

GOVERNMENT OF INDIA
MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY
RAJYA SABHA
UNSTARRED QUESTION NO. 2928
TO BE ANSWERED ON: 20.12.2024

ACCESS TO CHIPIN CENTRE AT C-DAC

2928. SHRI S NIRANJAN REDDY:

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

- (a) the number of Startups and academic institutions that have gained access to the ChipIN Centre at Centre for Development of Advanced Computing (C-DAC), the details thereof, State-wise;
- (b) whether Government has established specific criteria for the selection of Startups and academic institutions to access the ChipIN Centre, if so, the details thereof; and
- (c) whether Government has achieved the targets set under the Chips to Startup (C2S) Programme, which aims to train engineers in chip manufacturing, if not, the reasons for the shortfall?

ANSWER

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

(a) to (c): The Chips to Start-up (C2S) Programme has been initiated as capacity building programme by Ministry of Electronics and Information Technology in the year 2022 for duration of 5 years with an aim to generate 85,000 number of industry-ready manpower at B.Tech, M.Tech, and PhD levels specialized in semiconductor chip design, Very Large-Scale Integration (VLSI) and Embedded system design areas. The Programme takes a comprehensive approach by offering students complete hands-on experience in chip design and fabrication & testing of these designs. This is achieved through regular training sessions conducted in collaboration with industry partners, Mentorship and access of chip design, fabrication & testing resources provided to students, including state-of-the-art Electronic Design Automation (EDA) tools, access to semiconductor foundries for fabricating their designs etc.

The C2S Programme is an ongoing programme. Against the target of generation of 85,000 manpower by the year 2027, total 45,313 manpower at B.Tech, M.Tech & PhD levels have been enrolled till date and are being trained under the Programme.

The **ChipIN Centre** has been setup at C-DAC Bangalore as one-stop centre for providing the following support to academic institutions/ R&D organizations and start-ups/ MSMEs across the country:

- (i) **State-of-the-art prevalent EDA tools.**
- (ii) **IP Cores** from global & domestic semiconductor companies.
- (iii) **Multi-project Wafer (MPW) fabrication services** at 180nm, SCL Mohali.
- (iv) **Design and prototyping facility** viz. access of Field-programmable Gate Arrays (FPGA), Emulation Platform and PARAM Utkarsh Supercomputer.
- (v) **Regular Trainings, Handholding and Mentorship:** Total 132 training sessions conducted by the ChipIN Centre in areas of VLSI design, Embedded System design & design fabrication in collaboration with semiconductor industry partners.

Following is the eligibility criteria for selection of organizations to access the ChipIN Centre:

A. Eligibility criteria for Academic institutions and R&D organizations:

- (i) The organizations should have existing Programs for B.E./ B.Tech or M.E./ M.Tech in Electronics & Communication/ Electrical Engineering/ Microelectronics/ VLSI/ Integrated Circuit/ Embedded System/ Electronic System Design or equivalent.
- (ii) The organizations should have the availability of requisite infrastructure & capital equipment for VLSI design lab; as well as permanent faculty members / professionals in VLSI design domain.

B. Eligibility criteria for start-ups/ MSMEs:

- (iii) MSMEs as per the Gazette Notification by Ministry of Micro, Small and Medium Enterprises, dated 1st June 2020 or extant norms.
- (iv) Startups as per the DPIIT notification dated 19th February 2019 or extant norms.

Total 276 organizations (including 228 academic institution/ R&D organizations and 48 Start-ups/ MSMEs) across the country has been approved for the EDA tools and regular trainings by the ChipIN Centre. The State-wise list of 276 organizations supported by the ChipIN Centre is at **Annexure-I**.

State-wise list of 276 organizations supported by the ChipIN Centre

(228 academic institution/ R&D organizations and 48 Start-ups/ MSMEs)

