

# **BABUL PRASAD TEWARI**

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## **Education:**

- I. **Ph. D [Tech]** in Computer Science and Engineering  
(12<sup>th</sup> March, 2019, Date of Award)  
Research work done at A.C.M.U, **Indian Statistical Institute, Kolkata, awarded  
By the University of Calcutta, Kolkata, March 2019.**
- II. **Master of Technology (M. Tech)** in Computer Science and Engineering, University of Kalyani ,  
W. B, India, 81.4%, First Class, 2003-2005.
- III. **Bachelor of Engineering (B.E.)** in Information Technology, University of Burdwan (NIRF 89), W.  
B, India, 78.4%, First class (Hons.), 1999-2003.
- IV. **Higher Secondary, 74.3%**, West Bengal Council of Higher Secondary Education, 1998.
- V. **Secondary, 75.8%**, West Bengal Board of Secondary Education, 1996.

## **Thesis Title (Ph. D):**

Efficient Frequency Assignment and Association Control in IEEE 802.11 WLAN.

## **Thesis Advisor:**

Dr. Sasthi C. Ghosh, Associate Professor, Advanced Computing and Micro Electronics Unit, Indian Statistical  
Institute, Kolkata.

## **Research Interests: (Major: Computer Communication)**

1. Wireless Networks.
2. Mobile Computing
3. Wireless Local Area Network.
4. 5G Network and Device to Device (D2D) Communications.
5. Handoff Management.

## **Current Position:**

Assistant Professor, Department of CSE, Indian Institute of Information Technology,  
Bhagalpur, Bihar, India, Sept. 2020 till date.

## **Ph. D students:**

Biplab K. Mandal, Enrolled in CSE Department, IIIT Bhagalpur, 2021.  
Nirmalya Mukhopadhyay, Enrolled in CSE Department, IIIT Bhagalpur, 2021.

## **Professional Services:**

- **Reviewer** Springer Nature, J. of Ambient Intel. and Humanized Computing (SCIE Journal).
- **Reviewer** Springer Nature, Wireless Pers. Communications. (SCIE Journal).
- **Reviewer** IEEE Access (SCIE Journal).

- **Reviewer** Int. Conference of Advanced Network Technologies and Intelligent Computing (Antic 2021).
- **Reviewer** 6<sup>th</sup> Int. Conference on Soft Computing: Theories and Applications (SOCTA 2021).
- **Reviewer** 4<sup>th</sup> Int. Conference on Machine Intelligence and Signal Processing (MISP 2022).
- **Session Chair** 6<sup>th</sup> Int. Conference on Soft Computing: Theories and Applications (SOCTA 2021).
- **TPC Member** 4<sup>th</sup> Int. Conference on Machine Intelligence and Signal Processing (MISP 2022).

## Research Publications (18)

### International Journals: (all dblp listed and available online)

1. **Babul P. Tewari** and Sasthi C Ghosh, “Wi-Fi Assisted 5G Device-to-Device Communications in Unlicensed Spectrum”, **Springer Nature**, *J. of Ambient Intelligence and Humanized Computing*, *Accepted and available online*, pp. 1-20, **2021. (IF 7.2)**
2. **Babul P. Tewari** and Sasthi C Ghosh, “Efficient AP Placement through Power Control and POC Assignment in 802.11 WLAN”, **Springer Nature**, *Wireless Personal Communications*, **Vol. 110**, No. 1, pp. 223-244, **Jan. 2020** (First online Aug. 2019), [DOI: <https://doi.org/10.1007/s11277-019-06723-1>] **(IF 1.5)**
3. **Babul P. Tewari** and Sasthi C. Ghosh “Joint Frequency Assignment and Association Control to Maximize the Aggregate Throughput in IEEE 802.11 WLAN”, **Springer Nature**, *Wireless Personal Communications*, **Vol. 94**, No. 3, pp. 1193-1221, [DOI: [10.1007/s11277-016-3677-y](https://doi.org/10.1007/s11277-016-3677-y)], **2017. (IF 1.5)**
4. **Babul P. Tewari** and Sasthi C. Ghosh “Interference Aware Frequency Assignment and Association Control for Uplink and Downlink Traffic in WLAN”, **Inderscience**, *Int. J. of Communication Networks and Distributed Systems*, Vol 23, No. 2, pp. 143-171, [DOI: [10.1504/IJCND.2019.10021599](https://doi.org/10.1504/IJCND.2019.10021599)], **2019.**

