

PERSONAL INFORMATION

Memon Abdul Ghaffar



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PREFERRED JOB

Environmentalism, Management, Government

EDUCATION AND TRAINING

08/2014–01/2019

Ph.D. Environmental Sciences and Engineering

Tsinghua University

No.1 Tsinghua Yuan road, District Haidian, Beijing, 100084 Beijing (China)

<http://www.tsinghua.edu.cn>

07/2011–06/2013

MEM Environmental Management

NED University of Engineering & Technology

Main University road, 75470 Karachi (Pakistan)

www.neduet.edu.pk

01/2004–12/2007

BS Microbiology

University of Sindh

Allama I.I.Kazi Campus, University of Sindh, 76080 Jamshoro (Pakistan)

<http://usindh.edu.pk/>

WORK EXPERIENCE

19/02/2019–Present

Assistant Professor

NED University of Engineering and Technology, Karachi (Pakistan)

06/2017–04/2018

Ambassador

Tsinghua University, Beijing (China)

- Coordinate with graduate office. Assist in students affairs, promotion, advertisement of the Tsinghua University and in the admission process

09/2014–16/01/2019

Research associate

Tsinghua University, School of Environment, Beijing (China)

24/12/2009–19/02/2019

Lecturer

NED University of Engineering and Technology

Main University road Karachi, 75270 Karachi (Pakistan)

Courses Taught

- [EN-402 Environmental Impact Assessment](#)

- [EN-401 Environmental Engineering-II \(Lab\)](#)

- EN-301 Environmental Engineering-I (Lab)

09/2017–01/2018 **Teaching assistant**

Tsinghua University, School of Environment, Beijing (China)

Course:- **Biofilms: Fundamental to practice** (Master & PhD)

- Coordination among professor and students, arranging field visit, lab training

09/2017–01/2018 **Teaching assistant**

Tsinghua University, Beijing (China)

Course:- **Inter culture communication** (Undergraduate & Master)

- Coordination among professor and students, Group discussions, Interviews, assignments, homework, portal management

03/2017–07/2017 **Teaching assistant**

Tsinghua University, Beijing (China)

Course:- **Inter culture communication** (Undergraduate & Master)

- Coordination among professor and students, Group discussions, Interviews, assignments, homework, portal management

09/2016–01/2017 **Teaching assistant**

Tsinghua University, Beijing (China)

Course:- **Biofilms: Fundamental to practice** (Master & PhD)

- Coordination among professor and students, arranging field visit, lab training

07/01/2009–23/12/2009 **Research Assistant**

Agha Khan University of Medical & Health Sciences, Karachi (Pakistan)

- Worked on "Evaluation of tumour behaviour in Breast cancer patients exhibiting HER-2/NEU gene amplification and COX-2 over expression"

PERSONAL SKILLS

Mother tongue(s) Sindhi

Foreign language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	B2	B2
Chinese	A1	A1	A1	A1	A1
Urdu	C1	B2	C1	C1	B2

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Communication skills

- Good communication skills, gained through extended coordination among students, professionals and stakeholders of various fields.
- An excellent interactive skills to initiate mutual understanding and buildup contact.
- Motivation skills to derive attention and make people understand for the desired task.

Organisational / managerial skills

Departmental Responsibilities:

- In-Charge Water Quality Laboratory

- In-Charge Microbiology Laboratory
- Member Asset Management Team (AMT)
- In-Charge Green Society of NED University
- Convener in various Purchasing & Procurement committees of the Department and University
- International Students Ambassador
- Vice President of the Graduate Association of School of Environment.
- Representative of Pakistani Students
- Volunteer RISE association
- Team member TEDx THU (Organize semester conference of TED)

Job-related skills

- Management tasks since 2010
- Teaching experience since 2009
- Researcher since 2006
- Worked on different projects of management, teaching & research in the field of Environment, Water, Biosensors, Molecular biology, Microbiology, Public health, Management

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Independent user	Independent user	Proficient user	Proficient user

Digital skills - Self-assessment grid

- Troubleshoot issues related to software
- Good user of Microsoft Office
- Comfortable with updated version of Microsoft product
- Basic user of adobe photoshop

Driving licence

A2, B

ADDITIONAL INFORMATION

Publications

- **A. G. Memon**, X. Zhou, Y. Xing, R. Wang, L. Liu, S. Zheng, M. He, "Cofactor substitution enables ultrasensitive mercury detection using Exo-III assisted target recycling and unmodified AuNPs as indicators," *Journal of Hazardous Materials*, (Submitted)
- **A. G. Memon**, X. Zhou, Y. Xing, R. Wang, L. Liu, M. Khan, M. He, "Label-free colorimetric nanosensor with improved sensitivity for Pb²⁺ in water by using a truncated 8-17 DNAzyme," *Front. Environ. Sci. Eng.* 2019, 13(1): 12
- **A. G. Memon**, X. Zhou, X. Yunpeng, R. Wang, M. He, "Exo-III Assisted Amplification Strategy through target recycling of Hg²⁺ detection in Water: A GNP Based Label-free Colorimetry employing T-rich hairpin-loop metallobase," *10th Int' conference & Exhibition on Biosensors & Bioelectronics*, 2018.
- **A. G. Memon**, R. Wang, X. Yunpeng, Q. Zhu, L. Liu, X. Zhou, M. He, "Colorimetric label-free nanosensor using unmodified AuNPs for sensitive detection of lead ions in water," *28th Anniversary World Congress on Biosensors*, 2018.
- **A. G. Memon**, X. Zhou, R. Wang, L. Liu, Y. Peng, J. Liu, M. He, "Label-free colorimetric nanosensor with improved sensitivity for lead ions (Pb²⁺) in water," *The 5th International Conference on Environmental Simulation and Pollution Control*, 2017
- R. Wang, X. Zhou, B. Liedberg, X. Zhu, **A. G. Memon**, and H. Shi, "Screening Criteria for Qualified Antibiotic Targets in Unmodified Gold Nanoparticles-Based Aptasensing," *ACS Appl. Mater. Interfaces*, vol. 9, no. 40, pp. 35492–35497, 2017.

