

IIT-BHU develops self-adjusting fixed type jetty

VARANASI : A self-adjusting fixed type jetty (SAFTJ) was designed, developed and tested by an IIT-BHU professor and his team. The SAFTJ can adjust its deck level horizontally and vertically according to the fluctuating river water level, which often occurs due to the seasonal/tidal changes.

The SAFTJ removes the need for constructing separate high-level and low-level jetties to

cope with water level variations and is thus highly economical.

This would ensure year-around service and enhance port handling capacity, said Prof Rajesh Kumar from the department of civil engineering and also a team member.

The team recently received the National Meritorious Innovation Award-2018 from the Ministry of Science and Technology and a reward of Rs 5 lakh

for successfully developing this jetty.

Kumar said that to achieve the bi-directional movement, the structure has been equipped with a state of the art in-house developed locking mechanism which controls the movement of the jetty with rise/fall in water level.

The concept only uses natural forces like buoyant and gravitational force to operate which

in turn increases the reliability of the structure.

Jetties based on the concept of SAFTJ require minimum permanent construction and also causes minimum obstruction to the water flow thus enhancing the Environment impact assessment (EIA) report of the construction projects, Kumar said.

Kumar said that India being a maritime nation has a rising

focus towards blue economy and thus jetties based on the concept of SAFTJ have immense application potential in ports, shipping and waterfront development sector.

Also, the innovative design of SAFTJ has got a patent, he said. Along with Kumar other team members include KK Pandey and students Ankit Patel and Achin Agrawal.

SAMBHAV SHARMA