Curriculum Vitae



Prof. (Dr.) Chiranjib Bhattacharjee

Vice-Chancellor, Jadavpur University
Former President, West Bengal Council of Higher Secondary Education, Govt of West Bengal
Former Pro-Vice Chancellor, JU
Former Dean, Faculty of Engineering & Technology (FET), JU
Former Registrar, JU
Professor & Former Head
Dept of Chemical Engineering
Jadavpur University, Calcutta – 700 032, India.
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Personal Information:

Date of Birth:	September 30, 1966
Nationality:	Indian
Marital Status:	Married

Education:

Secondary (1983)	Passed 10-level examination of West Bengal Board of Secondary Education (W.B.B.S.E.) with first division and 77.8% marks.
Higher Secondary (1985)	Passed Higher Secondary Examination (10+2 level) of West Bengal Council for Higher Secondary Examination (W.B.C.H.S.E.) with first division and 77.2% mark.
B.Ch.E. Hons.(1989)	Chemical Engineering Department, ***Jadavpur University***, Calcutta. Obtained first class honors with 81.4% marks.
M.Tech. (1991)	Chemical Engineering Department, ***Indian Institute of Technology (IIT)***, Kanpur. CPI: 9.33 out of 10 points.
Ph.D. Engineering (1998)	Chemical Engineering Department, ***Jadavpur University***.

Employment details:

- Joined Jadavpur University in 24th June1991 as Lecturer
- Promoted to Reader in 2000 and Professor in 2005. Served as Head of the Department for two years (as per Jadavpur University rule) from July 2010 to July 2012.
- Professor & former Head, Department of Chemical Engineering (August 2010-August 2012), Jadavpur University, Kolkata - 700 032, INDIA.
- Dean, Faculty of Engineering & Technology (FET), Jadavpur University from January 2017- July 2019.
- Registrar, Jadavpur University during along with Dean, FET during the period April 1, 2018 to November 4, 2018.

- In charge of Controller of Examination (Officiating), as additional duty over Dean, FET during December 2018-30th July 2019.
- **Served as Pro Vice Chancellor, Jadavpur Unuversity from 31st July 2019 - 30th July 2023 (total four years' tenure).**
- **Presently, President (Chairperson), West Bengal Council of Higher Secondary Education (WBCHSE), Govt of West Bengal from 16th August 2021-till date**
- **Presently Vice-Chancellor of Jadavpur University from 3rd November 2025 till date**

Synopsis of Publications (details given later):

As on January 10, 2026 (As per Scopus®):

- Total number of publications: 229
- H-index: 37
- Total citation: 4,336
- Citation per article: 18.93
- Conference proceedings: 167

As per Google Scholar (As on August 1, 2024):

- Total published article: 393
- H-index: 43
- Total citations: 7006
- Citation per article: 16
- i10-index: 168

Google Scholar data for last five years (2019 onward):

- Total citations: 3,984
- H-index: 29
- i10-index: 104

Professional Affiliation:

- Life Member of Indian Institute of Chemical Engineers (I.I.Ch.E.): LM-10551
- Life Member of the Institution of Engineers (India): M130793-7
- Life Member of Indian Science Congress Association: L-37272
- Member of Ph.D. committee (Chemical Engineering) of Maulana Abul Kalam Azad University of technology (MAKAUT, WB), West Bengal
- Former Senate Member of Rajiv Gandi Institute of Petroleum Technology (RGIPT), UP
- Former Senate Member in National Institute of Manipur (NIT Manipur), India

- Former Board Member of West Bengal Joint Entrance Examination (WBJEE) Board.
- BOS member of Chemical Engineering in Biju Patnaik University of Technology, Orisha, Rourkela.
- Member of State Level Permanent Academic Advisory Committee, Govt. of West Bengal.
- Member of State Taskforce on Generative Artifial Intillegence/ AI-based tools in the Education system of the State of West Bengal.
- State level Fee Structure Committee Member, Higher Education Department, Govt. of West Bengal.
- Board of Studies Members in Jawaharlal Nehru Technological University, Anantapur
- External Peer Review Committee Member, Department of Chemical Engineering & Technology, IIT (BHU), Varanasi

Research Interests:

- Environmental Remediation
- Green technology
- Water and wastewater treatment,
- Membrane separation process
- Synthesis and application nano composite and nano materials.

Invited talk/ Lecture:

1. Delivered a lecture on the topic "Separation of multicomponent systems of petroleum fractions" in a three-week UGC sponsored refresher course entitled "Petroleum refinery operations: Testing and characterizations" organized by Academic Staff College, Jadavpur University at the Department of Chemical Engineering during May 27 – June 15, 2002.
2. Delivered an invited lecture on "Membranes in dairy industry" at "International workshop on membranes and membrane reactor", organized by Central Glass & Ceramic Research Institute held at Kolkata during January 3 – 4, 2005.
3. Acted as a resource person and delivered a lecture on "Waste water treatment – A step towards greener environment" in the two-day training course on SUSTAINABLE MANAGEMENT OF WATER SUPPLY, held on November 17-18, 2005 under UGC-POTENTIAL FOR EXCELLENCE SCHEME, organized by School of Water Resources Engineering, Jadavpur University.
4. Visited France and delivered invited talk on "Membrane bioreactor in wastewater treatment" under invitation and sponsorship from Indo-French Center for the Promotion of Advanced Research (IFCPAR), an autonomous body under Department of Science & Technology (DST), Government of India. The visit was made on December 2005 to INSTITUT EUROPÉEN DES MEMBRANES, MONTPELLIER, FRANCE & UNIVERSITÉ DE FRANCE-COMTÉ, BELFORT, FRANCE, as a part of project activity on EFFLUENT TREATMENT THROUGH MEMBRANE PROCESSES (IFCPAR Project No. 2805-1).
5. Delivered *invited lecture* on "Use of membrane technologies for recovery of valuable products", at "Trombay Symposium on Desalination & Water Reuse" (**TSDWR-07**) held in BARC, Mumbai during February 7-9, 2007, jointly organized by Board of Research in Nuclear Sciences (BRNS) and Indian Desalination Association (InDA).

6. Delivered *keynote lecture* on "Membrane technology: Some prospective application area", at National Seminar on Membrane Separation and its Application in Industry, organized by and held in Haldia Institute of Technology, Haldia in association with University College of Science & Technology, Calcutta University on March 23, 2007.
7. Delivered lecture on "**Membrane Bioreactor**" in the QIP course on "**Advances in Membrane Separation Technology**" held at Indian Institute of Technology (IIT), Guwahati during December 10 – 14, 2007.
8. Delivered invited lecture on "Use of Membrane Technologies for Recovery of Valuable Products", in National Seminar on "Recent Advances in Chemical Engineering Operation an Process in Chemical and Allied Industries" organized in the INSTITUTE OF TECHNOLOGY, GURU GHASIDAS UNIVERSITY, BILASPUR during 05-06th February,2008.
9. Delivered invited seminar talk on "**Membrane Technologies for Recovery of Valuable Products"** at Department of Chemical and Biomolecular Engineering, University of Melbourne, Australia on February 19, 2008 during visit to Australia as a part of Indo-Australian Project, entitled "***Milk nutraceuticals: A biotechnology opportunity for Australian and Indian Dairy Producers***", under Indo-Australian Biotechnology Fund (IABF) (vide sanction letter no. BT/PR9547/ICD/16/754/2006 of DBT/Indo-Aus/01/35/06 dated July 02, 2007).
10. Delivered invited seminar talk on "**Studies on the fractionation of β-lactoglobulin from casein whey using membrane technology"** at Dairy Innovation Australia (DIA), Melbourne, Australia on February 19, 2008 during visit to Australia as a part of Indo-Australian Project, entitled "***Milk nutraceuticals: A biotechnology opportunity for Australian and Indian Dairy Producers***", under Indo-Australian Biotechnology Fund (IABF) (vide sanction letter no. BT/PR9547/ICD/16/754/2006 of DBT/Indo-Aus/01/35/06 dated July 02, 2007).
11. Delivered keynote address on "**Water treatment in different fields – Role of Chemical Engineers**" in the one-day seminar organized by Chemical Engineering Department of Durgapur Institute of Advanced Technology & Management (DIATM), Durgapur, West Bengal on August 29, 2009.
12. Delivered invited talk on "Applications of Membrane Technology" in one-day seminar on "Glimpses of recent development in membrane technology", held at Heritage Institute of Technology on March 5, 2010.
13. Delivered invited talk, entitled "**Development of membrane bioreactor to utilize whey in functional food formulation**" at InDA-APDA Conference on Desalination & Water Purification (InDACON – 2010) held at Radisson GRT Hotel, Chennai during March 10 – 12, 2010.
14. Delivered invited lecture on "Waste utilization – A step towards zero discharge concept" at the two-days conference on "**Sustainable Green Technology towards Positive Action for Environment**", organized by **Vivekananda Institute of Environment and Management, Kolkata**, held on June 4 – 5, 2010 at NITTTR, Kolkata.
15. Delivered invited lecture on "**Membrane Technology in Wastewater Treatment**" in one-day National Seminar on Wastewater Treatment Technologies organized by Calcutta Regional Center (CRC) of Indian Institute of Chemical Engineers (IIChE) in commemoration of 122nd Birth Anniversary of Dr. H L Roy held on 2nd November, 2011.
16. Delivered invited lecture on "Air and Water Pollution in Oil Refinery" in a training program on "*Environment and Energy Management System*", organized by Indian Oil Management Academy at Haldia Refinery May 14, 2012.

