

## *Curriculum Vitae*

**Name: Dr. Ranjana Das (Mondal)**

**Designation and Affiliation:** Associate Professor, Chemical Engineering Department, Jadavpur University, Calcutta – 700 032, India.

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### *Academic Credentials*

- **Ph.D** (Tech) from Calcutta University in 2009.
- **M.Tech** from Calcutta University in 2005 (**1<sup>st</sup> class 1st**).
- **B.Tech.** in Chemical Technology from Calcutta University in 2003 (**1<sup>st</sup> class 1st**).
- **B.Sc in Chemistry Honours** from Calcutta University in 2000 (**1<sup>st</sup> class**).
- Higher Secondary, West Bengal Council of Higher Secondary Education in 1997.
- Secondary Examination under West Bengal Board of Secondary Education in 1995.
- **GATE (2003)** in Engineering Science: All India Rank- 227

### *Membership of learned Societies*

- Life member of Indian Institute of Chemical Engineering (LM: 36766)
- Life member of Oil Technologists' Association of India (OTAI/EZ/LM99).
- Life member of Indian Science Congress Association (L-37273)
- IMRF (International Multidisciplinary Research Foundation) annual member November 11<sup>th</sup> 2021

### *Awards*

1. **Best Researcher Award**, In The International Scientist Awards on Engineering Science and Medicine, Organized by VDGGOOD® Professional Association, 29-30<sup>th</sup> April 2022, Pondicherry India.
2. **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.
3. **National Best Researcher Award 2021**, In Chemical Engineering, IMRF, India 11<sup>th</sup> November 2021
4. **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.
5. Received **Research Innovation Award (1st Prize)**, R. Das, C. Bhattacharjee, A Sustainable Approach for Environmental Pollution Control with Photo Membrane Reactor In 'National Symposium on Applications of Engineering and Technology towards Sustainable Growth' Organised by TEQIP III Twinning Programme, FET, JU and Vivekananda Institute of Environment and Management, 4th June 2019, Jadavpur University, Kolkata.

6. 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.
7. **Best paper award** in 6<sup>th</sup> International Conference on Solid Waste Management, 6<sup>th</sup> IconSWM 2016, JU, Kolkata, India, November 24 - 26, 2016.
8. '**Best Scientific Presentation Award**' from 3<sup>rd</sup> Convention, Society for Ethnopharmacology, JU Kolkata, India, 2016.
9. Recipient of "**Dr. Santinath Ghosh Memorial Research Award 2015**" from Oil Technologists' Association of India (OTAI), India for excellence in the field of Oil Technology and Allied Sciences with Best Social / Industrial Implication through patent / research paper.
10. "**Sir Ganga Ram Memorial Award 2010**", for **Best Paper** published in Journal of Institute of Engineers (India) in the year of 2010.
11. Recipient of **Gold Medal** from Calcutta University in **2005** being topper in M.Tech.

#### ***Foreign Exposures and Invited Lectures***

1. Visited Gwangju Institute of Science and Technology (**GIST**), South Korea, during 22<sup>nd</sup> November 2012 to 29<sup>th</sup> November 2012 as visiting scientist from Indian side under project "*Nano material based membrane for water purification*" sponsored by DST, Govt. of India.
2. Visited Norwegian University of Science & Technology (NTNU), Norway during 14<sup>th</sup> June 2016-17<sup>th</sup> June 2016 for Course Work and 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**'. The topic of the course work was **Membrane Bioreactor (MBR) for Wastewater Treatment and** for lecture was '**Valorization of by products in Vegetable Oil Industry using Membrane Technology**'.
3. Visited Institute of Mechanics, Bulgarian Academy of Sciences, Sofia, Bulgaria on during 19<sup>th</sup> -22<sup>nd</sup> June, 2016. Delivered invited lecture on "**Valorization of by products in Vegetable Oil Industry using Membrane Technology**" 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.
4. Invited lecture on '**Application of nanomaterials in water treatment: Part II**' in Continuing Education Programme "Hybrid Nanomaterials for Defiance Application" at DMSRDE, DRDO, Kanpur India during August 7-11, 2017.

