

RESUME



PERSONAL PROFILE:

Name: Ranjna Jindal
Nationality: Indian
Current Position: Program Director
International PhD Program in Environmental & Water Resources
Engineering, Department of Civil & Environmental Engineering
Faculty of Engineering, Mahidol University
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PROFESSIONAL SPECIALIZATION AND INTERESTS:

- Water quality management – pharmaceuticals and personal care products (PPCPs) & other emerging micro pollutant in effluents and in receiving water bodies.
- Wastewater treatment processes – heavy metals removal in constructed wetlands
- Computer modeling of water and wastewater treatment processes
- Solid waste management in Asian countries

EDUCATION:

D.Tech.Sc. 1995 Environmental Engineering. Asian Institute of Technology, Bangkok, Thailand.
M.Sc. 1982 Environmental Engineering. Asian Institute of Technology, Bangkok, Thailand.
M.Sc. 1973 Nuclear Physics. Meerut University, Meerut, India.
B.Sc. (Hons.) 1970 Physics, Mathematics, Statistics. Meerut University, Meerut, India.

OTHER SKILLS:

Languages: **English:** Excellent
Hindi: Excellent
Thai: Good speaking abilities

WORK EXPERIENCE:

Sep 15 - Present: Program Director
International PhD Program in
Environmental & Water Resources Engineering
Department of Civil & Environmental Engineering
Faculty of Engineering, Mahidol University, Thailand

February 06 – Sep 15: Program Director
International Masters Program in
Environmental & Water Resources Engineering
Department of Civil & Environmental Engineering
Faculty of Engineering, Mahidol University, Thailand

January 15 – Present Distinguished Adjunct Professor, Environmental
Engineering and Management Program, Department of
Energy, Environment and Climate Change, School of
Environment and Resources Development, Asian Institute
of Technology, Thailand

September 09-Nov 09: Visiting Professor
Environmental Science and Engineering Division
National University of Singapore (NUS), Singapore

October 04 – Sep 05: Visiting Assistant Professor
Environmental Engineering Program
Asian Institute of Technology (AIT), Thailand

May 03 – Oct 03 Adjunct Assistant Professor
Environmental Engineering Program
Asian Institute of Technology (AIT), Thailand

July 99 – April 05: Assistant Professor
School of Environmental Engineering
Suranaree University of Technology (SUT), Thailand

June 96 - March 00 Associated Faculty, Sirindhorn Institute of Technology
(SIIT) – Thammasat University, Pathumthani, Thailand

Sept 96 - Aug 98 Consultant in a research project “Investigation of Canal
Water Quality Improvement by Filtration Through
Different Contact Media” funded by Sumitomo Heavy
Industries Ltd., Japan
under the UNITWIN / UNESCO Chairs Programme, SIIT,
Thammasat University.

July 97 - Aug 98 Consultant, Environmental Systems Information Center
(ENSIC), Asian Institute of Technology, Bangkok.

Nov 90 - Dec 95 Research Associate in Environmental Engineering
Program, Asian Institute of Technology, Bangkok.

Sep 88 - May 89 Research Associate, Biological & Agricultural
Engineering Department, University of Arkansas,

Feb 74 - Oct 75

Fayetteville, AR, U.S.A.
Research Fellow, Council of Scientific and Industrial
Research (CSIR), India.

Courses Taught:

Graduate level

Mahidol University

EGEW 501 Water and Wastewater Engineering
EGEW 512 Air Pollution Control Engineering
EGEW 513 Solid and Hazardous Waste
Management
EGEW 518 Research Methodology
EGEW 516 Seminar in Environmental and water
Resources Engineering
EGEW 517 Skills Enhancement Through Problem
Based Learning
EGEW 549 Special Study
EGEW 611 Advanced Research in Environmental
and Water Resources Engineering
EGEW 612 Experimental Design and Modeling
EGEW 698 Thesis Supervision (Masters)
EGEW 699 Thesis Supervision (PhD)
EGEN 631 Urban Water
EGEN 635 Wastewater Treatment Processes and
Design
EGEN 613 Soil Pollution Engineering
EGEN 681 Project Work I
EGEN 682 Project Work II

Asian Institute of Technology

ED24.07: Solid Waste Management

Suranaree University of Technology

503 506: Water and Wastewater Analysis
503 515: Water Engineering Design
503 513: Air Pollution Control
503 504: Atmospheric Environment
& Dispersion Modeling

Supervised Masters and Doctoral Students' Theses Research.

