INTELLECTUAL PROPERTY RIGHTS (IPR)

National:

- 1. Design of Clamping Pulley [Patent No. 350143-001, Granted- 25/01/2023]: INDIA
- 2. Electrochemical Membrane Bioreactor [Patent No. 350145-001, Granted- 27/06/2023]: INDIA
- Municipal Wastewater Treatment Device [Patent No. 350144-001, Granted- 17/02/2023]: INDIA
- 4. A Method of Treatment of Domestic Wastewater by Electrochemical Membrane Bioreactor and Generation of Bioelectricity [Patent No. 202311010019, **Granted** 22/05/2024]: **INDIA**
- 5. Removal of Chromium from Industrial Wastewater Using Magnetic Nanoparticles [Patent No. 202311027431, **Published**-02/06/2023]: **INDIA**
- Adsorption Column for Dye Removal from Textile Wastewater [Patent No. 383691-001, Case Is Under Hearing]: INDIA
- 7. Thermal Catalytic Cracking Unit [Patent No. 388557-001, Granted- 02/02/2024]: INDIA
- 8. Microbial Fuel cell Set-up for Continuous Process [Patent No. 404283-001, Granted- 4/05/2024]: INDIA
- 9. An Electrospinning Set-up for Wound Patches [Patent No. 407680-001, Granted- 09/04/2024]: INDIA
- 10. An electrochemical device for measuring current and voltage in electrochemical membrane bioreactor [Patent No. 425141-001, **Granted** 24/10/2024]: **INDIA**
- 11. Biofilm reactor for multiple substratum [Patent No. 432264-001, Granted- 09/12/2024]: INDIA
- 12. Biochemical reactor for production of biofuel [Patent No. 439728-001, File 06/12/2024]: INDIA

International:

- 1. Electrochemical Biosensor Device for Measuring Water Quality Parameter [Patent No.- 6275686, **Granted**- 26/04/2023]: **UNITED KINGDOM**
- Integrated Anaerobic Sludge Reactor having Microbial Fuel Cell for Wastewater Treatment [Patent No.-6310988, Granted-25/09/2023]: UNITED KINGDOM
- Semi-Continuous Biochemical Reactor for Biodiesel [Patent No.- 6310987, Granted- 25/09/2023]: UNITED KINGDOM
- Artificial Intelligence Based Membrane Bioreactor for Treatment of Wastewater [Patent No.- AMCZ-2312907656, Granted- 31/01/2024]: AUSTRALIA
- Thermal Catalytic Cracking Unit for Biofuel Production [Patent No.- 6338387, Granted-19/01/2024]:
 UNITED KINGDOM
- A Process for Treatment of Municipal Wastewater and Generation of Bioelectricity by Electrochemical Membrane Bioreactor [Patent No.- 2023/10692, Granted- 26/06/2024]: SOUTH AFRICA
- An electrochemical device for measurement of current and voltage [Patent No.- 6387517, Granted-06/09/2024]: UNITED KINGDOM
- 8. A Superparamagnetic Fe₃O₄ Nanoparticles from *Hibiscus rosa-sinensis* Leaf Extract and Application Thereof [Patent No.- 202411040955, **Granted-**15/11/2024]: **GERMAN**

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BOOK PUBLICATIONS

S. No.	Title	Editor's/ Author's Name	Publisher	Year of Publication
1.	Environmental Management in Hostel	Saurabh Yadav, Rohit Kumar Singh, Suantak Kamsonlian , Manoj Kumar Yadav, MS Karuna	1st Edition, P.K Publishers and Distributors, New Delhi ISBN 978-93-92239-30-4	2022
2.	Thermal Catalytic Cracking of Jatropha Oil	Saurabh Yadav, Suantak Kamsonlian, Neeru Anand, Dinesh Kumar	1st Edition, P.K Publishers and Distributors, New Delhi <i>ISBN</i> 978- 93-92239-48-9	2022
	Treatment of Domestic Wastewater by Electrochemical Membrane Reactor	Shubham Pal, Anant Prakash Agarwal, Suantak Kamsonlian, Saurabh Yadav	1st Edition, P.K Publishers and Distributors, New Delhi ISBN 978-93-92239-81-6	2023
	Emerging Trends in Chemical and Biochemical Engineering - Volume - 1	Mr. Saurabh Yadav Dr. Suantak Kamsonlian Dr. Karthick S Ms. Niharika Dutt	IIP (Iterative International Publishers) Selfypage Developers Pvt. Ltd., Paisley Circle, Novi, Michigan, USA. ISBN 978-1-68576-456-2	2023
	Emerging Trends in Chemical and Biochemical Engineering - Volume - 2	Dr. Suantak Kamsonlian Dr. Vishnu Agarwal Dr. Saurabh Yadav	IIP (Iterative International Publishers) Selfypage Developers Pvt. Ltd., Paisley Circle, Novi, Michigan, USA. ISBN 978-1-68576-457-9	2023
6.	Application of Plant Based Nano- particles for Dye Removal from Contaminated Wastewater	Dr. Kirti Dr. Suantak Kamsonlian Dr. Vishnu Agarwal	1st Edition, P.K Publishers and Distributors, New Delhi <i>ISBN</i> 978- 81-19428-78-6	2024
7.	Emerging Trends in Chemical and Biochemical Engineering-Volume - 3	Dr. Suantak Kamsonlian Dr. Arvind Kumar Gautam Dr. Sanjay Singh Mr. Ankit Kumar Dr. Saurabh Yadav	IIP (Iterative International Publishers) Selfypage Developers Pvt. Ltd., Paisley Circle, Novi, Michigan, USA. ISBN 978-1-68576-503-3	2024
8.	Current Trends in Engineering and Technology - Volume - 1	Dr. Suantak Kamsonlian Dr. Arvind Kumar Gautam Ms. Niharika Dutt Dr. Saurabh Yadav	P.K Publishers and Distributors, New Delhi ISBN 978-81-19428-37-3	2024