17. Delivered invited lecture on "Implementation of zero-effluent concept using membrane technology: A step towards environmental sustainability" at an International Workshop on "**Sustainable water treatment technologies: achievements, perspectives, constraints**" held under the sponsorship of New-Indigo project under European Union (EU) during 10-11 December 2012 at **ICRA, Girona, Spain.**
18. Delivered invited lecture on "**Membrane Technology for Sustainable Development**" at **The Institute on Membrane Technology (CNR-ITM), University of Calabria, Rende, Italy** on 14th December 2012.
19. Participated in a Panel Discussion on "**Role of Industries in Technical Education**" in a National Workshop on **Convergence of Government Agencies and Industries for Funding in R&D(CGAIF-R&D 2012)** organized by Chemical Engineering Department, NIT Durgapur during July 26-27, 2012
20. Delivered invited lecture on "**Environmental Management: An integrated approach leading to zero-effluent concept**" in a one-day training program on ***Health, Environment and Safety*** at Paradip Refinery, organized by Indian Oil Corporation Limited (IOCL) on 17th August, 2012.
21. Delivered invited lecture on "**Enzyme Reactors**" in a one-day workshop on **Advances in Industrial Wastewater Treatment** at TERI-RETREAT, Gual Pahari, Gurgaon, Haryana, organized by TERI, jointly with DST on June 27, 2013.
22. Delivered invited lecture on "Role of membrane reactor for downstream processing of industrial effluent" in National Conference on "Recent Development in Downstream Processing in Chemical Industries" held during November 29 – 30, 2013, organized by The Institution of Engineers (West Bengal State Center) at Sir R N Mukherjee Hall, Gokhale Road, Kolkata.
23. Delivered invited lecture on "**Use of photo-catalytic membrane reactor for wastewater treatment**" at School of Environmental Science and Engineering, **Gwangju Institute of Science and Technology (GIST)**, South Korea on April 4, 2014.
24. Delivered invited lecture at Department of Life Science, **NIT Rourkela**, Orissa on 17th October 2014 on the topic "**Utilization of Casein whey – A step towards zero-discharge concept**".
25. Delivered key note speech on the theme "**Bioremediation, Biomass & Bioenergy**" at the 2nd International Conference on Frontiers in Biological Science (InCoFIBS-2015) held at **NIT Rourkela** during January 22 – 24, 2015.
26. Delivered keynote lecture on "**Advanced technologies for industrial wastewater treatment leading to zero-effluent concept: Some case studies**" at the two-day workshop entitled "Advanced Technologies for Industrial Waste Water Treatment", held during 27th -28th April 2015 in R&D **Tata Steel, Jamshedpur**.
27. Delivered Invited Lecture on "**Advanced technologies for industrial wastewater treatment leading to zero-effluent concept: Some case studies**" at Norwegian University of Science and Technology (NTNU), Trondheim, Norway on September 22, 2015.
28. Delivered Keynote Lecture on "**Advanced membrane-based method for wastewater treatment**" at **Golden Jubilee International Conference o n Recent Advances in Chemical and Biochemical Engineering** held in Chemical Engineering Department of NIT Durgapur during October 2 – 4, 2015.
29. Delivered Invited Lecture on "Membrane Technology: Some advanced application" at Chemical Engineering Department, IIT Kharagpur on October 10, 2015 as a part of Research Scholar Day celebration as Chief Guest.
30. Delivered Keynote Lecture on "**Waste to energy: A step towards sustainable development**" at **International Conference on Recent Trends in Energy Technologies (ICRTET-2016)** on January 22, 2016 held in Chemical Engineering Department during January 21 – 23, 2016 organized by Department of Chemical Engineering, Haldia Institute of Technology and Haldia Regional Centre (HRC), Indian Institute of Chemical Engineers (IIChE).

31. Conducted one-day intensive course on "**Membrane Technology for Advanced Water Treatment**" on 15th June 2016 at NTNU, Trondheim, Norway under the Indo-Norwegian Collaboration Program (INCP). The course was attended by Master degree students, PhD scholars and faculty members of Chemical Engineering Department, Norwegian University of Science & Technology (NTNU).
32. Delivered Invited Lecture in the one-day workshop organized by Chemical Engineering Department, Norwegian University of Science & Technology (NTNU) on "**Advanced hybrid separation techniques in industrial wastewater treatment**" at Norwegian University of Science and Technology (NTNU), Trondheim, Norway on June 16, 2016. The topic of the lecture was "**Advanced technologies for industrial wastewater treatment leading to zero-discharge concept**".
33. Delivered invited lecture on "**Advanced technologies for industrial wastewater treatment**" at Institute of Mechanics, Bulgarian Academy of Sciences, Sofia, Bulgaria on June 20, 2016. The visit was made as a part of an Indo-Bulgarian project, under invitation from **Prof. Rumiana Kotsilkova,** Head of OLEM at Institute of Mechanics, Bulgarian Academy of Sciences, Sofia, Bulgaria.
34. Delivered invited lecture on "**Solid Waste Segregation - Connecting People to Nature**" World Environment Day in a seminar, Indian Institute of Chemical Engineers. 2017.
35. Delivered invited lecture on "**Internet of things (IoT)**" at Jadavpur University, Organized by Department of Electronics and Telecommunication Engineering, 2017
36. Delivered invited lecture on "**Hybrid Manufacturing Technology (HMT-2017)" under** Technical Education Quality Improvement Programme (TEQIP Phase-II) of Jadavpur University, 8th March. 2017, Jadavpur University.
37. Delivered invited lecture on "**Understanding ICT for Professional Development in Education**" organized by Department of Information Technology, Jadavpur University, on 1st Dec 2017. Jadavpur University, Kolkata.
38. Invited lecture on "**Glocalization -The Game-Changer of Modern Business**"? as the Chief Guest to Commercio Conclave 2018 – Inter College Business Convention hosted by J.D. Birla Institute, 2018.
39. Delivered invited lecture on **'Industry-Academia Interaction to meet the challenges in Process Industries for Sustainable Development'** at NIT Agartala. Chief Guest in the 2 Days TEQIP III sponsored Workshop Programme on "*Industry-Academia Interaction to meet the challenges in Process Industries for Sustainable Development*' on 5-6th September 2018 at NIT Agartala.
40. Delivered invited lecture on "**Recent Trends in Chemical Engineering and Biotechnology in Mitigation of Global Warming**" at Institute of Engineers India, 2018.
41. Delivered invited lecture on "**Beat Plastic Pollution**" during World Environment Day 2018 celebration Seminar on ***"Waste Management in Kolkata - Way Forward***" to be organized by the International Society of Waste Management, Air and Water (ISWMAW) in collaboration with CQMS, Jadavpur University and ITC Ltd, 5th June 2018, Jadavpur University, Kolkata.
42. Delivered invited lecture on "**National Conference on Engineering & Technology for Rebuilding India**"organized by Vivekananda Institute of Environment & Management (VIEM), Kolkata jointly with Central Glass & Ceramic Research Institute, Kolkata,5-6 June 2018, Central Glass and Ceramic Research Institute, Jadavpur, Kolkata.
43. Delivered invited lecture on "**Advanced Technologies for Wastewater Treatment Leading to Sustainable Developments: A Case Study on Dairy Waste**" In 106th Science Congress, Lovely Professional University, 3-7th January 2019, Phagwara, Punjab, India.
44. Delivered invited lecture on "**Energy Conservation and management "organized** by Shilpa Bichitra, an esteemed Industry & Commerce Oriented English Journal, 11th January 2019, Jadavpur University, Kolkata.
45. Delivered invited lecture on "**Concept & Technology of Selfless Service for Nation Building**" In Two Day Workshop organized by Vivekananda Institute of Environment and Management, Kolkata, 12-13January, 2019, Kolkata.
46. Delivered invited lecture on "**Membrane Technology and its inter-disciplinary Applications**" during Inter-disciplinary refresher course on "Emerging Trends in Mechanical Engineering with Inter-Disciplinary Application"in the Department of Mechanical Engineering, Jadavpur University, January 2019.

47. **Keynote Speaker** in 3rd International Conference on Biotechnology & Biological Sciences: BIOSPECTRUM 2019, In Department of Biotechnology, University of Engineering & Management, Kolkata. August 8th to 10th 2019.
48. **Keynote speaker for Workshop** entitled "Membranes for Water management and Waste to Resources with Special Focus on NextGen Membrane Technology, at CSIR-Central Glass and Ceramic Research Institute, Kolkata on 5-6 November 2019.
49. **Keynote speaker** in "National Conference on Environmental Sustainability, Water Resource and Management" at Narula Institute of Technology, Kolkata on 8-9 November 2019.
50. **Keynote speaker** in 8th Convention of Society for Ethnopharmacology, on "Ethnopharmacology for wellness: Tradition to Translation" at CSIR-IICB, Salt Lake Campus, Kolkata, on December 10, 2021.
51. **Keynote speaker** in Invitation to Inaugural Session of Rhythm 2021 on Rhythm of Happiness (RHYTHM 2021) organized by Rekhi Centre of Excellence for the Science of Happiness, IIT Kharagpur, School of Languages and Linguistics, Jadavpur University, Kolkata, 10th December 2021
52. **Keynote speaker** in 11th IconSWM-CE 2021 & IPLA Global Forum 2021, on Valorization for sustainable waste management, 1-4 Dec 2021. India
53. Plenary session lecture on "**Career Opportunities for High School students in Professional Courses" Plenary** session III, **6th Globalized Education Forum (GEF)" Part II held on 27th April 2024 at Taj Bengal, Kolkata organized by Indian Chamber of Commerce (ICC)**
54. Invited as distinguished guest and keynote speaker for upcoming ENVIRONMENT 2024- An international Conference on Environmental Challenges, Opportunities and Sustainable Solutions, organised by IIT Guwahati, 9-11 December 2024

Chairing session/ organizing event/ others:

1. Member of the organizing committee of "Kolkata Conference on Desalination and Membrane Based Technologies for Drinking Water" held during February 15 – 16, 2002 under the auspices of "Indian Desalination Association", an affiliate of International Desalination Association, organized by Central Glass and Ceramic Research Institute in collaboration with Jadavpur University and Public Health Engineering Directorate, Govt. of West Bengal.
2. Chaired a technical session (TS-9 on 14.12.2007) on "Environmental Science, Engineering and Management" in the National Conference on Frontiers in Chemical Engineering (**NCFCE-2007**) held at IIT, Guwahati during December 12 – 14, 2007. This session was chaired jointly with Dr. F. I. Khan, Memorial University, Canada.
3. Chaired a technical session (TS-15 on 21.12.2007) on "**Catalytic Membrane Contactor/Reactors**" in the 8th International Conference on Catalytic Membrane Reactor (**IIMR8**) held at Central Glass and Ceramic Research Institute (CGCRI), Kolkata, India during December 18 – 21, 2007. The keynote address was delivered by Dr. J.A. Dalmon of France and eminent speakers were Dr. V. V. Volkov of Russia and Dr. B. Chakroborty of Genesis Membrane, India.
4. **Organized a national conference** on "**Zero Effluent Discharge – Latest Development in Recycling**" as Organizing Secretary during December 22-23, 2007. The conference was organized on the behalf of "The Institution of Engineers (India), West Bengal State Center, Chemical Engineering Division. The collaborators of this conference were CSIR and DBT, New Delhi. The sponsor was Haldia Petrochemical Limited, Haldia, West Bengal, India.
5. Chaired a technical session on "**Chemical Reaction Engineering**"(session code: R2E) on December 30, 2007 in the 60th Chemical Engineering Congress (**Chemcon 2007**) organized by Indian Institute of Chemical Engineers (IIChE) and held at Heritage Institute of Technology, Kolkata.