Has supervised 17 masters students and 2 doctoral students.

List of Doctoral Theses Supervised:

1. Removal of Heavy Metals from Wastewater in Constructed Wetlands.
2. Application of Down-flow Hanging Sponge (DHS) System for Tapioca Starch 3

Wastewater Effluent Quality Enhancement Using Bacterial and Fungal Cultures.

List of Masters Theses Supervised:

1. Investigations on the heavy metals concentrations in the sediments at the Cha-Am Municipality Wastewater Treatment Ponds System
2. Mathematical Modelling of Wastewater Collection System in Cha-Am Municipality by Using PCSWMM
3. Mathematical Modelling of Effluent Quality of Cha-Am Municipality Wastewater Treatment Pond System Using PCSWMM
4. Investigations of Effluent Quality of Cha-Am Municipality Wastewater Treatment Pond System
5. Study of Dissolved Oxygen Dynamics in the Cha-Am Municipality Wastewater Treatment Ponds System using Mathematical Modelling and GIS
6. Occurrence of Bisphenol A in Some Municipal Wastewater Treatment Plants' Effluents in Bangkok Region

- Recipient of "Outstanding Thesis Award" of Mahidol University in 2015.

7. Comparative Study on Pharmaceuticals Residues in Municipal Wastewater Treatment Plants and Receiving Waters in Thailand and South Korea.

- Recipient of "Thesis Publication Award" of Mahidol University in 2013.

8. The Occurrence and Removal Efficiency of Pharmaceutical and Personal Care Products (PPCPs) in the Municipal Waste Water Treatment Plants (WWTPs).

- Recipient of "Distinguished Thesis Award" of Mahidol University in 2011.

9. Modeling of Cadmium Removal from Domestic Wastewater in Constructed Wetlands Using STELLA Simulation Program
10. Domestic Wastewater Treatment Using Rock-bed Filtration Process.
11. Anaerobic Composting of Solid Waste in Batch-Loading Digesters.
12. A Study of Heavy Metals in Bottom Ash From Medical Waste Incinerators in Nakhon Ratchasima Municipality.
13. A Study of the Fate of Cadmium in Wastewater Effluents in Constructed Wetland System.
14. Heat Generation and Temperature Distribution in an Anaerobic Composting process.
15. Removal of Heavy Metals from Wastewater by Adsorption Using Chitosan.
16. Reducing Exhaust Emission from Passenger Cars by Using Three-way Catalytic Converter.
17. Strategies for Municipal Solid Waste Management in Suranaree Military Camp.

Sponsored Research Projects

- 1) Principal Investigator: Occurrence of Bisphenol A in Some Municipal Wastewater Treatment Plants' Effluents in Bangkok Region. Funded by Faculty of Engineering, Mahidol University, Thailand.
(Completed)
- 2) Principal Investigator: Comparative Study on Pharmaceuticals Residues in Municipal Wastewater Treatment Plants and Receiving Waters in Thailand and South Korea – An Emerging Threat to Public Health. Funded by Mahidol University, Thailand.
(Completed)
- 3) Principal Investigator: Occurrence of Pharmaceutical and Personal Care Products (PPCPs) Residues in Some Municipal Wastewater Treatment Plants' Effluents in Bangkok Region. Funded by Faculty of Engineering, Mahidol University, Thailand.
(Completed)
- 4) Principal Investigator: A Preliminary Study of Arsenic Contamination in Southern Thailand. Funded by National Research Council of Thailand (NRCT).
(Completed)
- 5) Principal Investigator: Temperature Distribution and Heat Generation in An Aerobic Composting Process. Funded by National Research Council of Thailand (NRCT).
(Completed)
- 6) Principal Investigator: Investigations on the Heavy Metals' Removal From Wastewater Using Constructed Wetlands. Funded by National Research Council of Thailand (NRCT).
(Completed)
- 7) Co-Investigator: A Novel Wastewater Treated System Using A UASB Reactor and A Downflow Hanging Sponge (DHS) Post Treatment Unit. Funded by National Research Council of Thailand (NRCT).
(Completed)

Royal Golden Jubilee Ph.D. Scholarship Grants – Thailand Research Fund (TRF)

1. Advisor - Removal of Heavy Metals from Wastewater in Constructed Wetlands.
(Completed)
Co-advisor: Prof. Hideki Harada, Environmental Systems Engineering, Nagaoka University of Technology, Nagaoka, Japan.

