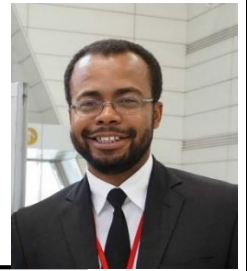


# Naveed Ahmed, PhD

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## Education

Kangwon National University, South Korea  
**Doctor of Philosophy (PhD) in *Biological Environment*** Feb. 2015  
GPA: 4.38/4.5

University of Karachi, Pakistan  
**Master of Science in *Microbiology*** 2005  
First division

University of Karachi, Pakistan  
**Bachelor of Science (Pass) in *Microbiology, Chemistry, and Zoology*** 2002  
First division

Board of Intermediate Education, Karachi, Pakistan  
**HSSC (Pre-medical)** 1999  
Second division

Board of Secondary Education, Karachi, Pakistan  
**SSC (Science)** 1997  
Second division

## PhD thesis

**Title:** Heavy metal and BTEX toxicity assessment in water and soil using sulfur-oxidizing bacteria.  
**Thesis Advisor:** Dr. Oh Sang-Eun.  
Professor, Kangwon National University, South Korea.

## Academic Experience

Mehran University of Engineering and Technology, Pakistan  
**Assistant Professor** January 2018 – On going  
U.S.-Pakistan Center for Advanced Studies in Water

Kangwon National University, South Korea  
**Postdoctoral Fellow** March 2016 – Dec. 2017  
Agriculture and Life Science Research Institute  
**Advisor: Dr Ra Changsix**  
(Professor-Division of Animal Resource Sciences)

Kangwon National University, South Korea  
**Postdoctoral Fellow** March 2015 – Feb. 2016  
Agriculture and Life Science Research Institute  
**Advisor: Dr Oh Sang-Eun**  
(Professor-Department of Bioconvergence Science & Technology)

Kangwon National University, South Korea  
**Research Assistant** July 2010 – Feb 2015  
Department of Biological Environment

## Industrial Experiences

PharmEvo (Pvt) Ltd., Pakistan

Senior Microbiologist

April 2009 –March 2010

NabiQasim Industries Limited, Pakistan

Officer Quality Control

Dec. 2008 –March 2009

AGP (Pvt) Ltd, Pakistan

Officer Quality Assurance

May 2006 – Nov. 2008

## Other Teaching Experience

1. Fall semester 2015. **Teaching assistant** in **Environmental Microbiology** course at Department of Biological Environment, Kangwon National University, South Korea.
2. 02/2006-12/2008. Part-time Microbiology **Lecturer**, Alvi Group Tuition Center, Malir, Karachi.
3. Home tutor for Microbiology [BSc (Pass) I and II].

## Research Interests

4. **Geomicrobiology (Aerobic and anaerobic Sulfur oxidation)**
5. **Environmental Microbiology and toxicity monitoring.**
6. **Sulfur-utilized autotrophic denitrification.**
7. **Anaerobic digestion of waste materials.**
8. **Phosphorus (struvite) recovery from wastewater.**
9. **Heavy metal resistance mechanism in acidophilic bacteria.**

## Professional Activities and Research

Year	Project Title	Funding Organization / Person(s) in Charge	Annual Total Amount (Korean Won)	Project Duration (From-To)	Role
2016	Pig manure within the proper management and disposal technologies (ICT based swine manure automatic diagnosis and control technology development)	Cheonam Yonam University Academic cooperation/Ra <b>Changsix</b>	80,000,000	2016.03.01~On going	Postdoctoral Fellow
2016	Livestock manure nitrogen recovery technology demonstration and commercialization.	Food, Agriculture, Forestry, and Fisheries Technology Planning and Evaluation/Ra <b>Changsix</b>	646,000,000	2016.03.01~2016.06.23	Postdoctoral Fellow
2015 / 2016	Self-heating aerobic microbial digestion of livestock waste electrical grafting chemical technology (ATAD) Process Development	National Research Foundation of Korea/Oh <b>Sang-Eun</b>	55,399,129	2015.09.01~2016.02.29	Postdoctoral Fellow
2015	Development of soil toxicity monitoring method by sulfur oxidizing bacteria	National Research Foundation of Korea/Oh <b>Sang-Eun</b>	67,617,362	2015.03.01~2015.08.31	Postdoctoral Fellow