6. Organized one-day seminar as joint-coordinator on "Glimpses of recent development in membrane technology" on March 5, 2010 at Chemical Engineering Department, Heritage Institute of Technology, Kolkata. The seminar was organized jointly by Heritage Institute of Technology and Jadavpur University.
7. Chaired a technical session on "**Traditional Medicines and Globalization – The Future of Ancient Systems of Medicine**" in the **12th International Congress of Ethnopharmacology** (**ISE 2012**) organized by School of Natural Product Studies, Jadavpur University, Kolkata and held at Science City, Kolkata during February 17 – 19, 2012.
8. Member of Selection Committee in connection with recruitment of 'Scientist' at CSIR-Central Glass and Ceramic Research Institute (CGCRI), Kolkata on August 6, 2013 (vide letter no. GC/R&A/GAP0341/SS/2013-14(15) dated July 18, 2013).
9. Acted as Judge in the one-day workshop held at CSIR-CGCRI, Kolkata on Tuesday, August 20, 2013, observed as "Research Scholars Day Programme".
10. Acted as Session Chair in Technical Session – V (TS-V) at International Conference on "Membranes and Applications" (ICMA 2013) held at Central Glass and Ceramic Research Institute (CGCRI) during November 22-23, 2013.
11. Member of the Academic Committee, School of Natural Product Studies, Jadavpur University, Kolkata from 2010 onward (till date).
12. Member of the Academic Committee, School of Environmental Science, Jadavpur University, Kolkata from 2012 onward (till date).
13. Doctoral committee member of Chemical Engineering Department, University College of Science & Technology, Calcutta University, Kolkata from 2011 onward (till date).
14. Chaired a session on "Mathematical modelling: some advanced technique" on October 4, 2015 in the **Golden Jubilee International Conference On Recent Advances In Chemical And Biochemical Engineering** held in Chemical Engineering Department of NIT Durgapur during October 2 – 4, 2015.
15. Member of the Executive Council of Calcutta Regional Center (CRC) of Indian Institute of Chemical Engineers (IIChE), and Chaired the post of Vice Chairman of CRC-IIChE during 2015 – 2016.
16. Member of the Research & Development Committee of Indian Institute of Chemical Engineers (IIChE), Head Quarters (HQ) for the period of 2015 – 2016 and 2016 - 2017.
17. Member of the Executive Council of Calcutta Regional Center (CRC) of Indian Institute of Chemical Engineers (IIChE), and Chaired the post of Chairman of CRC-IIChE during 2016 – 2017.

Award:

1. Received best paper award for the paper entitled "Evaluation on biological treatment for industrial wastewater", published on Journal of the Institution of Engineers (India), 85 (2005) pp. 39 – 44, awarded at the inaugural session of 20th Indian Engineering Congress held at Eastern Zonal Cultural Center, Salt lake city, Kolkata 700 106 on December 16, 2005.
2. Received best project national award (first prize) from AICTE, which funded the project, entitled "*Facilitated solute transport in ultrafiltration of fruit juice and milk whey using rotating disk and cross flow membrane*" (file no. 8021/RID/NPROJ/TAP-6/2002-03). The award was given on May 11, 2006 at the National Technology Day celebration at Hotel Ashoka, New Delhi by Sri. Montek Singh Ahluwalia, Dy. Chairman and Sri Kapil Sibbal, Minister of S&T. The event was organized by Ministry of Science and Technology.

3. Received *SISIR KUMAR MITRA MEMORIAL AWARD* for the second best technical paper published in Indian Chemical Engineer during the year 2005 for the paper entitled "Polymerisation in Supercritical Carbon Dioxide", published in Indian Chemical Engineer, 47(4) (2005) pp. 224 – 234. The award was presented at CHEMCON-2006 held at Bharuch, Gujarat on December 27, 2006.
4. Received institution prize in the subject category for the paper entitled "A simplified model for simulation of plate reactive distillation column", which was awarded in the inaugural ceremony of 22nd Indian Engineering Congress held at Udaipur, Rajasthan on December 14, 2007 at 10:00AM.
5. Received "**Sir Ganga Ram Memorial Prize**" for best paper award in December 2010 from the Institution of Engineers (India). The award was given for best paper in the subject category for the paper as mentioned below: Ranjana Das, Samarpan Dutta, **Chiranjib Bhattacharjee**, "Separation of whey protein and recovery of lactose from whey by ultrafiltration", Journal of Institution of Engineers (India), 90 (2009), pp. 37 – 42.
6. Received best paper award (1st prize) in the poster paper presentation category in the paper, entitled "Removal of chromium (VI) from tannery wastewater using polyacrylamide along with ferric chloride/alum: A case study", at InDA – APDA Conference on Desalination and Water Purification (InDACON – 2010) held at Radisson GRT Hotel, Chennai during March 10 – 12, 2010.
7. Received "**Sir Ganga Ram Memorial Prize**" for best paper award in December 2013 from the Institution of Engineers (India). The award was given for best paper in the subject category for the paper as mentioned below: Arijit Nath, Shubhrajit Sarkar, Madhumita Maitra, **Chiranjib Bhattacharjee**, Ranjana Chowdhury, "An Experimental Study on Production of Intracellular b-Galactosidase at Different Conditions by Batch Process Using Isolated Bacillus safensis (JUCHE 1) and Characterization of Synthesized b-Galactosidase", J. Inst. Eng. India Ser. E (*Springer*) (2013) DOI 10.1007/s40034-013-0011-z
8. Received "Institute Prize" (Gold Medal) for best paper published in J. Inst. Eng. India Ser. E (*Springer*) Vol. 94 (2013) (DOI 10.1007/s40034-013-0023-8) in association with Bipasha Das and Sangita Bhattacharjee. The award was conferred in the Annual General Body meeting of the Institution of Engineers held on December 19, 2014.
9. Received best paper award for S. Bhattacharya, S. Putatunda, A. Mazumder, D. Sen, C. Bhattacharjee 'Bioremediation of Oil Contaminated Wastewater and Oil-In-Water Emulsion' in International Conference (ICON SWM 2017) held at Hyderabad, India.
10. Received NSSWM Excellent Paper Award-2019 for R. Das, **C. Bhattacharjee**, Application of Nanotechnology for Pharma Industry Effluent Treatment - A Sustainable Process Development, In National Symposium on Sustainable Waste Management (NSSWM-2019), 20th April 2109, Institute of Engineering and Management, Kolkata.
11. Best Professor in Chemical Engineering, In 27th Business School Affaire, November 2019
12. Received Best paper award for S. Bhattacharya, D. Sen, **C. Bhattacharjee**, 'Molecular docking studies and shelf life enhancement of bioactive thiosulfinate drug extracted from *Allium sativum* using micelle carrier system', in International Conference on Functional Materials and Chemical Engineering (ICFMCE 2019) held on December 15-17, 2019 at Chulalongkorn University, Bangkok, Thailand.
13. Received 2nd Best paper award for ShubhanwitaSaha, Debashis Roy, **ChiranjibBhattacharjee**, 'Graphene supported nanomaterial: An efficient photocatalyst for enhanced waste waterremediation', in the National Conference on "Issues & Challenges in Water Treatment and alliedresearch for Sustainable environment" on 23-25 Jan,2020 at IIT Guwahati.
14. **3rd Prize** in the Nanotechnology, Composite and Waste Management Category. SCHEMCON 2021, under the aegis of IICHE, Aban Mandal, Anubhav Das, Ranjana Das, Chiranjib Bhattacharjee, A Study on the Recent Advances in the Synthesis Route of Graphene Nanomaterial "MANIT and IISER Bhopal. India, 22 – 23 October 2021.

15. **2nd Prize In** National Symposium on Engineering, Technology and Management All comprehensive Endeavours for Humanistic Growth, Aban Mandal, Anubhav Das, Ranjana Das, Chiranjib Bhattacharjee, Preparation of Graphene composite Nano materials for Application of Water Purification, Jadavpur University, 17-18 December 2021
16. **2nd Prize** in National Symposium on Sustainable Technology & Management for Humanistic Growth, Aishwarya Das, Prattusha Chakraborty, Ranjana Das, Chiranjib Bhattacharjee, Bacteria-Assisted Bioremediation of Antibiotics: a sustainable green remediation strategy, jointly organized by Faculty of Engineering, Jadavpur University and Vivekananda Institute of Technology, Kolkata, West Bengal. 22– 23 December 2023.

Consultancy works:

Sl. No.	Title of the Project	Funding Agency/ Institute with amount approved	Year & duration	Completed /ongoing
1.	Involved in consultancy work in the off-site area of Barauni Refinery of Indian Oil Corporation	Indian Oil Corporation	2009 (One month)	Completed **(PI)**
2.	P&ID drawing modification in the TPS (thermal power station) area and risk assessment at Haldia Refinery	Indian Oil Corporation	2009 – 2010 (Three Month)	Completed **(PI)**
3.	Purification of lignosulphonates from black liquor using diafiltration accompanied ultrafiltration. (Through Industry-Institute Partnership Cell (IIPC), Jadavpur University)	Godavari Biorefineries Ltd., Mumbai, India (₹3,00,000/-)	2009 (One Month)	Completed **(PI)**
4.	Separation of lignosulphonates (LS), hemicelluloses and carbohydrates (mainly pentose) from Spent Sulphite Liquor.	Vistarr Organics Pvt. Ltd., Kolkata, India (₹1,50,000/-)	2010 (Four months)	Completed **(PI)**
5.	Quality Assurance Test.	Raja Khaini Co., India (₹20,000/-)	2012 (15 days)	Completed **(PI)**
6.	Enhancement in the percentage recovery of Lanolin from greasy wool during scouring process.	Jaya Shree Textiles Ltd., Rishra, India (₹10,00,000/-)	2012 (Six months)	Completed **(PI)**
7.	Development of innovative schemes for animal rendering process.	Himshailo Frozen Foods & Cold Storage Pvt. Ltd.,India. (₹50,000/-)	2012 (Six months)	Completed **(PI)**
8.	Development of phosphoric acid process technology through HCl route based on bench scale experimentation	CFI Technologies Pvt. Ltd.(₹ 1,50,000/-)	2013 (Six months)	Completed **(PI)**
9.	Physical & Chemical Characterization of two different paints.	Texmaco rail & Engineering Ltd.,India. (₹18,800/-)	2015 (7 days)	Completed **(PI)**
10.	Physical and Geotechnical characterization of ferrochrome slag that can be used as an oxide based sorbent.(Through Industry-Institute Partnership Cell (IIPC), Jadavpur University)	Tata Steel (₹45,000/-)	2016 (15 days)	Completed **(Co-PI)**

Teaching, Research and Industrial Experience

Teaching experience:

- Total teaching experience of more than **25** years.
- Joined as Lecturer in June 1991 at Jadavpur University.
- Presently serving as Professor from 2005.
- Acted as visiting faculty in number of Colleges/ Universities, like Calcutta University, Haldia Institute of Technology, Heritage Institute of Technology, etc.
- Acted as resource persons in several Quality Improvement Program (QIP)/ Short Term courses organized by IIT Kharagpur, IIT Guwahati, Jadavpur University, IIT Kanpur, ISM Dhanbad, IIEST Shibpur, etc.
- Members of selection committee in Public Service Commission (WBPSC), and several Colleges/ Institutes of National/ International repute.

