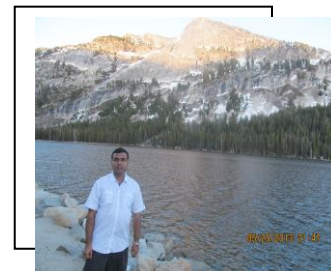**Name: Mr Debkanta Chakraborty**

Department: CSE

Contact Nos.: 7029374839, 7585955470

Qualifications: MS, B. Tech

Designation: Assistant Professor

VIDWAN ID: 237198

Experience (Teaching / Research / Industry, in years):

Teaching 1 year, Research 9 years, Industry 5 years

Date of Joining at the Present Institution: March 2, 2021

Examinations Cleared: GRE, Toefl

Qualifications Summary (Reverse chronological order):

Degree	Institute	From – To	Subjects
Ph. D. (pursuing)	University of Georgia	2013 - 2021	Bioinformatics
M. S.	Iowa State University	2010-2012	Bioinformatics and Computational Biology
B. Tech.	National Institute of Technology, Durgapur	2001-2005	ECE

Experience Summary (In chronological order):
Designation, Organization, Date From – Date To

Assistant Professor, Dr. B. C. Roy Engineering College, Durgapur March 2021 – now
Graduate Research Assistant, University of Georgia, USA August 2013 – August 2020
Scientific Biocomputing Intern, NextBio Inc., California, USA February 2013 – August 2013
Software Engineer, Infosys Technologies Ltd. February 2007 – July 2009
Project Engineer, Wipro Technologies Ltd. August 2005 – February 2007

Specialization/Research Interest: Bioinformatics, Artificial Intelligence, Machine Learning

Awards & Recognitions
Best paper/ scholarship/Position in university exam / awards while at industry/ other organizations etc.

1. University of Georgia (UGA) Graduate School and Institute of Bioinformatics (IOB) Travel Awards for attending Plant Genome Evolution Symposium in New York University (2017), CROPS Conference organized by the joint venture of HudsonAlpha Institute and NASA (Huntsville) in Huntsville, Alabama (2017).

2. Author, reviewer of scientific blogs, articles, podcasts, and other science education and social outreach activities in Athens Science Observer (2017). https://athensscienceobserver.com/tag/debkanta-chakraborty/

3. First Prize in International Wireless Symposium organized by Qualcomm Inc. (2005).

4. Name appeared in top Indian magazine Businessworld (March 7, 2005, Page No.-33) for winning Wireless Technology Awards in the students' section (2005).

5. Selected for prestigious summer research internship in Indian Statistical Institute, Kolkata (2004) and successfully completed it in ACMU department under Dr. Nabanita Das.

6. Merit Scholarship for being in top 5% at NIT, Durgapur. (2001, 2002).

7. WBJEE Engineering Rank (220), and Medical Rank (84) out of more than 300,000 students (2001) (was among < 0.1% in both Joint Entrance Engineering and Medical Entrance Examinations).

8. Attended international symposia in the USA such as Phenomics and Plant Robotics International Symposium (2018), Big Data Symposium (also **co-organized**) in University of Georgia (2015), RNA in Motions and other conferences in Iowa State University etc.

9. Organized International Faculty Development Program (2021) in Dr. B. C. Roy Engineering College in CSE Department in Artificial Intelligence and Machine Learning domain inviting speakers (renowned scientists and researchers) from UK, USA, Belgium etc.

10. Presented papers in National level conferences in India such as APOGEE in BITS, Pilani (2004), NIT Bhopal (2005), ISM Dhanbad (2005).

Courses taught: Biology for Engineers (BSC 401), Machine Learning for 7th Sem CSE (PEC-CS 701E), Python Programming Lab (PCC-CS 393)

B.Tech: Specify the name of the subject/s (Theory first and then practical)

Analog Electronics, Digital Electronics, Microprocessors, Analog Communications, Digital Communications, Operating Systems and System Programming, Computer Architecture and Organization, C Programming, Data Structures, Computer Networks, Control Systems, Semiconductor Physics, Solid State Physics, Organic Chemistry, Engineering Mathematics 1,2, 3 and 4, Engineering Economics, Humanities, Workshop, Engineering Drawing, Applied Mechanics, Satellite Communications, Antenna, Microwave Engineering, Optical Fiber Communication, Audio and Video Engineering, Power Electronics, Signals and Systems, Electromagnetics, Electrical Machines

Analog Electronics lab, Digital Electronics Lab, Microprocessors Lab, C programming lab, Microwave lab, Data Structures Lab, Physics Lab, Chemistry Lab

M.Tech: Bioinformatics, Python/R/MySQL programming Language Essentials, Analysis of Bioinformatics Algorithms, Algorithms and Analysis, DBMS, Phylogenetics and Molecular Evolution, Microbiology, Molecular Biology, Systems Biology, Next Gen Sequencing Techniques and Analyses, Structural Biochemistry, Protein and RNA structures, Statistics, Advance Statistics, Linear Programming, Linear Algebra

Online Mode of Teaching: Google meet, Google docs, gmail, bcrec email

The Faculty member needs to specify the online teaching/ assessment method adopted. (Link to any faculty created resources for Lecture notes / PPT/ Video Lecture etc. in Google Drive / Weblink etc)

Publications:

Journal:

    1.
DOI: 10.1088/1478-3975/9/1/014001
Link : https://pubmed.ncbi.nlm.nih.gov/22314977/

Skliros A, Zimmermann MT, Chakraborty D, Saraswathi S, Katebi AR, Leelananda SP, Kloczkowski A, Jernigan RL. "The importance of slow motions for protein functional loops". Phys Biol. 2012 Feb;9(1):014001. doi: 10.1088/1478-3975/9/1/014001. Epub 2012 Feb 7. PMID: 22314977; PMCID: PMC3783528.

