

Profile Page



Name : Dr Shashikant Yadav

Designation : Assistant Professor Grade-i

Department : Chemical Engineering

Qualification : Ph.D. Chemical Engineering (Indian Institute of Technology Bombay)
M.Tech Chemical Engineering (Indian Institute of Technology Roorkee)
B.E. Chemical Engineering (Deenbandhu Chhotu Ram University of Science and Technology, Murthal (Haryana))

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Research Interests :

CO₂ Sequestration, Multiphase Reactions, Mineral Carbonation, Waste Utilization and Management, Analytical, Numerical and Soft Computing Modeling and Optimization of Reaction Processes, Social and Economic Engineering, Edible films and coatings

Other Profile Links :

Google Scholar Link :

Shashikant Yadav [Click Here](#)

Personal Web Link :

ORCID iD [Click Here](#)

Facebook [Click Here](#)

Personal website [Click Here](#)

Publons [Click Here](#)

Vidwan [Click Here](#)

SCOPUS [Click Here](#)

Journal Publications :

| Year | Journal | Publication |
|------|---------------------------------|--|
| 2023 | ACS Omega 2023, 8, 5, 4802–4812 | Rajib Nandi, Mithilesh Kumar Jha, Sujit Kumar Guchhait, Debanjan Sutradhar, Shashikant Yadav, Impact of KOH Activation on Rice Husk Derived Porous Activated Carbon for Carbon Capture at Flue Gas like Temperatures with High CO ₂ /N ₂ Selectivity |

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|------|--|--|
| 2022 | International Journal of Polymer Science, Volume 2022 Article ID 7816333 | Raj Kumar, Naina Gautam, Shashikant Yadav, T Venketesh, Nasir Awol, Structural and physicochemical properties of an active film based on potato starch, silver nanoparticles, and rose apple (<i>Syzygium samarangense</i>) extract |
| 2022 | Journal of Food Quality, Volume 2022 Article ID 8606104 | Raj Kumar, Naina Gautam, Shashikant Yadav, Venkatesh Thulasiraman, Anil Yadav, Nasir Awol, Moth Bean, Gelatin, and <i>Murraya Koenigii</i> Leaves Extract-Based Film and Coating: Effect of Coating on Shelf and Quality of <i>Solanum Melongena</i> |
| 2022 | Starch/Stärke, Volume 74, Issue 3-4 | Naina Gautam, Sangeeta Garg, Shashikant Yadav, Development of Flexible and Thin Films From Underutilized Indian Finger Millet (<i>Eleusine coracana</i>) Starch |
| 2021 | Environmental Science and Pollution Research volume 28, pages 12202–12231 (2021) | Shashikant Yadav, Anurag Mehra, A review on ex situ mineral carbonation |
| 2021 | International Journal of Food Science & Technology, 56 (10) 4823-4833 | Faiqa A Wani, Rukhsana Rashid, Abida Jabeen, Bethania Brochier, Shashikant Yadav, Thameed Aijaz, HA Makroo, BN Dar, Valorisation of food wastes to produce natural pigments using non-thermal novel extraction methods: a review |
| 2021 | Journal of Food Science and Technology volume 58, pages 4411–4419 (2021) | Naina Gautam, Sangeeta Garg, Shashikant Yadav, Underutilized finger millet crop for starch extraction, characterization, and utilization in the development of flexible thin film |
| 2020 | Materials Science for Energy Technologies Volume 3, 2020, Pages 494-500 | Neeraj, Shashikant Yadav, Carbon storage by mineral carbonation and industrial applications of CO ₂ |
| 2019 | Materials Science for Energy Technologies, Volume 2, Issue 3, December 2019, Pages 647-656 | Vijeta Arora, Rishabh Kumar Saran, Raj Kumar, Shashikant Yadav |
| 2019 | Journal of CO ₂ Utilization, 31 (2019) 181–191 | Shashikant Yadav, Anurag Mehra, Mathematical modelling and experimental study of carbonation of wollastonite in the aqueous media |
| 2018 | Global NEST Journal, Vol 20, No 3, pp 497-503 | Saran R. K., Arora V., Yadav S.*, CO ₂ sequestration by mineral carbonation: a review |
| 2017 | Waste Management, 64, 348–357 | Yadav S, Mehra A. Experimental study of dissolution of minerals and CO ₂ sequestration in steel slag |
| 2017 | Environmental Science and Pollution Research, 24:16305–16315. | Yadav S., Mehra A., Dissolution of steel slags in aqueous media |