PUBLICATIONS:

Theses:

Jindal, Ranjna (1995). Development and Modeling of a water treatment system using the rock-bed filtration method. D.Tech.Sc. Dissertation, No. EV-95-2, Asian Institute of Technology, Bangkok, Thailand.

Jindal, Ranjna (1982). A Statistical Analysis of Some Sediment Components Accumulated in the Reservoirs and Lakes. M.Sc. Thesis No. EV-82-28, Asian Institute of Technology, Bangkok, Thailand.

Published:

Anuva Bhowmick, Kim N. Irvine and **Ranjna Jindal**, “Mathematical Modelling of Effluent Quality of Cha-Am Municipality Wastewater Treatment Pond System Using PCSWMM”. (2016), *Journal of Water Management Modelling (JWMM)*, DOI: 10.14796/JWMM.C423, Computational Hydraulics Institute, Toronto, Canada.

Shwesin Koko, Kim N. Irvine, **Ranjna Jindal** and Romanee Thongdara. “Spatial and Temporal Variation of Dissolved Oxygen in Cha-Am Municipality Wastewater Treatment Ponds using GIS Kriging Interpolation”. (2016), *Journal of Water Management Modelling (JWMM)*, Computational Hydraulics Institute, Toronto, Canada (accepted for publication).

Thawtar Htun, Kim N. Irvine, **Ranjna Jindal** (2017) "Mathematical Modelling of Wastewater Collection System in Cha-Am Municipality using PCSWMM", *International Journal of Advances in Agricultural & Environmental Engg. (IJAAEE)* (accepted for publication)

Intira Pookpoosa, **Ranjna Jindal**, Daisy Morknoy and Kraichat Tantrakarnapa. (2015). “Occurrence of Bisphenol A in Some Municipal Wastewater Treatment Plants’ Effluents in Bangkok Region”, *Wat Sc Technology*, 72 (3), pp. 463- 471; DOI: 10.2166/wst.2015.232.

Intira Pookpoosa, **Ranjna Jindal**, Daisy Morknoy and Kraichat Tantrakarnapa. (2014). “Occurrence of Bisphenol A in Some Municipal Wastewater Treatment Plants’ Effluents in Bangkok Region”, *Int'l Journal of Advances in Agricultural & Environmental Engg. (IJAAEE)*, 1(1), ISSN 2349-1523, pp. 116-120.

S. Tewari, **R. Jindal**, Y.L. Kho, S. Eoc and K. Choi (2013), “Major pharmaceutical residues in wastewater treatment plants and receiving waters in Bangkok, Thailand, and associated ecological risks”, *Chemosphere*, 91, pp. 697–704.

Racho, P., **R. Jindal** and B. Wichitsathian (2012). “Post-treatment of UASB Effluents of Tapioca Starch Wastewater using Downflow Hanging Sponge (DHS) System.” *Journal of Hazardous, Toxic, and Radioactive Waste – ASCE*, 16(1), pp. 9-17.

Ying Li, **R. Jindal**, K. Choi, .Y L. Kho (2012). “Pharmaceutical Residues in Wastewater Treatment Plants and Surface Waters in Bangkok (Thailand).” *Journal of Hazardous, Toxic, and Radioactive Waste – ASCE*, 16(1), pp. 88- 6

91.

