


Title	Dr.	First Name	Asani	Last Name	Bhaduri	Photograph
<b>Designation</b>	Assistant Professor					
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<b>Web-Page</b>						
<b>Educational Qualifications</b>						
<b>Degree</b>	<b>Institution</b>			<b>Subjects/Topics</b>		
Ph.D. (2014)	Department of Microbiology, University of Delhi and Institute of Genomics and Integrative Biology (CSIR-IGIB)			Molecular and Biochemical Studies on Secretory Proteins of Mycobacteria (Molecular Microbiology)		
M.Sc. (2005)	University of Delhi			Botany		
B.Sc. Honours (2003)	Presidency College, University of Calcutta			Botany		
Art Appreciation Course (2011-12)	National Museum Institute of the History of Art, Conservation and Museology, Delhi.			Art Appreciation		
P.G. Diploma (2008-9)	Indian Law Institute			Intellectual Property Rights		
<b>Career Profile</b>						
<b>Teaching Experience:</b>						
<ul style="list-style-type: none"> <li>Assistant Professor at Cluster Innovation Centre (2015 July onwards).</li> <li>Assistant Professor (ad-hoc) at Cluster Innovation Centre (2013 August- 2015 July).</li> </ul>						
<b>Research Experience:</b>						
<ul style="list-style-type: none"> <li>University of Delhi, P.I. Innovation Projects (2015-16, 13-15).</li> <li>Institute of Genomics and Integrative Biology, Delhi (Research Fellow: 2006-2014).</li> <li>National Institute of Immunology, Ph.D. coursework (2005-6).</li> <li>Summer Research Internship at Department of Chemistry, Hyderabad Central University (2004-2005).</li> <li>Summer Project Trainee in National Institute of Plant Genome Research, 2003-2004.</li> </ul>						

**Administrative Assignments**

**Administrative Assignments (at University of Delhi)**

- Deputy Dean, Research (2019 - ).
- Editorial Board Member, University of Delhi Brochure: Highlights 2019.
- Editorial Board Member, Annual Report Committee, University of Delhi (2019).
- Member, Foundation Day Award Committee, 2019.
- Editorial Board Member, University of Delhi Brochure: Highlights 2018.
- Co-opted Member, Annual Report Committee, University of Delhi (2018).

**Administrative Assignments (at Cluster innovation Centre)**

- Convenor IQAC and Annual Report Committee (2019-).
- Convener, Annual Report and Newsletter Committee (2017-19).
- Convener, Cultural and Extracurricular Committee (2016-17).
- Member, Admission Committee (2019-).
- Member, Annual Report and Newsletter Committee (2016-17).
- Member, Student Advisory Committee.
- Member, Academic Sub-Committee, Maintenance Committee, Newsletter/Annual Report/Website Committee (2015-16).
- Involved in creating the syllabus of Systems Biology curriculum (B.Tech IT) at CIC.
- Eco-club organization at CIC.
- Successful inception, co-ordination and completion of the first ‘Summer-Internship’ of Cluster Innovation Centre held in June-July 2016, where about 40 students from different institutes participated.

**Areas of Interest / Specialization**

- Host-Pathogen interaction in emerging and neglected infectious diseases.
- Secretory pathways and mechanisms in Tuberculosis.
- *in silico* Biology.
- Non-coding RNA and Systems biology.
- Wildlife and Environment Biology: Birds, Odonates, Urban Ecology.
- Plant systems
- Indian Classical Music (Instrumental).

**Subjects Taught**

- Understanding New Biology
- Methods for studying Biological Informational Molecules
- Integrative Biology
- Exploring biology - Systems Approach
- Genes to Genomes
- Flow of Information in Living Systems
- Biological Networks: from Micro to Macro Niche
- *in silico* Biology
- Systems Biology
- Computational Neuroscience
- Environment Science & Ecosystem Management

- Theory in Practice: the Art of Project Management
- Business, Entrepreneurship and Innovation Management

### Research Guidance

Mentored several undergraduate students for semester-long projects and innovation projects. Some of the prominent projects include Mapping weekly markets of Delhi, Identification of novel mycobacterial motif, Pathogenic Protein Motif, Creating a model of science communication in University, Awareness of Lifestyle Disease, DragonflyIndia app, Citizen Science and Science Communication.