Research experience:

- Recoveries of valuable proteins from casein whey, a waste stream from sweetmeat industries and consequent environmental protection from discharge of highly polluting waste.
- Enzymatic hydrolysis of lactose by lactase enzyme and production of milk nutraceuticals Galacto oligosaccharide.
- Fruit juice clarification by membrane technology and studies on improvement of shelf life upon ultrafiltration.
- Extraction of betel (pan) oil and it's by products from betel leaf **(Outreach program)**.
- Bio prospecting of phytochemical 'allicin' from garlic.
- Bioremediation of heavy metals and organic pollutants in wastewater and soil by microbial route.
- Bioremediation of residual pesticides in agricultural field by microbial route and studies of its effectiveness.
- Recovery of lignin from pulp and paper mill effluent and treatment of spent sulphite liquor/ black liquor.
- Extraction of herbal dye and floral aroma from different waste flower residues and its commercialization **(Outreach program)**.
- Studies on efficient module development for ultrafiltration purpose (high shear device, such as stirred rotating membrane module).
- Theoretical and experimental studies on liquid membrane using different solute/mixtures and removal of heavy metals from wastewater by emulsion liquid membrane (ELM)/miceller enhanced ultrafiltration process (MEUF).

Industrial experience:

- Worked in Larsen & Toubro, Mumbai for six months in 1991.
- Visited several industries, like Reliance Petrochemical, Jamnagar, Gujarat unit and several refineries of Indian Oil Corporation Limited, like Haldia, Paradeep, Vododara, and Barauni. Also visited Haldia Petrochemicals (HPL) several times.

Administrative Experience:

a) **International Level:**
- In the panel of reviewers in several international journals of repute published by Elsevier, American Chemical Society (ACS), Royal Society of Chemistry (RSC), etc.
- Doctoral thesis reviewer in several international institutes, like University of Melbourne, University of Malaya, Kuala Lumpur, Malaysia, etc.
- Associate Editor of the Journal "Scientifica" (Subject area: Biotechnology), published by Hindawi Publishing Corporation (one of the world's largest publishers of peer-reviewed, fully Open Access journals).

b) **National Level:**
- Academic senate member of Rajiv Gandhi Institute of Petroleum Technology, Raebareli, UP
- Board of studies (BOS) member (external expert) of Chemical Engineering Department, ISM Dhanbad.
- Acting as a member in the panel of expert for evaluation of different project proposal submitted to Science & Engineering Research Board (SERB) (Established through an Act of Parliament: SERB Act 2008) of Department of Science & Technology, Government of India.

c) **State Level:**
- Advisory committee member construction of CETP (common effluent treatment plant) for Bantala Leather Complex constituted by West Bengal Pollution Control Board (WBPCB)

d) **University Level:**
- President, West Bengal Council of Higher Secondery Education (WBCHSE) (From 16th August 2021 to till now)
- Pro Vice Chancellor, Jadavpur University (31st July 2019 to 30th July 2023)
- Dean-Faculty of Engineering and Technology, Jadavpur University (13th January 2017 to 30th July 2019)
- Doctorate committee member of Jadavpur University
- Doctoral committee member of Calcutta University (Chemical Engineering Department)
- Elected member of Faculty Council of Jadavpur University over many years.
- Nominated member of Executive Council, Jadavpur University for the tenure of 8 months during of period as Head of the Department.
- Academic committee member of School of Bioscience and Engineering, Jadavpur University
- Academic committee member of School of Natural Product Studies, Jadavpur University
- Member of the UGC sponsored UPE (University of Potential of Excellence) program under the Scheme "Natural Products & Drug Delivery"
- Selected as the member of "Network Advisory Committee" to look after the initial implementation of intranet and internet in Jadavpur University.
- Member of "Placement Advisory Committee" from 2014 onwards.

e) **Department /School Level:**
- Acted as the Head of the Department (HOD) during 2010 – 2012
- Coordinator of MHRD sponsored "Bioprocess Engineering Program", which was a multi-disciplinary activities involving Chemical Engineering, FTBE (Food technology & biochemical engineering) and Pharmacy

- Coordinator of UGC sponsored DRS program running in the Chemical Engineering Department from 2006 to 2014 (8 years) and presently Dy. Coordinator of DRS-III program of UGC-SAP.

List of Ongoing/ completed research projects:

Sl No.	***Name of the funding agency***	***Project title***	***Year of funding***	***Duration (Years)***	***Amount Sanctioned INR. (in Lakhs, 0.1 million)***	***Status Completed/ Ongoing***
1.	*AICTE*	*Facilitated solute transport in ultrafiltration of fruit juice and milk whey using rotating disk and cross flow membrane*	*2003*	*3*	*Rs.19.6 lakhs*	*Completed* Received **best project national award (first prize)** from AICTE
2.	*TEQIP*	*Project on extraction of 'pan' oil and it's by products from betel leaf*	*2005*	*2*	*Rs. 5.5 lakhs*	*Completed*
3.	*Indo-Australian: DBT/ DEST*	*Milk nutraceuticals: A biotechnology opportunity for Australian and Indian Dairy Producers*	*2007*	*3*	*Rs. 54.2 lakhs (JU: 41.52 lakhs and IITK: 12.68lakhs)*	*Completed*
4.	*DST, Govt. of India*	Development of Novel High Shear Membrane Module (**As Co-Investigator**, PI: Dr. DebasishSarkar, Asst. Professor, Chemical Engineering Dept., Calcutta University)	*2009*	*3*	*Rs. 20.5606 Lakh (**Project is operational in CU**)*	*Completed*
5.	*UGC (Major Project)*	Production and Purification of β-galactosidase from Milk Whey-based Lactic Acid Bacteria using Fermentation and Membrane-based Separation Techniques	*2010*	*3*	*Rs. 9,79,800/-*	*Completed*
6.	*CSIR – SUPRA project*	Modeling studies on CO_2 capture from natural gas using gas-liquid contactor	*2011*	*10 months*	*Rs. 3,70,000/-*	*Completed (on March31, 2012)*
7.	*DST (Indo-Korean)*	Nano-material based membrane in water purification	*2011*	*3*	*Rs. 23,92,560/-*	*Completed (on December 31, 2014)*
8.	*DST sponsored*	From Grey to Green: How to Improve the	*2012*	*2*	*Rs. 18,59,120/- (JU: 15,34,160*	*Completed (on*

	New Indigo project (Indo-EU project) Indian Collaborator: TERI	Sustainability of Wastewater and Drinking Water			*TERI: 3,24,960)*	*December 31, 2014)*
9.	*AICTE (RPS project)*	Conversion of de-proteinated whey to ethanol File no.:8023/RID/RPS-22/Pvt (II-Policy)/2011 – 2012 (**As Co-Investigator**, PI: Dr. Sangita Bhattacharjee, Asst. Professor, Chemical Engineering Dept., Heritage Institute of Technology, Kolkata)	*2012*	*2*	*Rs. 13,67,000/-*	*Completed*
10.	*DST (Indo-Bulgarian)*	Nano-Photocatalysis membrane in energy conversion for water treatment (File no.: INT/BULGARIA/P-09/2012) (Bulgarian PI: Dr. Irena Borovanska, Sofia, Bulgaria)	*2014*	*3*	*Rs. 9,50,000/-*	*Completed*
11.	*UGC* ***Indo-Norwegian Cooperation Programme 2014(INCP)***	Research and education within advanced hybrid separation techniques in industrial wastewater treatment File No. F. No. 58-3/2014(IC) dated December 2014 (Norwegian PI: Prof. Gisle Øye of Norwegian University of Science and Technology)	*2015*	*3*	*Rs, 66,00,000/-*	*Completed on 31st December 2018*
12.	***DST - TSDP***	Development of novel electrofloatation/ electrocoagulation enhanced membrane module for oily wastewater treatment	*2016*	*3*	*Rs. 35,11,200/-*	*Completed on November 2019*
13.	***DST , India (WTI)***	*Center for Technological Excellence in Water Purification CTEWP*	*2019*	*5*	*Rs. 92,75,788/-*	*Continuing*
14	***RUSA 2.0 MHRD, GOI***	*Heavy metals (Pb,Cr, Co and As) removal*	*2019*	*Till fund available*	*Rs. 9,99,200/-*	*Completed on March*

		from ground water using novel reactive mixed matrix membrane				*2020*
15	***Industry sponsored project (Dalmia Holdings group limited)***	*Role of carbonaceous materials and cellulose nano-fibres polymeric composite for treatment of multiple pollutants present in waste water*	*2019*		*Rs 19.5 lakh*	*Continuing*
16	***DSTBT, WB***	*Design and Fabrication of Cost-effective Hybrid Membrane Bioreactor System for Targeted Pollutant Removal from Contaminated Water*	*2024*	*3*	*Rs. 15,10,000 lakh*	*Continuing*
				TOTAL	*Rs.4,17,50,728/-*	

List of Publications

Prof. (Dr.) Chiranjib Bhattacharjee
Chemical Engineering Department
Jadavpur University, Kolkata, India

Patent:

1. Dwaipayan Sen, **Chiranjib Bhattacharjee**: ***A Bio-Reactor suitable for Enzymatic Reaction and method of carrying out Enzymatic Bio-Reaction***, **Application No. 1022/KOL/2010A**, **International Classification Number: C02F11/00, A61K9/00** (Details: The present invention relates to a bioreactor system for production of bio-components involving enzymatic reaction. More particularly, the present invention is directed to a rotating disk membrane based bioreactor (RDMBR) system for enzymatic reaction adapted to reduce the bio-fouling and favour proper substrate-enzyme contact. Advantageously, the bio-reactor of the invention would favour better and cost-effective utilization of such bio-reactors wherein the same can itself act as a production as well as a separation unit. The rotating disk membrane bio reactor (RDMBR) system according to the invention is thus directed to providing enhance yield of reaction components thereby making such reactors more user friendly and cost-effective to operate. The rotating membrane further reduces the built up resistance on the membrane to favour better enzyme-substrate contact and improved permeation of reaction components through the membrane and improve productivity. The reactor system for the invention and its method of operation would thus have wide scale application for production of bio-components using enzymatic reaction with enhanced productivity.)

2. Arijit Nath, Ranjana Chowdhury, **Chiranjib Bhattacharjee:** ***Consortium of bacterium B. Safensis (JUCHE1) isolated from casein whey, its process of isolation and its industrial applications thereof***, **Application No. 755/KOL/2011, dated 06.06.2011**. [Details: This present invention relates to the bacterium *B.safensis* (JUCHE1) including high base pair plasmid deoxyribonucleic acid (DNA), sourced from casein whey and tolerant to broad range of osmolarity concentration (potential for growth in presence of sodium chloride), tolerant to the presence of glycine, lysozyme, tolerant to ultraviolet ray, tolerant to bile salts (OX gall). Advantageously, the isolated consortium of the present invention can grow in nitrogen free ashby's medium and is adapted to withstand hostile environmental conditions with respect to temperature, pH and high heavy metal concentration, and is adapted to withstand the presence of different antibiotics. Most advantageously, the isolated consortium is found to involve synergy with toxic heavy metals, natural prebiotics onion, natural antioxidant ginger, natural antibiotic turmeric and natural antioxidant chilly at very high concentrations, has potentiality of synthesizing acids from carbohydrates, favours decarboxylation of amino acids and prevents the de-amination of amino acids. More particularly, the present invention relates to a process of isolation of said bacterium from casein whey using modified deman, rogosa and sharpe medium (MMRS). Advantageously, the present invention also provides for a process for the synthesis of different enzymes, a process for the synthesis of antibiotics using isolated consortium of *B. safensis(JUCHE 1)*. More advantageously, the present invention further provides for biopharmaceutical composition and process for obtaining the same and also relates to the treatment and detoxification of toxic heavy metals from industrial effluents using the said isolated consortium of *B. safensis(JUCHE 1)*].