- de Bullen, Pura García, **R. Jindal**, and K. Tantrakarnap (2011). "Modeling of Cadmium Removal from Domestic Wastewater in Constructed Wetlands Using STELLA Simulation Program." *Journal of Hazardous, Toxic, and Radioactive Waste - ASCE*, 15(2), pp. 114-120.
- Khumsiri, N., **R. Jindal**, N. Yoswathana and W. Jonglertjunya (2010). "Degradation of Humic Acid in Soils Aqueous Extract Using the Fenton Reaction and a Microbiological Technique." *Kasetsart J. Nat. Sci*, 44, pp. 1069-1078.
- Pimpan, P. and **R. Jindal** (2009). "Mathematical Modeling of Cadmium Removal in Free Water Surface Constructed Wetlands." *Journal of Hazardous Materials*, 163 (2-3), pp. 1322-1331.
- Fongsatitkul, P., P. Elefsiniotis, N. Khuhasawan and **R. Jindal** (2009). "Use of Power Plant Ash to Remove and Solidify Heavy Metals from a Metal-finishing Wastewater." *Water Air Soil Pollution*, 203(1-4): pp. 147-154.
- Pimpan, P. and **R. Jindal** (2007). "Effect of High Cadmium Loading on Performance of Free Water Surface Constructed Wetlands." *ASCE - Practice Periodical of Hazardous, Toxic, and Radioactive Waste Management*, Vol. 11, No. 3, pp. 164-171.
- Pimpan, P. and **R. Jindal** (2007). "Performance Evaluation of Free Water Surface Constructed Wetlands at High Cadmium Loading." *Southeast Asian Water Environment* (2). Edited by H. Furumai, H. Katayama, F. Kurisu, H. Satoh, S. Ohgaki, and N. C. Thanh. IWA Publishing, pp. 279-286.
- Jindal, R.** and P. Ratanamalaya (2006). "Investigation on the Status of Arsenic Contamination in Southern Thailand" *Southeast Asian Water Environment* (1) Edited by S. Ohgaki, K. Fukushi, H. Katayama, S. Takizawa, and C. Polprasert. IWA Publishing, pp. 223-231.
- Jindal, R.** and N. Samorkhom (2005). "Investigations on Cadmium removal from Wastewater in Constructed Wetland." *ASCE - Practice Periodical of Hazardous, Toxic, and Radioactive Waste Management*, Vol. 9, No. 3, pp. 173-178.
- Racho, P. and **R. Jindal** (2004). "Heavy Metals in Bottom Ash from a Medical Waste Incinerator in Thailand." *ASCE - Practice Periodical of Hazardous, Toxic, and Radioactive Waste Management*, Vol. 8, No.1, pp. 31-38.
- Kriangkasem, S. and **R. Jindal** (2003). "Anaerobic Composting of Municipal Solid Wastes in Batch-loading Digesters." *Journal of Environmental Systems*, Vol. 29, No. 3, pp. 193-206.
- Jindal, R.** and P. Pimpan (2001). "Rock-bed Filtration Performance Evaluation for Wastewater Treatment", *Suranaree J. Sci. Technol.* Vol. 8, No. 1-2, Suranaree University of Technology, Nakhon Ratchasima, Thailand. pp. 42-49.
- Jindal, R.** and S. Fujii (1999). Pilot Plant Experiments on Rock-bed Filtration for Improving Canal Water Quality. *Environmental Technology*, Vol. 20, pp. 343-354.
- Jindal, R.** and S. Fujii (1998). Modelling of Rock-bed Filtration Process. *Environmental Technology*, Vol. 19, pp. 273-281.
- Fujii, S., C. Niwa, M. Mouri and **R. Jindal** (1997). Pilot Plant Experiments for

Improvement of Polluted Canal/klong Water by Rock-bed Filtration. *Water Science and Technology*, Vol. 35, No. 8, pp. 83-90.

Presented:

