



Office of the Principal Scientific Adviser
to the Government of India



BCKIC
Bhubaneswar City
Knowledge Innovation
Cluster Foundation

BCKIC Foundation Newsletter

Connect. Cooperate. Collaborate.

MAY
2023



ABOUT BHUBANESWAR CITY KNOWLEDGE INNOVATION CLUSTER FOUNDATION

Bhubaneswar City Knowledge Innovation Cluster (BCKIC) Foundation, is an initiative by the Office of the Principal Scientific Adviser to the Government of India. Bhubaneswar City Knowledge Innovation Cluster Foundation seamlessly connects academic, industrial, corporate, and start-up ecosystems to create a Hub and Spoke Model, actively facilitating innovation, knowledge creation and implementation of technologies for socio-economic benefits.

Our major thematic areas include - Biosciences, Polymer-based interventions, Quantum engineered advanced materials, Wetland management, Waste to Value, Food and nutrition.



Connect

Connect with multiple stakeholders. Industries, research institutes, incubators/ accelerators, and governments to build and strengthen an inclusive regional science and technology ecosystem.



Co-operate

Creating solutions through close cooperation, leveraging expertise from partner organizations that are reliable, effective, and sustainable for the current and future problems of the region.



Collaborate

Collaborations for nurturing and driving translational research and innovation in Bhubaneswar that boosts economic and employment growth by creating a market for reliability and replicability across the state.

STAKEHOLDER CONSULTATION ON GREEN HYDROGEN INNOVATION CLUSTER

Considering the country's vision of being carbon neutral by 2070 while maintaining the necessary energy usage for driving growth and development, it is of utmost importance to pilot various newer renewable sources of energy for multiple applications. Odisha and neighbouring states are home to important mineral, metal, and material industries such as iron, steel, aluminium, and coal which are essential growth drivers however simultaneously hard to decarbonise sectors. In addition, state also host sectors such as refineries dependent on grey fuel for operations. Concerted innovative efforts are solicited from ecosystem members to prioritise the innovations for decarbonization of various sectors while simultaneously achieving increased output to serve the need of accelerated growth.

Green Hydrogen Valley Innovation Cluster (HVIC) Project Call from Department of Science and Technology is an important initiative to evaluate the greening potential of various sectors and support a few of the sectors and geographies for implementation of HVIC project. Bhubaneswar City Knowledge Innovation Cluster Foundation and IIT Bhubaneswar hosted the relevant stakeholder from green hydrogen ecosystem to understand the rationale and processes for HVIC as well as potential of Odisha for implementation of HVIC project. The meeting included the officials from DST, Govt of India as well as from O/o PSA to Govt of India, academicians from various Institute of repute including IIT Bhubaneswar, CSIR-IMMT, NISER, and KIIT-DU, system integrators from industry including Hero Future Energy and Schneider Electric, Global experts, as well as representatives from potential off-takers including Oil India (refinery sector), Tata Steel (steel sector), and APChemi (plastic circularity).



Mr. Rahul Kulshreshta from Strategic Alliances Division, Office of the Principal Scientific Adviser to the Government of India set up the context of the meeting and discussed about various avenues in green hydrogen innovation sectors with special emphasis on objectives and goals of National Green Hydrogen Mission. Subsequently, Dr Ranjith Krishna Pai, Director - Technology Mission Division (Energy Technologies Cell), Department of Science & Technology Govt of India, explained in detail about the unique initiative of Hydrogen Valley Innovation Cluster with focus on identifying critical gaps, and innovations/improvisations needed for completing the hydrogen value chain along with demonstration of a functional cluster with up to 500 tonnes of green hydrogen production and usage. Dr R. K. Pai further explained the various benefits offered through HVIC project call which shall assist not only in formulating but also in establishment of effective and efficient hydrogen valley at various places in the country.

Prof Saroj Nayak, IIT Bhubaneswar, outlined the processes and roadmap being envisioned for sustainably producing the green hydrogen and channelising the produce as the feed energy stock for various sectors. Dr Prashant Singh, BCKIC Foundation, highlighted the comprehensive consortium setup at Bhubaneswar encompassing complete hydrogen economy value chain for effective implementation of the project. The knowledge think-tank of Bhubaneswar including Dr, J. N. Behra - NISER, Dr Chinmay Sarangi from CSIR -IMMT, and Dr Manaswani, IIT Bhubaneswar, presented various work being undertaken and capabilities being developed such as membrane improvements, highly effective but economical catalysts, and potential technologies for the green steel. Dr Marten from Sweden presented the European outlook on the green steel and massive carbon foot print reduction expected in next 10-15 years, driven by green hydrogen.



From the industry side, system integrators including Hero Future Energy and Schneider Electric highlighted the over encompassing challenges for green hydrogen production, usage, and effective measures of improved efficiency and safety. The companies extended support for early availability of global benchmarks as well as extension and scaleup of indigenous technologies. Finally, the integration of the production and consumption of up to 500 tonnes of green hydrogen is of critical importance requiring necessary innovations and logistics in conjunction with off-taker industries. Team from Oil India, led by Mr Anjan J Phukan, described various initiatives being undertaken by the company in Odisha in green hydrogen space. Mr Tapan Rout from Tata steel opined about opportunity and challenges in indigenous production of green steel, whereas Mr Suhas Dixit from APChem, a plastic circularity startup, described the capabilities of company for hydrogen usage in plastic circularity.

