

ALAKESH KALITA

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EDUCATION

Indian Institute of Technology Guwahati, India *January 2018–May, 2022*
Ph.D., Computer Science and Engineering
Supervisor: Dr. Manas Khatua, Dept. of CSE, IIT Guwahati.
Received Indian National Academy of Engineering (INAE) Innovative Student Projects Award

Assam Central University, India *July 2014 - May 2016*
Master of Technology, Computer Science and Engineering,
CGPA: 8.34/10 (83.4%)
Silver Medalist

Assam Don Bosco University, India *July 2008 - June 2012*
Bachelor of Technology, Computer Science and Engineering,
CGPA: 7.26/10 (72.6%)

PAST EXPERIENCE

Research and Development: 6.8+ years
Teaching: 3 months
Management: 1 year

National University of Singapore, Singapore *April 2022 - till now*
Research Fellow
Research Area: IoT, Metaverse, Digital Twin

Indian Institute of Technology Guwahati, India *January 2018 - April 2022*
Senior Research Fellow: 2020-April 2022
Junior Research Fellow: January 2018-2020
Research Area: IoT, IoT testbed setup

Indian Institute of Information Technology Guwahati, India *July 2017 - December 2017*
Research Scholar & Junior Research Fellow
Research Area: IoT

Nalbari Polytechnic, Assam, India *April 2017 - June 2017*
Lecturer

North-Eastern Hill University, Shillong, India *August 2016 - June 2017*
Project Scientist
Research Area: IoT

Assam Central University, Assam, India *May 2015 - June 2016*
Teaching Assistant
Research Area: Network On Chip

Shriram Transport Finance Company Ltd. *September 2012 - October 2013*
Management Trainee

PUBLICATIONS

Journals

- J10. A. Kalita, and M. Gurusamy “D2R2: Distributed and Dynamic Reputation based Resource Allocation in Metaverse” in IEEE Internet of Things Journal, (Under review)
- J9. A. Kalita, M. Gurusamy, and M. Khatua “A Gaming and Trust Model based Counter Measure for DIS Attack on 6TiSCH IoT Networks,” in IEEE Internet of Things Journal, (Accepted)
- J8. A. Kalita, and M. Khatua “Time-Variant RGB Model for Minimal Cell Allocation and Scheduling in 6TiSCH Networks,” in IEEE Transactions on Mobile Computing, (Accepted)
- J7. A. Kalita and M. Khatua, “6TiSCH – IPv6 Enabled Open Stack IoT Network Formation: A Review,” in ACM Transactions on Internet of Things, vol. 3, no. 24, pp. 1-36, 2022, [Link](#)
- J6. A. Kalita, A. Brighente, M. Khatua, and M. Conti “Effect of DIS Attack on 6TiSCH Network Formation,” in IEEE Communications Letters, IF-3.55, vol. 26, no. 5, pp. 1190-1193, May, 2022 [Link](#)

- J5. A. Kalita and M. Khatua, "A Non-cooperative Gaming Approach for Control Packet Transmission in 6TiSCH Network," in *IEEE Internet of Things Journal*, IF-11.7, vol. 9, no. 5, pp. 3954-3961, 2022 [Link](#)
- J4. A. Kalita and M. Khatua, "Adaptive Control Packet Broadcasting Scheme for Faster 6TiSCH Network Bootstrapping," in *IEEE Internet of Things Journal*, IF-11.7, vol. 8, no. 24, pp. 17395-17402, 2021 [Link](#)
- J3. A. Kalita and M. Khatua, "Autonomous Allocation and Scheduling of Minimal Cell in 6TiSCH Network," in *IEEE Internet of Things Journal*, IF-11.7, vol. 8, no. 15, pp. 12242-12250, 2021 [Link](#),
- J2. A. Kalita and M. Khatua, "Opportunistic Transmission of Control Packets for Faster Formation of 6TiSCH Network," in *ACM Transactions on Internet of Things*, IF-NA, vol. 2, no. 1, pp. 1-29, 2021, [Link](#)
- J1. A. Kalita and M. Khatua, "Channel Condition Based Dynamic Beacon Interval for Faster Formation of 6TiSCH Network," in *IEEE Transactions on Mobile Computing*, IF-6.07, vol. 20, no. 7, pp. 2326-2337, 2021 [Link](#)