    2. **https://bmcplantbiol.biomedcentral.com/articles/10.1186/s12870-018-1316-3**

Qi P, Gimode D, Saha D, Schröder S, Chakraborty D, Wang X, Dida MM, Malmberg RL, Devos KM. "UGbS-Flex, a novel bioinformatics pipeline for imputation-free SNP discovery in polyploids without a reference genome: finger millet as a case study". BMC Plant Biol. 2018 Jun 15;18(1):117. doi: 10.1186/s12870-018-1316-3. PMID: 29902967; PMCID: PMC6003085.

    3. **https://bmcecolevol.biomedcentral.com/articles/10.1186/s12862-017-1077-x**

    Parvathaneni RK, DeLeo VL, Spiekerman JJ, Chakraborty D, Devos KM. "Parallel loss of introns in the ABCB1 gene in angiosperms". BMC Evol Biol. 2017 Dec 4;17(1):238. doi: 10.1186/s12862-017-1077-x. PMID: 29202710; PMCID: PMC5716013.

    4. **https://www.frontiersin.org/articles/10.3389/fpls.2018.00918/full**

Odonkor S, Choi S, Chakraborty D, Martinez-Bello L, Wang X, Bahri BA, Tenaillon MI, Panaud O, Devos KM. "QTL Mapping Combined With Comparative Analyses Identified Candidate Genes for Reduced Shattering in *Setaria italica*". Front Plant Sci. 2018 Jul 19;9:918. doi: 10.3389/fpls.2018.00918. PMID: 30073004; PMCID: PMC6060267.

Conference:

Power Saving Routing Protocol in Mobile Ad Hoc Networks, D. Chakraborty, D. Mukherjee, S. Chakraborty; IEEE Sponsored Proceedings Journal, Emerging Wireless Technologies Conference, Pune, India (2005) (Paper was awarded the first prize out of 200+ papers in an International Conference in I2IT, Pune, award was received from Dr. Irwin Mark Jacobs, then Chairman and CEO, Qualcomm Inc, San Diego and the father of CDMA technology, this achievement was featured in an article in Businessworld, India's No. 1 Business Magazine, March 7, 2005, page number 33).

Book:

None

Book Chapter:

None

Supervision of Ph.D/M.Tech / B.Tech Projects:

For B. Tech

1. **Image Segmentation using Deep Learning; Akash Das, Akash Pradhan; final year B. Tech project (2021)**
2. **Text Summarizer using Extractive Techniques; Garima Chaurasia, Kumari Suruchi Suman, Sreyosi Datta; final year B. Tech project (2021)**
3. **Image Classification using Deep Learning; Sikta, Subhadip Kar, Swati Kumari, Aradhya Kashyap; final year B. Tech Project (2021)**

Invited Lectures:
Topic of the lecture, Name of the event, organized by, Date

Participation in seminar/conference/symposium/workshop/discussion meeting

1. University of Georgia (UGA) Graduate School and Institute of Bioinformatics (IOB) Travel Awards for attending Plant Genome Evolution Symposium in New York University (2017), CROPS Conference organized by the joint venture of HudsonAlpha Institute and NASA (Huntsville) in Huntsville, Alabama (2017).
2. Attended international symposia in the USA such as Phenomics and Plant Robotics International Symposium (2018), Big Data Symposium (also **co-organized**) in University of Georgia (2015), RNA in Motions and other conferences in Iowa State University etc.

3. Presented papers in National level conferences in India such as APOGEE in BITS, Pilani (2004), NIT Bhopal (2005), ISM Dhanbad (2005).

Participation in faculty development programmes

Name of the faculty development programmes, Online / Face-to-face/ From Date – To Date, Duration, Year, Organized by.

1. Internet of Things FDP, organized by TCS (2021, Google Meet)
2. Research Applications of Artificial Intelligence and Machine Learning FDP organized by Haldia Institute of Technology (2021 Google Meet)
3. 3D Printing FDP organized by CSE Department of Dr. BC Roy Engg College, Durgapur (2021, Google Meet)

Organization of events (Dr. B. C. Roy Engineering College)

1. Organized International Faculty Development Program (2021) in Dr. B. C. Roy Engineering College in CSE Department " Modern Applications in Artificial Intelligence and Machine Learning domain in Hardware and Software" inviting speakers (renowned scientists and researchers) from UK, USA, Belgium etc.

2. Organized, designed, and was the first presenter in the webinar series 1.0 on "Exploring opportunities of Higher Studies abroad" and organized webinar series 1.1, 1.2 etc by inviting BCREC alumni who pursued higher studies abroad.

3. Organized webinar on NLP and other ML/DL sessions in CSE Department.

Participation in administrative committees (selected)
Name of the post (Convener/Joint Convenor/Member secretary/Co-ordinator etc.), Name of the committee, year

NAAC, 2021 (Participant)

Project Ideas Submitted to Govt. Agencies/ On-going Projects / Research Ideas under preparation & execution

Projects with R&D cell

Membership of professional bodies: IEEE, IETE, IEI, CSI, MGMI etc.