

Mission Innovation Champions India



**MISSION
INNOVATION**

accelerating the clean energy revolution

Mission Innovation Champions: Transforming the Clean energy sector

Our Mission Innovation International Champion and Four Mission Innovation India Champions are individuals with a track record of progressing creative new ideas that can drive the pace and scale of the clean energy revolution. They work in a variety of fields and industries but all are people who are inventing the products and services of the future or discovering the science that underpins them. The Mission Innovation Champions were introduced and celebrated at the fourth Mission Innovation ministerial meeting in Vancouver, Canada in May 2019.

Mission Innovation International Champion India: Prof. Santi Pada GonChaudhuri



Visiting Professor, Indian Institute of Engineering, Science and Technology, Shibpur, India

FOCUS AREA: Off-Grid Access to Electricity

Dr. Santipada GonChaudhuri is a visiting professor at the Indian Institute of Engineering Science and Technology and is a Strategic Advisor at Vikram Solar. He has 35 years of experience in the field of renewable energy and has worked for more than 25 years as the Head of the Renewable Energy Department for the Government of Tripura and in West Bengal. He also set up India's first megawatt scale grid connected solar power plant. The first floating Solar Power Plant of India is also the brainchild of Dr.GonChaudhuri. He is also the chairman of International Solar Innovation Council at Helsinki, Finland. Dr.Gon Chaudhuri is the inventor of Micro Solar Dome, an off-grid lighting device, which is now benefiting millions of people in rural India.

"I believe in the potential of renewable energy in heating, cooling, drinking water, and rural transport. As a Mission Innovation Champion, I will lead innovators and initiate a nationwide programme."

Mission Innovation National Champion India: Prof. Sukumar Mishra



Prof Sukumar Mishra:

Professor Department of Electrical Engineering Indian Institute of Technology Delhi

Area of Focus : IC#1 Smart Grids

Prof. Mishra completed my Ph.D. in electrical engineering in 2000 and started his career as a researcher in this field. Currently, he is working as a Professor in the Department of Electrical Engineering at Indian Institute of Technology, New Delhi and have been part of the organization for the past 15 years. His research interests lie in the field of power systems and power quality analysis in the presence of increased renewable energy penetration, smart grids and off grids power systems, electric vehicles and clean energy utilization.

Looking to the Future :

The plan is to develop end to end solutions for 220 V DC smart homes which are capable of utilizing electricity in an efficient and intelligent manner. Future work will involve standardization of 220 V DC micro grids as a solution to extract renewable power. The work will also standardize AC-DC devices which are capable of operating with both 220 V AC (conventional power supply) and 220 V DC (proposed). Thus, the end user need not to purchase separate devices for utilizing energy from grid or for utilizing energy from renewable energy sources. The initiative will expedite use of renewables for household applications. With increased renewable penetration, the control and monitoring services will generate huge data which can give significant insight to issues and challenges. Thus emphasis is on data driven research and big data analysis to maximize the renewable penetration in smart grids.

Mission Innovation National Champion India: Mr. Manik . M . Jolly



Mr. Manik M Jolly:

Founder and CEO of Grassroots and Rural Innovative Development (G.R.I.D.)

Area of Focus: IC#2 Off-Grid Access to Electricity

His projects include AC & DC micro-grids for domestic and commercial energy access in rural areas, and most recently an off-grid solar micro-grid based Reverse Osmosis (RO) – UV filtration system that can provide clean drinking water to rural/semi urban communities at an affordable price of 0.04 USD for 10 liters.

Looking to the Future :

This initiative will be used for commissioning more solar based energy and water access projects which will serve as a main source of revenue which will lead to change in the entire scenario of social development investments. There will be more focus on research and development of the smart solar products for rural and defence market in India. More emphasis on widening the clean energy spectrum to bring a transformational change in the area of energy innovation and technology.

Mission Innovation National Champion India: Mr. Prateek Bumb



Mr Prateek Bumb: Founder CTO: Carbon Clean Solutions

Area of Focus

CO₂ Capture - Developed new breakthrough technology to capture CO₂ from industrial gases. The innovative technology reduces the cost of CO₂ capture by 50% and making re-use of CO₂ economics across a far wide range of applications.

CO₂ Re-use - Developing new transformational technology to covert captured CO₂ to re-use products

Looking to the Future:

This innovative CO₂ capture and utilization technology can decarbonize industries and solve the CO₂ emissions problem. My vision is widespread, commercial and technical integration and adoption of carbon capture will become a reality in the near future, leading to decarbonisation and greater energy security. Mission Innovation platform will help in unlocking the technology and research at scale. It will provide support for cross border technology exchange for effective clean energy research and deployment globally. The Mission Innovation will helps necessary research integration so that process stands to be economically viable in order for industries to take ownership of the technology and will provide a mechanism so that a whole system approach is considered and that supply chain networks are factored in and potentially help in engaging the public in a positive sense for carbon capture.

Mission Innovation National Champion India: Lt. Col. Monish Ahuja



Lt. Col (Retd.) Monish Ahuja

PRESPL: Managing Director / Executive Director / Business Development Director

Area of Focus: IC#4 Sustainable Biofuels

Ex-Defence professional with top-notch management profile with 19 years comprehensive experience in developing, and implementing strategic projects, marketing & business development plans, new business development, operations & maintenance for leading companies in INDIA. Mr. Monish Ahuja, Director is known in the Biomass fraternity as a dedicated and knowledgeable leader. He has been advocating the cause of establishing the increased usage of biomass applications for generation of Bio-Energy by encouraging Biomass Project Developers to engage them in such initiatives with attractive economic and commercial considerations. He is an eminent speaker at various seminars and forums conducted by agencies like MNRE (Ministry of New and Renewable Energy, Govt. of India), CII (Confederation of Indian Industries), PHD Chamber of Commerce, Biomass Associations, World Biomass forums. He has been nominated as a Member of CII to represent National Committee of Bio-Energy 2014-15. He has been recognized in the year 2013 as “Biomass Energy Man of the Year” by RENEWABLE WORLD, part of Fortune Media Group. He has been also nominated as a member of the committee International Rice Research Institute (IRRI), Philippines to work out the strategies and action plants for effectively & productively utilization of Rice Straw globally which otherwise is causing damage to human health & heritage structures due to open field burning.

Looking to the Future :

- Spread more awareness in all sectors about the benefits of BioEnergy
- Triple the Biomass utilisation for Clean Energy in next five years.
- Achieve a quantum leap in employment avenues in the rural sector through Biomass Supply Chain and Bio Energy
- Projects in the next five years.
- Financial support through larger Working Capital to cater to large-scale Biomass Supply Chain and Bio Energy Projects
- operations.
- Encouraging more entrepreneurs, through policy measures, in the Biomass Sector; both in Supply Chain and Bio
- Energy, to enable more benefits for the farmers and the Nation in the long run.