- Vicko Andreas, Kim N. Irvine, **Ranjna Jindal** and Romanee Thongdara, "Spatial Patterns of the Heavy Metals in the Sediments at the Cha-Am Municipality Wastewater Treatment Ponds System", *Proc. of the 50th International Conference on Water Management Modeling – Computational Hydraulics Institute (CHI)*, 1-2 March, 2017, Toronto, Canada.
- Thawtar Htun, Kim N. Irvine, **Ranjna Jindal** "Mathematical Modelling of Wastewater Collection System in Cha-Am Municipality using PCSWMM", Proc. of the 3rd International Conference on Civil, Biological and Environmental Engineering (CBEE-2016), 12-13 December, 2016, Phuket, Thailand.
- Kanha But, **Ranjna Jindal**, Kim N. Irvine and Nawatch Surinkul, "Investigations of Effluent Quality of Cha-Am Municipality Wastewater Treatment Pond System." *Proc. of the 5th Annual International Conference on Sustainable Energy and Environmental Sciences (SEES 2016)*, 22-23 February 2016, Singapore.
- Shwesin Ko Ko, Kim N. Irvine, **Ranjna Jindal** and Romanee Thongdara, "Spatial and Temporal Variation of Dissolved Oxygen in Cha-Am Municipality Wastewater Treatment Ponds using GIS Kriging Interpolation" *Proc. of the 49th International Conference on Water Management Modeling – Computational Hydraulics Institute (CHI)*, 24-25 February, 2016, Toronto, Canada.
- Anuva Bhowmick, Kim N. Irvine and **Ranjna Jindal**, "Mathematical Modelling of Effluent Quality of Cha-Am Municipality Wastewater Treatment Pond System Using PCSWMM" *Proc. of the 49th International Conference on Water Management Modeling – Computational Hydraulics Institute (CHI)*, 24-25 February, 2016, Toronto, Canada.
- Kanha But, **Ranjna Jindal**, Kim N. Irvine and Nawatch Surinkul, "Treatment Efficiency and System Dynamics of an Aerated Lagoon/Wetland Wastewater Treatment System, Cha-Am, Thailand" Accepted for oral presentation at the *14th Pacific Regional Science Conference Organization (PRSCO) - Challenges in Sustainable Cities*, 27-29 June 2016, Bangkok, Thailand.
- N. Phuaprasert, **R. Jindal** and N. Surinkul (2014). "Investigation of Moringa Oleifera used as Natural Coagulant in Water Treatment Process". The 1st Environment and Resources International Conference (ENRIC 2014): Global Climate Change and Sustainability Pathways, 6 – 7 November 2014, Bangkok, Thailand.
- Intira Pookpoosa, **Ranjna Jindal**, Daisy Morknoy and Kraichat Tantrakarnapa. (2014). "Occurrence of Bisphenol A in Some Municipal Wastewater Treatment Plants' Effluents in Bangkok Region", *Proc. of the International Conference on Biological, Chemical and Environmental Sciences (IICBE 2014)*, Phuket, Thailand, 21-22 January.
- Prapasongsa T, **Jindal R**, Christopherson D, Squier M, Flynn C, Tamargo J, Davison IC, Maneschi D. "Framework for climate change mitigation and adaptation in cities by utilizing green infrastructure", Proceedings of the First Asian Future Conference 2013, March 8-10, 2013, Bangkok, Thailand.
- Shruti Tewari, **Ranjna Jindal**, Young L. Kho, Soomi Eo and Kyungho Choi. (2012). 8

“Ecological Risks Associated With The Major Pharmaceutical Residues in Wastewater Treatment Plants and Receiving Waters in Bangkok, Thailand”, *Proc. of the 5th International Congress Environmental Research (ICER-12)*, Kuala Terengganu, Malaysia, 22-24 November.

- Ranjna Jindal**, David Wohlers, Intira Pookpoosa, Worawat Jansonboon and Chonlawan Thammaraksa. (2012). “Trends in Aluminum Recycling from Municipal Solid Waste in Past Fifty Years”, *Proc. of the 5th International Congress of Environmental Research (ICER-12)*, Kuala Terengganu, Malaysia, 22-24 November.
- S. Tewari, **R. Jindal**, Ying Li, Y. L. Kho and K. Choi. (2011). “Occurrence and Fate of Some Pharmaceutical Residues in Sewage Treatment Plants and Receiving Water in Seoul, South Korea” *Proc. of the 4th International Congress Environmental Research (ICER-11)*, 15-17 December, SVNIT, Surat, India.
- Ying Li, **R. Jindal**, K. Choi, Y. L. Kho (2010). “Occurrence and Fate of Some Pharmaceuticals and Personal Care Products Residues in Municipal Wastewater Treatment Plants and Downstream Surface Water in Bangkok, Thailand.” *Proc. of the SETAC Asia/Pacific 2010 International Conference – Balance Between Economic Growth and Environmental Protection: Sustainability Through Better Science*, Guangzhu, China, 4-7 June.
- Khumsiri, N., W. Jonglertjunya, N. Yoswathana and **R. Jindal** (2009). “Microbiological Degradation of Humic and Fulvic Acids in Soil.” *Proc. of the International Conference on Science, Technology and Innovations for Sustainable Well- Being (STISWB)*, Khon Kaen, Thailand, 23-24 July 2009.
- de Bullen, P. G. and **R. Jindal** (2009). “Mathematical Modeling of Heavy Metals Removal in Constructed Wetlands Using A Dynamic Model.” *Proc. of the Second International Conference On Green and Sustainable Innovation: ICGSI*, Chiang Rai, Thailand, 2-4 December.
- Ying, L., **R. Jindal**, K. Choi and Y. L. Kho (2009). “The Occurrence and Removal Efficiency of Pharmaceuticals and Personal Care Products (PPCPs) in Municipal Wastewater Treatment Plants (WWTPS).” *Proc. of the Second International Conference On Green and Sustainable Innovation: ICGSI*, Chiang Rai, Thailand, 2-4 December.
- Racho, P., B. Wichitsathian and **R. Jindal** (2009). “Biokinetic Parameters as an Indicator of Biodredability Assessment for Down-flow Hanging Sponge (DHS) System.” *Proc. of the 8th National Environmental Conference*, Suranaree University of Technology, Nakhon Ratchasima, Thailand, 25-27 March.
- Racho, P., S. Thammaphorn, B. Wichitsathian and **R. Jindal** (2009). “Mass Balance Assessment of COD and Nitrogen Removal in a Down-flow Hanging Sponge (DHS) System.” *Proc. of the 8th National Environmental Conference*, Suranaree University of Technology, Nakhon Ratchasima, Thailand, 25-27 March.
- Jindal, R.**, S. K. Boontanon, A. Rittima, K. Surakit, P. G. de Bullen, C. Artsalee, and C. Musirat (2008). “Designing of Wastewater Treatment Plant at Mahidol University, Kanchanaburi Campus (MUKC).” *Proc. of the 18th Thailand Chemical Engineering and Applied Chemistry Conference*, Pattaya, Thailand, 20-21 October.
- Khumsiri, N., **R. Jindal**, N. Yoswathana, and W. Jonglertjunyat (2008), “Determination of optimal pH and Reagents Ratios in Fenton Technique for Degradation of Humic Acid Extract from Soil.” *Proc. of the 18th Thailand Chemical and*