### Book Chapters

5. Shankar K.. Ghosh and **Babul P. Tewari** “Performance analysis of distributed mobility protocol for multi-hop IoT networks”, Book Series Industrial Internet of Things: Technologies and Research Directions CRC Press, **ATaylor and Francis group**, pp. 243-253, **2021.**
6. **Babul P. Tewari** and Shankar K. Ghosh “A Comprehensive Analysis of Bandwidth Management in 6G: sharing, reuse or introducing new bandwidth, Book Series *New Horizons in Millimeter-Wave, Infrared and Terahertz Technologies*, **Springer**, *Accepted for publication*, **2022.**
7. Nirmalya Mukhopadhyay, **Babul P. Tewari**, Dillip Kumar Choubey, Abhijeet Bhowmick. “Efficient Resource Allocation in Virtualized Cloud Platforms using Encapsulated Virtualization based Ant Colony Optimization (EVACO)”, Applications of Artificial Intelligence & Machine Learning in Digital Rights & Multimedia Security **Springer Nature Book Series** (AML-2022-020).

8. Dillip Kumar Choubey, Pragati Dubey, **Babul P. Tewari**, Mukesh Ojha and Jitendra Kumar Prediction of Liver Disease Using Soft Computing and Data Science Approaches/(AML-2022-021)” has been submitted to the upcoming Book Chapter titled as, Applications of Artificial Intelligence & Machine Learning in Digital Rights & Multimedia Security, **Springer Nature Book Series** (AML-2022-021).

### **International Conferences : (all dblp listed and available online)**

9. **Babul P. Tewari** and Sasthi C Ghosh, “Inter-AP Communication Protocol based Frequency Assignment in IEEE 802.11 WLAN”, *13<sup>th</sup> International Conference on COMMunication Systems & NETWORKS (COMSNET)*, Bengaluru, India, pp. 193-196, Jan. 5-9, 2021.
10. Biplab K. Mandal and **Babul P. Tewari**, “Interference Aware Handoff Through Dynamic Channel Switching in High Speed 802.11ac WLAN” *2021 19<sup>th</sup> OITS IEEE International Conference on Information Technology (OCIT), SIT Odisha*, pp. 358-363, 2021.
11. Nirmalya Mukhopadhyay and **Babul P. Tewari**, “Efficient IaC-based Resource Allocation for Virtualized Cloud Platforms”, *2021 International Conference on Advanced Network Technologies and Intelligent Computing (ANTIC-2021, CCIS, Springer Nature)*, Communications in Computer and Information Science, vol 1534. Springer, pp. 200-214 **2021**.
12. Samiran Gupta and **Babul P. Tewari**, “An Efficient CoD Management using Semaphore in On Retail System”, Submitted to 4<sup>th</sup> Int. Conference on Computational Intelligence and Business Analytics (CICBA 2022, *CCIS, Springer Nature*), Assam University, *Accepted for publication and to appear, 2021*.
13. **Babul P. Tewari** and Biplab K. Mondal, “Efficient 802.11 Handoff through Load Aware Channel Probing in IEEE 802.11 WLAN”, *12<sup>th</sup> IEEE International Conference on Advanced Networking and Telecommunication Systems (IEEE ANTS)*, DOI: 10.1109/ANTS.2018.8710151, 16<sup>th</sup> – 19<sup>th</sup> Dec. pp. 1-6, **2018**.
14. **Babul P. Tewari** and Sasthi C. Ghosh “Combined Power Control and Partially Overlapping Channel Assignment for Interference Mitigation in Dense WLAN”, *Proc. Of the 31<sup>st</sup> IEEE International Conference on Advanced Information Networking and Applications*, Taiwan, (**IEEE AINA**), DOI: 10.1109/AINA.2017.68, pp. 646-653, **2017**.
15. **Babul P. Tewari** and Sasthi C. Ghosh “Efficient Bonded Channel Assignment in IEEE 802.11 WLAN with Heterogeneous Clients”, *Proc. of the 13th ACM International Conference on Advances in Mobile Computing & Multimedia, Belgium, (MoMM 2015)* ISBN: 978-1-4503- 3493-8, doi: 10.1145/2837126.2837151, pp. 203-210, 2015.