The meeting resulted in a detailed understanding of HVIC call and setup the process for streamlining the complete value chain. Prof V. R. Pedireddi, IIT Bhubaneswar summed up the proceedings of the day and thanked all the participants for sharing their vision and expertise focussed on establishment of HVIC in the state. BCKIC Foundation shall keep engaging with all stakeholders for establishment of a functional Green Hydrogen Innovation Cluster in the state.

UK-INDIA HEALTH-TECH BOOTCAMP “RESULTS”

Bhubaneswar City Knowledge Innovation Cluster Foundation and KIIT TBI jointly implemented the UK- India HealthTech Bootcamp with support from British High Commission India.

The announcement of the winners of UK-India Health-tech Bootcamp was done at the British high commission office in New Delhi by the Lord Tariq Ahmed, Minister of State for the Middle East, North Africa, South Asia and United Nations at the Foreign, Commonwealth and Development Office.

The esteemed Lord Tariq Ahmed presided over the ceremony and revealed the exceptional startups that secured their spot in the fully funded program in the UK. He also spoke about the growing Indian startup ecosystem specially in the healthcare domain and emphasized on how this program will help the startups to scale their businesses in UK NHS network.

Dr Mrutyunjay Suar, Chairman - BCKIC, congratulated all the startups selected for the UK visit under this programme and also thanked British High Commission India for conceptualizing and formulating such a program. Furthermore, he also emphasized on how this program will act as an enabling platform for startups to deploy their innovations and scale their businesses in UK healthcare market.



The fully funded program in the United Kingdom will provide these exceptional startups with a platform to connect with industry leaders, access to cutting-edge technologies and gain valuable insights into global markets. The collaboration and knowledge exchange during their time in the UK are expected to propel these startups to new heights.

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Victorious Startups in the UK-India Health-tech Bootcamp

Avay Bioscience Pvt Ltd



Sector: Biomedical Engineering

Innovation: **Development of Advanced 3D Bioprinter**

Karkinos Healthcare Pvt Ltd



Sector: Tele-Health

Innovation: **A Technology Led Purpose Driven Oncology Platform**

Manentia Advisory Pvt Ltd



Sector: Biomedical Devices

Innovation: **3D AI based deep learning platform for analysis & monitoring of CT lung cancer**

LarkAI Healthcare Pvt Ltd



Sector: Biomedical Devices

Innovation: **ThoraCare: A non-invasive easy to use early stage heart and lung abnormalities screening device**

Cutting Edge Medical Devices Pvt Ltd



Sector: Tele-Health

Innovation: **SCINTIGLO: Point of care diagnostic device for democratizing healthcare**

Stimveda Neurosciences Pvt Ltd



Sector: Digital Health

Innovation: **Personalised brain stimulation and digital cognitive-emotional therapy**

IGNITING INNOVATION AND ENTREPRENEURSHIP IN NAGALAND

Bhubaneswar City Knowledge Innovation Cluster Foundation in collaboration with BIRAC BRTC organized a power-packed event, NAGALAND SPARK-Igniting Innovation, and Entrepreneurship, at Nagaland University Medziphema campus on 19th May 2023.

The event witnessed the presence of esteemed leadership from Nagaland University, including the Vice Chancellor, Pro-Vice Chancellor, Registrar, Dean, and Dr. G Narahari Sastry, Director of CSIR-NEIST Jorhat.



Their commitment to creating an innovation and technology hub to foster an entrepreneurial culture in the state was truly inspiring.



BUILDING PARTNERSHIPS TO CREATE IMPACT

Bhubaneswar City Knowledge Innovation Cluster Foundation, signed an MoU with Ramadevi Women's University, Bhubaneswar (RDWU) for the advancement of science, technology, and innovation infrastructure through various collaborative projects. The MoU was signed by Prof Aparajita Chowdhury, Vice Chancellor of RDWU and Prof Mrutyunjay Suar, Chairman, BCKIC in the presence of Prof Sasmita Mohanty, Dr Namrata Mishra and other faculties and senior administrators. The MoU emphasizes on strengthening the STI ecosystem with focused approach on women centric programs in the state such as women in STEM, women entrepreneurship, setting up women technology parks etc. The collaboration will mutually complement and enhance the knowledge and innovation space to achieve translational impact with technology development, refinement, and deployment programs. BCKIC Foundation will work extensively on identifying problem statements with its network of academia, industry, government, and startups, whereas the institutional expertise of RDWU, Bhubaneswar shall provide a strong foundation for increased contribution by women scientists and social entrepreneurs.



IP AWARENESS

BCKIC Foundation, in collaboration with the Science & Technology Department, Government of Odisha, in its mission to create awareness about Intellectual Property Rights in the state of Odisha organized a “Two days Training Program on Patents” at Berhampur University on 4th and 5th of May 2023, targeting college and university students, research scholars and faculties. Invites and representation from nearby institutions were also there during the program.

The program was designed and organized with advanced course material and a series of lectures and practice modules. The session focused on different aspects of patents, how to convert research works / project works into patents and hands-on training on patent searches, patent drafting and prosecution. An activity and IPR Booklet were developed for an integrated training during the session.

A total of 180+ participants including College and University Students, research scholars and faculties attended the training program.



ECOSYSTEM PARTNERS



For Queries, Contact:
+91 9811687020

Email: ceo@bckic.in
Web: www.bckic.in

