Keynote Address-Executive Director COMSATS

Workshop on Emerging Trends and Technologies: Carbon Capture and Storage, Climate Change and Net Zero

21st August 2023- CUI Wah Campus

Bism…..

Honourable Rector Prof. Dr. Sajid Qamar, distinguished speakers, respected Representatives of the Higher Education Commission of Pakistan, British Council, Cranfield University, international partners, Faculty Members, ladies and gentlemen,

Assalaam Alaikum and Good Morning!

I am honoured and privileged to be part of this important workshop on "Emerging Trends & Technologies" with particular focus on the pivotal topics, Carbon Capture and Storage (CCS), Climate Change and Net-Zero, that may chart the course of where the world would be in the times ahead, depending on how the global community deals with them.

I am grateful to the Rector saheb for affording me the opportunity to address this august gathering.

It is heartening to see a number of universities coming together for this workshop. It is a manifestation of a potential networking platform for facilitating transition towards sustainable and green economy through promotion of adopting emerging technologies.

Ladies and Gentlemen!

The world around us is evolving at an unprecedented pace. Our economies have grown, industries have flourished, and technological advancements have reshaped the way we live. However, this progress has not come without a cost. Our carbon-intensive way of life has led to the accumulation of greenhouse gases in the atmosphere, triggering irreversible changes in our climate systems. This challenge has entrusted us with responsibilities to address it and save the planet for future generations.

I understand that CCS is not new concept and has been practice for decades. However, it has recently been realised that its pursuit should be global to achieve energy and climate goals universally. Carbon capture and storage technologies have the potential to reduce the carbon footprint of fuels by about 90%. According to International Energy agency (IEA), without CCS, the cost of the electric power industry will increase by at least USD 3.5 trillion.

The emerging nations in the South have a significant opportunity to advance from only meeting their most basic needs to being "future-ready" to adopt the newest technological advancements. North-South cooperation is crucial to enable this leapfrogging.

Next-generation carbon capture technologies offer an alternative to large-scale centralised facilities by incorporating new sophisticated materials into more modular capture technologies. It is crucial to assess the state of carbon-capturing research and development (R&D) activities and trend analysis of the related technologies that would bring valuable insights for technology developers, and policymakers. I was delighted to see that experts have done comprehensive research to establish what the potential risks could be and how to prevent as also

mitigate. It is important to have monitoring techniques, and regulatory frameworks associated with these technologies.
Today's discussions, presentations, and deliberations will undoubtedly shed light on the strides we have made and the paths that we need to pursue.

Ladies and gentlemen, in today's highly competitive environment, a nation's ability to keep up with technological progress and continuously innovate is critical for its social and economic sustainable growth. In this regard, ST&I organizations like COMSATS can play beneficial role.

COMSATS is an intergovernmental organization comprising 27 countries from Asia, Africa and Latin America with its Secretariat based in Islamabad. The establishment of COMSATS was an idea of Prof. Dr. Abdus Salam and Pakistan's political leadership had the foresight to carry it through. The Commission derives its strength from 24 affiliated Centres of Excellence. Also, we have in this Network, at least five full-fledged universities; located in Pakistan, Palestine, Senegal, Gambia, and Kazakhstan. Establishment of an educational institution, named after it as COMSATS University, which grew at a commendable pace to not only ranked among the top universities but also achieve the status of the Centre of Excellence of COMSATS network.

With its campuses distributed in seven cities of Pakistan, COMSATS University has become a much sought-after model of a modern university. CUI has been on a phenomenal trajectory in recent years and has undergone remarkable growth in faculty and student numbers, new degree programmes, new campuses, research output, and infrastructure. I am glad to note that 100 scholarships are offered every year by this university to eligible students in COMSATS member countries to pursue graduate studies in selected disciplines.

COMSATS Organization has been promoting a variety of initiatives related to capacity-building; collaborative research and development; and exchange of knowledge, experiences, good practices and technological resources among its member countries. COMSATS Sectt has facilitated numerous activities in areas related to emerging technologies such as green Hydrogen, Micro-power systems, solar and fuel cell technologies, energy efficiency and cleaner production practices, Industry 4.0 and advanced nanomaterials for energy and environment-related applications.

I am confident that today's workshop will enhance mutual understanding among us, and create opportunities for the participating universities to promote valuable R&D initiatives. The emerging trends and technologies in carbon capture and storage, combined with our pursuit of net-zero emissions, hold the potential to reshape our world for a better tomorrow. The choices we make today will echo through time, inspiring generations to come.

THANK YOU!