Resume

Name: Dr. Indrajit Bhattacharya

## **Name :** Indrajit Bhattacharya. C:\Users\USER\Desktop\Bhattacharya_Indrajit.jpg

## **Sex** : Male.

**Parmanent Address**: Swabhumi Heights, Block III, N 3, 88 Dumdum Road, Kol-74

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**Date of Birth** : 5th December, 1976.

**Academic Qualifications** :

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| **Examinatioin** | **Year of Passing** | **Board/**  **University** | **School / College** | **Class/**  **Division** | **Percentage of Marks** |
| Ph.D. (Engg.) | 2014 | Jadavpur University | ---- | ---- | Thesis Title: Real Time Identification and Tracking of Tagged Objects in RFID Systems. |
| M.Tech  [computer science & Engg.] | 2002 | University of  Calcutta | University College of Science & Technology, Calcutta | Ist | 80.1% |
| M.SC.  [ Computer &  Information  Science ] | 2000 | University of Calcutta | University College of Science & Technology, Calcutta | Ist. | 74.5% |
| B.SC  [Hons. In  Computer  Science.] | 1998 | University of Calcutta. | A.P.C College.  [New Barrackpore.] | Ist | 68.9% |
| Higher  Secondary. | 1995 | W.B.C.H.S.E | Barrackpore Govt. High School. | Ist | 67.5% |
| Madhyamik | 1993 | W.B.B.S.E | Rahara R.K.M Boys’ Home. | Ist | 78.77% |

**Working Experience:**

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| **Name of the Organization** | **Designation** | **Years of Experience** |
| MCKV Institute of Engineering, Liluah, Howrah, West Bengal, India | Lecturer | 5 years |
| Future Institute of Engineering & Management, Sonarpur, Kolkata, India | Senior Lecturer | 1 year |
| Kalyani Government Engineering College, Kalyani, Nadia, India | Assistant Professor | 14 years and continuing till date |

**Research Area:** Mobile Adhoc Network, Wireless Sensor Network, Delay Tolerant Networks,

RFID Systems, Social Network Data Analytics.

**Academic Activities**

* Participated in a Short Term course on “Formal Language and Automata Theory” from 16th to 20th October, 2006 July at Bengal Engineering and Science University, Shibpur, West Bengal.
* Participated in a Quality Improvement Program (Short Term Course) from 4th to 8th July, 2006 July at IIT Guwahati in Department of computer Science & Engineering.
* Participated in an UGC SPONSORED REFRESHER COURSE in the subject ‘Theoretical Aspects of Computer Science’ from 11th JAN ’07 to 2nd FEB ’07 at CSE Dept, Jadavpur University, Kolkata, India.
* Participated in an UGC SPONSORED REFRESHER COURSE in the subject ‘Computer Applications’ from 8th JAN ’08 to 28th JAN ’08 at CSE Dept, University of Kalyani.
* Participated in a TEQIP SPONSORED Course in ‘Wireless Networking’ from 17th July to 19th July 2012 at CSE/IT  
  Dept., HIT, Kolkata.
* Participated in a Workshop sponsored by IIT Bombay, in ‘Aakash for Education’ from 10th November to 19th November, 2012 at Kalyani Govt. Engg. College, Kalyani.
* Participated in a Workshop sponsored by UGC, in ‘Computational Methodologies and Applications’ from 22nd April to 23rd April, 2013 at University of Kalyani.
* Participated in a Workshop sponsored by IIT Bombay, in ‘Database Management Systems’ from 21st May to 31st May, 2013 at Kalyani Govt. Engg. College, Kalyani.
* Participated in an FDP sponsored by AICE, in ‘Soft Computing Approach in Cryptography’ from 17th June to 28th June, 2013 in Kalyani Govt. Engg. College, Kalyani.

