CURRICULAM VIATE

Name	:	**Dr. SURAJIT BASAK**
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Specializations:		Communication Engineering

PROFILE

Completed **Ph.D** in Engineering from IIEST Shibpur, Howrah India, having total **12 Years** of **teaching experience**. Currently working as an *Assistant Professor* at *Guru Nanak Institute of Technology, Kolkata* in the department of *Electronics and Communication Engineering.* My areas of research include Cognitive Radio Networks, Cross-layer approach, Physical layer security.

EDUCATION

- Completed **PhD** from **Indian Institute of Engineering Science and Technology, Shibpur** in **2019** (8th April).

- Passed **M.Tech** (Optics & Optoelectronics) from **Calcutta University** in **2009**.

- Passed **B.Tech** (Electronics and Communication Engg.) from **West Bengal University of Technology in 2005**.

TEACHING EXPERIENCES

12 years at **Guru Nanak Institute of Technology, Kolkata** (19.02.2010-till date)

RECENT PUBLICATIONS

Peer Reviewed Archival Journals

1. **Surajit Basak** and Tamaghna Acharya, "*Joint Power Allocation and Routing in Outage Constrained Cognitive Radio Ad Hoc Networks*", Mobile Networks and Application (Springer), Special Issue on Green Communications and Networking, vol. 20, no. 5, pp 636-648, Oct. 2015. **Impact Factor: 3.426. DOI: https://doi.org/10.1007/s11036-015-0598-z**

2. **Surajit Basak** and Tamaghna Acharya, "*Route Selection for Interference Minimization to Primary Users in Cognitive Radio Ad Hoc Networks: A Cross Layer Approach*", Physical Communication (Elsevier), Special Issue on Self-optimizing Cognitive radio technologies, vol. 19, pp. 118-132, Jun. 2016. **Impact Factor: 1.81. DOI: https://doi.org/10.1016/j.phycom.2015.12.003**

3. **Surajit Basak** and Tamaghna Acharya, "*Cross layer Optimization for Outage Minimizing Routing in Cognitive Radio Ad hoc Networks with Primary Users' Outage Protection*", Journal of Network and Computer Application (Elsevier), vol. 98, pp. 114-124, Nov. 2017. **Impact Factor: 6.281. DOI: https://doi.org/10.1016/j.jnca.2017.09.004**

4. **Surajit Basak** and Tamaghna Acharya, "*Spectrum-Aware Outage Minimizing Cooperative Routing in Cognitive Radio Sensor Networks*", Wireless Networks (Springer), vol. 26, no. 2, pp 1069-1084, Feb. 2020. **Impact Factor: 2.659. DOI: https://doi.org/10.1007/s11276-018-1844-7**

5. **Surajit Basak** and Tamaghna Acharya, "*On Energy Efficient Secure Routing in Multi-hop Underlay D2D Communications for IoT Applications*", Ad Hoc Networks (Elsevier), vol. 128, pp 102275-102283, 1st Nov., 2020. **Impact Factor: 4.111. DOI: https://doi.org/10.1016/j.adhoc.2020.102275**

List of Journal Publications With UG Students:

1. Poulomi Das, Pratyasha Mitra, Ankita Pal, Kaustuva Chakraborty and Surajit Basak, "*On BER Minimizing Routing and Power Allocation in Multi-Hop Cognitive Radio Ad-Hoc Networks*", International Journal of Engineering Science and Computing (IJESC), vol. 9, no. 5, pp. 22288- 22290, May 2019.

2. Ayushi Bhawal, Debaparna Dasgupta, Arka Ghosh, Koyena Mitra and Surajit Basak, "*Arduino Based Hand Gesture Control of Computer*" International Journal of Engineering Science and Computing (IJESC), vol. 10, no. 6, pp. 22288- 22290, 15th June 2020.

3. Jayita Pramanik, Poushali Paul, Sneha Baidya, Tias Ghosh and Surajit Basak, *"Controlling Railway Gates Using Automata Based Intelligent Controller"*, International Journal of Innovative Research in Technology (IJIRT), vol. 7, Issue 11, pp. 513- 518, 11th April 2021. ISSN: 2349-6002

4. Mainak Karmakar, Manjush Khanra, Prajesh Banerjee, Rahul Banik, Rajarshi Dipan and Surajit Basak, *"A study of outage minimizing joint routing and power allocation in multi-hop wireless networks"*, International Journal of Innovative Research in Technology (IJIRT), vol. 8, Issue 1, pp. 513- 518, 15th June 2021. ISSN: 2349-6002

5. Suchandra Roy, Shweta Roy , Indranil Dey Sarkar , Rajorsi Chatterjee, Swarna Kamal Pal, Adrija Sengupta and Surajit Basak, *"Design and Implementation of Drone with Jammer"* , International Journal of Engineering Science and Computing (IJESC), vol. 11, no. 7, pp. 28391- 28395, July 2021. ISSN: 2321 3361

6. Dipta Pal and Surajit Basak, *"Bit Error Rate (BER) Comparison in AWGN Channel of BFSK and QPSK using Matlab and Simulink"*, International Journal of Innovative Research in Technology (IJIRT), vol. 8, Issue 2, pp. 258- 261, July 2021. ISSN: 2349-6002

7. Partha Sarathi Dutta, Surajit Basak and Kaushik Roy, *"Cross-Layer Routing for Outage Minimization in Multi-hop Ad hoc Networks"*, International Journal for Research in Applied Science & Engineering Technology, vol. 9, Issue VII, July 2021.

International Conference

1. **Surajit Basak** and Tamaghna Acharya, *"On Lifetime Centric Routing and Power Allocation in BER Constrained Cognitive Radio Ad Hoc Networks"*, in: Eighth IEEE International Conference on Advanced Networks and Telecommunications Systems (**ANTS**), 14-17th Dec. 2014, pp. 11-16.

2. Vishal Kr. Karwa, Sudipta Ghosh and Surajit Basak, *"On Outage Minimizing Routing in Multi-hop Wireless Network"*, 1st International Conference on Advancement of Computer Communication & Electrical Technology (ACCET-2016), pp. 248-252, 21-22nd Oct. 2016.

3. Kalpataru Samanta, Arnab Kumar Mondal and Surajit Basak, *"Interference Minimization Routing in Cognitive Radio Networks: A Cross Layer Approach"*, FOSET-2017, 5th Feb., 2017.

4. Arindam Dey, Arkajit Ghosh and Surajit Basak, *"Robot-based Surgical Operation Using ISM Band"*, 1st International Conference on IEEE EDCT-2018, 8-9th March 2018.

5. Kaustuva Chakraborty, Ankita Pal and Surajit Basak, *"On Network Lifetime Centric Resource Allocation in Multi-band Cognitive Radio Networks"*, National Conference on Prayas-2019, 27th April 2019.

6. Vivek Kumar Jha, Debajyoti Debbarma, Swapnil Anand, Surajit Basak and Soma Boral, *"SAHAR: Spectrum-Aware Hybrid Adaptive Routing for Cognitive Radio Based Disaster Response Networks"*, 7-8th Feb., ICORE 2020.

Book Chapter:

1. Anindya Banerjee, Raj krishan Ghosh, Surajit Basak and Arijit Dey, "COVID-19 Pandemic: Theory, Concepts and Challenges" Published in Springer Book Chapter in 20th Aug., 2021. ISBN: 978-3-030-74760-2

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