Suvam Basak

Prime Minister's Research Fellow at *Indian Institute of Technology Kanpur*

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Research Interests

Implementation and **simulation** of *Networked Systems* and the *Internet of Things.*

Education

Ph.D.	**Indian Institute of Technology Kanpur (IIT-K)**	Kanpur, Uttar Pradesh
	Department of Computer Science & Engineering	2022 – Present
	Advisor: Dr. Amitangshu Pal & Dr. Debopam Bhattacherjee – *CGPA: 8.75/10*	
M.Tech.	**University of Hyderabad (UoH)**	Hyderabad, Telangana
	School of Computer and Information Sciences collaboration with IDRBT	2020 – 2022
	Thesis title: An Integrated and Standards-based Fog Computing Federation Framework	
	Advisor: Prof. Satish Narayana Srirama – *CGPA: 9.61/10*	
B.Tech.	**West Bengal University of Technology (WBUT)**	Kolkata, West Bengal
	Computer Science & Engineering, JIS College of 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

	Course Instructor	
UEM Kolkata	- Advanced Python Programming	2024-25
CSJM University (UIET)	- CSE-S208 - Data Structure Using Python	2023-24-II
IIT Kanpur	**Teaching Assistant, Department of CSE**	
	- ESC111M/112M - Fundamentals of Computing - I & II	2024-25-II
	- CS724 - Sensing, Communications and Networking for Smart Wireless Devices	2023-24-I
	- CS610 - Programming for Performance	2022-23-I
	Teaching Assistant, eMasters in Financial Technology & Management	
	- MBA977 - IT Platforms, Cloud Computing, and IoT	2023-24
	Teaching Assistant, eMasters in Cyber Security	
	- CS971 - Computer Networking II	2022-23
	- CS963 - Computer Networking I	2022-23
	Tutor, Department of CSE	
	- ESC111M/112M - Fundamentals of Computing - I & II	2022-23-II

Conference Publications

2025 USENIX ATC	*LEOCraft: Towards Designing Performant LEO Networks* – S. Basak, A. Pal, D. Bhattacherjee
2024 ACM IMC	*CosmicDance: Measuring Low Earth Orbital Shifts due to Solar Radiations* – S. Basak, A. Pal, D. Bhattacherjee
2022 IEEE Cloud	*Fog Computing out of the Box with FogDEFT Framework: A Case Study* – S. N. Srirama, S. Basak

Journal Publications

2023 ACM IJNM *Fog computing out of the box: Dynamic deployment of fog service containers with TOSCA* – S. Basak, S. N. Srirama

Workshop Publications

2023 LEO-NET Workshop *Exploring Low-Earth Orbit Network Design* – S. Basak, A. Pal, D. Bhattacherjee

Talks

2025 USENIX ATC LEOCraft: Towards Designing Performant LEO Networks
2025 IIT Kanpur CS801 Research Colloquium – Measuring Orbital Shifts Due to Solar Radiation
2024 ACM IMC CosmicDance: Measuring Low Earth Orbital Shifts due to Solar Radiations
2024 IIT Kanpur Beaming Internet connectivity directly from Space - State of the Art (SOTA) Seminar
2023 LEO-NET Workshop Exploring Low Earth Orbit Network Design

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, OpenStack, QEMU/KVM
Hardware: Raspberry Pi, Arduino

Referees

IIT Kanpur

Dr. Amitangshu Pal, *Assistant Professor*
Department of Computer Science & Engineering
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Microsoft Research

Dr. Debopam Bhattacherjee, *Senior Researcher*
E-mail: debopamb@microsoft.com, **Web**: bdebopam.github.io

University of Hyderabad

Prof. Satish Narayana Srirama, *Professor (Member IEEE)*
School of Computer and Information Sciences
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