### Publications Profile

#### Research Articles:

- Sharma A, Singh A, Yadav A, Shukla A, Krishan K, Katiyar S, Mir S, Parmar A, Pathak N, **Bhaduri A\*** (2020) Mapping Weekly Markets of Delhi: An Explorative Study of Hafta Bazaars, **Urbanisation** (Accepted, in Press)
- Misra R et al. (2019) Tuning the *Mycobacterium tuberculosis* alternative sigma factor SigF through the multidomain regulator Rv1364c and osmosensory kinase, protein kinase D, **Journal of Bacteriology** 201 (7) e00725-18.
- Dhangar T K, Pathak A K, **Bhaduri A\*** (2018) Identification of Essential Genes for Metabolic Reactions in *Mycobacterium tuberculosis* through Flux Balance Analysis, **DU Journal of Undergraduate Research and Innovation** 4(1): 125-129.
- Ray A, **Bhaduri A**, Srivastava N, Mazumder S (2017) Identification of novel signature genes attesting arsenic-induced immune alterations in adult zebrafish (*Danio rerio*), **Journal of Hazardous Materials**. 321, 121-131. doi: 10.1016/j.jhazmat.2016.09.001.
- Bhetariya P et al. (2016) Structural analysis of keto synthase domain in *Aspergilli* and its utility for detection, **Evolutionary Bioinformatics** 12: 109–119. doi: 10.4137/EBO.S32694.
- **Bhaduri A**, Misra R, Dhamija N (2015) To eat or not to eat: understanding the tussle between mycobacteria and host autophagy, **Indian Journal of Microbiology** 55(4):456–459. doi: 10.1007/s12088-015-0541-9.
- Maji A et al. (2015) Expression profiling of lymph nodes in tuberculosis patients reveal inflammatory milieu at site of infection, **Scientific Reports** 5, 15214. doi: 10.1038/srep15214.
- Pathak N, **Bhaduri A**, Bhat KV, Rai A (2015) Tracking sesamin synthase gene expression through seed maturity in wild and cultivated sesame species - a domestication footprint, **Plant Biology** 17(5):1039-46. doi: 10.1111/plb.12327.
- Singh LK et al., (2014) ClpC operon regulates cell architecture and sporulation in *Bacillus anthracis*, **Environmental Microbiology** 17: 855–865.
- Dhasmana N, Singh LK, **Bhaduri A**, Misra R, Singh Y (2014) Recent Developments in Antidotes Against Anthrax, **Recent Patents on Anti-Infective Drug Discovery** 9(2): 83-96 (PMID: 25174439).
- **Bhaduri A** et al (2014) *Mycobacterium tuberculosis* cyclophilin A uses novel signal sequence for secretion and mimics eukaryotic cyclophilins for interaction with host repertoire, **PLoS ONE** 9(2): e88090
- Devi K, Sharma D, **Bhaduri A** and Kothamasi D (2013) Polymorphism in the partial hcnAB gene in hydrogen cyanide producing *Pseudomonas* species, **Geomicrobiology Journal**, 30: 2. 131-139.

- Arora G et al. (2010) Understanding the Role of PknJ in *Mycobacterium tuberculosis*: Biochemical Characterization and Identification of Novel Substrate Pyruvate Kinase A, **PLoS ONE** 5(5): e10772.

#### **Book Chapter and Proceedings**

- **Bhaduri A**, Shukla A (2019) Citizen Science as the New Face of Science Communication and Interdisciplinary Milieu. In STEC 2019 BHU proceedings
- Pathak N, **Bhaduri A**, Rai A K (2017) Sesame: Bioactive compounds and health benefits. In: Mérillon J M, Ramawat K (eds) Reference series in Phytochemistry: Bioactive molecules in food Springer Publications [https://doi.org/10.1007/978-3-319-54528-8\\_59-1](https://doi.org/10.1007/978-3-319-54528-8_59-1).