- Applied Chemistry Conference*, Pattaya, Thailand, 20-21 October.
- Pimpan, P. and **R. Jindal** (2008). "A Dynamic Model of Cadmium Removal in Free Water Surface Constructed Wetlands." *Proc. of the 12th International Conference on Integrated Diffuse Pollution Management (IWA DIPCON 2008)*. Khon Kaen, Thailand, 25-29 August 2008.
- Jindal, R.** and P. Ratanamalaya (2006). "Modeling of Heat Generation in Aerobic Composting of Municipal Solid Waste." *Proc. of the Joint International Conference on Sustainable Energy and Environment: Technology and Policy Innovations - SEE 2006*, Bangkok, Thailand, 21-23 November 2006.
- Jindal, R.** and Hussadee, K (2006). "Evaluation of Municipal Solid Waste Management Strategies at a Military Camp in Thailand Using a Simulation Model." *Proc. of the International Conference on Green and Sustainable Innovation - ICGSI 2006*, Chiang Mai, Thailand, November-December 2006.
- Pimpan, P. and **R. Jindal** (2005). "Investigations of Cadmium Removal in Laboratory-Scale Constructed Wetlands." *Proc. of the Eighth International In-Situ and On-Site Bioremediation Symposium*, Baltimore, USA, 6-7 June.
- Jindal, R.** and C. Srisa-ard (2003). "Removal of Lead and Zinc from Wastewater by Adsorption using Chitosan." *Proc. of the IWA Asia-Pacific Regional Conference: ASIAN WATER QUAL 2003*, Bangkok, Thailand, 20-22 October.
- Jindal, R.** and P. Ratanamalaya (2003). "Investigations on the Status of Arsenic Contamination in Southern Thailand." *Proc. of the First International Symposium on Southeast Asian Water Environment*, Asian Institute of Technology (AIT), Bangkok, Thailand, 23-25 October.
- Jindal, R.** and P. Ratanamalaya (2003). "Modeling of Heat Generation and Temperature Distribution in an Aerobic Composting Process." *Proc. of the Symposium on Suranaree University of Technology (SUT) Research and Cooperation between Association of Higher Education Institutes* in Nakhon Ratchasima, 18-19 August.
- Somorkhom, N., **R. Jindal** and P. Pimpan (2002). "Investigation of Heavy Metals Removal from Wastewater in Constructed wetlands." *Proc. of the International Conference on Water and Wastewater: Perspectives of Developing Countries*, New Delhi, India, 11-13 December.
- Jindal, R.** and S. Kriengkasem (2002). "Anaerobic Composting of Solid Waste in Batch- Loading Digesters." *Proc. of the EVVIRO 2002/ IWA World Water Congress*, Melbourne, Australia, 7-12 April.
- Samorkhom, N, **R. Jindal** and P. Pimpan (2002). "A Study of the Fate of Cadmium in Wastewater Effluents in Constructed Wetland System." *Proc. of the Third National Symposium on Graduate Research*, Suranaree University of Technology, Thailand, 18-19 July, pp. 321-322.
- Sookramoon, K. and **R. Jindal** (2002). "Reducing Exhaust Emission from Passenger Cars by Using Three-way Catalytic Converter." *Proc. of the Third National Symposium on Graduate Research*, Suranaree University of Technology, Thailand, 18-19 July, pp. 271-272.
- Hussadee, K. and **R. Jindal** (2002). "Strategies for Municipal Solid Waste Management in Suranaree Military Camp." *Proc. of the Third National Symposium on Graduate Research*, Suranaree University of Technology, Thailand, 18-19 July, ¹⁰

