



Dr. M.A. Atmanand, Director, National Institute of Ocean Technology, India

Dr. M.A. Atmanand, has done pioneering work in the area of deep sea technologies in India. An Instrumentation and Control Engineer by profession, he took his undergraduate degree from University of Calicut, Master's and doctorate degrees from Indian Institute of Technology, Madras.

He led a team of Engineers for the design and development of underwater crawler for deep sea operation. He and his team developed the in-situ soil tester which was tested at a depth of 5200 m in the Central Indian Ocean Basin. It was under his supervision that the design of Electrical, Instrumentation and Control system of the India's first Remotely Operable Vehicle was done. This was later tested at a depth of 5289 m water depth. He has also guided various indigenization programs for Ocean observation and under water systems.

In addition to his leadership and management role, his areas of interest include development of underwater vehicles with specific reference to their control, components for deep sea applications, and protocols for testing of deep sea devices.

Some of the areas he contributed are:

- Technologies for the extraction of Poly Metallic Nodules from deep sea, to retain 'pioneer investor' status for India, granted by International Sea Bed Authority of United Nations
- Development of Power and Control Systems for deep water Submersibles for depths up to 6000 meters.

- Development of allied technologies for Underwater vehicles, which have become mainstay all such projects in India
- Power Generation modules for wave Energy and Ocean Thermal Energy Conversion (OTEC)
- Development of underwater Systems and components like motor, fibre optic connectors etc.
- Establishment of electronic support facilities and tsunami early warning systems

Dr. M.A. Atmanand has published more than 100 papers including International Journals, International conferences, Book chapter, National Conference and others. He received IEEE Oceanic Engineering presidential Award in 2016, National Geoscience award 2010 from Ministry of Mines and the International Society for Offshore and Polar Engineers (ISOPE) Ocean Mining Symposium award in the year 2009. He is an Associate Editor of IEEE Journal of Oceanic Engineering. He has widely travelled in capacities like technology transfer, as part of delegations etc. to countries like Russia, USA, Germany, Portugal, Korea, Japan etc. He received United Nations fellowship in 1985 – 86.

He is the founder Chair of IEEE Oceanic Engineering Society in India. He has served IEEE Madras Section in various capacities.