



iDEX Innovations for Defence Excellence

PM Awardee

DEFENCE INNOVATION ORGANISATION
(Under Aegis of Department of Defence Production)
Ministry of Defence, Government of India
New Delhi -110002

iDEX4Fauji

Problem Statements

S. No.	Name of Agency	Number of Problem Statements
1	Indian Navy	5

iDEX4Fauji Problem Statement

Problem Statement - 1	3
Problem Statement - 2	3
Problem Statement - 3	3
Problem Statement - 4	4
Problem Statement - 5	4

Problem Statement - 1

Problem Statement/ Challenge Title	Autonomous Modular Inflatable Target (AMIT)
Challenge Brief/ Definition	A mobile target AMIT has been conceptualised and consists of a series of inflatable targets and active/ passive decoys towed by autonomous boat. AMIT can be deployed as a missile target during practice firing.

Problem Statement - 2

Problem Statement/ Challenge Title	Height Enhancing Inflatable Gear for High-sea Tracking (HEIGHT)
Challenge Brief/ Definition	It is a technological solution to help locate Man Over Board. It consists of leak proof telescoping tube on the life jacket which would be raised by the use of balloon. The inflation of balloon would be undertaken by small compressed air cartridge/ hydrogen gas generated in-situ.

Problem Statement - 3

Problem Statement/ Challenge Title	Underwater Mine Containment System (UMCS)
Challenge Brief/ Definition	UMCS can be towed behind an electrically driven surface craft. UMCS is a unique system capable of producing both influence based signatures and also houses an explosive section capable of sympathetically detonating mine by remote means.

Problem Statement - 4

Problem Statement/ Challenge Title	Low-Cost Gradient Osmometer
Challenge Brief/ Definition	Low-cost gradient osmometer is much more affordable compared to present day tests, a simple osmometer which uses basic laws of osmotic shift of water towards osmotic gradient has been devised. This simple innovation fulfils the clinical need without requiring sophisticated instruments.

Problem Statement - 5

Problem Statement/ Challenge Title	Underwater Mine Sweeping System (UMSS)
Challenge Brief/ Definition	UMSS is an innovation which can be towed behind an electrically driven surface craft such as a remotely controlled unmanned inflatable boat which has almost nil acoustic, pressure and magnetic signature of its own. UMSS is a compact module which consists of an influence producing system i.e. acoustic, pressure and magnetic signature producing submodules and an explosive module which can be remotely detonated from a safe distance.