**List of Publications & Research Project:**

**International Journals:**

1. I. Bhattacharya, U. K. Roy “Performance Analysis of Anti Collision Algorithms for Tracking Objects Containing Passive RFID Tags” in International Journal of Information Technology and Knowledge Management, July-December 2009, Volume 2, No. 2 pp 425-429.
2. I. Bhattacharya, U. K. Roy “Optimal Placement of Readers in an RFID Network using Particle Swarm Optimization” in International Journal of Computer Networks & Communications(IJCNC), November 2010, volume 2, Number 6 pp. 225-234.
3. I. Bhattacharya, K Das Sharma, U. K. Roy “Tracking and Monitoring of Tagged Objects employing Particle Swarm Optimization Algorithm in a Departmental Store”, in IIUM Engineering Journal, Malaysia, volume 12, Number 1, 2011 pp. 1-11.
4. I. Bhattacharya, A.K.Gupta, U.K.Roy “XRFID: Design of an XML Based Efficient Middleware for RFID Systems” in International Journal of RFID and Wireless Sensor Networks, volume 1 number 1, 2011 pp. 44-52.
5. N. Das and I. Bhattacharya, “Bit Shuffling Query Tree Algorithm for Secure Communication in RFID Networks” in International Journal Of Computer Applications, volume 49, Number 10, July 2012.
6. I. Bhattacharya, A. K. Patra and D. Banerjee, “Modified Epidemic Routing with Redundant Message Elimination in Delay Tolerant Network” in International Journal of Information Engineering, vol. 3, no. 3, Sep 2013, pp. 84-90.
7. I. Bhattacharya, P. Sarkar and P. Basu, “RBNS Encoded Energy Efficient Routing Protocol for Wireless Sensor Network” in International Journal of Information Technology and Computer Science, vol. 6, no. 5, 2014, pp. 65-71.
8. Gupta, A.K., Bhattacharya, I., Banerjee, P.S., Mandal, J.K. and Mukherjee, A., 2016. DirMove: direction of movement based routing in DTN architecture for post-disaster scenario. Wireless Networks, 22(3), pp.723-740.
9. Gupta, A.K., Mandal, J.K. and Bhattacharya, I., 2017. Mitigating selfish, blackhole and wormhole attacks in DTN in a secure, cooperative way. International Journal of Information and Computer Security, 9(1-2), pp.130-155.
10. Mondal T, Bhattacharya I, Pramanik P, Boral N, Roy J, Saha S, Saha S. A multi-criteria evaluation approach in navigation technique for micro-jet for damage & need assessment in disaster response scenarios. Knowledge-Based Systems. 2018 Dec 15;162:220-37.
11. Mondal, T., Pramanik, P., Bhattacharya, I., Boral, N. and Ghosh, S., 2018, Analysis and Early Detection of Rumors in a Post Disaster Scenario. Information Systems Frontiers, 2018 Oct, pp.1-19.
12. Gupta, A.K., Mandal, J.K., Bhattacharya, I., Mondal, T. and Shaw, S.S., 2018. CTMR-collaborative time-stamp based multicast routing for delay tolerant networks in post disaster scenario. Peer-to-Peer Networking and Applications, 11(1), pp.162-180.
13. Mondal, T., Boral, N., Bhattacharya, I., Das, J. and Pramanik, P., Distribution of deficient resources in disaster response situation using particle swarm optimization. International Journal of Disaster Risk Reduction, Elsevier, Vol. 41. Dec 2019,pp. 101308
14. [Sadhukhan](https://link.springer.com/article/10.1007/s11334-022-00516-9#auth-Mrinmoy-Sadhukhan), M., [Bhattacherjee](https://link.springer.com/article/10.1007/s11334-022-00516-9" \l "auth-Pramita-Bhattacherjee), P.,   [Mondal](https://link.springer.com/article/10.1007/s11334-022-00516-9#auth-Tamal-Mondal), T.,  [Dasgupta](https://link.springer.com/article/10.1007/s11334-022-00516-9#auth-Sudakshina-Dasgupta), S,. &  [Bhattacharya](https://link.springer.com/article/10.1007/s11334-022-00516-9#auth-Indrajit-Bhattacharya), I.  Opinion classification at subtopic level from COVID vaccination-related tweets. Innovations in Systems and Software Engineering, Dec 2022, pp. 1-12

