Suvam Basak

Prime Minister's Research Fellow at *Indian Institute of Technology, Kanpur*
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Github: github.com/suvambasak

Research Interests

My research interests lie in the **implementation** and **simulation** of *Networked Systems* and the *Internet of Things*.

Education

Indian Institutes of Technology Kanpur (IIT-K) — Kanpur, Uttar Pradesh
Ph.D. in Satellite Internet — Computer Science & Engineering — 2022 – Present
Advisor: Dr. Amitangshu Pal & Dr. Debopam Bhattacherjee *CGPA: 8.75/10*

University of Hyderabad (UoH) — Hyderabad, Telangana
M.Tech. in Information Technology — 2020 – 2022
School of Computer and Information Sciences collaboration with IDRBT
Advisor: Dr. Satish Narayana Srirama *CGPA: 9.61/10*

West Bengal University of Technology (WBUT) — Kolkata, West Bengal
B.Tech. — Computer Science & Engineering, 2014 – 2018
CGPA: 8.6/10

Research Experience

Cloud and Smart Labs
Advisor: Prof. Satish N. Srirama (UoH) — 2021 – 2022
An Integrated and Standards-based Fog Computing Federation Framework: Dynamic deployment of services on the fog nodes out of the box on the fly with OASIS TOSCA standard. GitHub.

Teaching Experience

Teaching assistant, eMasters in Financial Technology & Management (IIT-K)
MBA977: IT Platforms, Cloud Computing, and IoT — 2023
Tutor, Department of CSE (IIT-K)
ESC111M/112M - Fundamentals of Computing - I & II — 2023
Teaching assistant, eMasters in Cyber Security (IIT-K)
CS971: Computer Networking II — 2022-23
CS963: Computer Networking I — 2022-23
Teaching assistant, Department of CSE (IIT-K)
CS610: Programming for Performance — 2022

Conference Publications

S. N. Srirama and **S. Basak**, "Fog Computing out of the Box with FogDEFT Framework: A Case Study," 2022 IEEE 15th International Conference on Cloud Computing (CLOUD), Barcelona, Spain, 2022, pp. 342-350, doi: 10.1109/CLOUD55607.2022.00057.

Journal Publications

Basak S, Srirama SN. Fog computing out of the box: Dynamic deployment of fogservice containers with TOSCA. Int J Network Mgmt. 2023 doi: 10.1002/nem.2246.

Workshop Publications

S Basak, A Pal, and D Bhattacherjee. Exploring Low-Earth Orbit Network Design. In Proceedings of the 1st ACM Workshop on LEO Networking and Communication (LEO-NET '23). ACM, NY, USA, 1–6. doi: 10.1145/3614204.3616103

Honors and Scholarships

Prime Minister's Research Fellowship (PMRF) — Cycle 11 — 2023 – 2026
AICTE scholarship in M.Tech. (Ministry of Education — India) — 2020 – 2022

GATE qualified with 95%tile 2019 and 2020

Smart India Hackathon finalist (KL University, Guntur, Andhra Pradesh) 2017

Technical Skills

Programming

Proficient in: *C, Python* — Familiar with: *Flask, Verilog, Dart, Flutter, Solidity, JavaScript, Java*

Tools & Softwares: *Gurobi Optimizer, Ansible, Docker, Docker Swarm, TOSCA*

Hardware: *Raspberry Pi, Arduino*

Referees

Dr. Amitangshu Pal, *Assistant Professor*

Department of Computer Science & Engineering at *Indian Institute of Technology Kanpur* — India

E-mail: amitangshu@cse.iitk.ac.in, **Web**: cse.iitk.ac.in/users/amitangshu

Dr. Debopam Bhattacherjee, *Senior Researcher at Microsoft Research — India*

E-mail: debopamb@microsoft.com, **Web**: bdebopam.github.io

Prof. Satish Narayana Srirama, *Professor (Member IEEE)*

School of Computer and Information Sciences at *University of Hyderabad — India*

E-mail: satish.srirama@uohyd.ac.in, **Web**: scis.uohyd.ac.in/ srirama