#### ***Teaching Experiences***

- Associate Professor in Chemical Engineering Department, Jadavpur university, Kolkata, West Bengal. 2021-cont.
- Visiting teacher, Paper setter/ Examiner, B. Tech. level in the Department of Chemical Technology, CU, Kolkata (from Year 2006 – cont.)
- Visiting teacher, Paper setter/ Examiner, M. Tech. level (from Year 2010-cont.) in the Department of Chemical Technology, CU, Kolkata.
- Visiting faculty, Paper setter/ Examiner in the School of Environmental studies, JU, Kolkata
- Visiting faculty, Paper setter/ Examiner in School of Bioscience and Biomedical Engineering, JU, Kolkata

#### **Project Supervised:**

1. PI of WOS-B Project on "Development of the biomimetic membrane based water treatment unit with water recycle and reutilisation benefits" WISE KIRAN division. Sanction no 484 vide the concurrence Dy no. 100/3055/IFD/3055/2021-22 dated 11.11.2021 duration 36 month. Project cost Rs. 10,90,295/-
2. Graphene based magnetic nanoparticle for water treatment Purpose, Jadavpur University Research Grant, Project cost 50,000/-. Ref. no S-3/141/21 dated 06.12.2021 from 06.12.2021-05.12.2022

### Expert in panel

Served as Selection committee expert for the post of Inspector of Factories (Chemical) under Public Service Commission, Govt of west Bengal during 23-28th February 2022.

### Refresher Course/Orientation/ FDP

Faculty development program on “Biovalorisation: Trend and Prospects of Value Added Products” organized by Department of Biotechnology, National Institute of Technology Andhra Pradesh, Tadepalligudem, from 3rd to 7th January 2022.

**Editor:** Editorial board member of Avanti Publication. <https://www.avantipublishers.com/editorial-board-member-giese>

### List of Master Degree Student

Name	Registration No	Title	Year
Parambrata Chakraborty	Roll No. 002110302003 Regn. no 127205 of 2014-15	Fabrication, characterisation and application of Mixed Matrix Membrane for Heavy metal removal from wastewater.	2021-23 (ChE)
Purushattam Gayen	Roll No : 002110303005	Biogenic Synthesis of Silver Nanoparticles using bacillus Strain: Characterisation and Application	2021-23 (MBPE)

### List of Ph.D students

Name of Student	Registration No	Title	Year of completion	Role
Somakraj Banerjee	2020 (NEW) JU, Regn. No. 267/20/E	Development of advanced mixed matrix membrane and/or adsorbent system for heavy metal removal from water	ongoing	Co-Supervisor
Anirban Kanungo	(Index No.-2/20/Life Sc/26. Ref No.-D/7Sc/1303/19)	Role of cytokines TNS- A, IL-6 in obese Indians- An exploratory Study	ongoing	Supervisor
Sanjoy Kundu	Index no. 67/22/E dated 28.04.2022	Development of a hybrid sustainable technology for efficient arsenic removal from water using cost effective nano material	ongoing	Supervisor
Aishwarya Das	D-7/ISLM/98/21 Dated 4th Jan 2022	Studies on water treatment through Microbe assisted Nanobioremediation and allied Technologies	ongoing	Co-Supervisor

### **Published Books**

1. **R. Das Mondal**, Process Development for Better Utilisation of Seed Meal Constituents, Scholar's Press, OmniScriptum Publishing, Latvia, European Union, 2013, ISBN: 978-3-639-70589-8

