

Department of Electronics and Communication Engineering, Birla Institute of Technology, MESRA

OFFERS

Summer Internship Programs on Various Research Topics

([CLICK TO SELECT RESEARCH TOPIC](#))

Highlights of the Internship Program

- Tentative duration 4 to 8 weeks (from 1st week of June 2024 to the last week of July 2024)
- Limited Seats are available.
- Stipends will be provided to the selected Interns based on the outcome of their internship.
- External students shall mention the need for fooding and lodging on a payment basis while filling up the Application Form. The tentative Hostel Room Rent per month is approximately INR 3100, which may be available on first cum first basis. The food charge in the Mess is approximately INR 150 per day.

Important Dates

- Registration Open: 10-APRIL-2024
- Last Date of Registration: ~~30-APRIL-2024~~ 25th May 2024
- First List of Shortlisted Candidates: ~~05-MAY-2024~~ 27th May 2024

Research Topic for Internship of External Students

Applications for Internships are invited from External M.E./ M.Tech./ M.Sc. students and also from B.E./ B.Tech. students who have completed their 6th semester.

Internship topics for external students are as follows:

Specialization	Teacher to be contacted for the time slot and topic	Tentative Topic (prospective student will choose any one of the topics out of the list provided below after discussing with the teacher)
VLSI Design and Embedded System	Dr. Aminul Islam aminulislam@bitmesra.ac.in Mobile: 9471559180	(1) Silvaco TCAD Atlas and Synopsys TCAD (2-D and 3-D) Sentaurus-based design of Semiconductor Devices (HEMT, TFET, Junctionless FET, etc.). (2) Synopsys Software-based Digital VLSI Design. (3) Cadence Software-based Analog VLSI Design. (4) Synopsys Software-based design of Semiconductor Memory (SRAM, MRAM, RRAM, PCRAM). (5) FPGA-based Digital System Design using VHDL, Verilog, and SystemVerilog. (6) Cadence Software-based design of LNA. (7) Cadence Software-based design of Power Amplifier. (8) Cadence Software-based design of Mixer Design.
	Dr. Vijay Nath vijaynath@bitmesra.ac.in 9973886214	(1) Chip Design (2) FPGA System Design (3) Digital System Design with Verilog (4) Digital System Design with VHDL (5) IC Design & Packaging Technology (6) CMOS Temperature Sensor (7) CMOS Signal Conditioning Circuits (8) CMOS LNA, VCO, Mixer, Receiver, Transmitter
Microwave Engineering	Prof. Vibha Rani Gupta vrgupta@bitmesra.ac.in Mobile: 9431360980	Antenna design for 5G, IOT, and Medical Applications
	Prof. S. Pal spal@bitmesra.ac.in 9470136272	Design and development of microwave components (antennas, filters, circulators, isolators, phase shifters etc) for make in India requirements

	Dr. A. K. Tiwary aktiwary@bitmesra.ac.in Mobile: 9431397367	(1) Design and development of Compact and Switchable Microstrip Filters. (2) Reconfigurable Active Antenna (3) Design and development of Compact Microstrip Filtenna (4) Multifunctional/Smart Metamaterial Antenna (5) mm-wave & THz passive components (6) Frequency Selective Surface
	Dr. D. K. Upadhyay dkupadhyay@bitmesra.ac.in	1. Metamaterial based microwave circuits design for wireless applications. 2. Reconfigurable microwave circuit design for wireless applications. 3. Fractal based microwave circuit design for wireless applications. 4. Mm-wave circuits design for wireless applications. 5. Dielectric resonator antenna for wireless applications.
Instrumentation Engineering	Dr. Richa Mishra richa@bitmesra.ac.in Mobile: 9002248104 Dr. N. Chattoraj, nchattoraj@bitmesra.ac.in Mobile: 8210251604	(1) Study of MEMS piezoresistive pressure sensor. (2) Solidworks-based design for microneedle adaptor. (3) COMSOL Multiphysics-based study of the fractal microfluidic network. (4) Design and Simulation of MEMS-based Electroosmotic Micropump. (5) Design and evaluation of microheater geometries for PCR applications. (6) Study and design of ionic polymer metal composite membrane actuator. (7) Design and evaluation of piezoelectric actuator.
	Dr. Sitanshu Sekhar Sahu sssahu@bitmesra.ac.in Mobile: 9472760260	(1) Embedded AI (2) Speech and Audio Processing (3) AI and ML
	Dr. Priyank Saxena priyanksaxena@bitmesra.ac.in Mob-7250557586	(1) Wild-life monitoring using Drone images. (2) Integration of nvidia jetson with UAV and Q-Ground control application (3) Device to Device communication using IoT (4) Real time monitoring of Army convoy (5) Computer vision application like Age and gender determination using OPG, Smartphone based Oral Cancer detection, Knee Injury detection.
	Dr S K Ghorai skghorai@bitmesra.ac.in Mob: 9431391330	(1) Sensor interrogation using Machine Learning (2) Quantum Machine Learning (3) MIMO based QVLC (Quantum Visible Light Communication) system
Wireless Communication	Dr. Sanjeet Kumar sanjeet@bitmesra.ac.in	(1) UAV surveillance to detect and locate anomalous crowd.

	Mob: 7992310903	<ul style="list-style-type: none"> (2) 5G based use case development. (3) Design and development of wireless scenarios based on QUALNET and NetSim network simulators.
Image Processing	Mr Vishal H Shah vishalhshah@bitmesra.ac.in 9471503579	<ul style="list-style-type: none"> (1) Medical image denoising (2) Artificial Intelligence, Heuristic Optimization Algorithms, Neural Network Modelling for image processing and denoising.

To register, submit your details through the Google Link

<https://forms.gle/K12A2CfKRck7yBqb6>