Ripon Patgiri, PhD

Curriculum Vitæ

Room No.- CS30
Dept. of Computer Science & Engineering
NIT SIlchar, Assam, India-788010
⚲ *(+91) 95 08 631596*
✉ *ripon@cse.nits.ac.in | ripon.patgiri@gmail.com*
🖥 *http://cs.nits.ac.in/rp/*

Education

AMIETE'09   **Received AMIETE degree from IETE in 2009**, *The Institution of Electronics & Telecommunication Engineers*, New Delhi, India-110003.

M.Tech.'12   **Received M.Tech. from IIT Guwahati in 2012**, *Indian Insititute of Technology Guwahati*, Assam, India-781039.

Ph.D'19   **Received Ph.D degree NIT Silchar in 2019**, *National Institute of Technology Silchar*, Assam, India-788010.

PhD Thesis

Title   *Design and Development of a Multidimensional Membership Filter*

Supervisors   Dr. Samir Kumar Borgohain, National Institute of Technology Silchar

Teaching Experience

April,2013-present   Joined as *Assistant Professor* in National Institute of Technology Silchar and taught Introduction to Computer Programming, Data Structures, Computer Networking, and Cloud Computing

Research Interest

- Bloom Filter
- Big Data
- Big Graph
- Metadata Server
- Storage System
- Large-Scale Computing
- Computer Networking
- Bioinformatics

Publications

International Journal

PassDB: A password database with strict privacy protocol using 3D Bloom filter, *Information Sciences*, Vol. 539, Issue: October 2020, DOI: 10.1016/j.ins.2020.05.135 **[Impact Factor: 5.91, Index: SCIE]**.
Ripon Patgiri, Sabuzima Nayak and Samir Kumar Borgohain

A Review on Role of Bloom Filter on DNA Assembly, *IEEE Access*, volume 7, pp. 66939–66954, DOI: 10.1109/ACCESS.2019.2910180 **[Impact Factor: 4.098, Index: SCIE]**.
Sabuzima Nayak and Ripon Patgiri

rDBF: A r-Dimensional Bloom Filter for Massive Scale Membership Query, *Journal of Network and Computer Applications*, Vol. 136, Issue: 15 June 2019, DOI: 10.1016/j.jnca.2019.03.004 **[Impact Factor: 5.273, Index: SCIE]**.
Ripon Patgiri, Sabuzima Nayak and Samir Kumar Borgohain

Hunting the Pertinency of Bloom Filter in Computer Networking and Beyond: A Survey, *Journal of Computer Networks and Communications*, Volume 2019, Article ID 2712417, pp. 1–10, 2019, DOI: 10.1155/2019/2712417, **[Index: SCOPUS]**.
Ripon Patgiri, Sabuzima Nayak, and Samir Kumar Borgohain

ScaleBF: A High Scalable Membership Filter using 3D Bloom Filter, *International Journal of Advanced Computer Science and Applications*, Vol. 9, No. 12, pp. 548–553, 2018, DOI: 10.14569/IJACSA.2018.091277, **[Index: SCOPUS]**.
Ripon Patgiri, Sabuzima Nayak, and Samir Kumar Borgohain

Role of Bloom Filter in Big Data Research: A Survey, *International Journal of Advanced Computer Science and Applications*, Vol. 9, No. 11, pp. 655–661, 2018, DOI: 10.14569/IJACSA.2018.091193, **[Index: SCOPUS]**.
Ripon Patgiri, Sabuzima Nayak, and Samir Kumar Borgohain

Preventing DDoS using Bloom Filter: A Survey, *EAI Endorsed Transaction on Scalable Information Systems*, Vol. 5, No. 19, pp. 1–9, 2018, DOI: 10.4108/eai.19-6-2018.155865, **[Index: ESCI]**.
Ripon Patgiri, Sabuzima Nayak, and Samir Kumar Borgohain

Dr.Hadoop : An Infinite Scalable Metadata Management for Hadoop- How the baby elephant becomes immortal!, *Frontiers of Information Technology & Electronic Engineering*, Vol. 17, No. 1, pp. 15–31, 2016, DOI: 10.1631/FITEE.1500015 **[Impact Factor: 1.033, Index: SCIE]**.
Dipayan Dev and Ripon Patgiri [*Selected one of the best paper among 270 published paper in FITEE from 2016-2017, and offered open access with the cost of FITEE in Springer Link.*]