[<https://scholar.google.co.in/citations?hl=en&view_op=list_works&gmla=AJsN-F4gPu3jSZSVMcczjKuqoNV4j9DsbJ9fihFd3G0fztIakE12kNY5MgPNjzbUVArsAq_Z1SidN-DZfBCy9hVJ_eR90wxS026Igir3ej4cEk_WIAsPRcA&user=JFl9ksoAAAAJ>]

**International Conferences:**

1. I.Bhattacharya and S.Dasgupta, “Tacking Objects Containing Passive RFID tags and Performance Analysis using NS-Simulator” in Proc. Of International Conf. INTL-Infotech in 2007 at HIT, West Bengal, India during 19-21 March, 2007.
2. I.Bhattacharya and S.Dasgupta, “Load Balancing in RFID systems containing passive Tags & implementation of LPA algorithm using NS-simulator” in Proc. Of International Conf. ICACCT 2007 at APIIT, India during 3-4 November, 2007.
3. S.Dasgupta and I.Bhattacharya “Implementation of Mesh Topology on Zigbee based Wireless Personal Area Network using NS-2 network Simulator“ in Proc. Of International Conference CTEE-08 at GZS College of Engineering at Bathinda ,Punjub, India on 14th February, 2008.
4. S.Dasgupta, I.Bhattacharya and G.Bose “Energy-Aware Cluster based Node Scheduling algorithm in Wireless Sensor Network for Preserving Maximum Network Life Time “in Proc. Of International Conference ICM2CS 2009, during 14-15 December, 2009 at JNU ,New Delhi, cited in IEEE xplore.
5. I.Bhattacharya and S.Samanta “Parameter Selection and Performance Study in Particle Swarm Optimization” in ICMOS 2010 at NIT Durgapur, included in AIP Conference Proceedings ,Volume 1298, pp. 564-570.
6. I. Bhattacharya, S. Ghosh and S. Kundu “Maximizing Lifetime of Wireless Sensor Network through Extended LEACH Algorithm” in the proceeding Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering (LNICST), Springer 2011 in connection with AUC 2011.
7. I. Bhattacharya et al. “Offline Signature Verification Using Pixel Matching Technique” in Proc. of International Conference on Computational Intelligence: Modeling Techniques and Applications, Sep. 27-28, 2013 at University of Kalyani.
8. I. Bhattacharya et al. “ZMEED: A Zone Based Enhanced Hybrid Routing Protocol for Delay Tolerant Network” in Proc. of International Conference CONFLUENCE 2013, Sep. 26-27, 2013 at Amity University, Noida, India.
9. Mondal, T., Roy, J., Bhattacharya, I., Chakraborty, S., Saha, A. and Saha, S., 2016, October. Smart navigation and dynamic path planning of a micro-jet in a post disaster scenario. In Proceedings of the Second ACM SIGSPATIAL International Workshop on the Use of GIS in Emergency Management (p. 14). ACM.
10. Paul, P.S., Ghosh, B.C., De, K., Saha, S., Nandi, S., Saha, S., Bhattacharya, I. and Chakraborty, S., 2016, January. On design and implementation of a scalable and reliable Sync system for delay tolerant challenged networks. In Communication Systems and Networks (COMSNETS), 2016 8th International Conference on (pp. 1-8). IEEE.
11. Mondal, T., Pramanik, P., Bhattacharya, I., Saha, A. and Boral, N., 2017, March. Towards development of FOPL based tweet summarization technique in a post disaster scenario: From survey to solution. In Information Sciences and Systems (CISS), 2017 51st Annual Conference on (pp. 1-6). IEEE.
12. Gupta, A.K., Mandal, J.K. and Bhattacharya, I., 2019. Comparative Performance Analysis of DTN Routing Protocols in Multiple Post-disaster Situations. In Contemporary Advances in Innovative and Applicable Information Technology (pp. 199-209). Springer, Singapore.
13. Mondal, T., Roy, T., Bhattacharya, I., Bhattacharya, S. and Das, I., 2019, January. A study on rumor propagation trends and features in a post disaster situation. In Proceedings of the 20th International Conference on Distributed Computing and Networking (pp. 381-384). ACM.