2015	Development of soil toxicity monitoring method by sulfur oxidizing bacteria	National Research Foundation of Korea/Oh Sang-Eun	67,617,362	2014. 09. 01 - 2015. 08. 31	PhD/Research assistant
2014	Development of soil toxicity monitoring method by sulfur oxidizing bacteria	National Research Foundation of Korea/Oh Sang-Eun	67,617,362	2014. 09. 01 - 2015. 08. 31	PhD/Research assistant
2014	Development of soil toxicity monitoring method by sulfur oxidizing bacteria	National Research Foundation of Korea/Oh Sang-Eun	60,858,820	2013. 09. 01 - 2014. 08. 31	PhD/Research assistant
2013	Development of water toxicity remote monitoring system using sulfur oxidizing bacteria	Korea Research Institute of Bioscience and Biotechnology/ Oh Sang-Eun	158,850,000	2013. 06. 01 - 2014. 05. 31	PhD/Research assistant
2012	Development of water toxicity remote monitoring system using sulfur oxidizing bacteria	Korea Research Institute of Bioscience and Biotechnology/ Oh Sang-Eun	180,560,000	2012. 06. 01 - 2013. 05. 31	PhD/Research assistant
2012	Development of water toxicity remote monitoring system using sulfur oxidizing bacteria	Korea Research Institute of Bioscience and Biotechnology/ Oh Sang-Eun	90,000,000	2011. 06. 01 - 2012. 05. 31	PhD/Research assistant
2011	Pretreatment of waste and high efficiency for electricity production from agricultural waste for microbial fuel cell (MFC) development	National Research Foundation of Korea/Oh Sang-Eun	60,000,000	2011. 05. 01 - 2012. 01. 31	PhD/Research assistant

## **List of Scientific Publications(IF:28.8; h index: 4.0;i10-index: 2.0)**

### Under review/submitted articles

1. **Ahmed N.**, SM Shim, CS Ra. “Wastewater recovered struvite as sustainable phosphorus fertilizer: characteristics, soil leaching behavior, and plant growth.” *Land Degradation & Development* (Submitted on 8<sup>th</sup> Nov. 2017)-Under Review.

### Accepted articles

1. Won S, **Ahmed N**, You BG, Shim SM, Kim SS, Ra CS. “ Nutrient production from Korean poultry and loading estimations for cropland” *Journal of Animal Science and Technology* (Submitted on 9<sup>th</sup> Nov. 2017)-Accepted on 9<sup>th</sup> January 2017.
2. Won S, You BG, Shim SM, **Ahmed N**, Choi YS, Ra CS. 2018 “Nutrient Variations from Swine Manure to Agricultural Land”. *Asian-Australasian Journal of Animal Sciences* (Accepted on 7<sup>th</sup> Dec. 2017)- DOI: <https://doi.org/10.5713/ajas.17.0634>.

### Published articles

1. **Ahmed N.** & Oh S.E.. 2018 Toxicity assessment of selected heavy metals in water using a seven-chambered sulfur-oxidizing bacterial (SOB) bioassay reactor”. *Sensors and Actuators B: Chemical*. 258, pp. 1008-1014.(IF: 5.4)
2. **Qambrani N. A.**, Rahman M. M., Won S., Shim S., Ra C. Nov. 2017 Biochar properties and eco-friendly applications for climate change mitigation, waste management, and wastewater treatment: A review. *Renewable and Sustainable Energy Reviews* 70, pp. 255-272. (IF: 8.05)

3. **Qambrani N. A., J. H. Hwang, Oh S. E. 2016** Comparison of Chromium III and VI toxicity in water using Sulfur oxidizing bacteria. *Chemosphere*160, pp. 342-348.(**IF: 4.208**)
4. Vu N. T., J. Tan, M. B. Ahmed, N. A. **Qambrani**, Y. Y. Hao, S. L. Zhang, J. Chu. **2016** Scale-down of *Cephalosporium acremonium* cultivations for high throughput screening of high-yield Cephalosporin C strains. *Research Journal of Pharmaceutical, Biological, and Chemical Sciences* 7 (4), pp. 22-32.
5. **Qambrani N. A., Y. S. Jung, J. E. Yang, Y. S. Ok, Oh S. E. 2015** Application of half-order kinetics to sulfur-utilizing autotrophic denitrification for groundwater remediation. *Environmental Earth Sciences* 73 (7), pp. 3445-3450.(**IF: 1.569**)
6. **Qambrani N.A., Shin B. S., Cho J. S., Oh S. E. 2014** Assessment of chromium-contaminated groundwater using a thiosulfate-oxidizing bacteria (TOB) biosensor. *Chemosphere* 104, pp. 32-36. (**IF: 4.208**)
7. **Qambrani N.A., S. H. Jung, Y. S. Ok, Y. S. Kim, Oh S. E., 2013** Nitrate-contaminated groundwater remediation by combined autotrophic and heterotrophic denitrification for sulfate and pH control: batch tests. *Environmental Science and Pollution Research* 20 (12), pp. 9084-9091. (**IF: 2.741**)
8. N. Hasan, M. Chaihan, Z. A. Mirani, N. A. **Qambrani. 2013** Validated RP-HPLC method for determination of dexibuprofen: Application in pharmaceutical dosage and human serum. *Analytical Chemistry: An Indian journal* 12 (8), pp. 283-290.
9. **Qambrani N. A., Oh S. E. 2013** Effect of Nitrate concentration and Dissolved Oxygen on Autotrophic Sulfur Denitrification. *Applied Biochemistry and Biotechnology* 169 (1), pp. 181-191. (**IF: 1.751**)
10. **Qambrani N. A., Oh S. E., 2012** Influence of reactive media composition and COD as methanol on Autotrophic Sulfur Denitrification. *Journal of Microbiology and Biotechnology* 22 (8), pp.1155-1160. (**IF: 1.75**)
11. Gurung A., Van Ginkel, S. W., Kang W. C., **Qambrani N. A., Oh S. E., 2012.** Evaluation of marine biomass as a source of natural gas in batch tests: A lab scale study. *Energy* 43(1), pp. 396-401. (**IF: 4.52**)

