

**Name:** Dr. Romit S Beed

**Designation:** Associate Professor

**Department:** Computer Science

**Date of Join:** 16<sup>th</sup> August, 2005

**Email:** rbeed@yahoo.com | rbeed@sxccal.edu



**Qualification:**

- M.Sc. (CS) 2003 University of Calcutta
- M.Tech. (CSE) 2005 University of Calcutta
- Ph.D. (Comp. Sc) 2021 Assam University, Silchar

**Doctoral Research Topic:** “Multi-Objective Optimization Using Computational Intelligence Techniques and its Applications”

**Teaching Experience:**

- U.G. 17 years of teaching experience.
- P.G. 17 years of teaching experience.
- Research Guidance 17 years at Master’s Level.

**Administrative Responsibilities:**

- Head of the Department, Department of Computer Science (Since July 2019)
- Deputy President, St. Xavier’s College Students’ Council (Since July 2009)
- Coordinator (Previously Prof-in-Charge), Post Graduate Department of Comp. Sc. (April 2006-June 2019)
- Coordinator, SXC -IBM ACE Programme, M.Sc(Tech) under University of Mysore for IBM employees (2007-2012)

**Member:**

- Academic Council
- Board of Studies, Computer Science
- Students’ Advisory Council
- Consultancy Cell
- Placement Cell
- College Magazine Committee
- Programme and Publication Committee
- Games and Sports Committee
- Information Resource Committee
- Disaster Management Committee
- ICT Resource Management Committee
- ISO 9001-2015 Core Committee
- Special Invitee of the Tourism Standing Committee, Bengal National Chamber of Commerce & Industry for the year 2020-2021
- SXCCAA- St. Xavier’s College Calcutta Alumni Association
- ALUMNORUM SOCIETAS – St. Xavier’s School Old Boys’ Association

**Research Interests:**

- Multi-Objective Optimization
- Computational Intelligence Techniques
- Database Management Systems
- Software Engineering

	<ul style="list-style-type: none"> <li>• IOT</li> </ul>
Research Guidance	<ul style="list-style-type: none"> <li>• Scholars enrolled for Ph.D. at present: 2</li> </ul>
Consultancy	<ul style="list-style-type: none"> <li>• Calcutta High Court Notes Online – Digitization and Search Engine Implementation for Court Proceedings, Statutes, Act etc.</li> <li>• Senco Gold and Diamond Jewellery- Providing analytical and forecasting support of their marketing and inventory management.</li> <li>• Trustee, Stepping Stone School</li> </ul>

### List of papers published in Journals

1. Romit Beed, Debapriya Ghosh, Farhana Javed Zareen, Nikita Goyal, (2009) “Signature Authentication”, Aviskaar: A Xaverian Journal of Research, ISSN (Print): 2277-8411 ISSN(Online): 2278-1048, vol 1.
2. Romit S Beed, Sayan Chakraborty, Swati Ganguli, (2011) “Content Based Image Retrieval System”, Aviskaar: A Xaverian Journal of Research, Vol III.
3. Romit S Beed, Rana Biswas, Sneha Mitra, Sohini Saha & Sagnik Sinha, (2012) “Alternative Keyboard Based on Infrared Technology”, Undergraduate Academic Research Journal (UARJ), ISSN: 2278 – 1129, vol. 1, issue 1.
4. Enakshi Mukhopadhyay, Priyanka Mazumder, Saberi Goswami, Romit S Beed, (2014) “An Efficient Automated English to Bengali Script Conversion Mechanism”, International Journal of Advanced Computer Research, Volume-4, Number-2 Issue-15. [(ISSN (print): 2249-7277 ISSN (online): 2277-7970)]
5. Rana Biswas, Spandan Ray Chaudhuri, Nandini Barman, Romit S Beed, (2014) “Solar-Powered GSM Based Multipurpose Alert System”, American Journal of Advanced Computing, vol. 1, no. 2, pp: 36-44. [ISSN: 2368-1209]
6. Biswarup Nandi, Souvik Sur, Upasana Roy Chowdhury, Romit Beed, (2015) “Drishti – Automated Machine Interface”, International Journal of Computer Architecture and Mobility, Volume 3 -Issue 4. (ISSN 2319-9229)
7. Rana Biswas, Romit S. Beed, Dibyabiva Seth, Proyag Pal, Kaustav Basu, Triparna Mukherjee, (2015) Traffic Rule Violation Information System TRuVIS, International Journal of Advanced Research in Computer Science and Software Engineering, Volume 5, Issue 7. ISSN: 2277 128X
8. Rana Biswas, Romit Beed, Ankita Bhaumik, Shamik Chakrabarty, Raghav Toshniwal, (2015) “Solar-Powered Automated Plant/Crop Watering System”, International Journal of Advanced Engineering and Global Technology, Vol-03, Issue-01. [ISSN No: 2309-4893]
9. Romit S Beed, Ankita Kedia, (2018) A Dynamic School Bus Routing System, Aviskaar: A Xaverian Journal of Research Vol X.
10. Beed R, Roy A, Sarkar S, Bhattacharya D. (2020) A hybrid multi-objective tour route optimization algorithm based on particle swarm optimization and artificial bee colony optimization, Computational Intelligence, Volume36, Issue3, 884-909. <https://doi.org/10.1111/coin.12276>