International Conferences

HAR+: Archive and Metadata Distribution! Why Not Both?, *2015 International Conference on Computer Communication and Informatics*, 8-10 Jan. 2015, Pages 1-6, Coimbatore, DOI: `http://dx.doi.org/10.1109/ICCCI.2015.7218119`.
Dipayan Dev and Ripon Patgiri

Performance evaluation of HDFS in big data management, *2014 International Conference on High Performance Computing and Applications (ICHPCA)*, 22-24 Dec. 2014, Pages 1-7, Bhubaneswar, DOI: `http://dx.doi.org/10.1109/ICHPCA.2014.7045330`.
Dipayan Dev and Ripon Patgiri

A Survey of Different Technologies and Recent Challenges of Big Data, *In the Proceedings of 3rd International Conference on Advanced Computing, Networking and Informatics, Volume 2*, Volume 44 of the series Smart Innovation, Systems and Technologies pp 537-548, DOI: `http://dx.doi.org/10.1007/978-81-322-2529-4_56`.
Dipayan Dev and Ripon Patgiri

Big Graph: Tools, Techniques, Issues, Challenges and Future Directions, *Sixth International Conference on Advance in Computing and Information Technology (ACITY-2016)*, pp. 119–128, CS & IT-CSCP 2016, DOI: `http://dx.doi.org/10.5121/csit.2016.60911`.
Dhananjay Kumar Singh, and Ripon Patgiri

Big Data: The V's of the Game Changer Paradigm, *2016 IEEE 18th International Conference on High Performance Computing and Communications; IEEE 14th International Conference on Smart City; IEEE 2nd International Conference on Data Science and Systems (HPCC/SmartCity/DSS)*, Sydney, NSW, Australia, pp. 17-24, DOI: 10.1109/HPCC-SmartCity-DSS.2016.0014, **[Core Rank: B]**.
Ripon Patgiri and Arif Ahmed

dMDS: Uncover the hidden issues in Metadata Server design, *4th International Conference on Advanced Computing, Networking, and Informatics (ICACNI-2016)*, DOI: `http://dx.doi.org/10.1007/978-981-10-3373-5_53`.
Ripon Patgiri, Dipayan Dev and Arif Ahmed

MDS: In-depth Insight, *15th International Conference on Information Technology (ICIT-2016)*, Bhubaneswar, India, In-press, DOI: `http://dx.doi.org/10.1109/ICIT.2016.32`.
Ripon Patgiri

Issues and Challenges in Big Data: A Survey, *14th International Conference on Distributed Computing and Internet Technology, ICDCIT 2018*, KIIT University, Bhubaneswar, Odisha, India, LNCS, Springer, DOI: http://dx.doi.org/10.1007/978-3-319-72344-0_25, **[Core Rank: C]**.
Ripon Patgiri

Big Biomedical Data Engineering, *9th International Conference on Advanced Computing*, MIT Chennai, India, IEEE, Presented.
Ripon Patgiri, Sabuzima Nayak, and Samir Kumar Borgohain

Elastica: A Large Scale Elastic Array Data Structure, *8th edition, 2018 International Conference on Computer Communication and Informatics (ICCCI -2018)*, Jan. 04 - 06, 2018, Coimbatore, India, IEEE, DOI: 10.1109/ICCCI.2018.8441469.
Ripon Patgiri, Samir Kumar Borgohain, Shyamosree Pal

rTuner: A Performance Enhancement of MapReduce Job, *The 10th International Conference on Computer Modeling and Simulation (ICCMS)*, Pages 176-183, Jan. 08-10, 2017, Sydney, Australia, ACM, DOI: 10.1145/3177457.3191710.
Ripon Patgiri, and Rajdeep Das

rFilter: A Scalable and Space-efficient Membership Filter, *Fifth International Conference on Signal Processing & Integrated Networks (SPIN 2018)*, 22-25 February, 2018, Noida, UP, India, IEEE, DOI: 10.1109/SPIN.2018.8474044.
Ripon Patgiri, Samir Kumar Borgohain, and Arup Bhattacharjee