### **Book Chapters**

1. S. Chakraborty, **R. Das Mondal**, D. Mukherjee, C. Bhattacharjee, *Production of biobased Fuels: Bioethanol and Biodiesel*, **Sustainable Development in Chemical Engineering Innovative Technologies**, V. Pieminte, M. De Falco, A. Basile, **John Wiley and Sons Ltd.** 2013, pp 153-173. ISBN: 978-1-119-95352-4
2. **R. Das**, C. Bhattacharjee, “*Processing sesame seeds and bioactive fractions*”, **Processing and Impact on Active Components in Food**; Victor R. Preedy, **Elsevier**, 2015, pp 385-394. ISBN: 978-0-12-404699-3
3. **R. Das**, *Protease in Membrane Bioreactor*, **Encyclopedia of Membrane**, Chapter: 1855-1, Article: 372279. **Springer**.
4. **R. Das**, *Role of Nanobioceramics in Hard Tissue Engineering*, Chapter 12, **Nano Biomaterials in Hard Tissue Engineering**, ISBN: 978-0-323-42862-0, **Elsevier**. 2016
5. S. Ghosh, C. Bhattacharjee, **R. Das**, *Bioremediation- Application of Biotechnology in Waste Management, In Product development and waste recycling*, Ed: Dr. Avnish Chauhan and Dr. Pawan Kumar ‘Bharti’, Discovery Publishing House Pvt Ltd. 2019. ISBN: 9789386841940
6. **R Das**, H S. Samanta, C. Bhattacharjee, *Hydrogel: Polymeric Smart Material in Drug Delivery*, Materials Science Forum, Volume 875, pp 45-62, **Advanced Functional Materials: Properties and Applications: Volume II**, Ed: Inamuddin Siddiqui, Amir Al- Ahmed, **Trans Tech Publications Ltd**, Kreuzstrasse 10, CH-8635 Zurich-Dumten, Switzerland. 2016. DOI: 10.4028/www.scientific.net/MSF.875.45
7. **R. Das**, *Titanium based nanocomposite materials for dental implant systems*, (Chapter 15), In **Applications of Nanocomposite Materials in Dentistry**, Ed: Abdullah M. Asiri, Inamuddin S., Ali Mohammad, Woodhead Publishing, **Elsevier USA**, 2018.
8. **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. ISBN: 978-0-12-813741-3
9. **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.
10. **R. Das**, Ecofriendly lubricants for tribological application, In ‘Handbook of Ecomaterials’, Ed: Leticia Myriam Torres Martinez, Oxana Vasilievna Kharissova, Boris Ildusovich Kharisov, **Springer –Nature Publication**, pp 1-18. ISBN: 978-3-319-48281-1, November 2017.
11. **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
12. **R. Das**, C. Bhattacharjee, Nutritional composition, health benefits and antioxidant properties of lattuice, (Chapter 9) In ‘*Nutritional Composition and Antioxidant Properties of Fruits and Vegetables*’, Ed: Amit K. Jaiswal, Academic Pressimprint of Elsevier, pp 143-157. 2020 ISBN: 978-0-12-812780-3 .
13. **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, Academic Pressimprint of Elsevier, pp 695-708. 2020 ISBN: 978-0-12-812780-3

14. **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
15. **R. Das**, C. Bhattacharjee, Detoxification of Nonconventional Oil Seed Protein and Synthesis of Protein Based Hydrogel In International Conference on Emerging Technologies for Sustainable Development (ICETSD'19) Pp- E6-E9, ISBN: 978-81-8211-146-2 ©2019 GCELT.
16. **R. Das**, S. Das, C. Bhattacharjee, *CO<sub>2</sub> 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>)
17. **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>)
18. **R. Das**, Industrial applications of green solvents for extraction of biomolecules, In "Green Chemistry for the Sustainable Development of Chemical Industry" edited by Dr. Inamuddin, Springer, 2019 (In press)
19. **R. Das**, C. Bhattacharjee, Green Composites - A next generation sustainable composite materials, specific features and applications, In "Green Composites: Materials and Applications" edited by Dr. Inamuddin, Springer, 2019 (In press)
20. S. Banerjee, **R. Das**, C. Bhattacharjee, Biofuel Cells for Water Desalination, In Biofuel Cells: Materials and Challenges, edited by Dr. Inamuddin,, Wiley-Scrivener Publishing LLC, March 15, 2020
21. Das R., Bhattacharjee C. (2020) Development of Glass Ceramics from Agricultural Wastes. In: Kharissova O.V., Martínez L.M.T., Kharisov B.I. (eds) Handbook of Nanomaterials and Nanocomposites for Energy and Environmental Applications. Springer, Cham. [https://doi.org/10.1007/978-3-030-11155-7\\_134-1](https://doi.org/10.1007/978-3-030-11155-7_134-1)
22. **R. Das**, Artificial Photosynthesis: Present and Future, In Handbook of Nanomaterials and Nanocomposites for Energy and Environmental Applications, edited by Oxana Vasilievna Kharissova, Leticia Myriam Torres-Martínez and B. I. Kharisov, Springer Nature, May 31, 2020 (Accepted)
23. 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](https://doi.org/10.1007/978-981-15-7409-2_23)
24. **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>
25. S. Banerjee, R. Chakraborty, **R. Das**, C. Bhattacharjee, "Overview on natural materials for oil/water separation" in book "Advances in oil-water separation: A complete guide for physical, chemical, and Biological processes", (Editors: Papita Das Suvendu Manna Jitendra Pandey), ISBN: 978032389978 2022.
26. **R. Das**, A. Das, C. Bhattacharjee, 'Green nano-bio remediation process for ultimate wastewater treatment purpose' In "Microbial Technologies in Industrial Wastewater" Ed. Maulin P. Shah, SPRINGER, 2021 (processing)
27. Somakraj Banerjee, **Ranjana Das**, Chiranjib Bhattacharjee, Biofuel Cells for Water Desalination, In Biofuel Cells: Materials and Challenges, edited by Inamuddin, Mohd Imran Ahamed, Rajender Boddula, Mashallah Rezakazemi, Wiley-Scrivener Publishing LLC, ISBN: 9781119724698 March 15, 2020

