

Welcome to The VLSI Lab

(Funded by MeitY, Govt. of India)

Fostering Next Generation
Capabilities Among Chip Designers
For Making India Self-Reliant in
Electronics System Design



**Chips to Startup
Programme**

An initiative by Ministry of Electronic
and IT, Government of India

UNLOCK

*The potential of innovation with
cutting-edge
VLSI design & advanced
semiconductor solutions*

Contact Us



Dr. Rinky Sha
rinky@iiitkalyani.ac.in



Dr. Soumen Pandit
soumen@iiitkalyani.ac.in



www.iiitkalyani.ac.in



Indian institute of Information
Technology, Kalyani



Indian Institute of Information
Technology Kalyani, Webel IT Park,
(Near Buddha Park), Kalyani –
741235. Nadia, WB



Institute C2S Server equipped with EDA Tools
from Cadence / Synopsys / Mentor / Xilinx

FPGA Boards in Our Lab



**Zynq
UltraScale+**



Arty A7- 100T

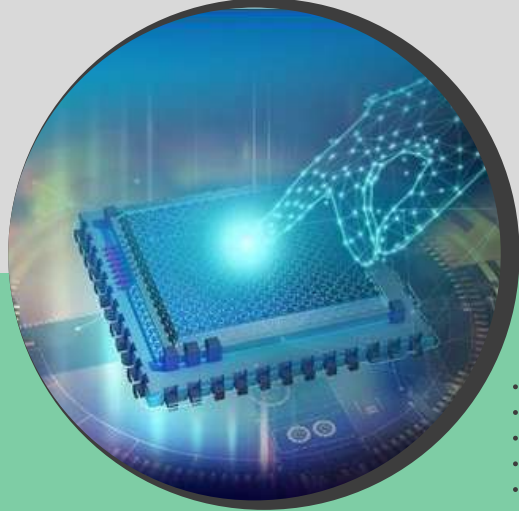


PYNQ -ZU



**URBANA
BOARD**

*“Semiconductor engineering:
Where electrons dance to the
rhythm of innovation, paving the
way for a brighter and more
connected future.”*



Our Goals

- **Build Expertise:** Train students and researchers in SoC/system design to create industry-ready talent.
- **Foster Collaboration:** Strengthen partnerships with industry and academia for impactful R&D projects.
- **Promote Innovation:** Develop reusable IP cores and design ASICs/SoCs for societal and strategic applications.
- **Support Startups:** Incubate and mentor startups to drive entrepreneurship and innovation.
- **Expand Research:** Lead advancements in ASIC/IC design, engaging faculty, students, and startups.



Boolean Board



PYNQ-Z2



Kria KV260



Kria KR260

Available Hardware Kits

- Zynq UltraScale+ MPSOC ZCUI 04
- PYNQ-Z2 FPGA Board
- PYNQ-ZU FPGA Board
- Kria KR260 Robotics Starter Kit
- Boolean FPGA Board
- Urbana FPGA Board
- Kria KV260 Vision AI Starter Kit
- Arty A7 Board
- Pmod KYPD: 16 – button Keypad

Available EDA Tools



Xilinx

• Vivado 2023

• UEF-MATSIM



Cadence

- QUANTUS
- SPECTRA
- STARTUS
- ASSURA
- PVS222
- MODUS
- CONFRML
- INCISIVE152
- XCELIUM
- GENUS
- IC 618
- PEGASUS
- FOUNDRY
- DDI221
- SSV221
- INTEGRAND
- MVS211
- SIGRITY
- VMANAGER
- LIBERATE
- SPB
- INNOVUS
- JASPER



Mentor

- TANNER
- QUESTA
- OASYS
- CALIBRE
- TESSANT
- NITRO



Synopsys

- FINESIM_VU
- ICVALIDATOR
- SYN_VT
- HSIMPLUS
- NANOTIME
- VCS
- HSPICE_VU
- PRIME_VT
- ICC2_VU
- SRARRC_VU

Our Technical Team

- Prof. Santanu Chattopadhyay
- Dr. Rinky Sha
- Dr. Soumen Pandit
- Mr. Subrata Das
- Ms. Ramalita Sheet