Conferences

- C6. A. Kalita and M. Khatua, "Opportunistic Priority Alternation Scheme for Faster Formation of 6TiSCH Network," in *Proc. of 21st International Conference on Distributed Computing and Networking (ICDCN)*, Jan 2020, pp. 1-5. [Link](#)
- C5. A. Kalita and M. Khatua, "Faster Joining in 6TiSCH Network using Dynamic Beacon Interval," in *Proc. of 11th International Conference on Communication Systems Networks (COMSNETS)*, Jan 2019, pp. 454-457. [Link](#)
- C4. A. Kalita, N. Ahmed, H. Rahman, and M. I. Hussain, "A QoS-aware MAC protocol for large-scale networks in Internet of Things," in *Proc. of International Conference on Advanced Networks and Telecommunications Systems (ANTS)*, Dec 2017, pp. 1-6. [Link](#)
- C3. A. Kalita, K. Ray, A. Biswas, and M. A. Hussain, "A topology for network-on-chip," in *Proc. of International Conference on Information Communication and Embedded Systems (ICICES)*, Feb 2016, pp. 1-7. [Link](#)
- C2. K. Ray, A. Kalita, A. Biswas, and M. A. Hussain, "A multipath network-on-chip topology," in *Proc. of International Conference on Information Communication and Embedded Systems (ICICES)*, Feb 2016, pp. 1-7. [Link](#)
- C1. A. Biswas, M. A. Hussain, and A. Kalita, "An improved congestion free modified fat tree network," in *Proc. of International Conference on Signal Processing, Communication, Power and Embedded System (SCOPEs)*, Oct 2016, pp. 759-763. [Link](#)

WORKSHOP & TRAINING

- An active volunteer of the INDICON'2021 conference held in IIT Guwahati from 19 Dec - 21 Dec 2021
- An active volunteer of the 3rd ISEA International Conference on Security and Privacy (ISEA-ISAP 2020) in IIT Guwahati from 27 Feb - 1 Mar 2020
- An active member of organizing committee in two days workshop on "Internet of Things: It's Inside Out" at NEHU, Shillong, Meghalaya from 12 May - 13 May, 2017
- Attended faculty development programme (FDP) in "Cloud Computing with AWS" in association with IIIT Guwahati, organized by E&ICT Academy at IIIT Guwahati from 05 Dec - 10 Dec, 2016
- Attended two days workshop on "Internet of Things: A Gateway to Smart and Intelligent Future" at NIT Meghalaya, organized by E&ICT Academy in 2016
- Attended fifteen days summer training on Computer Network at IOCL-Bongaigaon, India in 2011

ACHIEVEMENTS & AWARDS

- Received travel grant to attend ICDCN'2020 conference from IIT Guwahati, India
- Qualified UGC-NET (National Eligibility Test) for Assistant Professor (India)
- Received travel grant to attend COMSNETS'2019 conference from the conference organizer
- Received MHRD scholarship during Ph.D. (2018-2022)
- Bagged second prize in regional innovators conclave conducted by Government of Meghalaya for "Smart Lighting Model", Meghalaya, India 2017
- Qualified GATE'2017
- Secured First Class 2nd position with distinction in Master of Technology
- Received TEQIP-II scholarship during M-Tech (2014-2016)
- Bagged first prize in line follower robotics competition in Assam University, India 2016

- Awarded with Anandaram Boruah Student Award, 2006 for performance of 10th standard board examination by State Government of Assam

TECHNICAL SKILLS

Technical Skill:	IoT Testbed setup
Programming:	C, C++
Documentation language:	L ^A T _E X, Microsoft Word
Databases:	MySQL
Software & Tools:	Operating System: Windows, Linux, MacOS Network Simulator: Contiki OS (Cooja), OMNeT++, NS-3 IDE: NetBeans, Arduino, MATLAB, VB
English proficiency:	Duolingo English Test (120/160)

PROFESSIONAL MEMBERSHIP

- IEEE student membership since October 2021 (ID: 96688131)
- ACM student membership since November 2019 (ID: 9926691)

REVIEWER

- IEEE Transactions on Mobile Computing
- IEEE Internet of Things Journal
- IEEE Transactions on Vehicular Technology
- Wireless Communication and Networking (Springer)

Date: 27/01/2023
Place: IIT Guwahati



Signature