



## Dr. Piyali Bagchi Khatua

*Associate Professor,  
Department of Computer Science & Engineering,  
Netaji Subhas Engineering College,  
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**Objective:** A remarkable contribution to teaching and research.

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**Achievements:**

- (S1) **CSIR Fellowship** on 2005 (two years JRF & three years SRF)
- (S2) **Indian Statistical Institute (ISI) Scholarship** on 2002 during M.Tech (Two years duration)
- (S3) **UGC Fellowship** (Five years duration) for PhD.
- (S4) **NET-2004 (LS), NET-2003 (JRF-CSIR) and NET-2000 (LS)**
- (S5) **GATE - 2005 (All India Rank - 28) and GATE - 2001 (All India Rank - 159)**

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**Education:**

- (E1) **Ph.D.**, Applied Mathematics, 2015.
  - **Institute:** Indian Institute of Engg. Science and Technology(IIST), Shibpur
  - **Area of Specialization:** Cosmology
  - **Research Title:** NATURE OF DIFFERENT COSMOLOGICAL MODELSIN THE ACCELERATING UNIVERSE
  - **Research Guide:** Dr. Ujjal Debnath(Associate Professor of Mathematics Department)
  - **Course Work:** Grade 'O'
- (E2) *M.Tech.*, Computer Science, 2002.
  - **Institute:** Indian Statistical Institute, Kolkata
  - **Subject Specialization:** Cryptography (Implementation of Elliptic Curve)
  - **Project Guide:** Prof.(Dr.) Bimal Roy (Ex-Director of ISI)
- (E3) *M.Sc.*, Pure Mathematics, 1999.
  - **Institute:** Jadavpur University, Mathematics Department
  - **Subject Specialization:** Functional Analysis and Topology
- (E4) *B.Sc.*, Mathematics, 1996.
  - **Institute:** Bethune College (University of Calcutta)
  - **Subject Specialization:** Mathematics(Hons.), Physics & Chemistry(Pass)

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**Research & Publications:**

- (J1) **Title:** *Role of Chameleon Field in Accelerating Universe*
  - **Author:** Piyali Bagchi Khatua and Ujjal Debnath
  - **Journal:** *Astrophysics & Space Science*, 326, 53-60(2010).
  - **DOI:** 10.1007/s10509-009-0207-3.

**(J2) Title:** *Dynamics of Logamediate & Intermediate Scenarios in the Dark Energy Field Universe*

- **Author:** Piyali Bagchi Khatua and Ujjal Debnath
- **Journal:** International Journal of Theoretical Physics, 50, 799-832(2011).
- **DOI:** 10.1007/s10773-010-0617-6.

**(J3) Title:** *Dilaton Dark Energy Model in  $f(R)$ ,  $f(T)$  and Horava-Lifshitz Gravity*

- **Author:** Piyali Bagchi Khatua, Shuvendu Chakraborty and Ujjal Debnath
- **Journal:** Astrophysics & Space Science, 326, 53-60(2010).
- **DOI:** 10.1007/s10773-011-0917-5.

**(J4) Title:** *Statefinder Description in Generalized Holographic & Ricci Dark Energy Models*

- **Author:** Piyali Bagchi Khatua and Ujjal Debnath
- **Journal:** International Journal of Theoretical Physics, 51, 1155-1172(2012).
- **DOI:** 10.1007/s10773-011-0992-7.

**(J5) Title:** *Some Features of New Holographic DarkEnergy Model in Horava-Lifshitz Gravity*

- **Author:** Piyali Bagchi Khatua and Ujjal Debnath
- **Journal:** Astrophysics & Space Science, 339, 65-78(2012).
- **DOI:** 10.1007/s10509-011-0972-7.

**(J6) Title:** *Natures of State Finder Parameters & Om Diagnosis for Cardassian Universe in Horava-Lifshitz Gravity*

- **Author:** Piyali Bagchi Khatua and Ujjal Debnath
- **Journal:** International Journal of Theoretical Physics, 51, 3701-3720(2012).
- **DOI:** 10.1007/s10773-012-1254-z.