11. Romit S. Beed, Ankita Sarkar, Raya Sinha, Deboshruti Dasgupta (2020) A Study of the Effect of the Parameters for Optimizing Profit Using Simulated Annealing to Solve Shelf Space Allocation Problem, *Azerbaijan Journal of High Performance Computing*, 2020, Vol 3, Issue 2, , pp. 255-268 <https://doi.org/10.32010/26166127.2020.3.2.255.268>
12. Beed, R.S., Sarkar, S. & Roy, A. (2021) Bayesian hierarchical multi-objective optimization for vehicle parking route discovery. *Innovations in Systems and Software Engineering* 17, 109–120. <https://doi.org/10.1007/s11334-020-00373-4>
13. Beed, R.S., Sarkar, S. Roy, A., Biswas S.D., Biswas S, (2021) Hybrid Multi-Objective Carpool Route Optimization Technique using Genetic Algorithm and A\* Algorithm, *Computer Research and Modeling*, vol. 13, no. 1, pp. 67–85 (Russian).
14. Beed, R.S., Sarkar, S. & Roy, A. (2021) Hierarchical Bayesian Approach for Improving Weights for Solving Multi-Objective Route Optimization Problem", *International Journal of Information Technology*, 13, 1331–1341 <https://doi.org/10.1007/s41870-021-00643-9>

### List of papers published in Conference Proceedings

1. Romit S Beed, Atrayee Chatterjee, Debasis Pallya and Debodita Roy Chowdhury, (2012) “Colour Spiral Encoding Technique”, in Proceedings of National Conference on Research And Higher Education In Computer Science And Information Technology, RHECSIT – 2012 (Sponsored by U.G.C.), Kolkata, India.
2. Jayati Ghosh Dastidar, Sonali Sen, Romit S Beed, Ananya Chatterjee, “A Study on the Feasibility of E-Learning in the Field of Higher Education”, in Proceedings of UGC sponsored seminar on ICT in Higher Education - Opportunities and Challenges in the 21st Century, Kolkata, India, 2012. [ISBN: 978-81-924140- 0-3]
3. Romit S Beed, Nandini Barman, Spandan Ray Chaudhuri, Rana Biswas, "GSM based Multi-purpose Alert System", in Proceedings of IEMCON2014 Conference on Electronics Engineering and Computer Science, Elsevier, Kolkata, India, August 2014. [ISBN 978-93-5107-248-5.]
4. S. Chatterjee, P.G. Jose, P. Basak, A. Athar, B. Aravind, R.S. Beed & R. Biswas, “Microcontroller based automated life savior—Medisur,” in Proceedings of the International Conference on Computational Science and Engineering, CRC Press, Kolkata, India, 2016. [ISBN 9781138029835 - CAT# K30152]
5. R. S. Beed, S. Sarkar, A. Roy, “Cash to Cashless Economy: A study on the role of Information Technology” in Proceedings of ICSSR Sponsored National Seminar on Transition to Cashless Economy, Priorities, opportunities & the Modes and Options organized by Jawaharlal Nehru School of Management Studies, Assam University, Silchar, Sept, 2017.
6. R. S. Beed and S. Sarkar, "A study on the use of information and communication technology in tourism," *IEEE, 2017 International Conference on Advances in Computing, Communications and Informatics (ICACCI)*, Udipi, 2017, pp. 1737-1744. doi: 10.1109/ICACCI.2017.8126095

7. R. S. Beed, S. Sarkar, A. Roy and S. Chatterjee, "A Study of the Genetic Algorithm Parameters for Solving Multi-objective Travelling Salesman Problem," in IEEE, *2017 International Conference on Information Technology (ICIT)*, Bhubaneswar, 2017, pp. 23-29. doi: 10.1109/ICIT.2017.49

### **Book Chapter**

1. Sunita Sarkar, Arindam Roy, Romit S Beed, (2019) From Cash to A Cashless Economy- Need for Digital Competence for a Digital India In: Debomalya Ghose, Juthika Konwar, Nilanjana Chakrabarty (eds.) *Cashless Economy*, Mittal Publication.. ISBN-10: 8183249353, ISBN-13: 978-8183249355

