



Role of IEEE in Achieving Sustainable Development during 4th Industrial Revolution in Bangladesh

Keynote Speech

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Saifur Rahman Is 2022 IEEE President-Elect > He is a professor of electrical and computer engineering at Virginia Tech

BY JOANNA GOODRICH | 14 OCT 2021 | 2 MIN READ | 



VIRGINIA TECH

IEEE has:

- Over 400,000 members in more than 160 countries, more than 60 percent of whom are from outside the United States
- More than 107,000 Student members
- 342 Sections in ten geographic Regions worldwide
- 2,562 Chapters that unite local members with similar technical interests

- Has 39 technical Societies and seven Technical Councils representing the wide range of IEEE technical interests
- Has more than 5 million documents in the IEEE *Xplore*[®] digital library, with more than 15 million downloads each month
- Has an active portfolio of nearly 1,200 standards and more than 900 projects under development
- Publishes approximately 200 transactions, journals, and magazines

Aerospace

Artificial Intelligence

Biomedical

Computing

Consumer Electronics

Energy

History of Technology

Robotics

Semiconductors

Sensors

Telecommunications

Transportation

What is 4th Industrial Revolution

Automation of traditional manufacturing and industrial processes, using modern smart technology.

Large-scale machine-to-machine communication (M2M) and the internet of things (IoT) help with increased automation, improved communication and self-monitoring.

Sustainable
Development
Through
Technology

Applications in advanced computing, robotics, electronic chip manufacturing, energy production and delivery systems, telemedicine, electrification, 4IR can provide immense opportunities for industry-academia collaboration for meeting targeted national needs in Bangladesh

Examples of Industry-academy collaboration

- US National Foundation **GOALI** program
(Grant Opportunities for Academic Liaison with Industry)
- US Government **RANN** Program in the 70's
(Research Applied to National Needs)
- US, EU and UK run the US-India, US-China, EU-China, UK-India joint research programs with industry participation
- Japan Society for Promotion of Science (**JSPS**) supports for industry-academy collaborative work
- **GIAN** program in India works with scholars/researchers in developed countries.
(Global Initiatives of Academic Networks)

A roadmap For Bangladesh

Facilitate industry's appreciation of academia beyond producing graduates

Develop a GOALI-like program in Bangladesh

Encourage and reward student and faculty participation in industry (Chambers of Commerce, Govt. agencies)

Facilitate industry contribution in academic programs

Use elements of 4IR as building blocks for the industry-academy collaboration (deal with complexities)

My own
experience

Industry-sponsored collaborative research projects in the US

Japan Society for the Promotion of Science (JSPS) fellow

working as a research engineer at the Tokyo Electric
Power Company

US National Science Foundation and India Department of
Science and Technology-funded joint projects in India

An advisor to Global Energy Interconnection Development
and Collaboration Organization (GEIDCO) in China

A role
IEEE can play

IEEE society distinguished lecture program can support
visits of industry/academic experts

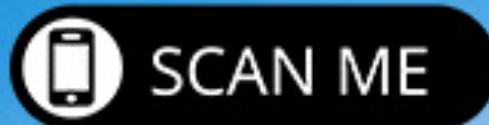
IEEE Bangladesh section can organize workshops to build
awareness and facilitate industry participation

Tutorials and other learning materials from IEEE sources
can facilitate knowledge sharing

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Questions