S.No.	State	Institute Name	
1	Telangana	University of Hyderabad	
2		International Institute of Information Technology Hyderabad	
3		Osmania University College of Engineering	
4		Chaitanya Bharathi Institute of Technology, Hyderabad	
5		Indian Institute of Technology Hyderabad	
6		National Institute of Technology Warangal	
7		JNTUH University College of Engineering Hyderabad	
8		Birla Institute of Technology & Science (BITS), Hyderabad	
9		SR University, Warangal	
10		ACTS, CDAC, Hyderabad	
11		VNRVJIET, Hyderabad	
12		MJ College of Engineering and Technology (MJCET), Hyderabad	
13		Geethanjali College of Engineering and Technology, Telangana	
14		B V Raju Institute of Technology, Narsapur, Telangana	
15		GNITS, Hyderabad	
16		MLR Institute of Technology, Dundigal	
17		Vasavi College of Engineering, Hyderabad	
18		Green PMU Semi Pvt Ltd	
19		WiSig Networks Pvt Ltd	
20		Dheyo AI Private Limited	
21		AMPICQ Private Limited	
22		BITSILICA Pvt Ltd	
23		Manjeera Digital Systems Pvt. Ltd.	
24	Kerala	College of Engineering Trivandrum, Thiruvananthapuram	
25		Cochin University of Science and Technology, Kochi	
26		Rajagiri School of Engineering and Technology, Kochi	
27		National Institute of Technology Calicut	
28		Indian Institute of Technology Palakkad	
29		Model Engineering College, Thrikkakara, Kochi	
30		Digital University Kerala, Thiruvananthapuram	
31		Silizium Circuits Pvt. Ltd	
32		NetrasemiPvt. Ltd	
33		CDAC, Trivandrum	
34		Indian Institute of Space Science and Technology, Thiruvananthapuram	
35		Indian Institute of Information Technology Kottayam	
36		Muthoot Institute of Technology & Science (MITS), Ernakulam	
37		Adi Shankara Institute of Engineering & Technology (ASIET), Kerala	
38		School of Engineering, Amritapuri Campus, Kollam	
39		Government Engineering College, Thrissur	
40		Amal Jyothi College of Engineering, Kottayam	
41		Asnaviram Networks Private Limited	
42		Punjab	National Institute of Technology Jalandhar
43			Centre for Development of Advanced Computing Mohali
44			Sant Longowal Institute of Engineering & Technology, Sangrur
45			Indian Institute of Technology Ropar

46		Thapar Institute of Engineering and Technology (TIET) Patiala
47	Tamil Nadu	Dr. Mahalingam College of Engineering and Technology, Coimbatore
48		SNS College of Technology, Coimbatore
49		National Institute of Technology Tiruchirappalli
50		Indian Institute of Information Technology Tiruchirappalli
51		Anna University Regional Campus Coimbatore
52		Mohamed Sathak Engineering College, Ramanathapuram
53		Karunya Institute of Technology and Sciences, Coimbatore
54		St. Xaviers Catholic College of Engineering, Kanya Kumari
55		College of Engineering Guindy, Anna University, Chennai
56		Indian Institute of Information Technology Design and Manufacturing, Kancheepuram
57		Aries Biomed Technology Pvt. Ltd
58		InCore Semiconductors Pvt. Ltd
59		IIT Madras
60		PSG College of Technology, Coimbatore
61		VIT (Vellore Institute of Technology), Vellore
62		Crescent Institute of Science & Technology, Chennai
63		VIT Chennai
64		Madras Institute of Technology
65		Kongu Engineering College, Perundurai, Tamil Nadu
66		SASTRA Deemed University, Tamilnadu
67		SRM Institute of Science and Technology, Kattankulathur
68		R.M.K College of Engineering and Technology, Tiruvallur
69		Kalasalingam Academy of Research & Education, Tamilnadu
70		Mohamed Sathak A J College of Engineering, Chennai
71		SSN College of Engineering, Kalavakkam
72		Easwari Engineering College, Chennai
73		Vel Tech, Chennai
74		RMK Engineering College, Kavaraipettai
75		SRM TRP Engineering College, Trichy
76		Sri Eshwar College of Engineering, Coimbatore
77		SRM Institute of Science & Technology, Tiruchirappalli
78		NIELIT Chennai
79		Aheesa Digital Innovations
80		Mindgrove Technologies Pvt Ltd
81	Odisha	Parala Maharaja Engineering College, Berhampur
82		National Institute of Technology Rourkela
83		Indian Institute of Technology Bhubaneswar
84		International Institute of Information Technology Bhubaneswar
85		Kalinga Institute of Industrial Technology(KIIT),Bhubaneswar, Odisha
86		Trident Academy of Technology, Bhubaneswar
87		Centurion University of Technology and Management, Odisha
88		Siksha 'O' Anusandhan, Bhubaneswar, Odisha
89		C. V. Raman Global University, Odisha
90		BPUT, Odisha
91		Silicon University, Odisha
92		Qualivon Technologies Pvt Ltd
93	West Bengal	Maulana Abul Kalam Azad University of Technology West Bengal
94		Indian Institute of Engineering Science and Technology Shibpur
95		National Institute of Technology Durgapur