#### **Academic projects**

1. Post-Doctoral Fellow (DS Kothari PDF, UGC) in JU (2015-2018) on Development of novel type membrane reactor in isolation of nutraceuticals from non-conventional sources.

2. Involved in 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).
3. Involved in Nano-Photocatalysis membrane in energy conversion for water treatment (File no.: INT/BULGARIA/P-09/2012) (Bulgarian PI: Dr. Irena Borovanska, Sofia, Bulgaria).
4. Research Associate under **DST**, Govt. of India Sponsored Scheme entitled ‘Nanomaterial- based membrane in water purification’ (Indo-Korean Project, 20<sup>th</sup> December 2011-31<sup>st</sup> December 2014).
5. Research Associate under Council of Scientific and Industrial Research (**CSIR**), on project: “Fractionation and characterization of small bioactive peptides from seed protein hydrolysate and their biological evaluation” (April 2010-September 2011).
6. Research Associate under **DBT**, project “Milk nutraceuticals: a biotechnology opportunity for Australian and Indian dairy producers” JU (2007-2009) (Indo-Australian Project).

### **Publications**

1. D. Roy, **R. Das**, M. Ghosh, and S. Ghosh, Antioxidative Effect of Polyphenol present in Corn (*Zea mays* L.), *Journal of Indian Chemical Society*, 83, 1127-1129, 2006.
2. **R. Das**, S. Ghosh, and C. Bhattacharjee, A Comparative Performance Study During Ultrafiltration of Sesame Protein Hydrolysate in Rotating Disk Module and Cross Flow Module, *International Journal of Chemical Sciences*, 5(4),1851-1861, 2007.
3. **R. Das**, S. Ghosh, and C. Bhattacharjee, Effect of operating parameters and nature of fouling in ultrafiltration of sesame protein hydrolysate, *Desalination*, 237, 268-276, 2009.
4. **R. Das**, S. Ghosh, and C. Bhattacharjee, Studies on Membrane Processing of Sesame Protein Isolate and Sesame Protein Hydrolysate using Rotating Disk Module, *Separation Science and Technology*, 44(1), 131-150,2009.
5. **R. Das**, C. Bhattacharjee, and S. Ghosh, Preparation of Mustard (*Brassica juncea* L.) Protein Isolate and Recovery of Phenolic Compounds by Ultrafiltration, *Industrial and Engineering Chemistry Research*, 48 (10), 4939-4947, 2009.
6. D. Datta, S. Bhattacharjee, A. Nath, **R. Das**, C. Bhattacharjee, and S. Datta, Separation of Ovalbumin from Chicken Egg White Using Two-Stage Ultrafiltration Technique, *Separation and Purification Technology*, 66, 353–361, 2009.
7. **R. Das**, S. Dutta, and C. Bhattacharjee, Separation of Whey Protein and Recovery of Lactose from Whey by Ultrafiltration, *Journal of Institution of Engineers (India)*, 90 (2009), pp. 37 – 42.
8. **R. Das**, D. Sen, A. Sarkar, S. Bhattacharyya, and C. Bhattacharjee, A Comparative Study on the Production of Galacto-oligosaccharide from Whey Permeate in Recycle Membrane Reactor and in Enzymatic Batch Reactor, *Industrial and Engineering Chemistry Research*, 50(2), 806-816, 2011.
9. **R. Das**, D. Sen, A. Sarkar, and C. Bhattacharjee, Study on the Effect of Membrane Speed on Enzymatic Synthesis of Galacto-oligosaccharides using Immobilized  $\beta$ -Galactosidase in Rotating Disk Membrane Reactor (RDMR), *Journal of Institution of Engineers (India)*, 91 (2011), pp. 3 – 10.
10. **R. Das**, C. Bhattacharjee, and S. Ghosh, Novel Approach to Recover Natural Antioxidants from Oil Seed Meal in Ultrafiltration-Nanofiltration-Based Technique, *Industrial and Engineering Chemistry Research*, 50(21), 12124-12133, 2011.
11. **R. Das**, A. Dutta, and C. Bhattacharjee, Preparation of Sesame Peptide and Evaluation of Antibacterial Activity on Typical Pathogens, *Food Chemistry*, 131, 1504-1509, 2012.
12. **R. Das**, S. Ghosh, and C. Bhattacharjee, Enzyme Membrane Reactor in Isolation of Antioxidative Peptides from Oil Industry Waste: A Comparison with Nonpeptidic Antioxidants, *LWT-Food Science and Technology*, 47,238-245 (2012).
13. **R. Das**, A. Dutta, and C. Bhattacharjee, Assessment on the antibacterial potential of Phytochemical Naringin-An in vitro evaluation, *International Journal of Emerging Technology and Advanced Engineering*, 3(9), 353-357, 2013
14. **R. Das** and C. Bhattacharjee *In vitro* evaluation of antioxidant activity and radical scavenging activity of sesame bioactive peptides, *International Journal of Emerging Technology and Advanced Engineering*, 3(11), 521-527, 2013
15. **R. Das**, S. Sarkar, S. Chakraborty, H. Choi, and C. Bhattacharjee, Remediation of antiseptic components in Waste water by photocatalysis using TiO<sub>2</sub> nano particles, *Industrial and Engineering Chemistry Research*, 53, 3012-3020, 2014