paper No. S10-218-ENG-ENV-7.

- Racho, P and **R. Jindal** (2002). "A Study of Heavy Metals in Bottom Ash from Medical Waste Incinerators in Nakhon Ratchasima Municipality." *Proc. of the Third National Symposium on Graduate Research*, Suranaree University of Technology, Thailand, pp. 625-626.
- Jindal, R.** and S. Fujii (2001). "Comparison of Experimental and Simulated Results of a Rock-Bed Filtration Model." in *Innovative Methods in Support of Bioremediation -6(2)* (eds. V.S. Magar, T. Vogel, M. Aelion, and A. Leeson), *Proc. of the Sixth International Symposium on In Situ and On-Site Bioremediation*, San Diego, CA, USA, 4-7 June.
- Jindal, R.** and P. Pimpan (2001). "Rock-bed Filtration for Domestic Wastewater Treatment." *Proc. of The Seventh National Convention of Civil Engineers*, Bangkok, Thailand, 18-19 May.
- Jindal, R.** and P. Ratanamalaya (2001). "Heat Generation and Temperature Distribution in An Aerobic Composting Process." *Proc. of the 8 th Tri- University International Joint Seminar and Symposium*, Chiang Mai, Thailand, 30 October-2 November.
- Jindal, R.** and J. Srisard (2001). Removal of Heavy Metals from Wastewater by Adsorption Using Chitosan. *Proc. of The XI th National Chemical Engineering and Applied Chemistry Conference*, held at Suranaree University of Technology, Nakhon Ratchasima, Thailand, 9-10 November.
- Jindal, R.** and H. Harada (2000). Comparative Review of Solid Waste Disposal Methods in Some Asian cities. *Proc. of the International Symposium on Solid Waste Management in Asian Cities*, Hong Kong, 23-27 October.
- Jindal, R.**, U. Weesakul, C. Sripadungtham, and P. Soparat (1997). Wastewater Treatment by Rock-bed Filtration. *Proc. of the Third National Convention on Civil Engineering*, 12-14 November, Phuket, Thailand, pp. ENV 2-1 – 2-7.
- Jindal, R.**, H. Harada and S. Shikura (1997). Solid Waste Management in Some Asian Countries: A State-of-the-art Review. *Environmental Sanitation Reviews*, No. 42/43, ENSIC, AIT, Bangkok, 126p.
- Jindal, R.** (1996). Application of Rock-bed Filtration for Canal Water Treatment: A Pilot-Plant Study in Thailand. *ENFO News* (ENSIC, AIT, Bangkok), Vol. 18, No.3, pp. 2-3.
- Jindal, R.**, S. Fujii, C. Niwa, and M. Mouri (1995). Pilot-plant Experiments for Improvement of Polluted Canal/klong Water by Rock-bed Filtration Method. *Proc. of the IAWQ Asian Regional Conference on Water Quality and Pollution Control*, Manila, Philippines, 7-9 February, pp. 707-730.
- Lohani, B. N., G. Todino, and **R. Jindal** (1984). Recycling of Solid Wastes. *Environmental Sanitation Reviews*, No. 13/14, ENSIC, AIT, Bangkok, 140p.
- Rabbani, K.R., **R. Jindal**, and H. Kubota (1983). Composting of Domestic Refuse. *Environmental Sanitation Reviews*, No. 10/11, ENSIC, AIT, Bangkok, 107p.
- Jindal, R.**, P.S. Mahesh and Sneha (1975). Vibrational Properties of CsCl by Shell Model. *Indian Journal of Pure and Applied Physics*, Vol. 13, pp. 823-825.
- Rani, R.** and P.S. Mahesh (1975). Debye-Waller Factors of Molybdenum by Krest's

Model. *Proc. of the 44th Annual Symposium of National Academy of Sciences*, held at the Bhagalpur University, Bhagalpur, India.

