for achieving excellence. The established Directorate of Distance and Continuing Education, Private Education Cell (PEC), Nodal Computer Centre, UGC-HRDC, University Yoga Centre and Central Library are carrying forward the wheels of the university system towards the attainment of the desired goals. The infrastructural facilities provide all the contemporary requisites, including state-of-the-art laboratories, departmental libraries, auditorium, community centre and other serviceproviding amenities.

How To Reach

The Berhampur University campus at Bhanja Bihar is situated 7 km away from Berhampur city, which is well connected by direct train links with Bhubaneswar, Kolkata, Chennai and New Delhi. The nearest airports are Bhubaneswar (150 km) and Jeypore (240 km) and the nearest railway station is Berhampur, which is about 16 km from the Berhampur University campus.

Places to Visit

Brahmapur City, located on the eastern coast of Odisha, is beset with some historical scenic spots and tourist attractions. These include Maa Tara Tarini Temple, ISCON Temple, Maa Bhairavi Temple, Padmasambhava Mahavihara Monastery, Aryapalli Marine Beach, Sonapur Beach and Nirmal Jhar.

Programme Schedule

Day 1 (November 18, 2023 - Saturday)

08:30 am - 10:00 am	Registration	
10:00 am - 11:30 am	Inaugural Function	
11:30 am - 11:40 pm	Tea Break	
11:40 pm - 12:30 pm	Keynote Address on 'Environmental Challenges: Role of Science & Technology'	
12:30 pm - 01:15 pm	Invited Lecture - I	
	(Carbon Emissions: Impacts and Mitigations)	
01:15 pm - 02:00 pm	Lunch Break	
02:15 pm - 04:00 pm	Technical Sessions – I, II, III	
04:00 pm - 04:15 pm	Tea Break	
04:15 pm – 05:30 pm	Technical Sessions – I, II, III (to continue in parallel)	

Day 2 (November 19, 2023 - Sunday)

10:00 am - 11:30 am	Panel Discussion (Environmental challenges	
	 Mitigation of impacts in various fields) 	
11:30 am - 11:45 am	Tea Break	
11:45 am - 12:30 pm	Invited Lecture – II (Transformations in	
	Energy Sector)	
12:30 pm - 01:20 pm	Invited Lecture – III	
	(Vanishing Biodiversity: The Course	
	Correction)	
01:20 pm - 02:10 pm	Lunch	
02:10 pm - 03:00 pm	Poster Session	
03:00 pm - 03:45 pm	Invited Lecture – IV (UN Decade on	
	Ecosystem Restoration, 2021-2030)	
03:45 pm - 05:15 pm	Valedictory Function	

24th OBPC Committee

Chief Patron

Prof. Geetanjali Dash, Vice-Chancellor, Berhampur University Patrons

Prof. Sundara N Patro, President, Orissa Environmental Society Prof. S. K. Baral, Chairman, PG Council, Berhampur University Conveners

Dr. Jaya Krushna Panigrahi, Secretary, Orissa Environmental Society Dr. B. Anjan Kumar Prusty, HoD, Dept. of Environmental Studies, BU (Convenercum-Organizing Secretary)

Joint Conveners

Dr. S. N. Sahoo, Dept. of Chemistry, Berhampur University Prof. Sandeep Kundu, HoD of Geology, Ravenshaw University, Cuttack **Co-Organizing Secretaries**

Dr. Kabita Baral, Dept. of Environmental Studies, BU Dr. Santosh Kumar Beja, Dept. of Environmental Studies, BU Dr. Mrutyunjay Jena, Dept. of Botany, BU Dr. Jaya Kishore Sethi, Dept. of Zoology, BU Dr. Kusha Kumar Naik, Dept. of Physics, BU

Dr. Aditya Kumar Panda, Dept. of Biotechnology, BU

Dr. Narayan Sahoo, Dept. of Electronic Science, BU

Dr. Rachana Panda, Dept. of Environmental Studies, BU

Advisory Body

Prof A. J. Urfi, Professor & Head, Department of Environmental Studies, University of Delhi Dr. H. S. Das, Unit Head, Marine Endangered Species and Habitats, Environment Agency - Abu Dhabi (EAD)

Dr. P. Krishnan, Director, Bay of Bengal Programme - Inter Governmental Programme (BOBP-IGO), Chennai

Dr. Beth Middleton, Research Ecologist, USGS Wetland and Aquatic Research Center, LA, USA

Dr. Sunil Nautiyal, Director, G.B. Pant National Institute of Himalayan Environment, Almora

Prof. M. K. Misra, Adjunct Professor, Dept. of Environmental Studies, BU Prof. B. C. Choudhury, Adjunct Professor, Dept. of Environmental Studies, BU Dr. Ramanuj Narayan, Director, IMMT, Bhubaneswar

Dr. Sanghamitra Pati, Director, RMRC, Bhubaneswar Dr. Karuna Kar Nanda, Director, IOP, Bhubaneswar Dr. K. Murugesan, Member Secretary, State Pollution Control Board, Odisha Prof. Ashok Kumar Ganguly, Director, IISER Berhampur