## Conference Papers

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1. Seung-su Kim, Soomin Shim, Seunggun Won, J. W. Park, Tri Yuliani, Naveed Ahmed **Qambrani**, J. I. Song, Changsix Ra. **“Development of automatic control technology for producing a continuous liquid fertilizer”**. 5<sup>th</sup> International Conference on Sustainable Solid Waste Management Athens, 21–24 June **2017**, Athens, Greece.
2. Seunggun Won, Soomin Shim, Seungsu Kim, J. W. Park, Tri Yuliani, Naveed **Qambrani**, G. Y. Kim, Changsix Ra. **2016. “Optimization of circulation rate on the performance of phosphorus recovery process to improve particle size”**. 5<sup>th</sup> International Conference on Sustainable Solid Waste Management Athens, 21–24 June **2017**, Athens, Greece.
3. Seunggun Won, Soomin Shim, Naveed Ahmed **Qambrani**, Sae-gyeol Yoon, Changsix Ra. **2016. “Enhanced nutrient removal and recovery from swine wastewater using novel treatment sequence”**. International Conference on Chemical, Biological, and Medical Sciences (CBMS-16) organized by UR-UAE at Hotel ibis, Hong Kong.

## Oral Presentations at Conferences & Symposia

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1. “Assessment of organic pollutants in soil using sulfur-oxidizing bacteria (SOB)”. 29<sup>th</sup> October **2014. 11<sup>th</sup> International joint Symposium between Japan and Korea (AFELiSA 2014)**, organized by **Agriculture and Life Science Research Institute, Kangwon National University**, South Korea.
2. “Soil toxicity assessment using sulfur-oxidizing bacteria (SOB)”. 3-4 July **2014**. Conference, organized by **The Korean Society of Environmental Agriculture**, Changwon, South Korea.
3. “Assessment of cadmium contaminated soil using sulfur oxidizing bacteria: batch tests”. 8-13 June **2014**. Organized by 20<sup>th</sup> World Congress of Soil Sciences, **International Convention Center Jeju, South Korea**.

4. **“Kinetic characteristics of sulfur-utilizing autotrophic denitrification”**. 7<sup>th</sup> November 2012. 9<sup>th</sup> International joint Symposium between Japan and Korea, organized by Chungnam National University, Daejeon, South Korea
5. **“Effect of sulfur particle size and amount and methanol concentration on autotrophic sulfur denitrification”**. 7-9 July 2011. 30<sup>th</sup> Anniversary International Symposium **“Environment and Food Safety for the Future Generation”** organized by The Korean Society of Environmental Agriculture. International Convention Center Jeju, South Korea.
6. **“Effect of reactive media composition and chemical oxygen demand (COD as methanol) on sulfur autotrophic denitrification”**. 19-20 May 2011. Organized by Korean Society of Soil Science and Fertilizers. Moju Resort, South Korea.
7. **“Biosorption of Zn<sup>2+</sup> by *Pseudomonas aeruginosa* and *Bacillus cereus*: Isotherm and Kinetics studies”** 2-3 December, 2010. **“Fall Conference”** organized by **“Korean Society of Environmental Engineers”**, Incheon, South Korea.
8. Attended **“7<sup>th</sup> International AFAS Joint Symposium between Korea and Japan”** organized by Agriculture and Life Science Research Institute, Kangwon National University, South Korea in November 2010.
9. Attended **“New Paradigm of Environment and Health”** organized by **“The Korean Society of Environmental Health and Toxicology”** in October 2010.
10. Attended **“International Infection Control Symposium on Best Infection Control Practices”** Conference organized by **“The Aga Khan University”**, Karachi.
11. Attended **“Biochemistry in Post-Genomic Era”**: one-day symposium organized by **Department of Biochemistry, University of Karachi**, Pakistan.