3. Debasish Sarkar, **Chiranjib Bhattacharjee**, Ankur Sarkar: ***A shear enhanced membrane module with inbuilt self cleaning mechanism*****, Application No. 845/KOL/2012 dated 27-07-2012. [**Details: A dynamic high shear membrane module having a self-cleaning mechanism is disclosed. The module consists of a hollow basket with four radial arms, fitted with four flat

membranes on alternate sides of adjacent radial arms, and was mounted on a central hollow shaft fitted with a pulley drive. The whole system with suitable sealing arrangement was placed in a stainless steel cylindrical tank fed by a triplex piston pump. The invention relates particularly to a new shear enhanced membrane module, named as Spinning Basket Membrane (SBM) module with a unique hydrodynamic self-cleaning facility to make the process continuous without any intermediate cleaning of membranes using chemicals. The shear enhanced membrane module for the invention and its method of operation would thus have wide scale application in dairy and food industry or in any effluent treatment plant.**]**

Book:

1. Mousumi Chakraborty, **Chiranjib Bhattacharya**, Siddhartha Datta: **Chapter 4 - Emulsion Liquid Membranes: Definitions and Classification, Theories, Module Design, Applications, New Directions and Perspectives**, *Pages 141-199*, in "**Liquid Membranes:** Principles and Applications in Chemical Separations and Wastewater Treatment", Copyright © 2010 Elsevier B.V., *Edited by Vladimir S. Kislik* (ISBN: 978-0-444-53218-3).

2. **Chiranjib Bhattacharjee**, Dwaipayan Sen: **Chapter 6 – Treatment of Kraft Black Liquor using membrane-based separation process**, Pages 77 – 105, in "**Membrane Technologies and Applications**", Copyright © 2012 by Taylor & Francis Group, LLC (CRC Press), Edited by Kaustubha Mohanty & Mihir K. Purkait (ISBN 978-1-4398-0526-8).

3. Sudip Chakraborty, Ranjana Das Mondal, Debolina Mukherjee and **Chiranjib Bhattacharjee**: **Chapter 7 - Production of Bio-Based Fuels: Bioethanol and Biodiesel**, pages 153-180, in "**Sustainable Development in Chemical Engineering: Innovative Technologies**", Copyright © 2013 by John Wiley & Sons Ltd, Edited by V. Piemonte, M. De Falco and A. Basile (ISBN: 978-1-119-95352-4).

4. Arijit Nath, Sudip Chakraborty, **Chiranjib Bhattacharjee**: **Chapter – 20:Bio-Reactor and enzymatic reactions in bioremediation,** in "**Microbial Biodegradation and Bioremediation",** Elsevier publication, Edited by S. Das DOI: http://dx.doi.org/10.1016/B978-0-12-800021-2.00020-0 © 2014 Elsevier Inc.

5. Ranjana Das, **Chiranjib Bhattacharjee**: **Chapter – 46: Processing Sesame Seeds and Bioactive Fractions**, in "**Processing and Impact on Active Components in Food**", pp. 385 – 394. Academic Press, Elsevier publication, Edited by Victor Preedy. DOI: http://dx.doi.org/10.1016/B978-0-12-404699-3.00046-9, Copyright © 2015 Elsevier Inc.

6. **Chiranjib Bhattacharjee**, Arijit Nath, Alfredo Cassano, Reza Tahergorabi, Sudip Chakraborty: Chapter – 5: Conventional macro- and micromolecules separation, in "Food Waste Recovery – Processing Technologies and Industrial Techniques", pp. 105 – 126. Academic Press, Elsevier publication, Edited by Charis M. Galankis. ISBN: 978-0-12-800351-0, (DOI: 10.1016/B978-0-12-800351-0.00005-5) Copyright © 2015 Elsevier Inc.

7. Arijit Nath, Ooi Chien Wei, Sangita Bhattacharjee, **Chiranjib Bhattacharjee**: Chapter – 12: Emerging Purification and Isolation, in "Food Waste Recovery – Processing Technologies and Industrial Techniques", pp. 273 – 292. Academic Press, Elsevier publication, Edited by Charis M. Galankis. ISBN: 978-0-12-800351-0, (DOI: 10.1016/B978-0-12-800351-0.00012-2) Copyright © 2015 Elsevier Inc.

8. Pramita Sen, Arijit Nath, **Chiranjib Bhattacharjee**: Chapter – 9: Packed Bed Bioreactor and Its Application in Dairy, Food and Beverage Industry, in "Current Developments in Biotechnology

and Bioengineering", pp. 235 – 278, Elsevier publication, Edited by Christian Larroche, Maria Angeles, Goucheng Du, Ashok Pandey, ISBN: 978-0-444-63663-8, Copyright © 2017 Elsevier B.V.

9. Ranjana Das, Himadri Sekhar Samanta, **Chiranjib Bhattacharjee**, "Hydrogel: Polymeric Smart Material in Drug Delivery", Materials Science Forum, Vol. 875, pp. 45-62, in **Advanced Functional Materials: Properties and Applications, Vol. II.**, Edited by Dr. Inamuddin and Dr. Amir Al-Ahmed 2016 (DOI: 10.4028/www.scientific.net/MSF.875.45)

10. Santanu Sarkar, Ankur Sarkar, **Chiranjib Bhattacharjee**, "Nanotechnology based membrane separation process for drinking water purification", Chapter – 10 in "Water Purification" Edited by Dr. Alexandru Mihai Grumezescu, Academic Press 2017 (ISBN No. 9780128043004).

11. Arijit Nath, Tiyasha Kanjilal, **Chiranjib Bhattacharjee**, "Application of Bioactive Composite Green Polymer for the Development of Artificial Organs", Chapter – 2, in "New Polymeric Composite Materials - Environmental, Biomedical, Actuator and Fuel Cell Applications", Edited by Inamuddin, Ali Mohammad and Abdullah M. Asiri 2016 (ISBN No. 13: 978-1-945291-08-1).

12. Sanjana Ghosh, **Chiranjib Bhattacharjee**, Ranjana Das, Bioremediation- Application of Biotechnology in Waste Management, In Ecological Sciences and Environmental Issues, Ed: Dr. Avnish Chauhan and Dr. Pawan Kumar 'Bharti', Apple Academic Press - an imprint of Taylor and Francis, CRC Press. 2016.

13. R. Das, **C. Bhattacharjee**, Hydrogel nanocomposites for controlled drug release, (Chapter 23), In Applications of Nanocomposite Materials in Drug Delivery Ed: Inamuddin S., Abdullah M. Asiri and Ali Mohammad, Woodhead Publishing, Elsevier, Cambridge, MA 02139, United States, 2018.

14. R. Das, **C. Bhattacharjee**, Photocatalytic Decontamination in Pharmaceutical Effluent Treatment, In 'Handbook of Ecomaterials', Ed: Leticia Myriam Torres Martinez, Oxana Vasilievna Kharissova, Boris Ildusovich Kharisov, Springer –Nature Publication, pp-1-17, ISBN 978-3-319-48281-1, December 2017.

15. R. Das, **C. Bhattacharjee**, Engineered Nanomaterial in Environmental Industry, (Chapter 54) In 'Handbook of Nanomaterials for Industrial Applications', Ed: Chaudhery Mustansar Hussain, Elsevier, Cambridge, MA 02139, United States 2018. ISBN: ISBN 978-0-12-813351-4

16. R. Das, **C. Bhattacharjee**, Nutritional composition, health benefits and antioxidant properties of lattuce, (Chapter 9) In 'Nutritional Composition and Antioxidant Properties of Fruits and Vegetables', Ed: Amit K. Jaiswal, Elsevier, 2019. (ISBN: 9780128127803)

17. R. Das, **C. Bhattacharjee**, Nutritional composition, health Benefits and antioxidant properties of Grapes, (Chapter 43) In 'Nutritional Composition and Antioxidant Properties of Fruits and Vegetables', Ed: Amit K. Jaiswal, Elsevier, 2019. (ISBN: 9780128127803)

18. R. Das, A. Mondal, **C. Bhattacharjee**, (Chapter 23) Membrane Technology- A Sustainable Approach for Environmental Protection, In 'Membrane Technology- A Sustainable Approach for Environmental Protection', Ed: Dr. S. Sridhar, Taylor & Francis (CRC Press), pp 477-494, Boca Raton, NW, 2018. ISBN- 13:978-1-138-09542-7

19. Shubhrajit Sarkar, Santanu Sarkar, **Chiranjib Bhattacharjee,** Use of agricultural solid wastes as adsorbents for dyes, (Chapter 23) In 'Organic and Inorganic Pollutants in Wastewater: Methods

of Analysis, Removal and Treatment', Ed: Dr. Inamuddin, Materials Research Forum LLC (under review).

20. Tiyasha Kanjilal, **Chiranjib Bhattacharjee,** The green applications of magnetic sorbent for heavy metals, (Chapter 12) In 'Organic and Inorganic Pollutants in Wastewater: Methods of Analysis, Removal and Treatment', Ed: Dr. Inamuddin, Materials Research Forum LLC (under review).

21. R. Das, S. Das, **C. Bhattacharjee**, CO2 sequestration using Algal biomass and its application as bio-energy, (Chapter 32), In 'Encyclopedia in Renewable & Sustainable Materials', Vol. 9, Ed: Dr. Gautam Majumdar, Elsevier-UK. (https://doi.org/10.1016/B978-0-12-803581-8.11030-6)

22. R. Das, B. Samanta, **C. Bhattacharjee**, Traditional Biomass: a replacement for Petro-fuels, (Chapter 41), In 'Encyclopedia in Renewable & Sustainable Materials', Vol. 9, Ed: Dr. Gautam Majumdar, Elsevier-UK. (https://doi.org/10.1016/B978-0-12-803581-8.11039-2)

23. Arijit Nath, Arpia Das, **Chiranjib Bhattacharjee**, Application of Biocomposite Polymers in Food Packaging: A Review, (Chapter 7), In' Developing Technologies in Food Science Status, Applications, and Challenges', Ed: Megh R. Goyal, Murlidhar Meghwal, Taylor & Francis

24. Arijit Mondal, **Chiranjib Bhattacharjee,** Membrane Transport for Gas Separation, (Chapter 10), In "Recent Advances in Diffusion and Transport Phenomena of Composite Materials", Ed: Dr. Inamuddin, Trans Tech Publications Ltd. (under review).