Data of Things: The Best Thing Since Sliced Bread, *7th IEEE International Conference on Communication and Signal Processing (ICCSP 2018)*, 03-05 April 2018, Tamil Nadu, India, DOI: 10.1109/ICCSP.2018.8524588.
Ripon Patgiri, and Sabuzima Nayak

Dr. Hadoop Cures In-memory Data Replication System, *6th International Conference of Advanced Computing, Networking and Informatics*, 04-6 June 2018, Assam, India, DOI: 10.1007/978-981-13-9680-9_19.
Ripon Patgiri, Sabuzima Nayak, Dipayan Dev, and Samir Kumar Borgohain

Impact of Metadata Server on a Large Scale File System, *11th IEEE Colombian Conference on Communications and Computing (IEEE-COLCOM 2018)*, 16-18th May 2018, Modellin, Colombia, DOI: 10.1109/ColComCon.2018.8466729.
Ripon Patgiri, Sabuzima Nayak, Samir Kumar Borgohain

Machine Learning: A Dark Side of Cancer Computing, *The 19th International Conference on Bioinformatics & Computational Biology, BIOCOMP'18*, Las Vegas, Nevada, USA, 30 July - 2 August 2018, https://csce.ucmss.com/cr/books/2018/LFS/CSREA2018/BIC3404.pdf.
Ripon Patgiri, Sabuzima Nayak, Bishal Paul and Tanya Akutota

Big Data Security Analytics: Key Challenges, *14th International Conference on Data Science (ICDATA'18)*, Las Vegas, Nevada, USA, 30 July - 2 August 2018, https://csce.ucmss.com/cr/books/2018/LFS/CSREA2018/ICD8052.pdf.
Ripon Patgiri, and Umakanta Majhi

Shed More Light on Bloom Filter's Variants, *17th International Conference on Information & Knowledge Engineering (IKE'18)*, Las Vegas, Nevada, USA, 30 July - 2 August 2018, https://csce.ucmss.com/cr/books/2018/LFS/CSREA2018/IKE3058.pdf.
Ripon Patgiri, Sabuzima Nayak, and Samir Kumar Borgohain

An Investigation on Intrusion Detection System Using Machine Learning, *IEEE Symposium Series on Computational Intelligence (IEEE SSCI 2018)*, 18-21 November, Bengaluru, India, DOI: 10.1109/SSCI.2018.8628676, **[Core Rank: C]** .
Ripon Patgiri, Udit Varsheney, Tanya Akutota and Rakesh Kunde

Blockchain: A Tale of Peer to Peer Security, *IEEE Symposium Series on Computational Intelligence (IEEE SSCI 2018)*, 18-21 November, Bengaluru, India, DOI: 10.1109/SSCI.2018.8628826, **[Core Rank: C]**.
Irani Acharjamayum, Ripon Patgiri and Dhruwajita Devi

Empirical study on Malicious URL Detection Using Machine Learning, *15th International Conference on Distributed Computing and Internet Technology (ICDCIT 2019)*, KIIT University, Bhubaneswar, Odisha, India, LNCS, Springer, DOI: 10.1007/978-3-030-05366-6_31, **[Core Rank: C]**.
Ripon Patgiri, Hemanth Katari, Ronit Kumar and Dheeraj Sharma

Dr. Hadoop: In Search of a Needle in a Haystack, *15th International Conference on Distributed Computing and Internet Technology (ICDCIT 2019)*, KIIT University, Bhubaneswar, Odisha, India, LNCS, Springer, DOI: 10.1007/978-3-030-05366-6_8, **[Core Rank: C]**.
Sabuzima Nayak and Ripon Patgiri

ipBF: A Fast and Accurate IP Address Lookup using 3D Bloom Filter, *18th International Conference on Intelligent Systems Design and Applications*, VIT Chennai, India, to be held during December 6–8, 2018, DOI: 10.1007/978-3-030-16660-1_18, **[Core Rank: C]**.
Ripon Patgiri, Sabuzima Nayak, and Samir Kumar Borgohain