Dr. B. C. Sabat, Former Director, Dept. of Environment, Govt. of Delhi

Organizing Committee

Prof. S. K. Tripathy, HOD, Physics, and Director, R&D Cell, BU Prof. S. Patro, Director, IQAC, BU Prof. J. Panigrahi, HOD, Biotechnology, BU Prof. S. Panda, Professor, Dept. of Physics, BU Dr. P. K. Dixit, HOD, Zoology, BU Dr. D. C. Panda, HOD, Electronics Science, BU Dr. T. Acharya, HOD, Marine Sciences, BU Dr. P. K. Jena, Coordinator, Dept. of Mathematics, BU Dr. B. R. Meher, Coordinator, Dept. of Botany, BU Mr. Chandan Nayak, Dept. of Pharmacy, BU Dr. Bijay Ketan Patnaik, Vice President, OES Dr. Lala A K Singh, Vice President, OES Prof. B Sitaram Patro, Treasurer, OES Er. Manoranjan Mishra, Joint Secretary, OES

General Correspondence

Dr. Jaya Krushna Panigrahi Dr. B. Anjan Kumar Prusty Convener, 24th OBPC, & Secretary, OES ND - 4, VIP Area, IRC Village Bhubaneswar – 751 015 Mob: 9437076100

Convener (In-house), 24th OBPC, & HoD of Environmental Studies, Berhampur University; Berhampur – 760 007 Mob: 9409442622

24th **Odisha Bigyan 'O' Paribesh Congress** November 18-19, 2023

National Conference **Environmental Challenges: Role of Science & Technology'**

Organized by



Orissa Environmental Society Berhampur University, Berhampur





Venue New Conference Hall, Berhampur University Berhampur, Odisha - 760 007

Background

The Odisha Bigyan 'O' Paribesh Congress (earlier Orissa Bigyan Congress) had its genesis in the year 1997 to create and foster an apt platform for the scientific community of the State to reflect and deliberate upon the advances of science and technology in diverse frontiers. Since then, it is being organized as an annual event in reputed universities/institutions of Odisha with the objective of bringing to a common forum the scientists, academics, technologists and environmentalists of the State as well as from other parts of the country for sharing their experiences and innovations. On the occasion of the Congress, a national seminar is being organized on a theme of current significance. Noted scientists and academics of the State are also felicitated during the Congress for their lifetime contributions, while young researchers are awarded prizes for best oral and poster presentations. This year, the theme has been purposefully kept as 'Environmental Challenges: Role of Science and Technology' to focus on the stern environmental issues that the mankind as well as the whole living world is confronting at the present juncture, and the plausible solutions. The 24th session of the Congress is organized under the joint auspices of the Orissa Environmental Society, Bhubaneswar and the Berhampur University, Berhampur, Odisha (Coordinated by the Department of Environmental Studies).

Focal Theme

In the evolutionary history of planet earth, environmental perils emanating from incessant, detrimental anthropogenic activities and population explosion have never transpired to such an extent that scare the very existence of its living system at the present juncture. The crises worsen progressively for the unsustainable mechanisms of development adopted by the humanity in the post-industrialization era for social and economic prosperity with scant regard towards conserving the excellence of nature. Human interference in natural ecosystems and the stress exerted upon them disrupt the intricacies in their functioning with the consequence of diminishing their ability to deliver the goods and services pertinently for the benefit of the mankind. The world is tormented by pollution of all sorts, depletion of natural resources and decline in forest covers as well as biodiversity. Ever-escalating emission of greenhouse gases from fossil-fuel based energy production, primarily responsible for global warming and climate change, is posing the gravest challenge to the living world by the enhanced prevalence of massive catastrophes.

In such a distressing scenario of environmental degradations going out of proportion, the need is to focus on realizing science and technology-based revolutionary, sustainable solutions to save the planet and mitigate the detrimental impacts. With marvels happening in scientific research and technological innovations, mankind has to devise and implement environmentally conducive green technologies for moving towards a greener society. In the energy front, naturally replenished, clean and renewable energy sources, like solar, wind, waves, rain, biogas, geothermal, nuclear and hydrogen energy need to be captured so as to put an end to our dependence of polluting fossil fuels. Smart technologies using apposite devices can be employed for enhancing energy efficiency. Pollution, inclusive of greenhouse gas emission, from transport sector is being curtailed by greater use of electric vehicles using rechargeable batteries. Energy-efficient 'smart cities' are making their way with enhanced internet connectivity and quality environs allaround with better livability. Atmospheric decarbonization encompasses a wide array of technologies such as direct air capture, soil carbon sequestration, biomass carbon removal and storage, enhanced mineralization, ocean-based CO₂ removal and afforestation/ reforestation. Science and technology should portray themselves as the saviours of the living world by way of inventing novel pathways that would halt further ecological disruptions on earth.

