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भारतीय प्रौद्योगिकी संस्थान हैदराबाद
Indian Institute of Technology Hyderabad

CGDT of IIT Hyderabad and Goa Shipyard Limited Forge Alliance to Transform Shipbuilding with AI & Digital Twin Technologies

Highlights:

- *Indian Institute of Technology Hyderabad and Goa Shipyard Limited (GSL) sign an MoU to revolutionize shipbuilding with AI and Digital Twin technologies.*
- *The collaboration will position India at the forefront of AI-driven maritime innovation.*

Hyderabad, April 8, 2025 – The Centre for Geospatial AI and Digital Twins (CGDT) of IIT Hyderabad (IITH) and Goa Shipyard Limited (GSL) have signed a ground breaking Memorandum of Understanding (MoU) to revolutionize shipbuilding through Artificial Intelligence (AI) and Digital Twin technologies. This strategic collaboration, undertaken in association with Neer Interactive Solutions Pvt Ltd and Andhra Mahila Sabha (AMS) Arts & Science College, will leverage the expertise of CGDT of IITH to enhance efficiency, security and sustainability in maritime operations.

The partnership will drive innovation by optimizing vessel design, strengthening shipyard security, and implementing advanced 360-degree surveillance solutions powered by Geospatial AI and Object Detection AI. By integrating Generative AI and Digital Twin technologies, this initiative aims to set new global standards in India's shipbuilding sector.

Prof BS Murty, Director, IIT Hyderabad emphasized the significance of safety in industrial operations, stating, *"While Digital Twin technology is redefining industrial operations, yet safety remains an underexplored area. Through CGDT-IIT Hyderabad, in collaboration with Neer Interactive and Andhra Mahila Sabha, we are pioneering a holistic Geospatial AI model with 360-degree maritime security solutions. This initiative is the first of its kind in India and across Asia."*

Shri BK Upadhyay, CMD GSL expressed his happiness on the collaboration between GSL and IITH in improving maritime safety through digital technologies.

Sri Dittakavi Chakrapani, IAS (Retd.), Chairman, AMS, highlighted the urgency of safety in shipbuilding, saying, *"Manufacturing and shipbuilding safety cannot be delayed. This partnership brings cutting-edge geospatial digital twin technology to industries that need it most. We commend GSL for its visionary leadership in driving this transformation."*

Sri Jai Sankar Aluru, CEO, Neer Interactive Solutions underscored the transformative impact of Digital Twin technology, noting, *"Digital Twins are reshaping industrial processes, and when integrated with Geospatial AI and Object Detection AI, their impact is even more significant. At CGDT, we have cultivated an ecosystem blending expertise from law enforcement veterans, leading faculty, and top researchers to create validated, future-ready AI solutions for the maritime sector."*

A Landmark Advancement for India's Maritime Industry

Led by Prof BS Murty, Director, IIT Hyderabad, Shri. B.K. Upadhyay, CMD, GSL, Cmde. A. Vasudevan (Retd.), GM(TS), GSL, Sri Jai Sankar Aluru, CEO, Neer Interactive Solutions, and Sri Dittakavi Chakrapani, IAS (Retd.), Chairman, AMS, this collaboration marks a major milestone in India's AI-driven shipbuilding journey by integrating Geospatial AI, Digital Twin, and Industry 4.0 technologies, this alliance is set to redefine ship design, manufacturing, and security standards—positioning India at the forefront of global maritime innovation.

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About IIT Hyderabad:

IITH, established in 2008, has reached a respectable position in both academics, research, technology development and Startups in the short span of 16 years. IITH is placed at 3rd in Innovation and 8th among Engineering institutes in India in Indian National Ranking (NIRF) for the last two years. IITH has been striving for excellence in academics, research, technology development and startup ecosystem with a motto of "Inventing & Innovating in Technology for Humanity (ITH)".

With 325+ full-time faculty and 5,300+ students (PG+PhD students accounting for about 60%), IITH has a strong research focus with ~4500 projects worth of Rs. 1400+ Cr of R&D funding (Rs. 330+ Cr funding in 2024-25), 11,500+ publications, 2,15,000+ citations, 500+ Patents (210 patents in 2024 and a commitment to "Patent a Day: Mission 365" for 2025 to earn 365 patents by the end of 2025), and about 260+ Startups (that have generated 1100+ jobs with a revenue of Rs. 1500+ Cr).

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