## Poster presentations

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1. Seung-Su Kim, Kiu-sik Choi, Soomin Shim, Sae-gyeol Yoon, Jun-Woo Park, Naveed Qambrani, Tri Yuliani, Seunggun Won, Changsix Ra. 23<sup>rd</sup> June 2016. **“Reduction of odor from swine slurry using automatic process for improvement of swine production”** (Korean). 60<sup>th</sup> Anniversary of KSAST International Symposium on Global Livestock Production: Past, Present, and Future, by Korean Society of Animal Sciences and Technology, Seoul, South Korea.
2. Soomin Shim, Sae-gyeol Yoon, Seung-Su Kim, Kiu-sik Choi, Jun-Woo Park, Naveed Qambrani, Tri Yuliani, Seunggun Won, Changsix Ra. 23<sup>rd</sup> June 2016. **“Process development for recovery of useful resources (N & P) from swine manure”** (Korean). 60<sup>th</sup> Anniversary of KSAST International Symposium on Global Livestock Production: Past, Present, and Future, by Korean Society of Animal Sciences and Technology, Seoul, South Korea.
3. Seunggun Won, Soomin Shim, Naveed Ahmed Qambrani, Sae-gyeol Yoon, Changsix Ra. 17<sup>th</sup> May 2016. **“Enhanced nutrient removal and recovery from swine wastewater using novel treatment sequence”**. International Conference on Chemical, Biological, and Medical Sciences (CBMS-16) organized by UR-UAE at **Hotel ibis, Hong Kong**.
4. Naveed Ahmed Qambrani, Boem-soo Shin, and Sang-Eun Oh. December 2014. **“Sulfur-oxidizing bacteria (SOB) bioassay can detect toxic compounds in soil”**. Annual conference at Institute of Environmental Studies, Kangwon National University, Chuncheon, South Korea.

## Seminars and Workshops

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- 1- **“Health Care Associated Infections and WHO Guidelines on Hand Hygiene”**: One day’s Workshop conducted by **The Aga Khan University** in association with **WHO**.
- 2- **“Hematology Oncology Updates”**: One day’s Seminar at **The Aga Khan University**.
- 3- Participated in **“First Aid Training”**: a two-day’s workshop conducted at **“AGP (Pvt) Ltd”**.

- 4- Attended three soft skill workshops at **AGP (Pvt) Ltd** on "**Team Work**", "**How to be Positive at Work**" and "**Nothing but attitude**".
- 5- "**Introduction to Quality and ISO 9001:2000**": a one-day training workshop at AGP (Pvt) Ltd.

## Awards/Scholarships

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1. The World Academy of Sciences (TWAS), Italy awarded a fully funded fellowship for attending Biovision 2016 conference (13-14 April 2016).
2. Bring Excellent Students to Kangwon National University (BEST-KNU) scholarship for PhD. Covers living expenses, health insurance, and tuition fee waiver.
3. The World Academy of Sciences (TWAS), Italy awarded a fully funded fellowship for attending Biovision 2014 conference (5-6 June 2014).

## Trainings

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1. "**Quality Assurance**" one week's course that was conducted by **Pakistan Institute of Management (PIM)** in March 2008.

## Memberships

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- 1- American Society of Microbiology.
- 2- Member Global Outreach program (Pakistan)

## Personal Information

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Father's name	Muhammad Anwar Qambrani
Date of Birth	14-03-1980
Pakistani NIC#	42501-6948978-9
Marital Status	Married
Religion	Islam
Nationality	Pakistani
Languages	English, Urdu, Sindhi, and Korean

## References

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### 1- Prof. Sang-Eun Oh

Professor  
Department of Biological Environment  
Kangwon National University,  
192-1 Hyoja 2-dong,  
Chuncheon-si, 24341,  
Gangwon-do, South Korea  
Tel: +82-33-250-6449  
Mobile: +82-10-2365-2788  
Email: [ohsangeun@kangwon.ac.kr](mailto:ohsangeun@kangwon.ac.kr)

### 2- Prof. Chang-sik Ra

Professor  
Division of Animal Resource Sciences,  
College of Animal Life Science, Kangwon  
National University, Chuncheon 24341,  
Gangwon-do, South Korea  
Tel: +82-33-250-8618,  
Fax: +82-33-259-5573  
Email: [changsix@kangwon.ac.kr](mailto:changsix@kangwon.ac.kr)

### 3- Mostafa Rahimnejad, Ph.D.

Associate Professor  
Department of Chemical Engineering  
Babol Noshirvani University of Technology,  
Babol, Iran  
Tel: +98 (0) 11 32313516  
Mobile: +98 (0) 911 128 3184  
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### 4- Sedky Hassan, Ph.D.

Assistant Professor  
Department of Botany  
Faculty of Science  
Assiut University,  
Assiut, Egypt  
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Email: [sedky2222@gmail.com](mailto:sedky2222@gmail.com)