

GOVERNMENT OF INDIA
MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY
LOK SABHA
UNSTARRED QUESTION NO. 516
TO BE ANSWERED ON: 03.12.2025

SUPPORT FOR NIT JALANDHAR'S INDIGENOUS SEMICONDUCTOR CHIP

516. SHRI CHARANJIT SINGH CHANNI:

Will the Minister of ELECTRONICS AND INFORMATION TECHNOLOGY be pleased to state:

- (a) whether financial or technical support has been approved for commercialising the indigenous semiconductor chip unveiled by NIT Jalandhar at SEMICON India 2025;
- (b) if so, the details of funding and timelines for the same;
- (c) the estimated employment generation in Jalandhar's electronics ecosystem; and
- (d) whether a local Centre of Excellence for testing and fabrication is proposed and if so, the details thereof?

ANSWER

MINISTER OF STATE FOR ELECTRONICS AND INFORMATION TECHNOLOGY
(SHRI JITIN PRASADA)

(a) to (d): India has emerged as a major electronics manufacturing hub, with a six-fold increase in production over the past decade and currently employing 25 lakh people. To cater to the growing demand of electronics manufacturing, it is imperative for us to develop the semiconductor and electronics components industry.

In alignment with the Prime Minister's vision of Make in India, Make for the World, the Government is strengthening the semiconductor ecosystem, supported by design talent and indigenous R&D capabilities.

Technical Support for Testing and Fabrication

The Chips to Start-up (C2S) Programme facilitates comprehensive support to 300 participating institutions, including NIT Jalandhar, such as:

- Centralised access to Electronic Design Automation (EDA) tools, design tape-out at SCL Mohali, and regular training.
- Complete hands-on experience on chip design to Students and researchers at the institutions.
- Access to Field Programmable Gate Array (FPGA) hardware boards for functional validation.
- Access to empanelled service providers for testing, fabrication and packaging (details at https://c2s.gov.in/Post_Silicon.jsp)
- Institutions also have the flexibility to engage other leading vendors outside the empanelled list based on project requirements.

The C2S Programme aims to generate 85,000 numbers of industry-ready manpower at B.Tech, M.Tech, and PhD levels specialized in semiconductor chip design area.

As part of this Programme, institutions are developing working prototypes of semiconductor chips.

NIT Jalandhar is the participating institution under Chips to Startup (C2S) Programme for developing a System on Chip (SoC) for next-generation IoT systems in collaboration with NIT Rourkela, NIT Jamshedpur, NIT Raipur and IIST Shibpur.

Project has a five-year duration with a total outlay of ₹4.80 crore, with ₹96 lakh allocated to each collaborating institute.

As part of the initiative, NIT Jalandhar has designed a Voltage-Controlled Oscillator (VCO) chip for a Phase-Locked Loop (PLL), fabricated at SCL Mohali and showcased during SEMICON India 2025.
