

## TN scientists bag national awards for making India superpower in harnessing ocean resources

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Tamil Nadu, despite being battered by Covid-19 pandemic since February 2020 has reasons to rejoice as five Chennai based scientists have been honored by the Government of India for the exemplary contributions they have made to the society from the laboratories of National Institute of Ocean Technology (NIOT) which comes under the Ministry of Earth Sciences.

M A Atmanand, director, NIOT, a veteran in the field of deep sea technologies has been honored with the National Award of Excellence for the pioneering research and development work he has done that has helped India to establish itself as an emerging superpower in harnessing the hitherto unseen and unexplored depths of the ocean.

Dr Atmanand, through his industrious and perseverance works developed India's first Remotely Operable Vehicle capable of undertaking missions up to 6 km to the bottom of the ocean. The work led by him and his team of technologists have helped India to think about drawing the vast deposits of gas hydrates from the deep bottom of the Bay of Bengal and Central Indian Ocean Basin.

The country is on the verge of recovering precious metals like manganese, cobalt etc which are present in the form of nodules in the depth of Indian Ocean, The deep sea ocean technology or the mechanism to harness the precious resources from the bottom of the ocean, is a well-guarded and well protected technology which is possessed by a group of elite countries like the USA and Japan. Thanks to the pathbreaking R&D work done by Dr Atmanand, the government is hoping to harness the precious elements and metals from the depths of the Ocean.

Beach protection in areas vulnerable to tidal attack is another successful contribution by the NIOT under the leadership of Dr Atmanand. A caisson made of steel has perfected the art of nourishing and retrieving the coastline swallowed by hike in sea level. This was proved successfully in Puducherry and Lieutenant Governor Kiran Bedi complimented NIOT for he work.

Cage Culturing perfected by the NIOT has revolutionised the coastal villages along Tamil Nadu and this has been described by no less a person than P Murari, who authored the manifesto of India's blue economy. Cage culturing in Tamil Nadu owes it to the pioneer work undertaken by Atmanand and his young team. He has steered various indigenization programmes for Ocean observation and under water systems.

L Anburajan, scientist, Atal Centre for Ocean Science and Technology for Islands (ACOSTI), Port Blair, Andaman and Nicobar Islands, a field station of (NIOT) was honoured with certificate of merit for his research in the area of deep sea microbial biotechnology. He has developed recombinant technology for the production of anticancer enzyme, L-asparaginase and ectoine from marine symbiotic and deep sea bacteria. V. Chandran, K. Ramesh and Sulabh Srivastava received the best employee awards.