

Press Release

SemiX - IIT Bombay, IIT Bhubaneswar, and iVP Semiconductor Sign Tripartite MoU to Develop Customized Power Semiconductor Products

Bhubaneswar, February 06, 2025 : In a significant step towards advancing power semiconductor device technology in India, SemiX - IIT Bombay, IIT Bhubaneswar, and iVP Semiconductor signed a tripartite Memorandum of Understanding (MoU) on January 23, 2025. This marks the beginning of a groundbreaking project aiming to design and develop highly customized silicon power MOSFETs for EV and other applications.

The project will leverage the combined expertise of two premier academic institutions and a leading industry innovator. IIT Bombay and IIT Bhubaneswar bring their research capabilities and academic excellence, while iVP Semiconductor contributes its cutting-edge industry experience and insight. Together, the team will focus on product definition, design optimization, device layout and device characterisation.

"iVP is proud to collaborate with India's leading academic institutions to translate advanced research into high-impact, market-ready power semiconductor solutions. By combining cutting-edge innovation with practical, scalable design, we aim to develop products that drive value for both India and global markets," said Ms. Ponni Carlin, COO, iVP Semiconductor.

This project focuses on optimizing power device performance for a range of applications. It will facilitate the development of customized solutions that address the increasing demands for advanced power electronics across various sectors, including automotive, renewable energy, industrial automation, and consumer electronics.

"This collaboration represents a milestone for the Indian semiconductor R&D ecosystem. We expect that the combination of academic ingenuity and industry expertise here will lead to the indigenous development of market leading power devices," said Prof. Shreepad Karmalkar, Director, IIT Bhubaneswar.

"IIT Bombay through its semiconductor center, SemiX, is pleased to collaborate with iVP Semiconductor and IIT Bhubaneswar to drive the development of power semiconductor solutions in India," said Prof. Sachin Patwardhan, Dean R&D, IIT Bombay.

About IIT, Bombay

IIT Bombay was established in 1958 as the second Indian Institute of Technology. It has grown into a globally recognized hub for engineering education and research, and the leading institution for innovation in India.

IIT Bombay established its center for semiconductor technologies, SemiX, in 2022 in response to global and Indian semiconductor ecosystem needs. SemiX integrates expertise across materials, devices, circuits, packaging, and software; shaping up as a transformative platform for interdisciplinary research, workforce development, and entrepreneurship in semiconductor technologies.

About IIT, Bhubaneswar

Established in 2008, the Indian Institute of Technology (IIT) Bhubaneswar has rapidly emerged as a premier institution in technology, engineering, and innovation. Situated in Bhubaneswar, Odisha, the institute is renowned for its academic excellence, cutting-edge research, and impactful contributions to the global scientific community.

With a strong focus on collaboration, IIT Bhubaneswar has established partnerships with leading industries, academic institutions, and research organizations in India and abroad. These alliances have helped to develop technologies and foster innovation.

About iVP

iVP Semiconductor is a fabless power semiconductor startup focused on developing advanced Integrated Power Modules (IPMs), high-power systems, and power management solutions tailored to India's unique needs. iVP, as an Indian company, is focused on sustainability and energy efficiency, delivering high-impact, homegrown semiconductor technology to reduce import reliance and empower domestic industries.

Founded in January 2024 by visionary entrepreneur Raja Manickam, iVP develops solutions to international quality standards, positioning Indian products for success in the global market. Beyond strengthening the country's presence in the global semiconductor supply chain, iVP is actively building a robust domestic semiconductor ecosystem—ensuring long-term self-reliance, industry growth, and technological leadership.