

Brief Curriculum Vitae

Manoj Kumar Tiwari

Fulbright Fellow, Ph.D. (IIT Kanpur)

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Personal Info

- *Date of Birth:* August 14, 1979
- *Nationality:* Indian

Academic Credentials

- **Ph. D in Civil (Environmental) Engineering** (2004-2010)
Institute: IIT Kanpur (INDIA)
- **M. Tech. in Environmental Engineering and Management** (2001-2003).
Institute: IIT Kanpur (INDIA)
- **B. Tech. with Honors in Civil Engineering** (1997-2001)
Institute: GBPUAT Pantnagar (INDIA)

Present Position

Assistant Professor

School of Water Resources, Indian Institute of Technology Kharagpur (Aug 2013 – Till date)

Past Affiliations

- **Assistant Professor**, Dept. of Civil Engineering, NIT Raipur (May 2013 - Jul 2013)
- **Research Consultant**, Dept. of Civil Engineering, IIT Kanpur (Oct 2011 – Dec 2012)
- **Guest Faculty**, School of Engineering, Gautam Buddha University, Greater Noida (Aug 2011 – May 2013)
- **Visiting Fulbright Fellow**, Dept. of Civil and Environmental Engineering, University of Virginia, Charlottesville, Virginia, USA (Sep 2010-June 2011)
- **Senior Research Associate**, Dept. of Civil Engineering, IIT Kanpur (Jan 2009 – Oct 2009)
- **Research Associate**, Dept. of Civil Engineering, IIT Kanpur (Feb 2003 – Dec 2003)

Specialization and Expertise

- Water/Wastewater treatment
- Fate and transport of pollutants in water and soil mediums
- Environmental Impact Assessment
- Development of Analytical Protocols
- Treatment of hazardous and persistent pollutants in surface and ground waters.
- Contaminated site management

Major Projects Undertaken

- Management of Urban Water Supply Network: Technical, Economic, Feasibility Assessment, and Ensuring Losses Controls and Sustainability
Sponsor: MHRD (FOC Initiative)
- Concept Plan for the Treatment of Acidic Mine Water
Sponsor: Phoenix Projects Private Limited
- Development of Ecofriendly Treatment Systems for Reuse of Greywater,
Sponsor: ISIRD, SRIC
- Environmental Impact of agrochemicals used on energy crops in the carbon cycle and GHG production (Fulbright Fellowship),
Sponsor: USIEF and IIE

Professional Trainings and Organizational Experience

- Organized of various academic meetings and conferences of National / International scale
 - Micro-credit Course on Business Analysis of Water Utilities (2016);
 - Short term course on Waste Minimization: Tools and Techniques (2011);
 - Asian Regional Research Program on Environmental Technology (ARRPET II) Annual Workshop (2005);
 - IASTA Annual Meeting and International Conference (2004).

Exposure to Laboratory and Advance Analytical Instruments

- Experience in the indenting, installation and maintenance of sophisticated equipments. such as GC-MS/ECD/FID, HPTLC-AMD, TOC Analyzer, AAS, IC, Optical and Light Microscopes, Laminar Hood and Anaerobic Glove Box, Image Analysis Systems
- Expert in laboratory monitoring techniques, especially for water and wastewater parameters like DO, BOD, COD, Alkalinity, Acidity, Hardness, Solids, MPN, Plate count, Sulfate, Phosphate, TKN, Metals, Ions, Chlorine Demand, Biodegradation Studies, Gram Staining *etc.*

Awards / Fellowships / Grants

- Fulbright Doctoral and Professional Research Fellowship, 2009-10
- Silver Medal for achieving 2nd Position in B. Tech.(Civil), 2001 Batch, Pantnagar Univ.
- Financial supports/travel grants for attending conferences abroad from DST, CSIR, and CCSTDS.
- Cash Award form DRPG – IIT Kanpur for publishing recognized research papers.

Membership of Professional Bodies

- International Water Association (IWA)
- American Society of Civil Engineering (ASCE)
- American Chemical Society (ACS)

Selected Journal Publications

- Indu M.S., Gupta A. K., **Tiwari M.K.**, Multivariate optimization for electrochemical oxidation of methyl orange: Pathway identification and toxicity analysis, *J Environ. Sci. Health A*, 50(3), 301-310.
- **Tiwari, M.K.** and Guha, S. (2013). Kinetics of Biotransformation of Chlorpyrifos in Aqueous and Soil Slurry Environments. *Water Res.* 51, 73-85.
- **Tiwari, M.K.** and Guha, S. (2013). Kinetics of the biodegradation pathway of endosulfan in the aerobic and anaerobic environments. *Chemosphere*, 93(3), 567-573.
- **Tiwari, M.K.** and Guha, S. (2013). Simultaneous analysis of endosulfan, chlorpyrifos and their metabolites in natural soil and water samples using gas chromatography-tandem mass spectrometry. *Environ. Monit. Assess.*, 185(10), 8451-8463.
- **Tiwari, M.K.** and Guha, S (2012). Role of soil organic matter on the sorption and co-sorption of endosulfan and chlorpyrifos on agricultural soils. *J. Environ. Engg. ASCE*, 138 (4), 426-435.
- **Tiwari, M.K.**, Guha, S., Harendranath, C.S., Tripathi, S. (2006). Influence of extrinsic factors on granulation in UASB reactor. *Appl. Microbiol. Biotechnol.*, 71 (2), 145-154.
- **Tiwari, M.K.**, Guha, S., Harendranath, C.S., Tripathi, S. (2005). Enhanced granulation by natural ionic polymer additives in UASB reactor treating low-strength wastewater. *Water Res.* 39, 3801-3810.
- **Tiwari, M.K.**, Guha, S. and Harendranath, C.S. (2004). Enhancement of Granulation in UASB Reactors treating low-strength wastewater by natural polymer. *Wat. Sci. Tech.*, 50(6), 235-240.

Selected Conference Papers

- Zaman D., Tiwari M. K., Gupta A. K. (2016). Assessment of Efficiency Of Water Distribution Networks Through Performance Indicators For District Metered Areas. *IWA World Water Congress & Exhibition*, October 9-14, 2016, Brisbane, Australia (Abstracted Accepted).
- Zaman D., Tiwari M. K., Gupta A. K., Sen, D. J., Singh R. K. (2016). Comparative Assessment of Water Loss Control in Continuous Supply District Metered Areas of Jamshedpur (India) Water Utility, *IWA Water Loss conference*, February 1 - 3, 2016, Bengaluru, India.
- Tiwari, M.K. and Guha, S. (2010). Partition of endosulfan and chlorpyrifos onto soil organic matter. *240th ACS National Meeting and Exposition*, Boston, USA, August 22-26, 2010
- Tiwari, M.K. and Guha, S. (2010). Aerobic Biodegradation of Chlorpyrifos by Microbes Enriched from Agricultural Soils. *Seventh International Conference on Remediation of Chlorinated and Recalcitrant Compounds*, Monterey, California, May 24–27, 2010
- Tiwari, M.K. and Guha, S. (2009). Aerobic biodegradation of endosulfan by indigenous soil microbes. *Tenth International In Situ and On-Site Bioremediation Symposium*, Baltimore, MD, USA, May 5-8, 2009
- Tiwari, M.K. and Guha, S. (2008). Sorption of chlorpyrifos on agricultural soils. *236th ACS National Meeting and Exposition*, Philadelphia, USA, August 17-21, 2008