**National Conferences:**

1. I.Bhattacharya, S.Dasgupta “Anti-collision algorithm for tacking objects containing passive RFID tags and implementation issues in NS-Simulator” in Proc. Of National Conf. SCTII-2007 at NIT Rourkela, India during 3-4 February, 2007.
2. I.Bhattacharya, J.Pal Chowdhury “Effect of Localized Clustering Algorithm in Optimal Placement of RFID Reader in RFID network” in Proc. Of International Conf. CSI-RDHS, 2008 at science city, Kolkata during June 20-21, 2008.

**Research Project:**

1. Awarded an ITRA Collaborative research project titled “Post-Disaster Situation Analysis and Resourse Management Using Delay-Tolerant Peer-to-Peer Wireless Networks (DiSARM)” (<http://cse.iitkgp.ac.in/resgrp/cnerg/disaster_dtn/index.html>) funded by Media Lab Asia, Department of IT, Government of India. Fund Amount: 45 Lakhs
2. Acted as Co-PI in “Developing ICT based kiosks for Post disaster situational information management using opportunistic networking framework” funded by WB DST from 24.03.18 fund amount 14.96 L.

**Workshop/Seminar Organized**

* Organized a Workshop on “Trends in GIS, Image Processing & GPS” during June 27th to July 1st , 2008 at Kalyani Govt. Engineering College.
* Organized a One day Awareness Program on “GIS and GPS” on 17th January, 2009 under Community Development Scheme at Kalyani Govt. Engineering College.
* Organized an AICTE Sponsored Staff Development Program on “Introduction to Theory & Practice of GPS & GIS during June 22nd to 3rd July, 2009 at Kalyani Govt. Engineering College.
* Organised One day seminar on National Education Policy (NEP) Jointly with IQAC Cell, KGEC on 26th June, 2021 at KGEC, Kalyani, WB.
* Attended One week STT on ‘Machine Learning with Python’ organised by NITTTR Kolkata from 17th May to 21st May, 2021
* Participated in a one day seminar on “The Trinity of Academic Writing: References, citations, Integrity” on 23rd September 2022 at KGEC.
* Participated in the 2021 IEEE summer school CAMOO held from 16th Sep to 18th Sep 2021 organised by Department of Computer and System Sciences Viswa Bharari University and IEEE CIS Kolkata.

