Department of Electronics & Communication Engineering
(NBA Accredited)
BIT SINDRI
Department of Higher and Technical Education, Govt. of Jharkhand.
P.O. Sindri Institute, Dhanbad-828123 (Jharkhand)

SUMMER INTERNSHIP 2026 | June 01 – July 15, 2026

About BIT Sindri

BIT Sindri, Dhanbad was established in 1949. It has a sprawling campus of around 450 acres of land close to the eastern bank of the river Damodar. The institute offers undergraduate, postgraduate as well as doctoral-level programs in diverse disciplines of Engineering. BIT Sindri is under the affiliation of the Jharkhand University of Technology, Ranchi, and the degree is honoured by JUT.

About the Department

The Department of Electronics & Communication Engineering offers undergraduate programs in B.Tech. (Electronics & Communication Engineering) along with postgraduate and doctoral-level research programs. The department is equipped with state-of-the-art laboratories covering analog/digital electronics, communication systems, signal processing, VLSI design, and embedded systems.

Internship Courses Offered

Course 1: MATLAB for Communication and Control Systems

This hands-on internship course introduces students to MATLAB and Simulink as powerful tools for modelling, simulation, and analysis in the domains of communication engineering and control systems.

Topics Covered:

- Introduction to MATLAB programming environment and scripting
- Signal generation, manipulation, and spectrum analysis
- Modulation techniques: AM, FM, PM, QAM, and PSK simulation
- Digital communication systems: BER analysis, channel coding
- Feedback control system design and stability analysis
- PID controller design and tuning using MATLAB
- Simulink modelling of closed-loop control systems
- Filter design: FIR and IIR filters using MATLAB toolboxes
- Real-time data acquisition and signal processing

Course 2: Analog and Digital Circuit Design

This course provides comprehensive training in the design, analysis, and implementation of both analog and digital electronic circuits using industry-standard tools and methodologies.

Topics Covered:

- Fundamentals of analog circuit design: op-amps, amplifiers, oscillators
- Active filter design: Butterworth, Chebyshev, and Bessel filters
- Power supply design: linear and switching regulators
- Introduction to SPICE simulation and circuit analysis
- Digital logic design: combinational and sequential circuits
- ADC and DAC design and interfacing techniques
- PCB design fundamentals and layout guidelines

Faculty Groups & Internship Topics

Sl.	Faculty Group	Internship Topic
1.	Dr. Arvind Kumar  Mrs. Sangeeta Kumari 	**MATLAB for Communication and Control Systems**
2.	Dr. Imteyaz Ahmad  Dr. Praveen Kumar Sahu  Mrs. Minu Manjari 	**Analog and Digital Circuit Design**

Key Information

Who Can Attend?	UG & Diploma Students of Engineering colleges and Practicing Engineers
Short listing Criteria	First 15 students in each group (Tentative).
Last Date to Apply	May 31, 2026
Registration Fee (Students)	Rs. 1,000/-
Bank Name	SBI, BIT Sindri
Account Name	BIT Students Fund Account
Account Number	10635508860
IFSC Code	SBIN0011812

Registration Link

https://forms.gle/KTek9Y1g5aEAW4qL9

Contact for Queries

For any queries, please contact:

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Dr. Praveen Kumar Sahu

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