96		Indian Institute of Information Technology Kalyani
97		University of Calcutta
98		IIT Kharagpur
99		Jadavpur University
100		Dr B. C. Roy Engineering College, Durgapur
101	Uttar Pradesh	Indian Institute of Technology Kanpur
102		Centre for Development of Advanced Computing (CDAC) Noida
103		Aligarh Muslim University
104		Indian Institute of Information Technology Allahabad
105		Motilal Nehru National Institute of Technology Allahabad
106		Madan Mohan Malaviya University of Technology, Gorakhpur
107		IIT (BHU) Varanasi
108		Jaypee Institute of Information Technology, Noida
109		Amity University Uttar Pradesh
110		Bennett University, Noida
111		NIELIT Gorakhpur
112		Shri Ramswaroop Memorial University, Lucknow
113		Noida Institute of Engineering and Technology, Uttar Pradesh
114		Vervesemi Microelectronics Pvt Ltd
115	Goa	National Institute of Technology Goa
116		Birla Institute of Technology & Science (BITS), Goa
117		Indian Institute of Technology Goa
118		Goa College of Engineering, Goa
119	Gujrat	Indian Institute of Technology Gandhinagar
120		Sardar Vallabhbai National Institute of Technology, Surat
121		Dhirubhai Ambani Institute of Information and Communication Technology, Gandhinagar
122		Institute of Technology, Nirma University, Ahmedabad
123		LD College of Engineering, Gujarat
124		Government Engineering College, Rajkot
125		Ganpat University - U. V. Patel College of Engineering, Gujarat
126		Pandit Deendayal Energy University, Gujarat
127		Gujarat Technological University, Ahmedabad
128		Indiesemic Private Limited
129	Karnataka	Indian Institute of Science Bangalore
130		Cambridge Institute of Technology, Bengaluru
131		BMS College of Engineering, Bengaluru
132		REVA University, Bengaluru
133		PES University, Bengaluru
134		Acropotis Technology & Research
135		KLE Technological University, Hubballi
136		International Institute of Information Technology Bangalore
137		Indian Institute of Technology Dharwad
138		Morphing Machines Pvt. Ltd
139		TSilicon Design Pvt. Ltd
140		Chipspirit Technologies Pvt. Ltd
141		Sandlogic Technologies Pvt. Ltd
142		IntSemi Technologies Pvt. Ltd
143		Semi-Ksha Semiconductor India Pvt. Ltd.
144		Amrita School of Engineering Bengaluru
145		NIT Surathkal
146		New Horizon College of Engineering, Bengaluru

147		IIIT, Dharwad
148		Sri Krishna Institute of Technology, Bangalore
149		Acharya Institute of Technology, Bangalore
150		Dayananda Sagar Academy of Technology & Management, Bangalore
151		S J C Institute of Technology, Chickballapur
152		Fermionic Design Pvt Ltd
153		Calligo Technologies Pvt Ltd
154		Sensesemi Technologies Pvt Ltd
155		Saankhya Labs Pvt Ltd
156		BigEndian Semiconductors Private Limited
157		Stteereng Silicon Private Limited
158		TriSpace Technologies Pvt Ltd
159		MemSmart Pvt Ltd
160		Silicon Support Solution (OPC) Private Limited
161		Quanfluence Private Pvt Ltd
162		Aagyavision Pvt Ltd
163		Terminus Circuits
164		MBit Wireless Private Limited
165		Sophrosyne Technologies Pvt. Ltd.
166		Krisemi Design Technologies Pvt. Ltd.
167		iSOC Semiconductors Pvt Ltd
168		C2i Semiconductors Private Limited
169		Linesemi Technology Private Limited
170		Nanojoules Semiconductors Private Limited
171	Madhya Pradesh	Indian Institute of Technology Indore
172		Shri G.S.Institute of Technology and Science Indore
173		Atal Bihari Vajpayee-Indian Institute of Information Technology and Management (ABV-IIITM) Gwalior
174		Devi Ahilya Vishwavidyalaya Indore
175		PDPM IIITDM Jabalpur
176		MANIT Bhopal
177		Military College of Telecommunication Engineering (MCTE) Mhow
178		VIT Bhopal University, Bhopal
179		IPS Academy (Institute of Engineering and Science), Indore
180		Rustamji Institute of Technology, Gwalior
181		Oriental University, Indore
182		Jabalpur Engineering College, Jabalpur
183		Oriental Institute of Science & Technology, Bhopal
184		Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore
185		IES College of Technology, Bhopal
186		Indian Institute of Information Technology, Bhopal
187	Chhattisgarh	National Institute of Technology Raipur
188		Indian Institute of Technology Bhilai
189	Himachal Pradesh	Indian Institute of Technology Mandi
190		National Institute of Technology Hamirpur
191		Indian Institute of Information Technology Una (HP)
192	Bihar	Indian Institute of Technology Patna
193		National Institute of Technology Patna
194		Indian Institute of Information Technology Bhagalpur
195		NIELIT, Patna
196	Maharashtra	Indian Institute of Technology Bombay
197		V. E. S. Institute of Technology, Mumbai

