About

Dr. Radhika Sukapuram
Assistant Professor (CSE)
PhD (IIT Guwahati)

Department of Computer Science & Engineering

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Joined the Institute in July 2018

Assistant Professor, Computer Science and Engineering, Indian Institute of Information Technology, Guwahati

PhD in Computer Science from Indian Institute of Technology, Guwahati, in 2018

M.S in Software Systems from Birla Institute of Science and Technology, Pilani, in 1998

B.Tech. in Electronics Engineering from National Institute of Technology, Calicut, in 1992

Previous work experience:

2010: Borqs Technologies Inc., Bangalore

1994 - 2009: Motorola India Electronics Ltd., Bangalore

1992 - 1994: Bharat Electronics Ltd., Bangalore

Research Interests

Computer Networks, especially Software Defined Networks and Network Functions Virtualisation,

Distributed Systems

Teaching

- CS602 Computer Systems and CS620 Computer Systems Lab (MTech.)
- CS352 Computer Networks and CS353 Computer Networks Lab (BTech.)
- CS231 Operating Systems and CS232 Operating Systems Lab (BTech.)
- CS240 Database Management Systems and CS241 Database Management Systems Lab (BTech.)
- CS221 Data Communications (BTech.)
- CS101 Computer Programming and CS110 Computer Programming Lab (BTech.)

PhD Students

1. Sikha Deka (full-time) Area of work: Caching algorithms in Edge Networks.
2. Amit Das (full-time): Service Function Chaining in Edge Networks.
3. Ranjan Patowary (part-time). Area of work: Network Function Virtualisation. Currently working as Assistant Professor at Central Institute of Technology, Kokrajhar (Joint supervision with Prof. Gautam Barua)
4. Ramesh Singh (part-time). Area of work: Mobility in Edge Networks. Currently working as Assistant Professor at Nagaland University (Joint supervision with Dr. Suchetana Chakraborty, IIT Jodhpur)

Projects

1. Service Caching Architecture for Edge Networks from Science and Engineering Research Board, Department of Science and Technology, Govt. Of India (ongoing)

Publication

Conference

- Radhika Sukapuram, Sikha Deka, "Edge Service Caching for Service Function Chains", 9th IEEE International Conference on Network Softwarization, (2023), (NetSoft)

- Ramesh Singh, Radhika Sukapuram and Suchetana Chakraborty, "Mobility-aware Multi-Access Edge Computing for Multiplayer Augmented and Virtual Reality Gaming", IEEE 21st International Symposium on Network Computing and Applications, (2022), (NCA)

- Radhika Sukapuram, Ranjan Patowary and Gautam Barua, "Loss-freedom, Order-preservation and No-buffering: Pick Any Two During Flow Migration in Network Functions", IEEE 29th International Conference on Network Protocols (ICNP), (2021),

- Radhika Sukapuram, "Path-Agnostic Network Measurements Using Distributed Sketches", IEEE Region 10 Conference (TENCON), (2021),

- Radhika Sukapuram, "Path-agnostic network measurements using distributed sketches", TENCON 2021-2021 IEEE Region 10 Conference (TENCON), (2021), pages. 23-28, IEEE

- Radhika Sukapuram and Gautam Barua, "PPCU: Proportional Per-packet Consistent Updates for Software Defined Networks", The IEEE International Conference on Network Protocols (ICNP16), November, (2016), Singapore.

- Radhika Sukapuram and Gautam Barua, "CCU: Algorithm for Concurrent Consistent Updates for a Software Defined Network", National Conference on Communications, NCC-2016, March, (2016),

- Radhika Sukapuram and Gautam Barua, "Enhanced Algorithms for Consistent Network Updates", IEEE Conference on Network Function Virtualization and Software Defined Networks, November 18-21, (2015), San Francisco, California.

Journal

- Ramesh Singh, Radhika Sukapuram and Suchetana Chakraborty,, "A survey of mobility-aware Multi-access Edge Computing: Challenges, use cases and future directions", Adhoc Networks,vol.140, (2022),

- Filip De Turck, "2020 Reviewers for IEEE Transactions on Network and Service Management (TNSM)", IEEE Transactions on Network and Service Management,Volume 18 ,Issue 1, (2021), pages. 4-19, IEEE

- Radhika Sukapuram and Gautam Barua, "PPCU: Proportional Per-packet Consistent Updates for SDNs using Data Plane Time Stamps", Computer Networks,vol. 155, (2019), pages. 72-86, Elsevier

- Radhika Sukapuram and Gautam Barua,, "ProFlow: Proportional Per-Bidirectional-Flow Consistent Updates", IEEE Transactions on Network and Service Management,vol. 16, (2019), pages. 675-689,

Book Chapters

- Suchetana Chakraborty, Radhika Sukapuram, "Multi-Access Edge Computing for Urban Informatics", Proceedings of the 23rd International Conference on Distributed Computing and Networking, (2022), pages. 225-228,

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