Janibul Bashir
Department of Information Technology
National Institute of Technology Srinagar, 190006, India.
Contact: +91-8825099229
Email: *janibbashir@nitsri.ac.in*, *janibbashir@gmail.com*

EXPERIENCE

1. Assistant Professor at Department of Information Technology **August 2020 – Present**
National Institute of Technology, Srinagar

Courses Taught: Computer Organization & Architecture, Theory of Computation, Computer Networks, Computer Programming.

2. Trainee Teacher at Department of Information Technology **January 2016 – August 2020**
National Institute of Technology, Srinagar

Courses Taught: Computer Organization & Architecture, Theory of Computation, Computer Networks, Computer Programming.

3. Software Engineer **July 2014 – Jul 2015**
Samsung Research India, Bangalore

Job Role: Tizen platform application development

EDUCATION AND RESEARCH EXPERIENCE

PhD in Computer Science at Indian Institute of Technology Delhi, India **January 2016 – August 2020**
Supervisor: **Prof. Smruti Ranjan Sarangi**

- **Consolidated GPA**: **9.8/10**
- **Thesis Title**: "*Leveraging Silicon Nanophotonics for on-chip and off-chip communication*".
- **Main Research Areas**: Multicore processors, Network-on-Chip: Optical interconnects, Power reduction, efficient routing, On-chip security: Intel SGX, Operating systems: Performance evaluation, GPUs.
- **Software and Simulation Skills:** Tejas, GPUTejas (architectural simulators), Cacti, and VHDL.
- **Collaborations:** Worked in collaboration on different research aspects with colleagues at Indian Institute of Technology Delhi and Madras, India.

B.Tech. in Information Technology at National Institute of Technology, Srinagar, India **Aug 2010 – Jul 2014**

- **Consolidated GPA**: **9.195/10** (***Gold Medallist***)
- **Research Project**: Enhancement in the fingerprint recognition technique.

PATENTS, PUBLICATIONS, CONFERENCES

Patents Filed:

1. Process and System for Using Unused Optical Power in Photonic On-Chip Networks, **Janibul Bashir**, Smruti R. Sarangi. Filed at the Indian patent office. Date: 18/02/2020. Number: 202011006878
2. A Graphics Processor Unit (GPU) System with Photonics based On-chip Network, **Janibul Bashir**, Smruti R. Sarangi. Filed at the Indian Patent office Date: November 19th, 2019. Number: 201911047168

Journals Accepted:

1. “GPUOPT: Power-efficient Photonic Network-on-Chip for a Scalable GPU” by Janibul Bashir and Smruti R. Sarangi. ACM Journal on Emerging Technologies in Computing Systems (2020).
2. “Predict, Share, and Recycle your Way to Low Power Nanophotonic Networks” by **Janibul Bashir,** Smruti R. sarangi. ACM Journal on Emerging Technologies in Computing Systems (2019).
3. “SpliESR: Tunable Power Splitter Based on an Electro-Optic Slotted Ring Resonator” by Rajib R. Ghosh, **Janibul Bashir**, Smruti R. Sarangi and Anuj Dhawan. Optics Communications (2019)**.**
4. “BigBus: A Scalable Optical Interconnect” by **Janibul Bashir**, Eldhose Peter, and Smruti R. Sarangi. ACM Journal on Emerging Technologies in Computing Systems (2018).
5. “A Survey of On-chip Optical Interconnects” by **Janibul Bashir**, Eldhose Peter, and Smruti R. Sarangi. ACM Computer Surveys (2018).
6. “Optical overlay nuca: A high-speed substrate for shared L2 caches” by Eldhose Peter, Anuj Arora, **Janibul Bashir**, Akriti Bagaria, and Smruti R. Sarangi. ACM Journal on Emerging Technologies in Computing Systems (2017).

Reputed Conferences:

7. “SecSched: Flexible Scheduling in Secure Processors” by Omais Shafi and Janibul Bashir. ACM International Conference on Parallel Architectures and Compilation Techniques 2020 (PACT '20).
8. "SecONet: A Security Framework for a Photonic Network-on-Chip" by Janibul Bashir, C. Goodchild and S. R. Sarangi. 14th IEEE/ACM International Symposium on Networks-on-Chip (NOCS), Hamburg, Germany, 2020.
9. “Power Efficient Photonic Network-on-Chip for a Scalable GPU” by **Janibul Bashir**, Khushal Sethi Smruti R. Sarangi. International symposium on Networks on Chip, New York USA (2019).
10. “Slotted Electro-optic Ring Resonator as a Tunable Optical Power Splitter” by Rajib R. Ghosh, **Janibul Bashir**, Smruti R. Sarangi and Anuj Dhawan. SPIE Photonics West, OPTO, Silicon Photonics XIV (2018).
11. “NUPLet: A Photonics Based Multi-Chip NUCA Architecture” by **Janibul Bashir** and Smruti R. Sarangi. ICCD (International Conference on Computer Design), Boston, USA (2017).
12. “POSTER: BigBus: A Scalable Optical Interconnect” by Eldhose Peter, **Janibul Bashir**, and Smruti R. Sarangi. PACT (Parallel Architectures and Compilation Techniques), Portland, USA

SCHOLARSHIPS AND AWARDS

- **Gate Fellowship MHRD.**
- **Spot award** at Samsung for developing 10 applications for the Tizen platform (Smartphone platform).
- Awarded **Gold Medal** for securing **highest GPA** in the **B. Tech**. Program in Department of Information Technology, NIT Srinagar, J&K in 2014.

PROFESSIONAL SERVICE

- ✓ **Journal Reviewer:** ACM Transactions on Computers, IEEE Photonics Letters, ACM journal on emerging technologies, IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems
- ✓ **Conference Reviewer:** IPDPS, ICCD, HiPC.

OTHER ACHIEVEMENTS AND PERSONAL TRAITS

- ✓ **Competitive Exams Qualified**: Graduate Aptitude Test in Engineering GATE-2015 (Rank 343) and All India Engineering Entrance Examination (AIEEE) 2010.
- ✓ **Sports**: Cricket, Lawn Tennis, Football

I hereby declare that the information furnished above is true to the best of my knowledge.

Janibul Bashir