#### **Popular Articles (Arts and Aesthetics, Environment and Wildlife)**

- Junglimericks Again, Saevus 2019 <https://www.saevus.in/junglimericks-again/>
- Delhi's Hafta Bazaars: Markets That Survived the Rise and Fall of Empires, Sahapedia, 2019 <https://www.sahapedia.org/delhis-hafta-bazaars-markets-survived-rise-and-fall-empires>
- On World Water Day, Reflecting on the Lost Tihar Jheel, DelhiGreens 2019 <http://delhigreens.com/2019/03/22/on-world-water-day-reflecting-on-the-lost-tihar-jheel/>
- Junglimericks Revisited, Saevus 2018 <http://www.saevus.in/junglimericks-revisited/#>
- The Less-sought Long-tails, Saevus, 2018 <http://www.saevus.in/the-less-sought-long-tails/>
- Junglimericks: In the Crazy Wilds of India, Saevus, 2018 <http://www.saevus.in/junglimericks-crazy-wilds-india/>.
- Let them Spread their Wings, The Hindu, 2017. <http://www.thehindu.com/society/let-them-spread-their-wings/article18523246.ece>.
- The Cherished Uncommon Man, The Hindu, 2017. <http://www.thehindu.com/society/The-cherished-uncommon-man/article17075311.ece>.
- Out of Play, The Hindu, 2016. <http://www.thehindu.com/todays-paper/tp-features/tp-metroplus/Out-of-play/article16160512.ece>.
- On a High with Art, The Hindu, 2015. <http://www.thehindu.com/todays-paper/tp-features/tp-metroplus/on-a-high-with-art/article7339911.ece>.

#### **Conference Organization/ Presentations (in the last three years)**

##### **Oral/Poster Presentation:**

- Oral presentation “**Changing Food Habits and Lifestyle Diseases: An Analysis of Behavioral Risk Factors among Students**” in The Saga of Food: Politics, Aesthetics, & Technology, at Vivekananda College, March 13-14, 2019.
- Oral presentation “**Citizen Science as the New Face of Science Communication and Interdisciplinary Milieu**” in Sharing Teaching-Learning Experience Conference (STEC2019) at IIT BHU, March 8-9, 2019.
- Oral presentation “Identification of novel protein motifs in mycobacteria” in ‘**Young Scientist**’ category of 57<sup>th</sup> **Association of Microbiologists of India** International Conference “Microbes and Biosphere: What’s New What’s Next”, Guwahati, November 24-27, 2016.
- **Best Poster Award** in National Seminar “Emerging Issues of climate change: Sustainability and Economic Implications” for “**Study of bioactive components in buckwheat and *in silico* analysis of *fagopyritol synthase***” at Sri Aurobindo College, October 21-22, 2016.
- Oral and poster presentation at **EMBO Practical Course** “Non-coding RNA in infection” Würzburg, Germany, September 18–24, 2016.

- Poster presented on ‘Tuberculosis Co-Morbidities and Immunopathogenesis’ **Keystone Symposia** on Unique Protein Motifs: The Mycobacterial Slice, February 28-March 3, 2016.
- Poster presented in 5th Indian Peptide Society Symposium, September 24-25, 2015, Predicting unique motifs using data mining techniques in the proteome of *Mycobacterium tuberculosis*.
- Poster presented in Antardhvani, TB-MOTIF and TB-PROMOTER and one on ‘Tails and Feathers’ an app for animal rescue, 2015.

