Dr. Ina Thakur

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ACADEMIC BACKGROUND

- **Ph.D., (2017-2022),** School of Energy & Environment, Thapar Institute of Engineering & Technology, Patiala.
- **M. Tech., (2014-2016),** Environmental Engineering**:** Jaypee University of Information Technology, Waknaghat**,** India (8.0 CGPA)
- **B. Tech., (2010-2014),** Civil Engineering: Chitkara University, Baddi, India

POSITION/APPOINTMENT

July 2018 to June 2021:

Teaching Associate, School of Energy & Environment, Thapar Institute of Engineering & Technology, Patiala, Punjab, India

Key Responsibilities: Undergraduate class of Energy & Environment.

Undergraduate & Postgraduate Laboratory (Water & Wastewater quality)

PROJECTS/DISSERTATION

- **Ph.D. (Thesis)**

Water Disinfection Studies using Hybrid Process of Photocatalysis and Photo-Fenton in Fixed Mode

- **M.Tech Project (Major)**

Aerobic Landfill Bioreactor: Analysis and Modeling *(A simulated model for enhancement of waste Stabilization)*

RESEARCH AREAS

- Water disinfection using an Advanced oxidation process
- Fabrication of catalyst in the composite form via utilization of waste material
- Novel fixed bed studies using reactor designing
- Photo-Fenton treatment using waste materials as the iron source and reactor design.

PEER-REVIEWED PUBLICATIONS **(h-index: 5)**

1. **I. Thakur**, A. Verma, B. Örmeci **(2023).** Solar photocatalytic disinfection of real municipal wastewater using highly durable TiO_2-coated composite in a pilot scale once through reactor. **Environmental Science and Pollution Research (IF.:5.4 *Springer*)**
2. **I. Thakur**, A. Verma, B. Örmeci **(2022).** Inactivation of bacteria present in secondary municipal wastewater effluent using the hybrid effect of Fe-TiO_2 catalyst. **Journal of Cleaner Production (IF.: 11.1 *Elsevier*)**
3. **I. Thakur**, A. Verma, B. Örmeci & V. Sangal **(2022).** Applications of waste-derived visibly active Fe-TiO_2 composite incorporating the hybrid process of photocatalysis and photo Fenton for the inactivation of *E. coli*. **Environmental Science and Pollution Research,** 1-13 **(I.F.: 5.4 *Springer*)**
4. **I. Thakur**, A. Verma, B. Örmeci **(2021).** Mathematical modeling of *E. coli* inactivation in water using Fe-TiO_2 composite in a fixed bed reactor. **Separation and Purification Technology**, *260*, 118-242. **(I. F.: 9.136 *Elsevier*)**
5. **I. Thakur**, A. Verma, B. Örmeci **(2021).** Fe-TiO_2 Composite Mediated the Hybrid Effect of Photocatalysis and Photo-Fenton for the Inactivation of Escherichia coli Using a Continuous Flow Recirculation Reactor. **Industrial & Engineering Chemistry Research**, 60, 7558−7571. **(I. F.: 4.326 *American Chemical Society*)**
6. **I. Thakur**, A. Verma, B. Örmeci **(2021).** Visibly active Fe-TiO_2 composite: A stable and efficient catalyst for the catalytic disinfection of water using a once-through reactor. **Journal of Environmental Chemical Engineering. (I. F.: 7.968 *Elsevier*)**

7. **I. Thakur**, A. Verma, B. Örmeci **(2020).** Inactivation of *E. coli* in water employing Fe-TiO_2 composite incorporating the in-situ dual process of photocatalysis and photo-Fenton in fixed-mode. **Journal of Water Process Engineering,** *33*, *101085**. (I. F.: 7.34 *Elsevier*)**
8. N. Kaur, A. Verma, **I. Thakur,** & S. Basu **(2021).** In-situ dual effect of Ag-Fe-TiO_2 composite for the photocatalytic degradation of Ciprofloxacin in aqueous solution**. Chemosphere**, *276*, 130180. **(I. F.:8.943 *Elsevier*)**
9. S. Puri, **I. Thakur**, A. Verma, & S. Barman **(2021).** Degradation of pharmaceutical drug paracetamol via UV irradiation using Fe-TiO_2 composite photocatalyst: statistical analysis and parametric optimization. **Environmental Science and Pollution Research**, 1-15**. (I. F.: 5.4 *Springer*)**
10. J. Singla, **I. Thakur,** V. Sangal, & A. Verma **(2021).** Dimensionally stable anode (Doped-MMO) mediated electro-oxidation and multi-response optimization study for remediation of urea wastewater. **Chemosphere**, 285,131-498. **(I. F.: 8.943 *Elsevier*)**
11. A. Sraw, T. Kaura, **I. Thakur**, A. Verma, R. K. Wanchooc, & A. P. Toor **(2022).** Photocatalytic degradation of pesticide monocrotophos in water using W-TiO_2 in slurry and fixed bed recirculating reactor. **Journal of Molecular Structure. (I. F.: 3.84 *Elsevier*)**

CONFERENCE PUBLICATIONS

1. L. Kumar, **I. Thakur,** A.Verma, & k. C. Mangat **(2021).** Degradation and Decolourization of Methyl Orange Dye Using Fe-TiO_2 Hybrid Technology (Photo-Fenton and Photocatalysis) in Fixed-Mode, **Sustainable Development Through Engineering Innovations**, ***Springer,*** (Conference article)
2. L. Kumar, **I. Thakur,** A. Verma, B.S. Bhatia, & K.C.Mangat **(2021).** Degradation and decoloration of RB5 dye via UV radiation using Fe-TiO_2 composite photocatalyst in fixed mode", **Letter Notes in Civil Engineering**, ***Springer.*** (Accepted)

CONFERENCE ATTENDED/PRESENTED

1. Degradation and Decolorization of Methyl Orange Dye Using Fe-TiO_2 Hybrid Technology (Photo-Fenton and Photocatalysis) in Fixed-Mode, **TEQIP-III sponsored International Congress on Sustainable Development Through Engineering Innovations**

2. Application of Fe-TiO_2 hybrid technology (photo-Fenton and photocatalysis) in the fixed mode for degradation and decolorization of RB-5 dye, **First International Conference on Construction Material and Environment**
3. Inactivation of *E. coli* in water using Fe-TiO_2 composite under UV irradiation in a fixed bed reactor using Mathematical modeling analysis, **TEQIP-III International Online Conference On Sustainable Research Technology and Development**
4. Applications of waste-derived visibly active Fe-TiO_2 composite incorporating the hybrid process of photocatalysis and photo-Fenton for the inactivation of *E. coli*, **International conference on "Recent Developments on Materials, Reliability, Safety, and Environmental issues**
5. Application of waste-driven visibly active Fe-TiO_2 composite for the disinfection of wastewater, **International Conference on Advances and Innovations in Recycling Engineering**

AWARDS AND FELLOWSHIPS

- Best paper award in TEQIP-III sponsored International Congress on Sustainable Development Through Engineering Innovations: organized by GNDE Ludhiana
- Best paper award in First International Conference on Construction Material and Environment organized by JUIT, Solan, India
- Merit certificate for presenting the paper in Advances and Innovations in recycling Engineering organized by UPES Dehradun, India

COMPUTER SKILLS

- Origin-Pro 8.5, X'pert Highscore Plus, Design Expert, Photoshop, Microsoft word, Adobe professional, PowerPoint

DECLARATION

I certify that the foregoing information is correct and complete to the best of my knowledge and belief, and nothing has been concealed/distorted.

Place:Una (India) **Sd/-**
06-07-2023 **(Ina Thakur)**