Associate Professor S K Panda and his team at the NUS Electrical and Computer Engineering Department are involved in the research and development of biomimetic solutions in ocean engineering -- looking towards nature for solutions to technical challenges with robots mimicking natural systems. The team is currently putting the final touches to a robotic sea turtle that does not use a ballast system which is commonly used in underwater robots for diving or sinking functions. Without this ballast system, it is much smaller and lighter, enabling it to carry bigger payloads so that it can perform more complicated tasks such as surveillance, water quality monitoring in Singapore reservoir or energy harvesting for long endurance. The turtle robot, which can self-charge, is also able to do a dynamic dive or sink vertically, ie it can enter vertical tunnels or pipes in the seabed with very small diameters.

**Read more** http://www.alphagalileo.org/ViewItem.aspx?ItemId=148456&CultureCode=en