16. S. Sarkar, R. Chowdhuri, **R. Das**, S. Chakraborty, H. Choi, and C. Bhattacharjee, Application of ANFIS model to optimise the photo catalytic degradation of chlorhexidine digluconate, RSC Advances, 4, 21141-21150, 2014
17. **R. Das**, S. Sarkar, and C. Bhattacharjee, Photocatalytic degradation of chlorhexidine -A chemical assessment and prediction of optimal condition by Response Surface Methodology, Journal of Water Process Engineering, 2, 79-86, 2014.
18. **R. Das**, Application Photocatalysis for Treatment of Industrial Waste Water – A Short Review, Open Access Library Journal, 2014.
19. S. Sarkar, **R. Das**, H. Choi, and C. Bhattacharjee, Involvement of process parameters and various modes of application of TiO<sub>2</sub> nanoparticles in heterogeneous photocatalysis of pharmaceutical wastes – a short review, RSC Advances, 4, 57250-57266, 2014.
20. S. Sarkar, K. Sondhi, **R. Das**, S. Chakraborty, H. Choi, and C. Bhattacharjee, Development of a mathematical model to predict different parameters during pharmaceutical wastewater treatment using TiO<sub>2</sub> coated membrane, Ecotoxicology and Environmental Safety, 121, 193–198, 2015.
21. **R. Das**, S. Ghosh, and C. Bhattacharjee, A green practice for pharmaceutical drug chlorhexidine digluconate treatment and ecotoxicity assessment, Journal of Water Process Engineering, 7, 266-272, 2015.
22. **R. Das**, Multienzyme Modification of Hemp Protein for Functional Peptides Synthesis, Journal of Food Processing, Volume 2015 (2015), Article ID 738984, <http://dx.doi.org/10.1155/2015/738984>
23. H.S. Samanta, **R. Das**, and C. Bhattacharjee, Influence of Nanoparticles for Wastewater Treatment - A Short Review, Austin Chemical Engineering, 3(3), 1036-1041, 2016.
24. **R. Das** and C. Bhattacharjee, Nutraceutical from hemp (*Cannabis sativa* L.) and functional evaluation, International Journal of Nutrition and Agriculture Research 3 (1), 23-29, 2016.
25. **R. Das**, A. De, S. Poddar, and C. Bhattacharjee, Decolourization of selective textile dyes using waterborne pathogenic bacterial strains, Global Journal of Engineering Science and Research Management, 3(12), 98-107, 2016.
26. **R. Das** and C. Bhattacharjee, Agro industrial waste valorisation by application of membrane technology, International Education & Research Journal, 3(12), 26-28, 2017.
27. **R. Das**, C. Bhattacharjee, Application of nanotechnology for pharma industry effluent treatment - a sustainable process development in book in the book entitled, 'Advances in Wastewater Treatment for Heavy Metals and Dyes' Springer Nature, as Chapter in proceedings, June- 2020
28. Aban Mandal, Anubhav Das, Ranjana Das, Chiranjib Bhattacharjee, Preparation of Graphene Nanoparticle Surface Modified Metal Oxide Doped Soda-Lime Glass Composite for Application in Water Purification, NanoWorld Journal, <https://doi.org/10.17756/nwj.2021-089>, 2022.
29. Aishwarya Das, Ranjana Das, Chiranjib Bhattacharjee, Microbial Bioremediation of Arsenic by Arsenic Tolerant Bacteria Isolated from Industrial Soil, Edu. Chem. Sci. Tech., 9, 2021, 161-170.