**Invited Lectures/Dialogues:**

- Invited for Inaugural lecture “**The Wild India: Camouflage, Photography, Documentation**” for Synapse – The Zoological Society, **Miranda House**, University of Delhi, August 2019.
- Invited for a guest lecture “**Life around us, Technology around the world**” at Biotechnology Department, **Gandhi Faiz-E-Aam College**, Shahjahanpur, November 26, 2018.
- Invited for a talk in **St. Stephen’s College** on “**Birdwatching in India**”, October 9, 2018.
- Invited for a talk on “**Citizen Science**” in the valedictory session of Bloom-The Botany Society of **Ramjas College**, March 28<sup>th</sup>, 2018.
- Invited as resource person and delivered a talk on “**Birds of India**” in the Workshop "Birds: Watching and Beyond" at Centre for Earth Studies, **Indraprastha College for Women**, March 27, 2018.
- Delivered a talk on “**Citizen Science: stopgap Research or way forward**” at **Centre for Studies in Science Policy**, JNU, February 7, 2018.
- Invited to Consultative Roundtable Dialogue “**Humanities matter**” at **IIC**, July 19, 2017.
- Special Invitee in “**Vidyarthi Vigyan Manthan**” 2016-17, National Camp conducted at IIT Delhi, May 27-28, 2017.
- Invited for lectures and practical demonstrations in add-on course on "**Bioinformatics and in silico medicine**" conducted by **Miranda House**, University of Delhi, Jan-March 2016.
- Invited to **Katha/IGNOU** consultative meeting and consequent discussions on ‘**Translating India/ Understanding Diversity**’ August 20, 2015.

**Judging:**

- Pathfinder Award (Science) of **Gargi College**, April 2, 2019.
- Photography Competition by Simulacra - the Film and Photography Society of **Indraprastha College for Women**, February 25, 2019.
- Prof. Anima Sen Memorial Inter-Hostel Debate Competition by **University Hostel for Women**, February 27, 2018.

**Workshop/Visit Organised:**

- Visit to the launch of ‘Youth Climate Conclave’ October 4, 2019.
- Workshop on Presentation, Academic Writing at CIC, September 2018.
- Workshop on Academic Writing at CSEC, September 2017.
- Visit to Aravalli Biodiversity Park from the Eco-Club initiative of CIC, February 11, 2016.
- Visit to Israel pavilion at “India Water Week”, April 7, 2016.

**Research Projects (Major Grants/Research Collaboration)**

- **Start-Up Research Grant (Young Scientists)** by SERB, DST in ‘Identification of virulence factors involved in the infection process of emerging and neglected food-borne pathogen *Campylobacter jejuni*’ (2016-19).

- **University of Delhi Research and Development Grant** ‘Tracking expression patterns of mycobacterial secreted virulence factors’ (2015-16).
- **Innovation Project CIC-307** ‘Developing an affordable three-dimensional Bioprinter facility’ (2015-16).
- **Innovation Project CIC-206** ‘Improving the current system of Junk management and recycling’ (2013-15).

### **Awards and Distinctions**

- **First prize** in Simulation Exercise Group Presentation of Faculty Development Program on Climate Smart Governance at **Indian Institute of Public Administration (IIPA)**, June 25- July 6, 2018.
- **‘EMBO Travel Grant’** to attend EMBO Practical Course on “Non-coding RNA in Infection” at Würzburg, Germany, September 18 – 24, 2016.
- **Certificate of Appreciation**, Selected Innovation Projects, University of Delhi Foundation day, May 1<sup>st</sup>, 2016.
- **‘Global Health Travel Award’** funded by the Bill & Melinda Gates Foundation to attend conference on ‘Tuberculosis Co-Morbidities and Immunopathogenesis’ organised by Keystone Symposia, February 2016.
- **‘Teaching Excellence Award for Innovation’** by University of Delhi on Foundation Day May 1<sup>st</sup>, 2015.
- **Senior Research Fellowship** by CSIR 2008, 2010(extended).
- **Junior Research Fellowship & Eligibility for Lectureship** by CSIR-UGC, 2006.
- **National Scholarship** in Master’s Degree (Ranked 3<sup>rd</sup> in the University of Calcutta and 1<sup>st</sup> in the merit list of Entrance test of Delhi University).
- **National scholarships** in class X and XII examinations.

### **Association With Professional Bodies**

- Life member, The Association of Microbiologists of India.
- Editorial Board member of Journal of Innovation for Inclusive Development (JIID) 2016-18. <http://jiid.in/about-this-journal/editorial-board/>.
- Reviewer for ‘Du-Vidha’ - a bilingual journal of creative writing of the University of Delhi <http://journals.du.ac.in/creative/index.html>. (2016).
- Co-founder of CIC eco-club Vasundhara.
- Associated with ‘Translating India/ Understanding Diversity’ and “Humanities Matter”.