**(J7) Title:** *Role of Entropy-Corrected New Agegraphic Dark Energy in Horava- Lifshitz Gravity*

- **Author:** Piyali Bagchi Khatua, Shuvendu Chakraborty and Ujjal Debnath
- **Journal:** International Journal of Theoretical Physics, 52, 654-667(2012).
- **DOI:** 10.1007/s10773-012-1373-6.

**(J8) Title:** *Efficient Charging Schedules in a Rechargeable Wireless Sensor Network with multiple chargers*

- **Author:** Sourav Ghosh, Kankana Chakraborty, Piyali Bagchi Khatua, and Utpal Biswas
- **Journal:** Journal of Supercomputing (2024)

**(C1) Title:** *Genkey: Cryptographic key Generation using a Genetic Algorithm*

- **Author:** Priyanka Ghosh, Debdutta Paul , Piyali Khatua and Bhaskar Maity
- **Conference:** International Conference of Data Mining and Information Security(2024)

**(C2) Title:** *Case Based Spam Filtering for Encrypted Emails*

- **Author:** Sreeja Chaki, Anindita Sarkar, Piyali Bagchi Khatua and Anirban Kundu
- **Conference:** International Conference on Network Security and Block-chain Technology (2024)

**(C3) Title:** *Real Time Traffic Monitoring using Road Side Digital Camera*

- **Author:** Trinajan Daw, Sandipan Majumdar, Piyali Bagchi Khatua, and Anindita Sarkar
- **Conference:** International Conference on Smart Systems and Wireless Communication (2024)

**Work Experiences:****(W1)** Working in **Netaji Subhash Engineering College** as an:

- Associate Professor from Dec, 2024.
- Assistant Professor(Stage-3) from March, 2018 to Nov, 2024.
- Assistant Professor(Stage-2) from Jan, 2013 to Feb, 2018.
- Assistant Professor(Stage-1) from July, 2010 to Dec, 2012.
- Lecturer from Nov, 2007 to June, 2010.

**(W2)** Worked as Lecturer in **Bengal Institute of Technology (BIT)** from July, 2006 to May, 2007.**(W3)** **Junior Research Fellow** (under CSIR Fellowship) in **Jadavpur University** (Computer Science Dept.) under the Guidance of Dr. Sovanlal Kundu with Subject Title:**Cryptography and Coding Theory** from June, 2005 to June, 2006.**(W4)** Worked as **Assistant Teacher** in **Bankra Badamtala Girls' High School (WBSSC)** from Dec, 2003 to Nov, 2005.**(W5)** Guest Lecturer of **University of Calcutta** (Department of **Computer Science**) from Sept, 2020 to Aug, 2022.**Other Teaching & (T1)** Worked at **Belur Girls' High School** as an Assistant Teacher **(WBSSC)** in 2001.**Research****Experiences:****(T2)** One year Research experience (**Title: Topology and Functional Analysis**) at Jadavpur University, Mathematics Department from Nov' 1999 to June' 2000 (Under the Guidance of Dr. Tapas Basu).**(T3)** Worked as a Part Time Lecturer in Mathematics at **Students' Gallery**, affiliated to **Mahatma Gandhi University**, Kerala in 2002.**Professional****Training:**

Title of Training	Organization	Duration	Year
STP on ERP	BIT, Techno Group	1 Week	2007
FDP on BIOINFOCOM	NSEC	1 Day	2007
STP on FACULTY INDUCTION	NITTR	2 Weeks	2007
Workshop on SIGNAL PROCESSING	Ceremic Technology	2 Days	2008
Seminar on Emerging Trends on Cosmology	Jadavpur University	1 Day	2010
Workshop on MISSION 10X	Wipro	1 Week	2010
Seminar on Emerging Trends on Gravitation	Jadavpur University	1 Day	2011
Workshop on MISSION 10X	WIPRO	3 Days	2011
Visitor's Program on Dark Energy Models	IUCAA, Pune	1 Week	2011
Visitor's Program on Acelerating Universe	IUCAA, Pune	2 Weeks	2011
STP on LINUX ADMINISTRATION	NSEC	3 Days	2011