- **A. G. Memon**, X. Zhou, J. Liu, R. Wang, L. Liu, B. Yu, M. He, and H. Shi, "Utilization of unmodified gold nanoparticles for label-free detection of mercury (II): Insight into rational design of mercury-specific oligonucleotides," *J. Hazard. Mater.*, vol. 321, 2017.
- L. Liu, X. Zhou, M. Lu, M. Zhang, C. Yang, R. Ma, **A. G. Memon**, H. Shi, and Y. Qian, "An array fluorescent biosensor based on planar waveguide for multi-analyte determination in water samples," *Sensors Actuators, B Chem.*, vol. 240, pp. 107–113, 2017.
- **A. G. Memon**, J. Liu, R. Wang, L. Zhang, L. Liu, M. He, X. Zhou, "Utilization of unmodified gold nanoparticles for label-free detection of Hg²⁺: Insight into rational design of aptamer," *26th Anniversary World Congress on Biosensors*, 2016.
- **A. G. Memon**, M. He, X. Zhou, L. Zhang, L. Liu, H. Shi, "Synthesis of AuNPs and their preliminary application in the label free detection of Hg²⁺," *The 4th International Conference on Environmental Simulation and Pollution Control*, 2015.
- S. M., B. M.T., S. S.K., K. K. M., M. **A.G.**, and S. A.A., "Overview of generic medicines & quality of cefotaxime in Pakistan," *Int. J. Adv. Pharm. Res.*, vol. 4, no. 9, pp. 2303–2314, 2013.
- H. Ahmad, **A. Ghaffar**, and W. Nadeem, "Hand washing concerns and trends of male chefs / cooks working in hotels and restaurants : A survey in Karachi-Pakistan," vol. I, no. 6, pp. 1293–1308, 2013.
- A. Mustafa, M. Scholz, S. Khan, and **A. Ghaffar**, "Application of solar disinfection for treatment of contaminated public water supply in a developing country: Field observations," *J. Water Health*, vol. 11, no. 1, 2013.
- **A. G.**, Zuhaib Siddiqui, Asif Ahmed Shaikh, "Optimisation of Biomethane Production Admixing Organic Fraction of Municipal Solid Waste and Sewage Sludge," *NED Univ. J. Res.*, vol. Thematic I, pp. 73–80, 2012.
- A. A. Noor, **A. G. Memon**, and S. K. Sherwani, "Dose Response Curve of Plants Extracts Against the," vol. 27, no. 2, pp. 1–17, 2011.
- N. U. of E. and T.-K. P. Sikandar K. Sherwani, Haroon Ahmed, Sadaf Ahmed, Shamoon Naushad, Asma Bashir, Shaheed Zulfikar Ali Bhutto, and **Abdul Ghaffar Memon**, Haroon Ahmed, "Rising trends in water pipe (shisha) smoking among male university students in Karachi-Pakistan," *Indian J. Heal. Wellbeing*, vol. 2, no. 4, pp. 728–731, 2011.
- **A.G. Memon**, A.A. Noor, "Studies of dose response of different antibiotics and herbal extracts against various clinical isolates," *Proceed. 2nd National Symposium on Microbiology, University of Sindh Jamshoro Pakistan*, March 18-20th, 2010.

Honours and awards

- 2018 Tsinghua University iTalk speaker
- 2018 Belt & Road Countries delegate representing Pakistan. Closer to China "youth perceive Chengdu Activities"
- 2018 United Nations (UNCCD) 3rd prize award on "Kubuqi Desertification Control in My Eyes—the collection of microwork"
- 2018 invited speaker at Tsinghua University Friday talk
- 2017 Tsinghua-Veolia top-grade research scholarship grant
- 2017 International Student Ambassador, SoE, Tsinghua University
- 2017 Best poster award at the 5th International Conference on Environmental Simulation
- 2015 Best poster award at the 4th International Conference on Environmental Simulation and Pollution Control.
- 2014 Chinese Government Scholarship to pursue doctoral studies
- 2007 1st position in a research project by the Department of Microbiology in Bachelor Science.
- 2007 2nd position during Bachelor Science B.S
- 2006 Ambassador of the Sindh University in interprovincial exchange of students delegation.
- 2005 Appreciation as active member organizing committee of the 1st national symposium on the Microbiology University of Sindh.

Memberships

- American Society for Microbiology (**ASM**) Membership no 56554884
- Biosensors, Biochip and Nanobiology (BBN)
- TEDxTHU

- Tsinghua University Student association of Belt and Road Initiative (SABRI)
- Pakistan Society for Microbiology (**PSM**)
- Biological Safety Association of Pakistan (**BSAP**)