### **Other Activities**

#### **Workshops, Courses and Leadership Camps:**

- Successfully completed Refresher Course in Life Science with ‘A’ grade at CPDHE, University of Delhi, June 28- July 11, 2019
- Attended Symposium on Self Organization in Biology, Department of Biophysics, March 16, 2019.
- Attended Institutional Ethics Review Board (IERB) Workshop on “Ethics in Research”, Jawaharlal Nehru University, December 20th, 2018.
- Successfully completed Faculty Development Program on Climate Smart Governance at IIPA June 25 - July 6, 2018.
- Successfully completed Orientation Course with ‘A’ grade at CPDHE, University of Delhi,

November 21- December 19, 2017.

- Bio-entrepreneurship and Bio-enterprise creation workshop at IISER, Mohali, September 2-3, 2016.
- Workshop at YETI (Young Ecologists Talk and Interact) January 17, 2016.
- Technology Enriched Instruction Workshop “Faculty Development for the 21st Century” organised by PHD Chamber of Commerce and Industry and Microsoft September 30, 2015. Awarded ‘Microsoft Faculty Fellow’ certificate.
- Workshop on ‘Renovating bacterial taxonomy with Bioinformatics’ by National Bureau of Agriculturally Important Microorganisms (NBAIM) & Department of Zoology, University of Delhi, May 14-15, 2015.
- Workshop on Environment/Natural Resource Conservation by Govt. of Delhi, November 2014.
- ProArt Photography Workshop with Akash Das in Delhi Photography Festival Sept-Oct 2013.
- Third Novartis BioCamp – a biotechnology leadership camp in India, August 1-3, 2011.
- Attended training course in IPR from National Institute for Intellectual Property Management, Nagpur, India, 2009-10.
- First CSIR workshop on Biosafety and Biosecurity organized at Indian Institute of Integrative Medicine, Jammu, January 29 – 31, 2007.

**Birding and Bird Festivals:**

- Invited to Dudhwa Summer Bird Count June, 2019  
<https://timesofindia.indiatimes.com/city/bareilly/rare-red-headed-vulture-spotted-indudhwa/articleshow/69848359.cms>
- Invited to Dudhwa Bird Count January, 2019.  
<https://timesofindia.indiatimes.com/city/bareilly/three-new-types-of-birds-spotted-in-dudhwa-for-firsttime/articleshow/67615916.cms>
- Participated in Uttarakhand Spring Bird Festival 2017, 2018.
- Participated Uttar Pradesh International Bird Festival, 2017, 2018.

**Media Coverage for Birds/wildlife**

- <https://timesofindia.indiatimes.com/city/bareilly/rare-red-headed-vulture-spotted-indudhwa/articleshow/69848359.cms>
- <https://timesofindia.indiatimes.com/city/bareilly/three-new-types-of-birds-spotted-in-dudhwa-forfirsttime/articleshow/67615916.cms>

**Music:**

- Learned violin under the guidance of Prof. Sisirkana Chowdhury, Previously Head, Bowing Department, Ustad Ali Akbar Khan College of Music, California, U.S.A. (1992-2003).
- Workshop by Late Ustad Ali Akbar Khan and Pt. Buddhadeb Dasgupta at Rajya Sangeet Academy Kolkata (2000-2002).

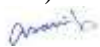
**Art:**

Presently engaged in abstract, wildlife and handicraft photography.

- Photographs for the book “Putuler Shatshotero – Essays on dolls & toys of Bengal” by Agnibarna Bhaduri, 2018.
- Photograph featured in Saevus, Nicephoto 2012, The Hindu, Avesnest, website of University of Delhi, University of Illinois.
- The “Bird of India” collection was featured through Google Plus Create India and had over 85000 followers (<https://plus.google.com/u/0/collection/QwWZv>).

**Other interests:**

Collecting Handicrafts (especially toys made by local artisans in different part of India) and Antiquities.

  
Signature of Faculty Member