BOOK CHAPTER PUBLICATIONS

S. No.	Title	Author's Name	Chapter Contribute/ Book Name	Page No.	Publisher	Year of Publication
1.	Biosorption of Cd (II) and As	Suantak Kamsonlian,	Chapter 7, Vol. 3	83-91	Book Publisher (BP)	2020
	(III) Ions from Aqueous	Chandrajit Balomajumder,	Book:		International, UK	
	Solution by Tea Waste	Shri Chand and S. Suresh	Current		ISBN 978-93-89816-	
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2.	Green synthesis of EI-Fe nanoparticle from eucalyptus globulus leaf extract and their usage for methylene blue removal	Praveen Dubey, Satish Kumar Singh, Kirti, Saurabh Yadav, Suantak Kamsonlian , Ankur Gaur	Chapter 4, Vol. 1 Book: Industrial Application of Nanoscience and Nanotechnology	19-30	Excel India Publishers, New Delhi ISBN 9789389947267	2020
3.	Recent trends in the application of nanoparticles in biopolymer films: A review	Himanshu Gupta, Sadhana Sachan, Suantak Kamsonlian , Devender Singh, Ankur Gaur	Chapter 7, Vol. 1 Book: Industrial Application of Nanoscience and Nanotechnology	63-74	Excel India Publishers, New Delhi ISBN 9789389947267	2020
4.	Nanoparticle: Synthesis, Characterization and Applications	Shabnam Dan, Amit Chattree, Ankur Gaur, Suantak Kamsonlian	Chapter 12, Vol. 1 Book: Industrial Application of Nanoscience and Nanotechnology	136-146	Excel India Publishers, New Delhi ISBN 9789389947267	2020
5.	In-situ polymerization for preparation of graphene-based polymer nanocomposites	Saurabh Yadav, Basudha Maurya, Kirti, Vishnu Agarwal, Suantak Kamsonlian	Chapter 14, Vol. 1 Book: Industrial Application of Nanoscience and Nanotechnology	147-162	Excel India Publishers, New Delhi ISBN 9789389947267	2020
6.	Treatment Of Contaminated Water: Membrane Separation and Biological Processes	Suantak Kamsonlian, Saurabh Yadav, Kailas S Wasewar, Ankur Gaur and Sushil Kumar	Chapter 22, Vol. 1 Book:	339-350	Academic Press, Elsevier Publications, Netherlands ISBN 9780128240588	2021
7.	Catalytic Cracking of Jatropha Curcasa Non- Edible Oil to Hydrocarbons of Gasoline Fraction: Optimization Studies through Box-Behenken Method	Saurabh Yadav, Neeru Anand, Dinesh Kumar, Suantak Kamsonlian	Chapter 7 Book: Utilization of Waste Biomass in Energy, Environment and Catalysis	143-160	Taylor & Francis (CRC) Publications, Florida, USA ISBN 9781003196358	2022
8.	Microbial Fuel Cell Modeling: A Comprehensive Approach for Sustainable Energy	Vivek Maurya, Saurabh Yadav, Karthick Senthilkumar, Suantak Kamsonlian	Chapter 1, Vol. 1 Book: Emerging Trends in Chemical and Biochemical Engineering	1-10	IIP (Iterative International Publishers) Selfypage Developers Pvt. Ltd., Paisley Circle, Novi, Michigan, USA. ISBN 978-1-68576- 456-2	2023
9.	Production of Bio fuels: an Overview on Biodiesel	Arvind K. Gautam, Nandlal Pingua,	Chapter 6, Vol. 1 Book:	62-75	IIP (Iterative International Publishers)	2023

	Production from Waste	Avinash Chandra,	Emerging Trends		Selfypage	
	Cooking Oil	Suantak Kamsonlian	in Chemical and		Developers Pvt. Ltd.,	
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