25. Santanu Sarkar, Shubhrajit Sarkar, **Chiranjib Bhattacharjee**, Novelty in designing of photocatalysts for water splitting and CO2 reduction, (Chapter 3), in "Nanophotocatalysis and Environmental Applications: Energy Conversion", Ed: Dr. Inamuddin, Springer, U.K. (in press).

26. Sadhan Kumar Ghosh, Chiranjib Bhattacharya, S V S Satyanarayan, S Varadarajan, India, APSCHE, IndiaEmerging Technologies for Waste Valorization and Environmental Protection,Springer Nature, **(under process)**

27. Ankita Mazumder, Souptik Bhattacharya, Chiranjib Bhattacharjee, Role of nano-photocatalysis in heavy metal detoxification, (Chapter 1), in "Nanophotocatalysis and Environmental Applications: Detoxification and Disinfection", Ed: Dr. Inamuddin, Springer, U.K. (DOI: 10.1007/978-3-030-12619-3)

28. A. Mazumder, D. Sen, C. Bhattacharjee (2020). Optimization of oily wastewater treatment processusing neurofuzzy adaptive model. In Book: "Computational Intelligence. Theoretical Advances and Advanced Applications", Walter De Gruyter, Germany. DOI: 10.1515/9783110671353-011.

29. S. Sarkar, S. Sarkar, C. Bhattacharjee (2019). "Green Synthesis of Novel Photocatalysts." In Nanophotocatalysis and Environmental Applications, pp. 241-261. Springer, Cham. https://doi.org/10.1007/978-3-030-10609-6_9.

30. S. Sarkar, S. Sarkar, C. Bhattacharjee,S. Sarkar (2019). "Novelty in Designing of Photocatalysts for Water Splitting and CO_2 Reduction." In Nanophotocatalysis and Environmental Applications, pp. 41-65. Springer, Cham. https://doi.org/10.1007/978-3-030-04949-2_3.

31. A. Mazumder, Z. Chowdhury, D. Sen, C. Bhattacharjee (2021). Study on Application of Novel Synthesized Silver Metallosurfactant for Membrane Cleaning. In Book: Advances in Bioprocess Engineering and Technology, Springer, Singapore Publishing. DOI: 10.1007/978-981-15-7409-2_30.

32. A. Mazumder, D. Sen, C. Bhattacharjee (2019). Mass transport through composite asymmetric membranes. In Book: Diffusion Foundations, Trans Tech Publications Ltd, Switzerland, vol. 23, pp 151–172. ISSN: 2296-3642. DOI:10.4028/www.scientific.net/DF.23.151.

33. S. Bhattacharya, D. Gupta, D. Sen, C. Bhattacharjee (2021). Development of micellized antimicrobial thiosulfinate: A contemporary way of drug stability enhancement, in book D. Ramkrishna et al. (eds.), "Advances in Bioprocess Engineering and Technology", Lecture Notes in Bioengineering, chapter 8, Springer, Singapore Publishing. https://doi.org/10.1007/978-981-15-7409-2_8.

34. Das A., Das R., Bhattacharjee C. (2021) Isolation and Characterization of Arsenic Tolerant Bacteria from Industrial Soil and Analysing Its Metal Removal Potency. In: Ramkrishna D., Sengupta S., Dey Bandyopadhyay S., Ghosh A. (eds) Advances in Bioprocess Engineering and Technology. Lecture Notes in Bioengineering. Springer, Singapore. Pages 233-239. https://doi.org/10.1007/978-981-15-7409-2_23

35.

36. S. Bhattacharya, A. Mazumder, D. Sen, C. Bhattacharjee, "Bioaugmentation technology to remove oil from oily wastewater using isolated Actinobacteria", in book Advances in Environmental Research, Volume 79, chapter 3, ISBN: 978-1-53618-879-0, Nova Publishers. (*In Press*).

37. Shubhanwita Saha, Debashis Roy, ChiranjibBhattacharjee, "Reduced Graphene Oxide (RGO) based nanocatalyst for inhibition of pathogenic bacteria towards enhancement of water purification", in book "Advances in Bioprocess Engineering and Technology" by Springer Nature, 2020, Chapter 47 , pages 469-474, DOI: 10.1007/978-981-15-7409-2_47.

38. Somakraj Banerjee, Ranjana Das, **Chiranjib Bhattacharjee**, "Biofuel cells for water desalination" in the book "Biofuel cells: Materials and Challenges", published by Wiley-Scrivener. (In press), ISBN 1119724694, 9781119724698

39. P. Das, C. Bhattacharjee, " Removal of Hazardous Dyes from Waste Water in a Green and Cost effective Way ", in book "Advances in Water Resources Management for Sustainable Use" by Springer Nature, 2021, ISBN: 978-981-33-6411-0, https://doi.org/10.1007/978-981-33-6412-7_11 (in press)

40. R. Das, S. Das, C. Bhattacharjee, "CO2 sequestration using Algal biomass and its application as bio-energy", Chapter 32, Encyclopedia in Renewable & Sustainable Materials, Vol. 9, Ed: Dr. GautamMajumdar, Elsevier-UK. (https://doi.org/10.1016/B978-0-12-803581-8.11030-6)ISBN: 978-0-12-812780-3

41. R. Das, B. Samanta, C. Bhattacharjee, "Traditional Biomass: a replacement for Petro-fuels", Chapter 41, 'Encyclopedia in Renewable & Sustainable Materials', Vol. 9, Ed: Dr. Gautam Majumdar, Elsevier-UK. (https://doi.org/10.1016/B978-0-12-803581-8.11039-2) ISBN: 978-0-12-812780-3

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43. R. Das, C. Bhattacharjee (2019) "Detoxification of Nonconventional Oil Seed Protein and Synthesis of Protein Based Hydrogel". International Conference on Emerging Technologies for Sustainable Development (ICETSD'19) Pp- E6-E9, ISBN: 978-81-8211-146-2 ©2019 GCELT.

44. R. Das, C. Bhattacharjee "Green composites, the next-generation sustainable composite materials: Specific features and applications", Green Sustainable Process for Chemical and Environmental Engineering and Science: Green Composites: Preparation, Properties and Allied Applications. Pages 55 – 70, 1 January 2022

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46. R. Das, C. Bhattacharjee, Membrane Bioreactor for Industrial Wastewater Treatment, In book 'Biological Treatment of Industrial Wastewater' Ed. Maulin P. Shah, RSC (Royal Society of Chemistry) England Print ISBN 978-1-83916-279-4, Chapter 11, pp- 215 - 240. https://pubs.rsc.org/en/content/ebook/978-1-83916-279-4

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2. Mousumi Chakraborty, **Chiranjib Bhattacharya** and Siddhartha Datta, "Study of the stability of (w/o)/w-type emulsion during the extraction of nickel via emulsion liquid membrane", Sep. Sci. Technol., *(Marcel Dekker, Inc)* 39 (No. 11) (2004) pp. 2609 – 2625.

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2. Mousumi Chakraborty, **Chiranjib Bhattacharjee** and Siddhartha Datta, "Mathematical modeling of simultaneous copper (II) and Nickel (II) extraction from wastewater by emulsion liquid membranes", Sep. Sci. Technol., *(Marcel Dekker, Inc)* 38 (No. 9) (2003) pp. 2081 – 2106.

3. Mousumi Chakraborty, **Chiranjib Bhattacharya** and Siddhartha Datta, "Studies on the applicability of Artificial Neural Network (ANN) in Emulsion Liquid Membranes", J. Membr. Sci. *(Elsevier Science Publishers)*, 220 (2003) pp. 155 – 164.

4. Mousumi Chakraborty, **Chiranjib Bhattacharya** and Siddhartha Datta, "Effect of Drop Size Distribution on Mass Transfer Analysis of the Extraction of Nickel (II) by Emulsion Liquid Membrane", Journal of Colloids and Surfaces A: Physicochemical and Engineering Aspects, *(Elsevier Science Publishers)*, 224 (2003) pp. 65 -74.

5. Siddhartha Datta and **Chiranjib Bhattacharjee**, "Simulation of continuous stirred ultrafiltration process: An approach based on analytical solution coupled with turbulent back transport", Journal of Chemical Technology and Biotechnology *(John Wiley & Sons Ltd, UK),* 78 (2003) pp. 1135 – 1141.

6. **Chiranjib Bhattacharjee** and Siddhartha Datta, "Analysis of polarized layer resistance during ultrafiltration of PEG - 6000: An approach based on filtration theory", Sep. Purif. Tech. *(Elsevier Science Publishers)* 33(No.2) (2003) pp. 115-126.

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1. **Chiranjib Bhattacharjee** and P.K. Bhattacharyya, "Prediction of limiting flux in ultrafiltration of Kraft Black Liquor", J. Membr. Sci. *(Elsevier Science Publishers)*, 72 (1992) pp. 137 – 147.

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1. **Chiranjib Bhattacharjee**, Siddhartha Datta and Siddhartha Saha, "Correlations to Predict Permeate Flux and Rejection in Ultrafiltration Based on Dimensional Analysis", Chemical Engineering Division, Journal of the Institution of Engineers (India), 84 (9) (2003) pp. 8 – 11.

2. Mousumi Chakraborty, **Chiranjib Bhattacharjee** and Siddhartha Datta, "Comparison of emulsion liquid membrane and activated carbon adsorption for nickel(II) removal from waste water of the electroplating industry", J. of Environmental Studies and Policy (Published by TERI), 4 (2) (2001) pp. 67 – 74.

3. Mousumi Chakraborty, **Chiranjib Bhattacharya** and Siddhartha Datta, "Mass Transfer Analysis of the Extraction of Nickel (II) by Emulsion Liquid Membrane", Indian Journal of Chemical Technology (CSIR Journal), 10 (5) (2003) pp. 311-320.

4. Mousumi Chakraborty, **Chiranjib Bhattacharya** and Siddhartha Datta, "Studies on Transport Mechanism of Nickel (II) from an Acidic Solution using Emulsion Liquid Membranes", Journal of Energy, Heat and Mass Transfer, 24 (2002) pp. 75 – 88.

5. V. Balaji, Siddhartha Datta and **Chiranjib Bhattacharjee**, "Evaluation on Biological treatment for industrial wastewater", Chemical Engineering Division, Journal of the Institution of Engineers (India), 85 (2005) pp. 39 – 44.

6. Mousumi Chakraborty, Chiranjib Bhattacharya and Siddhartha Datta, "Study of the extraction of Copper (II) and Nickel (II) from wastewater by emulsion liquid membranes", Chemical Engineering Division, Journal of the Institution of Engineers (India), 85 (2004) pp. 1 – 6.

7. Sangita Bhattacharjee, Siddhartha Datta, Chiranjib Bhattacharjee, "Studies on Water Quality Parameters during Ultrafiltration of Kraft Black Liquor", Journal of Institution of Engineers (India), 86 (2005), pp. 1 – 7.