Conference Publications :

| Year | Conference | Publication |
|------|---|--|
| 2019 | 6th International Conference on Production & Industrial Engineering CPIE 2019, Dr B R Ambedkar National Institute of Technology, Jalandhar (Punjab) India, June 8-10, 2019 | Sheetal Singh, Rishabh Kumar Saran, Shashikant Yadav, Mineral Carbonation Using Natural Minerals And Industrial Waste |
| 2018 | BIOSPECTRUM 2018, 2nd International Conference on Biotechnology & Biological Sciences, held on 27th-28th July 2018 at University of Engineering & Management (UEM), Kolkata | Raj Kumar ¹ , Vijeta Arora ² , R. K. Saran ³ , Shashikant Yadav ^{4†} , Potential of converting various biomass resources into biofuels and related bioproducts |
| 2018 | BIOSPECTRUM 2018, 2nd International Conference on Biotechnology & Biological Sciences, held on 27th-28th July 2018 at University of Engineering & Management (UEM), Kolkata | Vijeta Arora, D.P Tiwari, Shashikant Yadav, Preparation and characterization of Activated Walnut Powder for the degradation of Brilliant Red dye in water |

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|------|---|--|
| 2018 | BIOSPECTRUM 2018, 2nd International Conference on Biotechnology & Biological Sciences, held on 27th-28th July 2018 at University of Engineering & Management (UEM), Kolkata | Raj Kumar, Gargi Ghoshal, Meenakshi Goyal, Shashikant Yadav†, Preparation and evaluation of functional properties of tannic Acid loaded corn starch film |
| 2018 | 71st annual session of the Indian institute of Chemical Engineers IICHE, CHEMCON-2018 held at NIT Jalandhar | Naina Gautam, Shashikant Yadav*, Sangeeta Garg, Fabrication, Characterization of chitosan/Tulsi extract based biodegradable film for coating application |
| 2018 | 5th International Conference on Production and Industrial Engineering" (June 26-29, 2018) at Bangkok, Thailand | Rishabh Kumar Saran, Shashikant Yadav, Significance of Electronic Waste Management for Sustainable Industrial Production |
| 2017 | 5th International Conference on "Recent Development in Engineering Science, Humanities and Management (ESHM-17)", Chandigarh | Yadav S, Choudhary S, Kumar R, Saran RK. Utilization of alkaline industrial wastes for CO2 sequestration, 2017, p. 27–35 |
| 2017 | Climate change : mitigation strategy by various CO2 sequestration methods. 3rd International Conference on "Latest Innovations in Science, Engineering and Management", Goa | Saran RK, Kumar R, Yadav S. Climate change : mitigation strategy by various CO2 sequestration methods, 2017, p. 227–36 |
| 2017 | 3rd International Conference on "Latest Innovations in Science, Engineering and Management" held at International Centre Goa | Yadav S, Choudhary S, Saran RK. Demonetization conundrum : a harbinger of growth or the ominous sign of looming slowdown, 2017, p. 237–41 |
| 2017 | 3rd International Conference on "Latest Innovations in Science, Engineering and Management", Goa | Yadav S, Saran RK. Surgical strikes : challenging or destabilizing the status-quo?, 2017, p. 151–6 |
| 2017 | Research Scholars' Symposium 2017 organised by Department of Chemical Engineering, IIT Bombay | Yadav S, Mehra A, Carbonation of wollastonite under CO2 saturated water |
| 2017 | ReSConAm'17 held at IIT Bombay | Yadav S, Mehra A, Numerical modelling for carbonation of wollastonite rocks under an aqueous environment |
| 2017 | ReSConAm'17 held at IIT Bombay | Yadav S, Mehra A, Evaluation of sequestration potential of steel slags under mild operating conditions |
| 2017 | BIOSPECTRUM 2017, International Conference on Biotechnology and Biological Sciences, University of Engineering & Management, Kolkata, India | Yadav S, Rao S, Impact of microbial contaminants and their removal strategy in the effluent wastewater |
| 2013 | Radical Emission Reduction Conference held at Royal Society London and organized by Manchester University, United Kingdom | Yadav S, Mehra A, Experimental study of leaching and CO2 sequestration in steel slags |

