



**Indian Institute of Information Technology Guwahati
Department of Electronics and Communication
Engineering**

**Organizes
Science and Engineering Research Board (SERB)
sponsored**

**Winter Research Internship Under Accelerate
Vigyan- VRITIKA
on
Towards VLSI and Embedded System Design
using FPGA Boards
(5-30 December 2022)**

About IIIT Guwahati

Indian Institute of Information Technology Guwahati at Bongora, Guwahati is one among the IIITs that have been established as "Institution of National Importance" by MoE, Govt. of India under the ambit of IIIT PPP Act 2017. IIIT Guwahati campus is situated at Bongora, Guwahati - a picturesque location, spread over in 67 acres of land - allotted by Govt. of Assam in the North-Eastern part of the Country commonly referred to as the land of the red river and blue hills. B.Tech students are admitted against the JoSAA/CSAB counselling against the JEE main rank list. Institute offers 4 year B.Tech and B.Tech (Hons) programs

in ECE and CSE. In addition, Institute also offers Ph.D programs in ECE, CSE, Mathematics, Humanities and Sciences as well as M.Tech programme in ECE and CSE.

About SERB

SERB has a vision to position science and technology as the fulcrum for social and economic change by supporting competitive, relevant and quality scientific research and development. As the premier national research funding agency, the mission is to raise the quality and footprint of Indian science and engineering to the highest global levels in an accelerated mode, through calibrated, competitive support of research and development.

Although a nascent organization, SERB can trace its existence to the erstwhile Science and Engineering Research Council (SERC), a division of Department of Science & Technology that provided extramural funding for S&T research in India for more than four decades. Creation of SERB, in year 2011, is considered as an important institutional milestone in the Indian S&T ecosystem.



About Accelerate Vigyan

"Accelerate Vigyan" (AV) strives to provide a big push to high-end scientific research and prepare scientific manpower which can venture into research careers and knowledge-based economy. Recognizing that all research has at its base as development of quality, well-trained researchers; AV will initiate and strengthen mechanisms of identifying research potential, mentoring, training and hands-on workshops, on a broad-based national scale. The aim is to expand the research base in the country, with three broad goals - consolidation/aggregation of all scientific training programs, initiating High end Orientation Workshops and creating opportunities for Training and Skill Internship.

About the Internship

Field Programmable Gate Arrays (FPGAs) are the first choice for embedded systems and digital systems in the near future due to their distributed architecture and parallelism.

This internship will introduce various digital systems concepts followed by implementing real-world digital/embedded systems using FPGAs. Students will learn how to implement embedded systems using hardware-software co-design and how to implement algorithms on FPGAs using hardware description language (Verilog HDL). Though this course assumes prior knowledge of digital design and Verilog, the four weeks of the internship will focus on developing working programs for digital FPGA architectures that use various features and ports of FPGA boards.

Who can Apply?

- Regular PG level (M.Tech/M.E./M.S.) students pursuing their degree from University/Institution within India.
- Specialization – VLSI Design and related domains

Other Important Information for Participants:

- The internship will be conducted in physical mode.
- Registration is free for all participants.
- Seats are limited (only 5 participants) and the participants will be selected based on first come first serve/ merit.
- No stipend will be provided for the internship
- After last date of registration, shortlisted candidates will be informed through email.
- Selected candidates will have to acknowledge participating in the internship program through return email failing which the waitlisted candidates may be called for attending the internship program.
- Accommodation for participants may be provided at IIIT Guwahati hostel with catering facilities, if requested.
- TA will be provided to the participants by producing the tickets with shortest routes as per norms.



Address

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Visit us at: [Indian Institute of Information Technology
Guwahati \(iiitg.ac.in\)](http://www.iiitg.ac.in)

How to Apply?

Participants interested to attend the internship program should register online in the below mentioned link.

<https://forms.gle/HBoTdjU5XJqe8BZz7>

The last date of registration is: **2nd December 2022**

Organizing Committee

Internship Coordinator

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For Further Assistance

Please write to: babita@iiitg.ac.in