Reports:

- Jindal, R.** and Ying Li (2010). “Occurrence of Pharmaceutical and Personal Care Products (PPCPs) Residues in Some Municipal Wastewater Treatment Plants’ Effluents in Bangkok Region.” A project report submitted to Faculty of Engineering, Mahidol University, Thailand.
- Jindal, R.** (2002). “Heat Generation and Temperature Distribution in An Aerobic Composting Process.” A project report submitted to National Research Council of Thailand (NRCT).
- Jindal, R.** (2001). “A Preliminary Study of Arsenic Contamination in Southern Thailand.” A project report submitted to National Research Council of Thailand (NRCT).
- Joshi, D.L., Chaisak Sripadungtham, and **R. Jindal** (1998). Investigation of Canal Water Quality in Bangkok Area. A project report submitted to the Sumitomo Heavy Industries Ltd., Japan (The UNITWIN/UNESCO Chairs Programme).
- Sripadungtham, Chaisak and **R. Jindal** (1997). Rock-bed Filtration - A New Technique for Wastewater Treatment. A project report submitted to the Sumitomo Heavy Industries Ltd., Japan (The UNITWIN/UNESCO Chairs Programme)

PROFESSIONAL CONTRIBUTIONS:

A. Ph D Thesis Examiner

Served as the External Examiner for a Ph D Thesis from Indian Institute of Technology (IIT) – Delhi, India, October – December 2013.

Thesis title: “Occurrence and Environmental Fate of Emerging Contaminants (Pesticides and Pharmaceuticals Residues) in Indian Water Matrices.

B. Served as a “Reviewer” for the following International and Regional Journals:

1. “Characterization of Odorous Compounds from Wastewater of Agro-Industry: Case Study of Tapioca Starch Factory” by Thanasorn Wimolrattanasil, Sarawut Thepanondh, Melanie L Sattler and Wanna Laowagul, for the *Journal of Agriculture, Ecosystems and Environment*, Netherland.
2. “Immobilization Technologies” by J.N. Meegoda, A.S. Ezeldin, Hsai-Yang Fang and H.I. Inyang, for the *Practice Periodical of Hazardous, Toxic, and Radioactive waste Managemnet: American Society of Civil Engineers (ASCE)*.
3. “Efficiency of Arsenic Removal from Soil by *Vetiveria zizanioides* (Linn.) and *Vetiveria nemoralis* (Balansa) A. Camus” by T. Srisatit, T. Kosakul and D. Dhitivara, for the *Science Asia: Journal of the Science Society of Thailand*.
4. “Effect of Temperature Shock on activities of Phosphorus-Accumulating Organisms” by Thongchai Pansawad, Apiradee Dounghchai, and Jin Anotai for the *Science Asia: Journal of the Science Society of Thailand*.

5. "Evaluation of Organic Matter and Heavy Metals Derived from the Tannery Sludge Compost" for the *Suranaree Journal of Science and Technology (SJST)*, Suranaree University of Technology, Thailand.
6. "Removal of Phosphate from Aqueous Solutions and Sewage using Natural and Surface Modified Coir Pith" for the *Journal of Hazardous Materials*, Singapore.

PROFESSIONAL AFFILIATIONS

Member, International Water Association (IWA)

EXTRA CURRICULAR ACTIVITIES:

- **Public Relation Officer** (2014-present). Asian Institute of Technology Alumni Association (AITAA) Executive Committee, Bangkok, Thailand
- **Coordinator** (1994 - 1995). Distinguished Alumni Award Committee, Asian Institute of Technology Alumni Association (AITAA), Bangkok, Thailand.
- **Press Secretary** (1991 - 1994). Asian Institute of Technology Alumni Association (AITAA) Executive Committee, Bangkok, Thailand
- **Treasurer** (1987 - 88). India Association, AIT, Bangkok, Thailand.
- **Co-Chairwoman**(1982-84, 1987-88, 1996-97). AIT International Women Group, Asian Institute of Technology, Bangkok, Thailand.
- **Literary and Cultural Activities** (1962 - 73). Received numerous awards during school and college years. **Best Actress Award** in 1973 College Drama Competition, Meerut College, Meerut, India.
- **National Cadet Corps** (1966 - 69). Participated in training during college education.
- **President's Guide Award for Outstanding Girl Guide** (1966). Received from Dr. Radha Krishnan, President of India.