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9. Sangita Bhattacharjee, Siddhartha Datta, Chiranjib Bhattacharjee, "Performance study on improvement of waste water characteristics of Kraft black Liquor from pulp and paper industries using hybrid treatment methodology", Indian Journal of Environmental Protection, 25 (9) (2005) pp. 774 – 783.

10. Subhashis Ghosh, Chiranjib Bhattacharjee and Mamata Mukhopadhyay,"Polymerisation in Supercritical Carbon Dioxide", Indian Chemical Engineer, 47(4) (2005) pp. 224 – 234.

11. Dipannita Mondal, Siddhartha Datta, Chiranjib Bhattacharjee, "A simplified model for simulation of plate reactive distillation column", Chemical Engineering Division, Journal of the Institution of Engineers (India), 87(3) (2007) pp. 3 – 10.

12. Jaydip Datta, Chiranjib Bhattacharjee, Raghupati Mukherjee, "Statistical analysis on Stern – Volmer equation applied on Biomolecules", J. Inst. Chemists (India), 78 (5) (2006) pp. 146 – 148.

13. Ranjana Das, Chiranjib Bhattacharjee, M. Ghosh, S. Ghosh, "Extraction of sesame polyphenols from sesame (*Sesamum Indicum L.*) meal", Journal of Lipid Science & Technology (JLST), 38 (1) (2006) pp. 46 – 47.

14. Jaydip Datta, Chiranjib Bhattacharjee, T. K. Bhattacharyya, B. R. De, "Mathematical Analysis on Certain Physical Properties Applied on Random Coil Model", Current Science, 93 (2) (2007) pp. 231 – 233.

15. Ayan Hore, Projjwal Sarkar, Madhumita Sarkar, Chiranjib Bhattacharjee, Siddhartha Datta, "Membrane technology in recovery of protein from whey stream: A safe and economic route to whey disposal", Indian Journal of Environmental Protection, 27 (10) (2007) pp. 883 – 889.

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17. Jaydip Datta, T. K. Bhattacharyya, Chiranjib Bhattacharjee, B. R. De, "Mathematical validation of hydrodynamic properties of biomolecules: A regression approach", J. Inst. Chemists (India), 79 (5) (2007) pp. 155 – 158.

18. C. Bhattacharjee, P. Sarkar, D. Sen, "Treatment of casein whey using polyether sulphone ultrafiltration membrane in cross-flow membrane module", Journal of Institution of Engineers (India), 88 (2008), pp. 39 – 45.

19. Jaydip Datta, Chiranjib Bhattacharjee and B R De, "Statistical analysis on quencher in photobiological application", Indian Journal of Chemistry, 47 (5) (2008), pp 708 – 710.

20. D. Datta, C. Bhattacharjee, and S. Datta, "Whey protein fractionation using membrane filtration – A review", Journal of Institution of Engineers (India), 89 (2008), pp. 45 – 50.

21. Sangita Bhattacharjee, Chiranjib Bhattacharjee, Siddhartha Datta, "Recovery of lignosulphonates and medium quality water from pulp and paper mill effluent using membrane technology", Indian Journal of Environmental Protection, 29 (3) (2009) pp. 214 – 223.

22. Jaydip Datta, Chiranjib Bhattacharjee, Durgadas Mukherjee, B.R. De, T. K. Bhattacharya, Mathematical Standardisation on Random Chain Model: Gaussian to Computational approach, J. Indian Chem. Soc., 86 (10) (2009) pp. 1051 – 1056.

23. Ranjana Das, Samarpan Dutta, Chiranjib Bhattacharjee, "Separation of whey protein and recovery of lactose from whey by ultrafiltration", Journal of Institution of Engineers (India), 90 (2009), pp. 37 – 42.

24. Debasish Sarkar, Apratim Bhattacharya, Chiranjib Bhattacharjee, Dulal C. Mukherjee, "Modelling and simulation of unstirred dead-end ultrafiltration of macromolecules", J. Indian Chem. Soc., 87 (01) (2010) pp. 105 – 116.

25. Sourav Mondal, Sayan Dasgupta, Siddhartha Sengupta, Chiranjib Bhattacharjee, "A study based on different dosing levels of primary tannery wastewater treatment", Indian Journal of Environmental Protection, 30 (1) (2010) pp. 40 – 45.

26. Saurav Bhattacharyya, Chiranjib Bhattacharjee, “India, the Sleeping Giant Country for Bioethanol Production from Agricultural Residues: A Review”, Indian Journal of Environmental Protection, 30 (4) (2010) pp. 300 – 306.

27. Saurav Bhattacharyya, Chiranjib Bhattacharjee, Siddhartha Datta, “Increasing the extraction of total reducing sugar (TRS) from wheat strawthrough sonication treatment after dilute acid hydrolysis”, Journal of Institution of Engineers (India), 91 (3) (2011) 10 – 14.

28. Ranjana Das, Dwaipayan Sen, Ankur Sarkar, Chiranjib Bhattacharjee, “Study on the Effect of Membrane Speed on Enzymatic Synthesis of Galacto-oligosaccharides using Immobilized b-Galactosidase in Rotating Disk Membrane Reactor (RDMR)”, Journal of Institution of Engineers (India), 91 (3) (2011) 53 – 60.

29. Suman Dutta, Chiranjib Bhattacharjee, Siddhartha Datta, “Kinetic, Isotherm and Thermodynamic Study of Cr (VI) Adsorption on Powder Activated Carbon”, Journal of Institution of Engineers (India), 91 (3) (2011) 27 – 33.

30. Diptendu Datta, Ankur Sarkar, Debasish Sarkar, Chiranjib Bhattacharjee, Dulal C. Mukherjee, “Characterization of bovine serum albumin adsorption onto polyethersulfone ultrafiltration membrane”, J. Indian Chem. Soc., 88 (08) (2011) pp. 1305 – 1318.

31. Arijit Nath, Shiladitya Ghosh, Ranjana Chowdhury, Chiranjib Bhattacharjee, “Can Whey-based *Bacillus safensis (JUCHE 1)* become a Food supplement? – Growth kinetics, Probiotic activity, Sensitivity to Natural and Synthetic Antibiotics and Synergy with Prebiotics and Natural Antioxidants”, International Journal of Systems, Algorithms & Applications, (2012) 2 pp. 51 – 55.

List of Doctoral Supervision:

Ph.D. Awarded (from Jadavpur University)

Sl. No.	Name	Co-Supervisor(s)	Title	Year awarded
1.	Mousumi Chakraborty	Dr. Siddhartha Datta, JU	Mass transfer characteristics for extraction of multicomponent mixture by liquid surfactant membrane	**2003**
2.	Bidhan Chandra Bag	Dr. K. Sekhar (DRDL, Gwalior)	Process Technology Development for Industrial Production of N,N'-bis(2,4,6-Trichlorodiphenyl)-urea (CC-2)	**2005**
3.	Smt. Baisali Sinha	Dr. Vijay Kale, IICT, Hyderabad	Membrane application in water treatment.	**2007**
4.	Debasish Sarkar	----	Studies on mathematical modeling of ultrafiltration process.	**2007**
5.	Projjwal Sarkar	Dr. Siddhartha Datta, Jadavpur University	Mass transfer study and parameter estimation in case of ultrafiltration of macromolecular solutes.	**2010**
6.	Suman Datta	Dr. Siddhartha Datta, Jadavpur University	Development of hybrid system using membrane technology for waste water treatment.	**2011**
7.	Saravanan Krishnaswami	Dr. Vijay Kale (I.I.C.T., Hyderabad)	Studies on esterification and trans-esterification reaction of non-edible oils for preparation of bio-diesel.	**2011**
8.	Dwaipayan Sen	----	Treatment of industrial water using enzymatic membrane reactor and its modeling to evaluate the optimized parametric condition.	**2012**
9.	Diptendu Datta	Dr. Debasish Sarkar (Chem. Eng. Dept., CU)	Protein separation using membrane technology.	**2012**
10.	Arunava Chowdhury	Dr. Siddhartha Datta, Jadavpur University	Application of emulsion liquid membrane for separation of heavy metals from tannery wastewater.	**2013**
11.	Sourav Bhattacharya	Dr. Siddhartha Datta, Jadavpur University	Production of bio-ethanol from cocktail of rice straw with different carbohydrate waste.	**2013**
12.	Ankur Sarkar	Dr. DebasishSarkar Chem. Eng. Dept., CU	Development of novel high-shear membrane module	**2013**
13.	Sandip Sarkar	Dr. Sibdas Bandyopadhyay (CGCRI) and Dr. AntroLarbot(IEM, Montpellier, France)	Development of capillary membrane based on clay-alumina formulation and surface modification.	**2013**
14.	Arijit Nath	Dr. Ranjana Chowdhury,	Studies on Microbial Production, and Membrane based purification of β-	**2014**

		Jadavpur University	galactosidase from Casein whey.	
15.	Santanu Sarkar	----	Development of advance oxidation process for pharmaceutical waste water treatment	**2015**
16.	Pramita Sen	Prof. P. Bhattacharya, HIT, Kolkata	Studies on enzymatic membrane reactors	**2015**
17.	Barnali Mondal	Dr. Ranjana Chowdhury, Jadavpur University	Studies on production and characterization of probiotic bio-preservatives from food and vegetable waste.	**2015**
18.	Sujaya Bandyopadhyay	Dr. Ranjana Chowdhury, Jadavpur University	Production of biosurfactant through biodesulphurization of hydrotreated diesel and spent engine oil	**2015**
19.	Kunjiappan Selvaraj	----	A study of isolation, functional, structural characterization, formulation and pharmacological actions of flavonoids from *azolla microphylla* fern	**2016**
20.	Bipasha Das	Dr. Sangita Bhattacharjee Chem. Eng. Dept., Heritage Inst. Of Tech.	Study on conversion of deproteinated whey to ethanol	**2016**
21.	Sirsha Putatunda	Dr. Dwaipayan Sen, Asst. Professor, Chem. Eng. Dept., Heritage Inst. of Tech., Kolkata	Application of high-shear ultrafiltration along with other tertiary routes in industrial waste water treatment	**2017**
22.	Trina Dutta	Dr. Sangita Bhattacharjee Chem. Eng. Dept., Heritage Inst. Of Tech.	Studies of Arsenic removal through solid membrane and it's dynamic simulation	**2018**
23.	Debojyoti Chakraborty	Dr. Debasish Sarkar Chem. Eng. Dept., CU	Some studies on performance characteristics of shear enhanced membrane module	**2018**
24.	Anindita Chowdhury	Dr. Selvaraj Kunjiappan Dept. of Biotechnol., Kalasalingam University	Development of nutraceutical from bioactive component of plant extract	**2018**
25.	Ankita Mazumder	Dr. Dwaipayan Sen, Asst. Professor, Chem. Eng. Dept., Heritage Inst. of Tech., Kolkata	Studies on Advanced Oily Wastewater Treatment Process	**2021**
26.	Souptik	Dr. Dwaipayan	Biological Production of	**2021**

