Simulation of the ice core model revealed that the concentration of carbon dioxide (CO₂) in the atmosphere over the last 10,000 years has been increasing when compared with the ice core model in the last 50 years. This literally means that the earth’s solar radiation has increased with serious environmental impacts. The greenhouse gases, such as, water vapor, carbon dioxide, methane, nitrous oxide, and ozone have risen in the last century. Greenhouse gas emissions are more than 50 percent higher than in 1990. Global warming is causing long-lasting change to our climate system with irreversible consequences if no action is taken to ameliorate the situation.

In recent times, unprecedented increase in the anthropogenic activities has led to the pollution of the environment, increasing concentration of greenhouse gasses and other cooling aerosoles. Continuing concentrations of GHGs at current rates is estimated to threaten the required levels to stay below a temperature increase of 1.5 °C above pre-industrial levels to avoid the disastrous impacts of climate change. Emissions of greenhouse gases has affected biome regimen of the ecosystem and led to climate change and resulting flooding, tornadoes and hurricanes globally. Today, pollution of air and water has tremendous effect on human health, agriculture, biodiversity, water and sanitation as it creates ecosystem imbalance. Addressing this challenge is one of the top priorities for the global community.

The webinar is designed within the framework of the UN Sustainable Development Goal-13 in the framework of the 2030 Development Agenda SDG-13 on “Climate Action” which calls for “urgent action to combat climate change and its impacts”. Focus of the webinar will be two-fold. To discuss pathways to achieving the limit of the mean global temperature of two degree Celsius above pre-industrial level and to consider potential solutions to mitigate environmental problems caused by air and water pollution.

The webinar will be co-hosted by COMSATS Center for Climate and Sustainability (CCCS) and National Mathematical Centre (NMC), Nigeria with the objectives to mobilize scientists, researchers and policy makers to exchange information, share knowledge and good practices to strengthen climate actions in the Global South in reducing emissions and increasing adaptation efforts.

**Meeting Link:**
https://us02web.zoom.us/j/85815634101?pwd=aThtc29Qd2hKSE80eWdxdDJEK2NCUT09
Meeting ID: 858 1563 4101 Passcode: 484746

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Dr. Daniel Tutu Benefoh

Dr. Daniel Tutu Benefoh and staff at the Environmental Protection Agency of Ghana as a Deputy Director and UNFCCC Focal Person for Ghana. Within the Agency, he works in the Energy Resources and Climate Change Unit and responsible for low carbon development, carbon market and transparency issues. He is leading the Ghana team on International climate change reporting, Carbon market, climate finance and innovative financing. He is also a technical lead person, formulation of Ghana’s Nationally Determined Contribution (NDC) to the UNFCCC. Currently, he is involved in updating Ghana’s NDCs and policy advice on climate, the establishment of MRV and M&E system for climate action, mobilizing international finance for NDC implementation.

Prof. Dr. Ghasem Azizi

Prof. Dr. Ghasem Azizi have been working as a professor in the department of Physical Geography at University of Tehran. Over more than two decades of teaching and research in the faculty, he has done lot of research on contemporary climatology through synoptic climatology, urban climatology and statistical techniques. He is currently researching on present and past climate change focused on Iran. In the case of paleoclimatology, about 14 years ago he established a paleoclimatology laboratory in the faculty. During this time he has supervised 10 PhD thesis using Fossil pollen, tree ring, losses and geochemical analysis. So far, he has published more than 130 articles in scientific journals as well as 2 books.

Prof. Benjamin Oyediran Oyelami

Prof. Professor Benjamin Oyediran Oyelami obtained PhD in Mathematics from the Abubakar Tafawa Balewa University of Technology, Bauchi, Nigeria in 1999. Current Research interests: Modelling and Simulation of Impulsive Systems, Financial problems, biomedical systems and pollution problems.

He is the Team leader of The COMSATS’ International Thematic Research Group on Mathematical Modelling. Currently, he is serving as Controller of Academic Planning at National Mathematical Centre, Abuja, Nigeria and Visiting Professor of Mathematics, Baze University, Abuja, Nigeria.

Dr. Zia ur Rehman Hashmi

Dr. Zia ur Rehman Hashmi is leading the Water Resources and Glaciology Section of the Global Change Impact Studies Centre, Government of Pakistan, where he runs a program on implications of High Mountain climate change on Pakistan’s future water security. He has been GCISC’s focal person for various international forums such as the Upper Indus Basin Network, Indus Forum and MRI’s Group on Elevation Dependent Warming. He has been providing inputs to the Ministry of Climate Change-Pakistan on issues related to mountain hydrology, glaciology and other water related issues. He has been part of a number of joint projects at international level and have produced many high quality research publications.

Prof. Hüseyin Toros

Prof. Hüseyin Toros is serving as professor of Climate Change, Air Quality and Modelling in Istanbul Technical University (ITU); Istanbul and earned his PhD at the Department of Meteorology, Institute of Science and Technology, ITU. The thesis entitled “Acid precipitation, sources and effects in Istanbul”. He developed a technique to measure and quantifies acid rain for the first time over the Istanbul metropolitan region. He took his M.Sc. at the Department of Meteorology, Institute of Science and Technology, ITU. His thesis was entitled “Trend analysis in Turkish climate from climatological series”.

Mr. Bilal Anwer

Mr. Bilal Anwer is an International Climate Policy, Climate Finance and Sustainable Development professional with 20 years of global experience in development of international climate policy (UNFCCC Secretariat), technically advising on low emission development strategies to developing countries, structuring finance and management of climate change and Sustainable Development programs and projects, supporting inter-governamental climate change negotiations process (UNFCCC COPs). Currently leading the Commonwealth ‘The Climate Finance Access Hub’ supporting developing countries in building resilience and promote low emission development by capacity support and enhance flow of climate finance by developing bankable climate change mitigation and adaptation projects.