A Study on Big Cancer Data, *18th International Conference on Intelligent Systems Design and Applications*, VIT Chennai, India, to be held during December 6-8, 2018, DOI: 10.1007/978-3-030-16657-1_38, **[Core Rank: C]**.
Sabuzima Nayak, and Ripon Patgiri

Network Motifs: A Survey, *3rd International Conference on Advances in Computing and Data Sciences*, 12-13 April 2019, Ghaziabad, India, In press.
Deepali Jain and Ripon Patgiri

In-memory Big Graph: A Future Research Agenda, *22nd International Conference on Business Information Systems*, University of Seville, Sevilla, Spain, 26–28 June 2019, pp. 18–29, DOI: 10.1007/978-3-030-20485-3_2 , **[Core Rank: B]**.
Deepali Jain and Ripon Patgiri

PassDB: A Password Database using 3D Bloom Filter, *The 21st IEEE International Conferences on High Performance Computing and Communications (HPCC'19*, Sat, 10 Aug, 2019 – Mon, 12 Aug, 2019, Zhangjiajie, China, DOI:10.1109/HPCC/SmartCity/DSS.2019.00162 , **[Core Rank: B]**.
Ripon Patgiri, Sabyuzima Nayak, and Samir Kumar Borgohain

HFil: A High Accuracy Bloom Filter, *The 21st IEEE International Conferences on High Performance Computing and Communications (HPCC'19)*, Sat, 10 Aug, 2019 – Mon, 12 Aug, 2019, Zhangjiajie, China, DOI: 10.1109/HPCC/SmartCity/DSS.2019.00300, **[Core Rank: B]**.
Ripon Patgiri

acBF: A High Accuracy Membership Filter using rDBF, *25th annual International Conference on Advanced Computing and Communications (ADCOM 2019)*, 5–7 September 2019 **[Core Rank: B]**, Accepted.
Ripon Patgiri, Sabuzima Nayak and Samir Kumar Borgohain

Is Bloom Filter a Bad Choice for Security and Privacy?, *35th IEEE 2021 International Conference on Information Networking (ICOIN)*, 13-16 Jan. 2021, Jeju Island, Korea (South), Korea (South) , DOI: 10.1109/ICOIN50884.2021.9333950, **[Core Rank: B]**.
Ripon Patgiri, Sabuzima Nayak, Naresh Babu Muppalaneni

sxKV: A Novel Secured and Bidirectional Key-Value Data Structure, *The 21st IEEE International Conferences on High Performance Computing and Communications (HPCC'20)*, 14-16 December, 2020, Fiji (Accepted), **[Core Rank: B]**.
Ripon Patgiri

Book Chapter **A Deep Dive into the Hadoop World to explore its various performances**, *Techniques and Environments for Big Data Analysis*, Volume 17 of the series Studies in Big Data pp 31-51, DOI: `http://dx.doi.oerg/10.1007/978-3-319-27520-8_3`.
Dipayan Dev and Ripon Patgiri

Supply Chain Management in Agriculture using Blockchain and IOT, *Advanced Applications of Blockchain Technology (Studies in Big Data), Springer*, 1st ed. 2020 edition, 12 September 2019, ISBN-10: 9811387745, ISBN-13: 978-9811387746 .
Malaya Dutta Borah, Vadithya Bharath Naik, Ripon Patgiri, Aditya Bhargav, Barneel Phukan, Shiva G M Basani

Big Biomedical Data Engineering, *Principles of Data Science, Springer*, Transactions on Computational Science and Computational Intelligence, ISBN-Print: 978-3-030-43980-4, DOI:10.1007/978-3-030-43981-1_3 .
Ripon Patgiri and Sabuzima Nayak

6G Communication Technology: A Vision on Intelligent Healthcare, *Health Informatics: A Computational Perspective in Healthcare*, Studies in Computational Intelligence, vol 932. Springer, Singapore., DOI: 10.1007/978-981-15-9735-0_1. .
Sabuzima Nayak and Ripon Patgiri

Editorship

Journal Editor Area Editor of EAI Transactions on Internet of Things.