2. Romit S. Beed, Sunita Sarkar, Arindam Roy, Durba Bhattacharya, (2020) Hierarchical Multi-objective Route Optimization for Solving Carpooling Problem; In: Mandal J., Mukhopadhyay S. (eds) *Proceedings of the Global AI Congress 2019*, Springer Singapore - *Advances in Intelligent Systems and Computing*, vol. 1112, eBook ISBN 978-981-15-2188-1, DOI 10.1007/978-981-15-2188-1

3. Sunita Sarkar, Romit Beed & Arindam Roy (2020) Role of Information and Communication Technology in Sustainable Tourism in North East India; In: Debarshi Mukherjee, Mahasweta Saha (eds) *Purvottaran - The Rise of North East: Paradigms of Development in the VUCA World*, Bloomsbury Prime, (1<sup>st</sup> Ed.), ISBN 9789390513017

4. Beed R.S., Biswas S, Sarkar S., Roy A. (2021), *Carpooling as a Go Green Solution for Environmental Sustainability, Go Green for Environmental Sustainability: An Interdisciplinary Exploration of Theory and Applications* (1st ed.). Ed. Savarimuthu, X., Rao, U., & Reynolds, M.F. CRC Press. <https://doi.org/10.1201/9781003055020>

### **Papers presented in Seminars and Conferences**

1. Romit S Beed, Nandini Barman, Spandan Ray Chaudhuri, Rana Biswas, "GSM based Multi-purpose Alert System", in 1st International Science and Technology Congress IEMCONGRESS 2014, Kolkata, India, 28-30 August 2014

2. Sunita Sarkar, Arindam Roy, Romit S Beed, "Cash to Cashless Economy: A study on the role of Information Technology"; in ICSSR Sponsored National Seminar on Transition to Cashless Economy, Priorities, Opportunities & the Modes and Options organized by Jawaharlal Nehru School of Management Studies, Assam University, Silchar, 8<sup>th</sup> to 10<sup>th</sup> Sept, 2017.

3. Romit S Beed, Sunita Sarkar, "A Study on the Use of Information and Communication Technology in Tourism"; in 6<sup>th</sup> International Conference on Advances in Computing, Communications and Informatics (ICACCI), Manipal University, 13-16 Sept 2017.

4. Romit S Beed, Sunita Sarkar, Arindam Roy, Shubham Chatterjee "A Study of the Genetic Algorithm Parameters for Solving Multi-Objective Travelling Salesman Problem"; in 16<sup>th</sup> International Conference of Information Technology (ICIT 2017), Bhubaneswar, 21<sup>st</sup> to 23<sup>rd</sup> Dec, 2017.

5. Romit S Beed, Arindam Roy, Sunita Sarkar, Durba Bhattacharya, "Hierarchical Multi-Objective Route Optimization for Solving Car-Pooling Problem," in *Global AI Congress 2019*, IEM: IC 59.

6. Sunita Sarkar, Romit Beed & Arindam Roy, "Role of Information and Communication Technology in Sustainable Tourism in North East India" in 1<sup>st</sup> International Conference on Business Management (ICBM 2020), Department of Business Management, Tripura University, 27-29 February, 2020.

7. Beed R.S., Biswas S, Sarkar S., Roy A. "A Study on Heuristic Shortest Path A\* Algorithm and its Applications in Smart Route Planning"; in International Conference on Computational Intelligence, Data Science and Cloud Computing 2020, Institute of Engineering & Management, 25-27 September 2020, Kolkata.

8. Romit S. Beed, Ankita Sarkar, Raya Sinha, Deboshruti Dasgupta, "A study of the effect of the parameters for optimizing profit using Simulated Annealing to solve shelf space allocation problem", International Workshop on High Performance Computing Application AAHiPC 2020, 17th and 18th November, 2020, Online.

9. Sangita Bose, Romit S Beed, A Smart Farming Production Approach Using Drones and IoT after COVID -19 Pandemic, Fourth International Conference on Computational Intelligence in Communications and Business Analytics, Assam University, Silchar, 7-8 January 2022, Online

### **Lectures delivered as Resource Person**

1. Online Special Lecture titled Distributed Database Management System organized by Department of Computer Science, Mrinalini Dutta Mahavidyapith on 7.9.21

2. Distinguished Resource Person for Two-day Foundation Course, Department of Education, St. Xavier's College (Autonomous), Kolkata on Thursday 03.03.2022.

### **Session Chair**

1. Session Chair in the 7th International Conference on Emerging Applications of Information Technology (EAIT 2022) organised by CSI Kolkata Chapter held in hybrid mode from 29th March, 2022 to 31st March 2022