challenges, Gaps and Opportunities', is being organized in Colombo, Sri Lanka, on 16th and 17th March 2022. The joint event is being organized by the Commission on Science and Technology for Sustainable Development in the South (COMSATS), with support of the United Nations Educational, Scientific and Cultural Organization (UNESCO). The United Nations Industrial Development Organization (UNIDO) is graciously support the conference as technical consultant while COMSATS' Centre of Excellence in Sri Lanka, the Industrial Technology Institute (ITI) is hosting the conference at its premises.

## OBJECTIVES

The objective of this conference is to discuss the implications of Industry 4.0 for developing countries like Sri Lanka, outline related challenges and elaborate on how opportunities that Industry 4.0 provides can be leveraged for inclusive and sustainable industrial development in developing countries.

Some of the key objectives of this international Conference are to:

- Provide a forum to policy makers, scientists, technologists, researchers, academia, and industry enterprises to update and share information on the recent innovations and developments, trends, practical implementation challenges and innovative solutions adopted for Industry 4.0;
- Build and strengthen linkages among R&D/S&T organizations, academic institutions, and other stakeholders to enable them to best contribute to Industry 4.0;
- Cater to information needs of the academics aspiring to address the needs of smart industry and industrial ecosystems of innovation and collaboration; and
- Make recommendations to the policy-makers and implementers for developing and executing informed policies and strategies to support multi-sectoral adoption of Industry 4.0
- Provide guidelines to the labour markets on how to respond to the emerging technological needs as well development of human capital best suited to Industry 4.0.

## THEMES

Themes being covered under the Conference include: Artificial intelligence, Blockchain and IoT; Quantum Computing; Robotics and automation; Society 5.0 vs Industry 4.0; Deep learning in Industry 4.0; as well as applications of Industry 4.0 in health, agriculture, energy, trade and supply chains, smart cities and tourism, as well as disaster risk management.

## WHO SHOULD PARTICIPATE

Policy makers, scientists, technologists, researchers, startups, academia, and industry enterprises from developing countries working in the relevant fields of Industry 4.0 are encouraged to participate in this international Conference.

## FINANCIAL SUPPORT

Travel grants and boarding and lodging will be provided by COMSATS and UNESCO to a limited number of individuals from these organizations' member countries. These will be selected by the International Conference Scientific Committee.

## HOW TO REGISTER

Registration for the Conference can be made through the given following web-link. In view of COVID-19, international participation is encouraged through virtual means, while small number of local participants can participate in-person by registering before 1st March 2022.

## VIRTUAL PLATFORMS

Zoom Registration for Participation:

<https://tinyurl.com/ICIndustry4>

Live streaming on our Youtube Channel:

<https://www.youtube.com/channel/UCwFQGSXMT063O-aElrxoggQ>

For further information, please contact:

**Dr. Radhika Samarasekera**  
Director General  
Industrial Technology Institute,  
Colombo 7, Sri Lanka.  
Tel: +94-11-2379803  
Email: dg@iti.lk

**Mr. Irfan Hayee**  
Deputy Director (Programmes)  
COMSATS Secretariat  
Islamabad, Pakistan  
Tel: +92 3215384323  
Email: irfan@comsats.org