Call for Papers

Research papers from all branches of Science and Technology in respective fields of work are invited for oral/poster presentations in the technical sessions of the seminar. Selected abstracts will be published in the proceedings of the 24th OBPC. Soft copies of the abstracts in English (within 400 words) in MS-Word format (Times New Roman, font size 12) with names of authors, their affiliations, corresponding author's email and key words may be submitted to the Organizing Secretary by email (24obpc@gmail.com) latest by <u>November 01, 2023</u>. Best presentations (oral/poster) will be awarded in the Congress. From this year, 'Prof. BS Patro Award for Excellence in Science' will be presented. The research papers selected by a panel of experts will be published separately as a conference proceeding with ISBN subsequent to the OBPC. The authors will be communicated for submitting the full papers after the Congress. The registration fee must accompany the submitted abstracts.

Technical Sessions

- Advances in Life Sciences I (Agriculture, Animal Sc., Plant Sc., Environmental Sc., Medical Sc., etc.)
- Advances in Physical Sciences II (Physics, Chemistry, Mathematics, Geology, Space Sc., etc.)
- Advances in Technological Sciences III (Engineering, Technology and Applied Sciences)

Accommodation

Delegates are requested to make their own arrangements for their stay during the Congress. However, limited accommodation arrangements can be made for delegates in university campus (HRDC), on request on 'first come first serve' basis.

Orissa Environmental Society Bhubaneswar

Website: www.odishaenvironment.org Email: oesbbsr@gmail.com

The Orissa Environmental Society was founded in 1982 with the prime objective of promoting awareness towards protection of the fastdeteriorating environment and conservation of the depleting natural resources of the State by way of undertaking diverse activities. It has also been preaching the principles of sustainability based on ecologically, economically and socially sound practices. Acting as a think-tank, it makes investigations into pertinent environmental problems continually and brings to the fore the core issues for appropriate actions by the government as well as the people. In recognition of the services rendered by it, the Society has been represented in various state as well as national level committees and forums on environment, wildlife and science & technology. It has made landmark contributions in respect of Similipal Biosphere Reserve, Chilika lagoon, Mahendragiri hill terrain and Angul-Talcher industrial area, to name the prime realms of its work, by way of research, education and awareness promotion. The Society has brought out several publications on diverse aspects of environment and natural resources. With about 800 life members in its roll, it has earned the unique distinction of enjoying the accreditations of some national and international organizations. It played the pivotal role in the opening of the Bhubaneswar Chapter of the Indian Science Congress Association in 1996.

Berhampur University Bhanja Bihar, Odisha

Website: https://www.buodisha.edu.in

The Berhampur University came into existence on 2nd January 1967 being inaugurated by Dr. A.N. Khosla, the then Governor of Orissa and the first Chancellor of the University. The University was later shifted to the present site known as Bhanja Bihar, named after the celebrated poet of Odisha, Kabisamrat Upendra Bhanja. Spreading over an area of about two hundred fifty acres, the University is 12 km away from the Berhampur City and 5 km from sea-beach of Gopalpur. There are 25 Post-Graduate departments in the University campus that offer specialized subjects and Ph.D./D.Sc. programs. The University has 173 affiliated colleges with various subjects and disciplines such as Arts, Science, Commerce, Law, Education, Medicine, Pharmacology, Homoeopathy, Ayurveda, Nursing, Military Science, Library Science and Fine Arts. The University is a permanent member of the Inter University Board of India and Sri Lanka as well as that of the Association of Commonwealth University of London.

Berhampur University seeks to take long strides in harnessing the outcomes of teaching and research in various fields by way of ensuring inclusive growth, and to prove itself to be a Center of Excellence in higher education. It further envisions taking up the social responsibility towards the total uplift of the society at large by providing quality education in consonance with the motto of the University, i.e., "Tamaso Ma Jyotirgamaya" which means "Lead me from darkness unto light".

There are 16 PG hostels within the university campus, including seven ladies hostels. The university provides an admirable academic ambience in its campus to bring out the inner potential of the students

24 th		
Odisha Bigyan 'O' Paribesh Congress		
November 18-19, 2023	3	
National Conference on 'Environmental Challe Role of Science & Techr	nges:	
<i>Venue:</i> New Conference Hall, Berhampur Uni Brahmapur, Odisha - 760 007	versity	
REGISTRATION FORM		
Name:		
Designation:		
Institution (if any):		
Mailing Addross:		
Mailing Address:		
City: Pin Code:		
Phone:OffMob:		
Email:		
Title of the paper (Oral/Poster)		
Payment details:		
Amount: Rs Details of DD/NEFT/Online Payment		
DateBank:		
Registration Fee:		
Delegates (Academics/Research/Industry)	Rs. 1000/-	
Research Fellows:	Rs. 700/-	
Student Delegates	Rs. 500/-	
DateSignature N.B.:		
The registration fee (to be paid online/NEFT) in favour of the 'Head, Department of Enviro (Ac No. 41075168847; State Bank of India Branch, Berhampur, IFSC: SBIN0002107) screenshot (stating name and place) along filled-in registration form. Please send this re along with evidence of registration fee payme Convener, 24 th OBPC, Dept. of Environn	a, Bhanja Bihar and share the g with the duly egistration form ent details to the	