**16. Babul P. Tewari** and Sasthi C. Ghosh "Interference Avoidance Through Frequency Assignment and Association Control in IEEE 802.11 WLAN", *Proc. of the 13th IEEE International Symposium on Network and Computing Application*, Chembridge, USA, Aug, [IEEE NCA], ISBN 978-1-4799-5392-9, doi: 10.1109/NCA.2014.20 pp. 91-95, **2014**.

**17. Babul P. Tewari** and Sasthi C. Ghosh "A Combined Frequency Assignment and AP Scheduling for Throughput Maximization in IEEE 802.11 WLAN", *Proc. of the 11th ACM International Conference on Advances in Mobile Computing & Multimedia*, Vienna Austria (**MoMM 2013**) [ISBN 978-1-4503-2106-8], doi: 10.1145/2536853.2536890, pp.133-142, **2013**.

**18. Babul P. Tewari** and Sasthi C. Ghosh "Joint Frequency Assignment and Optimal Associations between Stations to Access Points in IEEE802.11 WLANs", *Proc. of the 15th ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems*, Paphos, Cyprus Island, October 21-25, 2012 (**ACM MSWIM**), ISBN 978-1-4503- 1628-6doi: 10.1145/2387238.2387282, pp. 253-260, **2012**.

### **Present Institute / Departmental Responsibilities**

- Faculty in Charge Programming and data Structure Lab, CSE, IIIT Bhagalpur.
- Member of the Departmental Purchase Committee, CSE, IIIT Bhagalpur.
- Faculty in Charge of 2018-22 batch students, CSE, IIIT Bhagalpur.
- Faculty Advisor Ph. D (CSE) 2021

### **Seminar / Workshop / FDP Conducted**

- Successfully conducted One Week Faculty Development Program on Communication Networks and Machine Learning in the **Department of CSE IIIT Bhagalpur during January 18th-22nd 2021 (Role: Coordinator)**.
- Successfully conducted webinar on "Data Gathering Problem in Wireless Sensor Networks" on 19th Oct. 2020 in **CSE Department, IIT Bhagalpur (Role: Coordinator)**

### **Invited Talk / Resource Person**

- Delivered talk on "802.11n bonded channel assignment problem" for the faculty development program on communication networks and machine learning during 18th -22nd Jan. 2021, one session.
- Delivered an invited talk on "Frequency Assignment in IEEE 802.11 WLAN: a dense deployment perspective", organized by department of CSE, Presidency University, Bangalore, on 20<sup>th</sup> November 2021.

### **Publications homepage:**

- <https://www.scopus.com/authid/detail.uri?authorId=55488836900>
- <https://scholar.google.co.in/citations?user=29vkWrQAAAAJ&hl=en>
- [https://dblp.org/pers/hd/t/Tewari:Babul\\_P=](https://dblp.org/pers/hd/t/Tewari:Babul_P=)

## Teaching Experiences:

### A. Post Ph. D Academic Positions:

1. Assistant Professor, Gr. II level 10, 7<sup>th</sup> CPC, PB3, Department of CSE IIT Bhagalpur, An Institute of National Importance, **MHRD Govt. of India**, Since Sept. 2020 till date
2. Assistant Professor (Senior grade 8000/- AGP) Department of CSE, Dr. B. C. Roy Engineering College, Durgapur, W.B. [15600-39100, 8000 AGP] March 2019 – Sept 2020.