**Other Achievements**

* Reviewer of the Journal IEEE Transactions on Industrial Informatics.
* Editorial board member of International Journal of Information Technology Convergence and Services.
* Editorial board member of Advanced Computing: A International Journal.
* Program Committee member of International Conference on Intelligent Infrastructure, Dec 1-2, 2012, organized by CSI Kolkata Chapter,
* Program Committee member of International Conference on Information Technology and Services, OCT 26-28, 2012.
* Program Committee member of International Workshop on Computer Networks & Communications, OCT 26-28, 2012.
* Program Committee member of International Conference of Computational Intelligence: Modeling Techniques and Applications (CIMTA 2013), September 27-28, 2013.
* Program Committee member INDIA 2015.
* Presently acting as a member of Board of Undergraduate Studied in Computer Science of University of Kalyani.
* Presently acting as a member of Board of Undergraduate Studied in Computer Science of University of Gour Banga.
* Attached with AKCSIT, University of Calcutta as a Guest Lecturer.
* Attached with department of Computer Science & Engineering, University of Kalyani as a Guest Lecturer.
* Delivered lecturer in Teacher Training Program on “Open Source Operating System Handling with Office Tools” organized by department of CSE, University of Kalyani in collaboration with Ministry of IT, West Bengal in July 2011.
* Delivered lecture in 93rd and 94th Orientation Program organized by UGC-ACADEMIC Staff College, University of Calcutta on the topic “Introduction to IT” on 13th Feb, 2012.
* Acted as Paper Setter, Examiner and Moderator in Computer Science for B.Sc. (Hons. & Pass) and in Computer Applications for General Degree Colleges under University of Calcutta and University of Kalyani.
* Acted as Paper Setter, Examiner and Moderator in Computer Science for M.Sc. and MCA program under Vidyasagar University and Burdhawan University.
* Member of ACM and CSI, Kolkata Chapter.
* Delivered lectures in different FDP and Student Orientation Program at MCKV, Dirozio college, New Alipur College and Asansol Engineering Colleges in Kolkata and around.
* Acted as session chair in an International Workshop SoCIeTY 2000 on 4th January 2020
* Acted as a Session Judge in International Conference/ IETE Zonal Seminar/Student Convention on IOTWR 2020 on 27th June 2020
* Delivered an expert talk on “Use if Tweets for situational data analysis in a Post Disaster Scenario” at UEM Kolkata on 18th Oct, 2019
* Presented a paper titled “A Multi – Layer content filtration approach on textual data for periodic report generation in a post disaster scenario” in COMSYS 2020 between Jan 13-15, 2020
* Acted as session chair in one day conference ACCEP 2019 at Ramakrishna Vidyamandir, Belur, Howrah on 18th January 2019
* Presented a paper titled “Sensor node assisted DTN for a post disaster scenario” in 20th International conference ICDCN 2019 at IISC Bangalore between 4-7th Jan, 2019
* Participated in a one week FDP on “Development of IOT and its applications”, at IIEST Shibpur, Howrah between 17th and 21st June, 2019.
* Chaired a technical session on ISACS 2021 held on 2nd and 3rd April, 2021 at GNIT, Kolkata, WB.
* Delivered an expert lecture on “Routing in DTN-Issues and challenges” in a FDP at Amity University Kolkata between 1st Aug to 5th August, 2022

**Total number of Master’s Thesis Guided: 30**

Some of the Thesis Topics

1. ”Devoloping an Efficient Middleware Software for RFID systems” by Amit Kumar Gupta. M.Tech in Information Technology, AKCSIT, WB during July 2009-July 2010.
2. “Genetic Algorithm Based Cluster Head Selection algorithm for Wireless Sensor Network” by Asim Panda, M.Tech in Information Technology, AKCSIT, during July 2010-July 2011.
3. “Parameter Selection and Performance Study in Particle Swarm Optimization” by Shukla Samanta, M.Tech in Information Technology, AKCSIT,during July 2009-July 2010.
4. “An Efficient Node Scheduling Scheme For Large Scale Wireless Sensor Network” by Gourav Bose, M.Tech in Information Technology, AKCSIT, during July 2008-July 2009.
5. “Performance Analysis of Different Routing Protocols in Mobile –ad-hoc Network” by Soumen Podder , M.Tech in Information Technology, AKCSIT, during July 2008-July 2009.

**Total Number of PhD student Guided (completed): 02**

1. Mr. Amit Kumar Gupta awarded his PhD degree from University of Kalyani, WB on27.11.2020 and his thesis title was “Efficient and Secure Routing in a DTN for a Post Disaster Scenario”.
2. Mr. Tamal Mandal awarded his PhD degree from NIT Durgapur, WB on 03.12.2020 and his thesis title was “Design of Effective Data Mining Techniques for various sources of situational data in Disaster response scenarios”.

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**Date: 14/12/2022 Indrajit Bhattacharya**