

**DR. TOQEER AHMED**

*(HEC Approved Supervisor)*

**Information**

Title/Designation : Assistant Professor  
Specialization : Biology (Env. Microbiology)  
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**Present Address:**

Centre for Climate Research & Development (CCRD)  
COMSATS Institute of Information Technology, Islamabad Campus, Park Road, Chak Shahzad, Postal  
Code 44000, Islamabad, PAKISTAN.

**Academics/ Degrees**

- Ph.D., Quaid-i-Azam University / The Univ. of Edinburgh, UK, 2010
- M. Phil., Quaid-i-Azam University, Islamabad, Pakistan, 2002
- M. Sc., Quaid-i-Azam University, Islamabad, Pakistan, 2000

**Profile/Bio**

**PROFESSIONAL AND RESEARCH EXPERIENCE**

- Apr. 2014 to Continued: Assistant Professor, Centre for Climate Research & Development (CCRD), **COMSATS Institute of Information Technology**, Islamabad Campus, Park Road, Chak Shahzad, Postal Code 440000, Islamabad, PAKISTAN.
- May 2012 to Mar. 2014 Continued: Assistant Professor, Department of Environmental Sciences, **COMSATS Institute of Information Technology**, Abbottabad, Pakistan
- Mar. 2010 to Apr. 2012: Assistant Professor, PINSAT, Preston University, Islamabad, Pakistan
- Sep. 2008 to Feb. 2009: Visiting Research Scholar, Institute of Infrastructure and Env., The Univ. of Edinburgh, Scotland, UK.
- Jan, 2007 to Sep. 2008: SS Biology, Punjab Education Foundation, Govt. of Punjab, Lahore.
- Apr. 2006 to Jan. 2007: Research Officer, PCRWR, MoST, Islamabad.
- Apr. 2004 to Apr. 2006: Lecturer, Biology, APSACs, Rawalpindi.
- Sep. 2002 to Apr. 2004: Research Scientist, PCSIR, MoST, Islamabad.

- May 2001 to Aug. 2002: Research Associate, DTRL, NARC, Islamabad.

**Research Interests:**

- Water Quality and Wastewater Treatment
- Environmental Impact Assessment
- Climate change impacts on health

**Research Projects:**

- Bacteriological Water Quality Assessment of different Institutions of Abbottabad City in Khyber Pakhtunkhwa – Pakistan, funded by Higher Education Commission (Pak Rs. 0.5 million) as P. I. at ES Department, CIIT, Abbottabad [In-progress].
- Physico-Chemical Quality Assessment of Wheat Flour Collected from Different Mills of KPK, Pakistan, funded by CRGP (Pak Rs. 0.2 million) as P. I. at ES Department, CIIT, Abbottabad [In-progress].
- Antibacterial Activity of Ag Nano-Particles against Waterborne Pathogens funded by Pak. Academy of Sciences (Pak Rs. 2.0 million) working as Co-PI at PINSAT [completed]
- Development of Biosensors to Determine the Toxicity of Metallic Nano-particles against Waterborne Pathogens at The Univ. of Edinburgh, UK and PINSAT. (Completed a foreign project after Ph.D. at the University of Edinburgh, UK funded by Royale Society of Edinburgh and Pakistan Academy of Sciences) [completed]
- Efficiency of combined Permeable Pavement and Ground Source Heating System for waste water treatment at The Univ. of Edinburgh, UK. (Worked as Foreign Research Fellow funded by HEC). [Completed].

**Courses Taught:**

- Poverty and Environment
- Environment and Health
- Industrial Applications of Nanotechnology
- Research Methodology in Env. Sciences
- Cell Biology

**Research Student Supervision:**

- Nighat Mushtaq (MS ES department) on Comparative study of Coagulation and AO Processes for the removal of silver nanoparticles from Waster water. [Completed].
- Mehtab Ahmed (MS Water and Sanitation department) on research project entitled “Quality Assessment of different Academic Institutions of Abbottabad City and Its Health Impacts”. (Startup Grant Approved by HEC as P. I.). [Completed]
- Usman Farid (BS, ES department) on project entitled “Physico-Chemical Quality Assessment of Wheat Flour Collected from Different Mills of Hazara Division, KPK, Pakistan”. (Submitted to CRGP as P. I.). [Completed].

**International and National Conferences / Workshops / Seminars Organized:**

- ***Co-Organized an International COMSTECH –PRESTON UNIVERSITY Workshop*** on “*Essential Need of Nano-Education in OIC Countries*” with Dr. N. M. Butt (Focal Person), on 7-9 April, 2011 at **COMSTECH**, 33-Costitution Avenue, Islamabad. Pakistan.
- ***Co-Organized a National Seminar on “Nanomedicine and Nanodentistry”*** with Dr. N. M. Butt and Prof. Dr. Muhammad Aslam (Focal Persons), in collaboration with **Shifa College of Medicine** under **IDRC** (Canada) Project, held on 15th December, 2011 at PINSAT, Islamabad. Pakistan.