### B. Pre Ph. D Academic Positions:

1. Assistant Professor (Senior grade 8000/- AGP) Department of CSE, Dr. B. C. Roy Engineering College, Durgapur, W.B. [15600-39100, 8000 AGP] Jan. 2014 – March 2019.
2. Assistant Professor (AP grade II) Department of CSE, Supreme Knowledge Foundation Gr. Of Institutions, Mankundu, W. B [ 15600-39100, 7000 AGP] August 2012 – July 2013.
3. Assistant Professor (AP grade II) and HOD in Charge, Department of CSE, NSHM Faculty of Engineering and Technology, Durgapur. [15600-39100, 7000 AGP] September 2010 – August2012.
4. Lecturer Department of CSE, Asansol Engineering College, Asansol. February 2006 – August2010.

## Research (7 years):

1. At Advanced Computing and Microelectronics Unit, **Indian Statistical Institute**, Kolkata, Aug. 2011 – till date.

## Teaching Interests:

1. Data Structure and Algorithm
2. Computer Network
3. Operating System
4. Object Technology.

## Projects guided:

1. B. Tech Projects (11)
2. M. Tech Projects (2)

## Training and short Term courses:

1. Attended one week Short term training on Micro-Teaching for Teaching Skill Development, NITTTTR, Kolkata, **2006**.
2. Attended one week short term course on Soft Computing Techniques and Applications, AEC, NIT Durgapur and NIT Silchar, September **2006**.
3. Attended one week Workshop cum Training Program on Entrepreneurial **2007** CMERI, Durgapur.

4. Undergone one week workshop cum training Program “Mission 10x” conducted by Wipro, **2010**.
5. Attended the workshop on “High Impact Teaching Skills” conducted by Dale Carnegie & Associates, Inc. Trainer and Wipro, **2010**.
6. Attended “National workshop on Network and Distributed Algorithm” March **2014**, ISI, Kolkata.
7. Attended one day seminar on “Advances in Nano-Satellite Technology”, 4th November **2015**, BCREC, Durgapur.
8. Attended one day seminar on “Next Generation Co-operative Networking Systems”, 11<sup>th</sup> April, **2017**, IETI Kolkata and BCREC, Durgapur.
9. **Participated** in the Two days Faculty Development Programme on “Modern Trends In Computer Science” organized by the Department of Computer Science & technology, Dr. B. C. Roy Polytechnic, Durgapur held from 1<sup>st</sup> July to 2<sup>nd</sup> July, **2020**.
10. **Participated** Hands-On workshop on Dart Programming Language organized by the Department of Computer Science and Technology of Dr. B. C. Roy Polytechnic in joint collaboration with Brainovision Solutions India Pvt. Ltd. held on 27/07/2020.
11. **Participated in** 2020 National Conference on Emerging Trends on Sustainable Technology and Engineering Applications (NCETSTE), Feb. 2020, Dr. B. C. Roy Engineering College, Durgapur.
12. **Participated and presented a paper in 12<sup>th</sup> IEEE International Conference on Advanced Networks and Telecommunications Systems (IEEE ANTS), 16<sup>th</sup> – 18<sup>th</sup> Dec. 2018**

### Major Responsibilities Performed:

1. Served **PG (M.Tech) course coordinator**, Dr. B. C. Roy Engineering College, Durgapur.
2. Served **Chief Coordinator** Mandatory Additional Requirement (MAR) activities, Dr. B. C. Roy Engineering College, Durgapur.
3. Served as **Convener**, Computer Society of India (CSI) student Chapter, Dr. B. C. Roy Engineering College, Durgapur.
4. Served as a HOD in Charge of the CSE department at NSHM, Durgapur.
5. Served as Officer in Charge of University Semester Examination, at NSHM Durgapur.
6. Served as a member of Examination committee at NSHM Durgapur.
7. Served as a Supervisor of University semester Examination at NSHM Durgapur.
8. Served as a Convener of Routine committee at NSHM, Durgapur.

### Personal:

Date of Birth: 1st February 1980.  
Father's Name :Dayal Prasad Tewari  
Mother's Name : Smt. PutulTewari.  
Nationality: Indian

### References:

1. Dr. Sasthi C. Ghosh, Professor, Advanced Computing and Micro Electronics Unit, **Indian Statistical Institute, Kolkata.**
2. Dr. Dinesh Dash, Assistant Professor, Department of Computer Science and Engineering, **National Institute of Technology, Patna.**



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( Dr. BABUL PRASAD TEWARI)