	Bhattacharya	Sen, Asst. Professor, Chem. Eng. Dept., Heritage Inst. of Tech., Kolkata	Biopharmaceuticals and Purification UsingAdvanced Separation Technology	
27.	Subhrojit Sarkar	-	Studies on the treatment of synthetic textile wastewater using functionalized adsorbent and photocatalyst	**2021**
28.	Niladri saha	Prof. Papita Das	Modification and application of Rice husk in removal of emerging pollutants from waste water	**26/09/2022**

Ph.D. Awarded (from Other University/ Institute)

Sl. No.	**Name**	**Co-Supervisor(s)**	**Title**	**Year awarded/ Univ./ Inst.**
29.	Ranjana Das	Dr. Santinath Ghosh, CU	Studies on process development for better utilization of seed meal constituents	2009 CU
30.	Jaydip Datta	Dr. B. R. De, Vidyasagar University	Mathematical validation of certain physical properties applied on some biomolecules	2011 Vidyasagar University

Ph.D. Continuing:

Sl. No.	**Name**	**Co-Supervisor(s)**	**Title**	**Year of Registration & University**
1.	Somakraj Banerjee	Dr. Ranjana Das	Development of advanced mixed matrix membraneand/or adsorbent system for heavy metal removal from water	**2020 (NEW) JU Regn. No. 267/20/E**
2.	Aishwarya Das		Studies on water treatment through Microbe assisted Nanobioremediation and allied Technologies	**D-7/ISLM/98/21 Dated 4thJanuary 2022 JU**
3.	Anubhab Das		Fabrication and design of a nano-adsorbent incorporated membrane system mediated technology intended to removal of contaminants for the production of potable water.	**D-7/E/169/23 Dated 21st March 2023 JU**

4.	Rituparna Biswas		Microalgae in organic pollution abatement from wastewater under changing global climate & their application in potential biofuel development	**D-7/ISLM/75/24 Dated 19th March, 2024**

M.E. Thesis supervision:

No.	Name	Year of Registration	University	Status	Topic
1.	Swarup Nandi	1996	CU (jointly with Dr. Dipa Biswas of CU)	Awarded on 1998	Simulation of multicomponent distillation column & studies of the effect of different parameters on distillation performance
2.	Arvind Krishnaswamy	1998	JU	Awarded on 2000	Software development for design & simulation of multicomponent distillation column
3.	V. Balaji	2001	JU (jointly with Prof. S. Datta of JU)	Awarded on 2003	Studies on performance of biological treatment unit treating waste water of dyeing and bleaching unit
4.	K. Sasikumar	2002	JU (jointly with Prof. S. Datta of JU)	Awarded on 2004	Studies on the Characteristics of Wastewater Flowing Through Tolly's Nullah
5.	Smt. Dipannita Mondal	2002	JU	Awarded on 2004	Software development on multicomponent separations
6.	Suman Dutta	2003	JU (jointly with Prof. P. Bhattachary a of JU	Awarded on 2005	Studies on the separation of biomolecules by ultrafiltration
7.	Smt. Sunita Biswas	2003	JU (jointly with Prof. S. Datta of JU)	Awarded on 2005	Characterization of industrial wastewater and its treatment
8.	Smt. Ranjana Das	2003	CU (jointly with Dr. S.N. Ghosh of CU)	Awarded on 2005	Processing of sesame protein by membrane technology
8.	Dwaipayan Sen	2004	JU (jointly with Prof. S. Datta of JU)	Awarded on 2006	Characterization and treatment of various industrial effluents using membrane and other tertiary treatment route

9.	Ayan Hore	2005	JU (jointly with Prof. S. Datta of JU)	Awarded on 2007	Studies on the treatability of wastewater using membrane technology
10.	Sachikanta Pradhan	2005	JU (jointly with Prof. P. Bhattachary a of JU)	Awarded on 2007	Separation of trypsin from goat pancreatic juice by affinity ultrafiltration
11.	Siddhartha Sengupta	2006	JU	Awarded on 2008	Treatibility Studies of Industrial Waste Water
12.	Arijit Mondal	2006	JU	Awarded on 2008	Treatibility studies of Industrial waste water and optimization of process parameters
13.	Salil Ghosh	2006	JU	Awarded on 2008	Study of adsorption efficiency utilizing various adsorbents in case of waste-water treatment
13.	Suprabhat Saha	2006	JU	Awarded on 2008	Separation of sweeteners from st leaves
14.	Anirban Roy	2007	JU	Awarded on 2009	Wastewater treatment using biological routes
15.	Samarpan Dutta	2007	JU	Awarded on 2009	Mathematical modeling of ultrafiltration membrane module
16.	Ankur Sarkar	2007	JU	Awarded on 2009	Removal of Cr(VI) using coagulation/ flocculation method
17.	Kotta Apparao	2007	JU (jointly with Prof. S. Datta of JU)	Awarded on 2009	Removal of heavy metals from industrial waste by Micellar Enhanced Ultrafiltration
17.	Pritam Biswas	2008	JU (jointly with Prof. R. Chowdhury of JU)	Awarded on 2010	Studies on production of biofuel from dairy Effluent
18.	Mriganka Sekhar Manna	2008	JU (jointly with Prof. R. Chowdhury of JU)	Awarded on 2010	Study of membrane bioreactor for the treatment of textile waste water
19.	Shubhrajit Sarkar	2009	JU (jointly with Prof. R. Chowdhury	Awarded on 2011	Studies on fermentative beta-galactosidase production from casein whey

			of JU)		
20.	Anushree Ghoshal	2009	JU (jointly with Prof. R. Chowdhury of JU)	Awarded on 2011	Separation of protein by bioselective adsorptive ultrafiltration and study on influence of affinity ligand on the protein separation
21.	Chitrita Kundu	2009	JU (jointly with Prof. R. Chowdhury of JU)	Awarded on 2011	Water quality analysis of East Kolkata Wetlands
21.	Soumyadeep Deb	2010	JU (jointly with Prof. R. Chowdhury of JU)	Awarded on 2012	Studies on the performance of membrane bioreactor
22.	Sirsha Putatunda	2010	JU (jointly with Prof. R. Chowdhury of JU)	Awarded on 2012	Separation of macromolecular solutes using high-shear ultrafiltration device
23.	Debayan Das	2010	JU (jointly with Prof. R. Chowdhury of JU)	Awarded on 2012	Bioremediation of heavy metals from industrial effluent
24.	Ashim Kumar Khan	2011	JU	Awarded on 2013	Performance evaluation and mathematical model development of a high shear membrane device
25.	Jigisha Roy	2011	JU	Awarded on 2013	Removal of Waste from Waste Water using Nano-Particle
26.	Soumen Roy	2011	JU	Awarded on 2013	Study of the production of galacto-oligosaccharide (GOS) using enzymatic membrane reactor
27.	Ananda Prasad Roy	2011	JU	Awarded on 2013	Optimization of lactose hydrolysis using β-galactosidase both in free & immobilized mode
28.	Kalpana Biswas	2011	JU	Awarded on 2013	De-proteination of whey by UF/DF hollow fiber membrane and studies on lactose hydrolysis

29.	Alokeparna Roy	2012	JU	Awarded on 2014	Bioethanol Production from Deproteinated Whey
30.	Anindita Chowdhury	2012	JU	Awarded on 2014	Studies on the isolation, optimization and evaluation of the biological activities of polyphenolic compounds from waste cauliflower leaves
31.	Avik Halder	2012	JU	Awarded on 2014	Treatment of Oil-spills by Hybrid Methodologies
32.	Monami Das	2013	JU	Awarded on 2015	Bioethanol production by fermentative and/ or enzymatic pathway
33.	Samya Subhra Das	2013	JU	Awarded on 2015	Studies on the use of Advanced oxidation process For treatment of different industrial waste water
34.	Sanjukta Das Gupta	2013	JU	Awarded on 2015	Enzymatic way of degradation of oil and grease in waste water
35.	Sumona Das	2013	JU	Awarded on 2015	Studies on optimizing biodegradation of a field pesticide using indigenous bacteria isolated from agro-effluent
36.	Souptik Bhattacharya	2013	JU	Awarded on 2015	Bio-remediation of used motor oil using microbes isolated from automobile industry effluent
37.	Priyanka Ghosh	2014	JU	Awarded on 2016	Process optimization of photo-catalytic degradation of industrial textile effluent.
38.	Monideepa Das	2014	JU	Awarded on 2016	Studies on bioremediation of agricultural pesticides using isolated microbial strains from natural sources.
39.	Susmit Dubey	2014	JU	Awarded on 2016	Mathematical modeling and simulation of photo-catalytic membrane reactor.
40.	Dipanjana Banerjee	2014	JU	Awarded on 2016	Bio-remediation of free pesticides using microbial strains isolated from natural sources.
41.	Monidip Pal	2015	JU	Awarded on 2017	Advanced technique for waste - water treatment.
42.	Shounak Chakraborty	2015	JU	Awarded on 2017	Bioremediation of toxic pollutants from industrial

					wastewater.
43.	Arka Guha	2015	JU	Awarded on 2017	Studies in potential enzymatic degrading ability of isolated nitrogen fixing strains.
44.	Swati Das	2016	JU	To be awarded on 2018	bioremediation of Oily wastewater.
45.	Banashree Samanta	2016	JU	To be awarded on 2018	Seed Processing Using Membrane Technology
46.	Somakraj Banerjee	2017	JU	Awarded on 2019	Preparation, characterization, modification of ultrafiltration membrane for wastewater treatment
47.	Pallavi Chakraborty	2017	JU	Awarded on 2019	Studies on bacterial growth inhibition using antimicrobial nutraceutical compounds
48.	Zinnia Chowdhury	2018	JU	Awarded on 2020	Oily waste water treatment using hybrid electrocoagulation-membrane method
49.	Deepanjali Gupta	2018	JU	Awarded on 2020	Studies on microbial growth inhibition using phytochemical drug
50.	Anubhab Das	2019	JU	Awarded on 2021	Synthesis, characterization and Modification of nano adsorbents In membrane system for heavy Metal separation from water
51.	Aihika Mandal	2020	JU		Synthesis of membrane for demineralisation purposes
52.	Ishika singha	2020	JU		Application of Membrane technology in Isolation of phytochemicals
53	Purushottam Gayen	2021	JU	2023	Biogenic synthesis of silver nanaoparticles using *Bacillus* strain: Characterization and applications
53	Raja Mondal	2022	JU	2024	Synthesis and characterization of novel adsorbent for ground water remediation purpose
54	Soubhik Mallick	2022	JU	2024	Comparative study on performance of nano adsorbent for water treatment
55	Prattusha Chakraborty	2022	JU	2024	Bioremediation: a sustainable approach towards environment

List of National and International Conference

***Conference papers*:**

International:

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