

Sourav Sinha

PROFILE

Detail-oriented RF engineer with a strong background in RF semiconductor device measurement, characterization, and analysis. Proven expertise in developing innovative solutions and automating complex measurement and test systems, seeking an opportunity in an organization to deliver and contribute the best effort and skill.

EXPERIENCE

Dec'24 - Present

Device Engineer

GlobalFoundries Inc. | Dresden, Germany

- Perform on-wafer RF measurements and device characterization.
- Automation of the current on-wafer test benches.

Feb'24 - Jun'24

Working Student at RF Component Verification Lab

Infineon Technologies AG | Neubiberg, Germany

- PCB layout (RF Matrix Board) design using ADS.
- Released active and hybrid load & source pull measurement bench.

July'23 - Jan'24

Master's Thesis at RF Component Verification Lab

Infineon Technologies AG | Neubiberg, Germany

Topic: Developing an Active Load Pull Measurement Bench to Characterize RF Switch Devices and a Hybrid Load & Source Pull Measurement Bench to Characterize RF Power Devices for 5G Applications.

- Pulse-modulated hybrid load-pull system implementation with programmable impedance tuners, & active injection, including harmonic frequencies.
- RF switch device's harmonics measurement bench implementation under VSWR 10:1 load condition by applying active LP method.
- Automated the measurement benches using FDCS and MATLAB.
- Analysis of the results using TIBCO Spotfire and Python.

Apr'23 - Jun'23

Intern at RF Component Verification Lab

Infineon Technologies AG | Neubiberg, Germany

Topic: Investigation of Load Pull Setup for VSWR 10:1 Measurement for 5G Application.

- Vector-receiver load-pull system implementation with programmable impedance tuners.
- Investigate the maximum possible VSWR limit.
- Examine the possibilities for different measurements. (e.g., Harmonics).

Apr'21 - Mar'23

Working Student at RF Component Verification Lab

Infineon Technologies AG | Neubiberg, Germany

- S-Parameters, NF, P1dB, IIP3, and Switching time measurements of different LNA.
- Input and output matching using ADS.
- Debugging and SMD soldering.
- Development of measurement bench.

EDUCATION

Oct'20 - Feb'24

M.Sc. in Communication Engineering

Technical University of Munich | Germany

- **Final Grade:** 1.9
- **Thesis Grade:** 1.0
- **Project:**
 - Low pass filter design and measurement using microstrip technology.
 - PCB designing of Raspberry Pi, DDR SDRAM & HDMI using Altium.
- **Coursework:** High-Frequency Components, Amplifiers, and Oscillators, Integrated Circuits for Radio Applications, System Design for High-Frequency and High-Datarate Applications, Radar Signals and Systems, Antennas and Wave Propagation.



PERSONAL INFORMATION



+4915906180781



souravsinha272@gmail.com



souravsinha272



Gohliser Str. 9,
01159 Dresden, Germany



Born: 31. December 1998
in Patuakhali (Bangladesh)

SKILLS

Software & Simulation Tools:

- CST Microwave Studio
- Advanced Design System
- Altium Designer
- Inkscape
- Auto-Cad
- TIBCO Spotfire

Hardware:

- Vector Network Analyzer
- Cascade Probe Station
- Spectrum Analyzer
- Impedance Tuner
- Noise Figure Analyzer
- Oscilloscope
- Signal Generator
- Soldering (DC and SMD)

Programming Languages:

- Python
- Matlab
- C/C++

Languages:

- English (Academic level)
- Bengali (Native)
- Hindi (Fluent speaker)
- German (A1)

STRENGTHS

- Problem-Solving
- Communication
- Quick Learner
- Team Work
- Report Writing
- Time Management

INTEREST

- Backpack Travelling
- Riding Bike
- Reading Philosophical Books
- Playing Football & Cricket

AWARDS

- Best Paper Award from Antenna, Microwave & RF Engineering scope on IEEE TENSYP 2020.
- Summa Cum Laude (Academic Honor) -Bachelor.
- Dean's Award (2nd Place among 83 groups) for Bachelor thesis.
- Academic Scholarship-Bachelor.
- Dean List Honors -Bachelor.

Jan'16 - Feb'20

B.Sc. in Electrical and Electronics Engineering American International University-Bangladesh I Bangladesh

- **Final Grade:** 3.96 out of 4 (German scale: 1.0)
- **Thesis Topic:** Design & Fabrication of Implantable Antennas.
 - Designed four different microstrip patch antennas for medical applications in MICS and ISM bands using CST Microwave Studio.
 - Fabricated two prototypes and measured using VNA.
- **Projects:**
 - Arduino based obstacle avoiding robot.
 - Arduino based hand gesture control robot.
 - Building Tic Tac Toe using only basic logic gates.
- **Coursework:** Microwave Engineering, Signal & Linear System, Telecommunications Engineering, Mathematical Methods of Engineering.

PUBLICATIONS

Chapter:

- **S. Sinha** et al., "On-body Microstrip Patch Antenna for Breast Cancer Detection," International Congress on Information and Communication Technology, London, United Kingdom, 2021.

Journals:

- **S. Sinha** et al., "In Body Antenna for Monitoring and Controlling Pacemaker," Advances in Science, Technology and Engineering Systems Journal, 2020, Vol. 5, No. 2, pp. 74-79.
- **S. Sinha** et al., "Antenna Design & Fabrication for Biotelemetry Applications," International Journal of Electrical and Computer Engineering. 2021, Vol. 11, No. 4, pp. 3639-3646.

Conferences:

- **S. Sinha** et al., "A Wearable Microstrip Patch Antenna for Detecting Brain Tumor," 2020 International Conference on Computation, Automation and Knowledge Management (ICCAKM), Dubai, United Arab Emirates, 2020, pp. 85-89.
- P. Sarkar, R. R. Hasan, **S. Sinha** et al., "A Wearable Snap-on Button Antenna for on Body Application," 2020 IEEE Region 10 Symposium (TENSYP), Dhaka, Bangladesh, 2020, pp. 1498-1501.
- **S. Sinha** et al., "Antenna Design for Biotelemetry System," 2019 International Conference on Robotics, Electrical and Signal Processing Techniques (ICREST), Dhaka, Bangladesh, 2019, pp. 466-469.
- R. R. Hasan, M. A. Rahman, **S. Sinha** et al., "In Body Antenna for Monitoring Pacemaker," 2019 International Conference on Automation, Computational and Technology Management (ICACTM), London, United Kingdom, 2019, pp. 99-102.

EXTRA CURRICULAR ACTIVITIES

Jan'18 - Dec'20

Student Member

IEEE-Bangladesh Section I Bangladesh

- Active participant of different seminars and workshops.

Apr'19 - Mar'20

Vice Chairperson

AIUB Community of Engineering Students I Bangladesh

- Planning and organizing workshops, industrials tours and competitions.

Apr'17 - Mar'19

Executive

AIUB Community of Engineering Students I Bangladesh

- Logistics and planning support to all engineering events.

Dec'18 - Feb'19

Leadership Development Experience

AIIESEC in Cairo University I Egypt

Project: Renewable Energy & Environmental Sustainability.

- Educate rural area people in Egypt about renewable energy and environmental sustainability.

Jan'18 - Dec'18

Volunteer

CSD Foundation I Bangladesh

- Educating rural area students and people about engineering by showing some engineering projects.

Jul'17 - Jun'18

Campus Ambassador

1Destination I Bangladesh

- Rising fund to support poor people with winter cloths.