**Awards/ Appreciations :**

- Punctuality and Efficiency Award (Cash plus Certificates) by Preston University, Islamabad in recognition of outstanding efficiency in holding all classes punctually on schedule and in meeting all deadlines & submissions of all results on time during Fall Semester 2011-2012.
- Award of Scholarship by Royale Society of Edinburgh, Scotland, UK in 2011 for Research Project at The University of Edinburgh, The King’s Building, Edinburgh, United Kingdom under MoU between Pakistan Academy of Sciences and Royal Society of Edinburgh, UK.
- Award of Scholarship in 2008 for Ph. D. (Microbiology) at The University of Edinburgh, The King’s Building, Edinburgh, United Kingdom funded by Higher Education Commission (HEC) under the scheme of International Research Support Initiative Programme (IRSIP).

**Publications/Papers (Total no. of Publications =21)**

**KEY RESEARCH JOURNAL PUBLICATIONS**

1. **Ahmed, T.**, Imdad, S. and Butt, N.M. 2014. Monitoring of Bacteriological Quality of Drinking Water of Islamabad Capital Territory of Pakistan. Desalination and water treatment. (Accepted). **(I.F. 0.988)**.
2. **Ahmed,T.**, Mehtab, M., Pervez, A. and Sherwani, S.K. 2014. Water Quality Assessment of different Academic Institutions of Abbottabad City and Its Health Impacts. Desalination and Water Treatment (Published online). **(I.F. 0.988)**.
3. **Ahmed, T.**, Yaldram, K., Imdad, S. and Butt, N.M. 2014. Emerging Nanotechnology Based Methods for Water Purification – A Review. Desalination and Water Treatment. 52: 4089-4101. **(I.F. 0.988)**.
4. **Ahmed, T.**, Imdad, S., Ashraf, S. and Butt, N. M. 2013. "Effect of Size and Surface Ligands of Silver (Ag) Nanoparticles on Waterborne Bacteria” International Journal of Theoretical and Applied Nanotechnology (IJTAN). 1(1): 111-116.
5. **Ahmed, T.**, Ayub, N. and Khan, M.A., 2011. A Preliminary Evaluation and Risk Management by using *Ocimum bacillicum* against Waterborne Pathogens. International Journal of Human & Ecological Risk Assessment. 17(2): 1-12 **(I.F. 1.233)**.
6. Kiran, T.M., Scholz, M., **Ahmed, T.**, French, E. C. and Pagaling, E., The synergy of permeable pavements and geothermal heat pumps for storm water treatment and reuse. Environmental Technology 31(14): 1517-1531. **(I.F. 1.197)**. **(2010)**
7. **Ahmed, T.**, Kanwal, R., Hassan, M., Ayub, N., Scholz, M. and McMinn, W. R., Coagulation and disinfection in water treatment using *Moringa oleifera*. Proceeding of ICE-Water Management 163(8): 381-388. **(I.F. 0.535)**. **(2010)**.

**CONFERENCES AND SYMPOSIA TALKS/ PRESENTATIONS:**

- **Ahmed, T.**, Imdad S. and Butt, N. M. 2012. Dependence of antibacterial effect of the size, surface ligands and amount of silver (Ag) nanoparticles on pathogens in drinking water. The 3rd International Conference on Nanotechnology: Fundamentals and Applications (ICNFA-2012), 7-9 August 2012, Montreal, Quebec. Canada.
- **Ahmed, T.**, Imdad S. and Butt, N. M. 2011. Antibacterial Activity of Ag Nano-particles against Waterborne Pathogens. International Conference on “Fresh Water Crisis and Population Explosion”, PCSIR Labs., Lahore, Pakistan. 21 - 22 November, 2011. (Funded by Pakistan Academy of Sciences, Govt. of Pakistan)

- **Ahmed, T.** and Ayub, N. 2011. Wastewater Treatment and Reuse by Using *Moringa oleifera*. Infrastructure Middle East 2011. International Conferences and Exhibition on Underground Infrastructure, Water and Waste Water. 17-19 January 2011, Gulf International Convention Center, The Gulf Hotel Bahrain, Kingdom of Bahrain (Published). (Funded by Higher Education Commission, Govt. of Pakistan)
- **Ahmed, T.** and Ayub, N. 2010. Bacteriological Water Quality assessment in Potohar Region. Proceedings of the National Executive Management Seminar (NEMS) on “Application of Nuclear Techniques in Water Quality Management and Ecological Research” Islamabad, 10-12 May 2010
- Kiran Tota-Maharaj, Miklas Scholza, Piotr Grabowiecki, **Toqeer Ahmed**, Stephen Coupe. 2009. Molecular Characterization of Bacterial Populations in Urban Runoff for Combined Pervious Pavements and Geothermal Heat Pumps. Proceedings of the SUDSnet National Conference. November 12th and 13th 2009. Coventry University Techno Centre, UK ([www.sudsnet.abertay.ac.uk](http://www.sudsnet.abertay.ac.uk)). In Abstract booklet of SUDSnet 2009 conference (12-13/11/2009), Coventry, England, UK, pp. 40-41