Book/Chapter Publications :

| Type | Title | Publisher | Authors | ISBN/ISS N No. | Year |
|--------------|--|-----------------------------------|---|-------------------|------|
| Book Chapter | Feasibility Evaluation of Reactive Distillation Process for the Purification of Bioethanol | Springer International Publishing | Ankur Kumar Gupta, Shashikant Yadav | 978-3-030-96554-9 | 2022 |
| Book Chapter | Preparation and Evaluation of Functional Properties of Tannic Acid Loaded Corn Starch Film | Nova Science Publishers | Shashikant Yadav Raj Kumar, Gargi Ghoshal, Meenakshi Goya | 978-1-68507-985-7 | 2022 |
| Book Chapter | Extraction Characterization and Production of Biofuels From Algal Biomass | John Wiley & Sons, Inc. | Neeraj, Shashikant Yadav | 9781119818816 | 2022 |

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| Book Chapter | Significance of Electronic Waste Management for Sustainable Industrial Production | Springer | Rishabh Kumar Saran, Shashikant Yadav | 978-981-13-6476-1 | 2019 |
| Book Chapter | Treated Sewage Effluents as A Source of Microbiological Contamination on Receiving Watersheds | Springer | Shashikant Yadav, Suhana Rao | 978-981-13-6846-2 | 2019 |
| Book Chapter | Environmental Issues in Textiles, Advanced Functional Textiles and Polymers: Fabrication, Processing and Applications | John Wiley & Sons, Inc. | Rishabh Kumar Saran, Raj Kumar, Shashikant Yadav | 9781119605843 | 2019 |

Research Projects :

| Role | Project Type | Title | Funding Agency | From | To | Amount | Status | Co-Investigator |
|---------------------------|--------------|--|---|------------|------------|---------------|-------------|--------------------------------|
| Principal Investigator | R&D | Development of starch/cellulose based coating on fresh vegetables/fruits using waste biomass | TEQIP - III | 03-12-2018 | 02-12-2019 | Rs. 2,00,000 | Running | Dr. Amit D. Saran |
| Co-Principal Investigator | R&D | Moderate Electric Field and Pressure Assisted Extraction (MEFPAE) of Colorants from Food Waste | National Project Implementation Unit (NPIU) | 18-06-2019 | 30-09-2020 | Rs. 14,09,000 | In-progress | Dr. HILAL MAKROO, IUST Kashmir |
| Principal Investigator | R&D | Recovery Sucrose from Bagasse | TEQIP - III | 08-07-2019 | 07-07-2020 | Rs. 1,00,000 | In-progress | None |
| PI | R&D | Use of waste biomass for the development of edible coating | Department of Scientific and Industrial Research, Government of India | 14-03-2022 | | Rs. 2,23,000 | Running | None |

Events Organized :

| Category | Type | Title | Venue | From | To | Designation |
|--------------------------|---------------|--------------|---|------------|------------|-------------|
| International Conference | International | CHEMCON 2018 | Dr. B.R. Ambedkar National Institute of Technology, Jalandhar | 27-12-2018 | 30-12-2018 | Coordinator |

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|------------|----------|--|---|------------|------------|----------------------|
| Conference | National | 2nd National Conference on advances in Chemical and Environmental Engineering (ACEE' 19) | Dr. B. R. Ambedkar National Institute of Technology Jalandhar | 23-03-2019 | 24-03-2019 | Organizing Committee |
|------------|----------|--|---|------------|------------|----------------------|

PhD Supervised :

| Scholar Name | Research Topic | Status | Year | Co-Supervisor |
|--------------|----------------|-------------|------|-------------------|
| Naina Gautam | | In progress | 2018 | Dr. Sangeeta Garg |

PG Dissertation Guided :

| Student Name | Dissertation Title | Status | Year | Co-Supervisor |
|----------------|---|-----------|------|----------------|
| Kirandeep Kaur | Degradation of methyl orange using boron and copper doped ZnO photocatalyst | Completed | 2020 | Dr. Renu Gupta |