Workshop on Mobile Development(Android)	Infosys Ltd.	3 Days	2014
Workshop on CLOUD COMPUTING	University of Calcutta	1 Day	2014
FDP on Funding Opportunities	Techno India Group	2 Days	2014
FDP on Pattern Recognition	NIT, Patna	2 Weeks	2016
FDP on IOT	TCS	1 Day	2016
FDP on Data Science	NPTEL	1 Week	2019
Refresher Course on Data Science	UGC	3 Weeks	2019
FDP on Smart Computing Applications	MCKV	4 Weeks	2024
FDP on INDUSTRY 6.0: AI and DATA SCIENCE	HETC	4 Weeks	2024
SUSTAINABLE DEVELOPMENT IN INDUSTRY 5.0 WITH AI	HIT	4 Weeks	2024
Certification Exam on “Cyber Security Basic Concepts”	WEBEL	4 Weeks	2024
Course Certificate of “Introduction to Cloud Computing”	IBM (COURSERA)	4 Weeks	2024
Course Certificate of “CYBERSECURITY FOR EVERYONE”	UNIVERSITY OF MARYLAND (COURSERA)	4 Weeks	2024
Course Certificate of “PYTHON BASICS”	UNIVERSITY OF MICHIGAN (COURSERA)	4 Weeks	2024
Course Certificate of “WHAT IS DATA SCIENCE”	IBM (COURSERA)	4 Weeks	2024
Course Certificate of “IOT DEVICES”	ILLINOIS (COURSERA)	4 Weeks	2024
FDP ON ADVANCED MACHINE LEARNING AND ITS APPLICATIONS	NSEC	2 Weeks	2024
FDP ON “RECENT ADVANCES ON DEEP LEARNING”	NSEC AND IIT ROORKEE	2 Weeks	2025
FDP ON “EMERGENCE OF CLOUD COMPUTING, CLOUD TECHNOLOGIES AND RECENT TREND”	ATAL ACADEMY	6 DAYS	2025
Course Certificate of “ACCREDITATION SCHEME ON IT/ICS OF TBs and Cos”	PADD AND QUALITY COUNCIL OF INDIA(QCI)	1 DAY	2025
Course Certificate of “CERTIFICATION COURSE ON IT/ICS CYBER SECURITY PROFESSIONALS”	PADD AND QUALITY COUNCIL OF INDIA(QCI)	1 DAY	2025
Course Certificate of “AWARNESSE PROGRAM ON CYBER SECURITY MANAGEMENT SYSTEM”	PADD AND QUALITY COUNCIL OF INDIA(QCI)	1 DAY	2025

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**Other Details:** (M1) **Teaching interests:** Algebra, Real & Complex Analysis, Data Structure, DBMS, Cryptography, Information Theory, Operation Research, Numerical Analysis, Probability, Digital Signal Processing, Pattern Recognition, Image Processing etc.

**(M2) Research interests:** Cosmology, Cryptography, Cloud-Computing.

**(M3) Membership:**

- Life Member of **IUCAA**, Pune.
- Member of **ACM**.

**(M4) Review:**

- Reviewer of ICDAI-2024
- Reviewer of HUMAN 2024

**(M7) RAC Member** of two PhD Students (**Guide:** Dr. Rajdeep Chakraborty)  
under **MAKAUT** from 2020.

**(M8)** Ex-member of **CSBS** All India Committee from 2020 to 2022.

**(M9)** A member of the board of juries in the **Computer Science & Engineering, Information Technology and AI, ML &IoT** Section of **15th Inter University Engineering, Science & Technology Academic Meet 2025**.

**(M10)** Certificate of presentation in **ICDMIS 2024** in ECMT.

## Personal Information:

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<b>Father's Name</b>	:	Bimal Bagchi
<b>Sex</b>	:	Female
<b>Date of Birth</b>	:	09/02/1976
<b>Place of Birth</b>	:	Kolkata
<b>Religion</b>	:	Hindus
<b>Caste</b>	:	General
<b>Nationality</b>	:	Indian
<b>Hobbies</b>	:	Music, Painting, Photography, Reading Novels

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