#### **Work shop participation**

1. Process modeling using UniSim® Design: (20th February, 2012-22nd February, 2012)
2. International Workshop and Course on “Colloid Chemistry in Produced Water Treatment, December 16-17, 2015 by UGC, Indo-Norwegian Collaboration Program in Chemical Engineering Department, JU, Kolkata, India.
3. Workshop on solidification and phase transformation, Mechanical Engineering Department JU, Aug26-27, 2016.
4. One- Day workshop on disaster preparedness, Civil Engineering Department JU, Aug29, 2016.
5. Workshop on Paradigm shift in Chemical Engineering Department, JU, September8-9, 2016.
6. Workshop on Waste Segregation at Source and Treatment in Mechanical Engineering Department Kolkata, June 5, 2017.
7. Two Days International Workshop on Advanced Hybrid Separation Techniques In Industrial Wastewater Management, Chemical Engineering Department, JU, 8-9<sup>th</sup> December 2017.

### Conferences (International)

1. **R. Das**, M. Ghosh, S. Ghosh, *In vitro* antioxidant activity of Sesame (*Sesamum indicum* L.) meal extract, Poster presentation in **Conference and exhibition on oil seed and vegetable oil utilization** organized by AOCS, Aug 12-16, Turkey 2006.
2. **R. Das**, S. Ghosh, C. Bhattacharjee, *Processing of mustard protein hydrolysate by rotating disk ultrafiltration module*, Poster presentation in **8<sup>th</sup> International conference on catalysis in membrane reactors, ICCMR8**, Dec 18-21, 2007, Kolkata. India. Abstract published in abstract book, pp-152.
3. A. Nath, **R. Das**, C. Bhattacharjee, *Separation and purification of ovalbumin from chicken egg white by ultrafiltration*, Poster presentation in **8<sup>th</sup> International conference on catalysis in membrane reactors, ICCMR8**, Dec 18-21, 2007, Kolkata. India. Abstract published in abstract book, pp-157.
4. **R. Das**, C. Bhattacharjee, *Development of membrane bioreactor to utilize whey in functional food formulation*, In **InDA-APDA Conference on Desalination & Water Purification (InDACON 2010)** March 10 -12, 2010, Chennai, India. Paper published in the proceedings, pp-438.
5. **R. Das**, C. Bhattacharjee, S. Ghosh, *Production and Fractionation of Antioxidative Peptides from Oil Seed Meal*, In **65<sup>th</sup> OTAI Annual Convention, International Seminar and Expo**, December 3-5, 2010, New Delhi, India. Abstract published in Proceedings (TS-II-1).
6. S. Sarkar, **R. Das**, S. Sarkar, C. Bhattacharjee, Adsorption study of CHDG on the surface of TiO<sub>2</sub> nano particles, International conference on nanotechnology (ICTN-2013), October 25-26<sup>th</sup> Haldia, India, Paper published in the proceedings, pp-40
7. S. Sarkar, A. Sarkar, S. Sarkar, **R. Das**, C. Bhattacharjee, *Surface modification of membranes using nano particles to enhance membrane performance: A short review*, International Conference on Nanotechnology (ICTN-2013), October 25-26<sup>th</sup> Haldia, India, Paper published in the proceedings, pp-145
8. **R. Das Mondal**, S. Sarkar, T. Kanjilal, C. Bhattacharjee, *Treatment of residual antiseptic component in waste water by heterogeneous photocatalysis*, **6<sup>th</sup> International Congress of Environmental Research (ICER-13)**, December 19-21, Aurangabad, India. Paper published in the souvenir, pp-266.
9. K. Biswas, **R. Das Mondal**, S. Sarkar, C. Bhattacharjee, *Design of a batch slurry reactor for photo mineralisation of drug residue in waste water*, **6<sup>th</sup> International Congress of Environmental Research (ICER-13)**, December 19-21, Aurangabad, India. Abstract published in the souvenir, pp-787.
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