Book Edited Book (multi-authored book), Ripon Patgiri, Anupam Biswas and Pinki Roy, title, "**Health Informatics: A Computational Perspective in Healthcare**", Studies in Computational Intelligence, vol. 932, Springer Book Series, DOI: 10.1007/978-981-15-9735-0.

Monograph book, Ripon Patgiri, Sabuzima Nayak, and Naresh Babu Muppalaneni, "**Bloom Filter: A Data Structure for Computer Networking, Big Data, Cloud Computing, Internet of Things, Bioinformatics and Beyond**", Elsevier.

Edited Book (multi-authored book), Anupam Biswas, Ripon Patgiri and Bhaskar Biswas, "**Principles of Social Networking: The New Horizon and Emerging Challenges**", Smart Innovation, Systems and Technologies (SIST), Springer (ongoing)

Edited Book (multi-authored book), Ripon Patgiri, Ganesh Chandra Deka, and Anupam Biswas, "**Principles of Big Graph: In-depth Insight**", Advances in Computers, Elsevier, Indexed in: SCIE, [IF:1.833], ongoing

Conference Proceedings — Editor, Ripon Patgiri, Sivaji Bandyopadhyay, Malaya Dutta Borah, Dalton Meitei Thounaojam, "**Big Data, Machine Learning, and Applications**", Communications in Computer and Information Science, Vol. 1317, DOI: 10.1007/978-3-030-62625-9

Editor, Ripon Patgiri, Sivaji Bandyopadhyay, Valentina Emilia Balas, "**Proceedings of International Conference on Big Data, Machine Learning and Applications**", Lecture Notes in Networks and Systems, Vol. 180, DOI: 10.1007/978-981-33-4788-5

Editor, Biplab Das, Ripon Patgiri, Sivaji Bandyopadhyay, andValentina Emilia Balas, "**Modeling, Simulation and Optimization**", Smart Innovation, Systems and Technologies, Vol. 206, DOI: 10.1007/978-981-15-9829-6

Professional Activities

Coordinator — **NMEICT**, Two weeks workshop on Introduction to Algorithm, 25-30 May 2015

Cloud Computing and Network (Cloud-NET 2017), 11-16 March 2017

Deep Learning Techniques & Tools: An Academic and Industrial Approach, April 8-12, 2019

Joint-coordinator — Four Days workshop on Multi Agent System and its Application in Engineering, April 01-04, 2016

Resource Person — National Workshop on Emerging Trends in Information Technology in University Management, As Workshop Resource Person, Date- 25 to 27th August, 2015, NIT Silchar. The Talks on -

Big Challenges in Big Data: A Tale of 7Vs

A Modern Weapon in Learning: Learning Management System

Quick Academic Analysis: Management Information System

General Chair — **6th International Conference of Advanced Computing, Networking and Informatics**, 04-06 June 2018, http://www.icacni.com

International Conference of Big Data, Machine learning and Applications (BigDML 2019), 16-19 December 2019, http://bigdml.nits.ac.in

Organizing Chair — **25th International Symposium on Frontiers of Research in Speech and Music (FRSM 2020)**, http://frsm2020.nits.ac.in

International Conference on Modeling, Simulations and Applications (CoMSO 2020, http://comso.nits.ac.in)

Convener — **26th annual International Conference on Advanced Computing and Communications (ADCOM 2020)**, December 16-18, 2020, http://adcom.nits.ac.in

Member

Senior Member, IEEE

Member, ACM

Life Member, ACCS

Associate Member, IETE

Member, EAI

Indexing

Google Scholar	Link: `https://scholar.google.co.in/citations?user=UqnzylwAAAAJ&hl=en`
	H-Index: 9
	I10-Index: 9
Scopus	ID: 56568309900
	Records: 31
	H-Index: 6
	Citation:121
ORCID ID	0000-0002-9899-9152
Web of Science	Researcher ID: J-4209-2019
Publons	Link: `https://publons.com/researcher/1508976/dr-ripon-patgiri/`
DBLP	Records: 34

Hobbies

○ Writing in LaTeX, Programming, Reviewing papers of journal and conferences, and Attending conferences

Declaration

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

Date: Ripon Patgiri
Place: Assistant Professor