198		National Institute of Electronics & Information Technology Aurangabad
199		Cummins College of Engineering for Women, Pune
200		Indian Institute of Information Technology Pune
201		Aryabhata Circuits and Research (ABCR) Labs Pvt. Ltd
202		Panache Digilife Limited
203		VNIT Nagpur
204		COEP Technological University, Pune
205		Symbiosis Institute of Technology, Pune
206		SVERI's College of Engineering, Pandharpur
207		Shri Sant Gajanan Maharaj College of Engineering (SSGMCE), Shegaon, Maharashtra
208		ACTS, CDAC, Pune
209		K J Somaiya College of Engineering, Mumbai
210		Vishwakarma Institute of Technology, Pune
211		Pimpri Chinchwad College of Engineering, Pune
212		Ramdeobaba University, Nagpur
213		Yeshwantrao Chavan College of Engineering, Nagpur
214		Pentarisc Systems Pvt Ltd
215		Panache Digilife Ltd
216		Vasbeam Pvt Ltd
217		Tahinium Technologies Pvt Limited
218	Jharkhand	National Institute of Technology Jamshedpur
219		Indian Institute of Technology (Indian School of Mines) Dhanbad
220	Uttarakhand	Indian Institute of Technology Roorkee
221		National Institute of Technology Uttarakhand
222	Rajasthan	Malaviya National Institute of Technology Jaipur
223		CEERI Pilani
224		IIT Jodhpur
225		Birla Institute of Technology & Science (BITS), Pilani
226		Manipal University, Jaipur
227		Engineering College, Bikaner, Rajasthan
228		Engineering College, Ajmer
229		Arya College of Engineering and Information Technology, Jaipur
230	Haryana	Kurukshetra University
231		NIT Kurukshetra
232		Manav Rachna International Institute of Research and Studies (MRIIRS)
233		BML Munjal University (BMU), Haryana
234		Gurugram University, Gurugram
235		The NorthCap University, Gurugram
236	Andhra Pradesh	Indian Institute of Technology Tirupati
237		Indian Institute of Information Technology Design and Manufacturing Kurnool
238		National Institute of Technology Andhra Pradesh
239		Shri Vishnu Engineering College for Women, Bhimavaram
240		Vignana™s Foundation for Science Technology and Research, Guntur
241		VIT-AP University, Amaravati, AP
242		SRM University, AP
243		JNTU, Kakinada

244		J N T University, Anantapur
245		V.R. Siddhartha Engineering College, Vijayawada
246	Assam	National Institute of Technology Silchar
247		IIT Guwahati
248		Central Institute of Technology Kokrajhar, Assam
249		Phra Narai Semicon Systems Labs Pvt Ltd
250	Mizoram	National Institute of Technology Mizoram
251	Manipur	National Institute of Technology Manipur
252		Manipur Technical University, Imphal
253	Nagaland	National Institute of Technology Nagaland
254	Tripura	National Institute of Technology Agartala
255	Sikkim	National Institute of Technology Sikkim
256	Arunachal Pradesh	National Institute of Technology Arunachal Pradesh
257		North Eastern Regional Institute of Science and Technology (NERIST), Nirjuli, Itanagar, Arunachal Pradesh
258	Meghalaya	North Eastern Hill University, Shillong
259		National Institute of Technology Meghalaya
260	Delhi	Indian Institute of Technology Delhi
261		National Institute of Technology Delhi
262		Indraprastha Institute of Information Technology Delhi
263		DV2JS Innovation LLP
264		Delhi Technological University, Delhi
265		Netaji Subhas university of Technology
266		Jawaharlal Nehru University, Delhi
267		Indira Gandhi Delhi Technical University for Women (IGDTUW), Delhi
268		Vivekananda Institute of Professional Studies, New Delhi
269	Jammu & Kashmir	Indian Institute of Technology Jammu
270		NIT Srinagar
271		University of Kashmir, Srinagar
272	Chandigarh	National Institute of Technical Teachers Training and Research Chandigarh
273		University Institute of Engineering and Technology, Panjab University, Chandigarh
274		Punjab Engineering College
275	Puducherry	National Institute of Technology Puducherry
276		Puducherry Technological University
