



TDB-DST signs agreement with BigEndian Semiconductors for ₹130 crore RDI support to develop indigenous AI Vision SoC

Project VeerAI to advance secure, application-specific semiconductor technology from TRL-5 to TRL-9

Posted On: 05 OCT 2026 12:23PM by PIB Delhi

Strengthening India's efforts to build indigenous semiconductor capabilities for critical and emerging applications, the Technology Development Board (TDB), Department of Science & Technology (DST), Government of India, has signed an agreement with M/s BigEndian Semiconductors, Bengaluru, Karnataka for financial support of ₹130 crore under the Research Development and Innovation (RDI) Fund.

The project, Project VeerAI, has a total project cost of ₹260 crore and aims to take the technology from Technology Readiness Level (TRL)-5 to TRL-9. The financial support will be provided through Optional Convertible Debt (OCD). Project VeerAI seeks to develop a camera-focused AI Vision System-on-Chip (SoC) on a sovereign technology platform, addressing the growing requirement for secure, intelligent and application-specific semiconductor solutions.

The project is positioned around the development of a secure AI chip for surveillance applications, particularly CCTV systems, with the objective of reducing dependence on externally developed semiconductor and technology supply chains. The proposed platform is designed to combine AI processing and smart features with security, privacy and connectivity capabilities. The technology is being developed initially for CCTV and surveillance applications in India and the Global South, with a roadmap for deployment across multiple sectors. Beyond surveillance, the platform is envisaged for applications in defence, automotive, industrial and medical domains, creating a wider market for indigenous AI-enabled semiconductor solutions.

The project also seeks to leverage India's growing VLSI design and semiconductor talent, translating domestic design capabilities into a scalable product platform. By focusing on application-specific SoCs rather than general-purpose chips, the programme aims to address specific industry requirements while enabling faster technology deployment and commercialisation. The development of indigenous AI and semiconductor technologies

has growing significance as connected devices and intelligent systems become increasingly embedded across critical infrastructure. Secure and application-specific chips can play an important role in addressing requirements related to data security, privacy, device-level intelligence and technology sovereignty.

Through the RDI support, BigEndian Semiconductors will undertake further technology development, validation, integration, testing and scale-up activities required to progress Project VeerAI from TRL-5 to TRL-9.

Sh. Rajesh Kumar Pathak, Secretary, TDB, said, *“Semiconductors are foundational to almost every emerging technology, and building indigenous capabilities in application-specific AI chips is an important part of strengthening India’s technology ecosystem. The RDI Fund enables sustained support for technologies that require significant investment to move from advanced development to commercial deployment. The support to BigEndian Semiconductors reflects TDB’s focus on enabling Indian companies to develop strategic semiconductor capabilities and translate domestic design expertise into deployable products.”*

Promoters of BigEndian Semiconductors said, *“The RDI support from TDB will enable us to accelerate the development and validation of Project VeerAI and take our AI Vision SoC towards commercial readiness. Our focus is on building a secure, application-specific semiconductor platform that can address the requirements of surveillance and other critical sectors while leveraging India’s indigenous semiconductor design capabilities. This partnership will help us progress the technology towards TRL-9 and contribute to the development of a stronger domestic semiconductor ecosystem.”*



NKR/FT/AA

(Release ID: 2319038) Visitor Counter : 1127

Read this release in: Urdu , Gujarati , हिन्दी , Marathi , Assamese , Bengali , Bengali-TR , Tamil