CV Harsha Ratnaweera

Personal information

Name & Surname:	Harsha Chandima RATNAWEERA
Born & Nationality	20.01.1962, Norwegian & Sri Lankan
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	GoogleSch: https://scholar.google.com/citations?user=boEL40oAAAAJ&hl=en

Notable awards and assignments

- Fellow, European Academy of Sciences (2024-)
- Fellow, Norwegian Academy of Technological Sciences (2024-)
- Fellow, International Water Association (2020-)
- People's ambassador of the Shandong Province, China (2023-)
- Vice President, European Water Association (2023-)
- Director of the Board, International Water Association (2022-)

Education

1992	Dr.Ing, Norwegian University of Science and Technology - NTNU, Trondheim, Norway
1987	Master's (Hons) in Chemical Engineering, National Technical University of Ukraine – KPI, Kiev

Other training

2021	Virtual Exchange(VE)/ Collaborative Online International Learning (COIL), AACU, USA
2006-2021	Various leadership, entrepreneurship training courses
2013	Global Entrepreneurship Training Program, Babson College, Massachusetts, USA
2012-2013	Teaching and Learning in Higher Education for Scientific Staff-PPUN400, NMBU.
2007-2009	Project Management, PMI courses, Oslo
1991-1992	Postgraduate course in Strategic Project Planning, NTNU, Norway

Positions - current and previous

2012-	Professor, Norwegian Univ. of Life Sciences (NMBU), Ås (Norway)
2001-2011	Adjunct Professor, Norwegian Univ. of Life Sciences (NMBU), Ås (Norway)
2008-	Founder/Chairman of the Board, DOSCON AS, Oslo, Norway, subsidiaries in China and Sri Lanka
1991-1998 1998-2011	Director of Innovation and International Projects (Researcher/Research Manager 1991-1998) Norwegian Institute for Water Research – NIVA, Oslo, Norway
2004-2012	NIVA-Tech (CEO), BallastTech (Chairman), Geomor-NIVA & NIVA Chile (Board member)
1998	Team leader, water and wastewater technology, COWI, Oslo, Norway
1990-1991	Research Scientist, SINTEF Water group, Trondheim, Norway

Positions -Honorary appointments

2022-	Honorary Professor, Mining-Metallurgical Institute of Tajikistan, Buston, Tajikistan
2021-	Honorary Professor National University of Water and Env. Engineering, Rivno, Ukraine
2018-	Honorary Professor, Inst. of Scientific Sust. Dev. & Ecology "Keremet", Bishkek,Kyrgyzstan
2018 April	Visiting Researcher, University of Technology Sydney, Australia
2018 Mar	Visiting Researcher, National University of Technology, Singapore
2018 Aug	Visiting Researcher, Hokkaido University, Japan
2018 Sep	Visiting Researcher, University of British Columbia, Canada
2016-	Honorary professor, Ukrainian State University of Chemical Technology, Ukraine
2013-	Visiting professor, Qingdao University of Technology, Qingdao, China
2020-2021	Visiting professor, University of Indonesia
2004-	Guest Professor, Inner Mongolia Agricultural University, Hohhot, P R China

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Institutional responsibilities

2012-	PI/Team leader, Process Analytics and Water Treatment Group, NMBU
2014-2018	Head of Research, Faculty of Science & Tech., Norwegian University of Life Sciences
2004-2011	One of the three top managers at the Norwegian Institute for Water Research - NIVA

Commissions of trust in academic, public or private organisations

2022-	Director of the Board, International Water Association (IWA)
2016-	Member, Norwegian National Committee of IWA
2011-	Member, Management Committee - IWA Specialist Group "Particle Separation"
2023-	Vice President, European Water Association (EWA),
2019-	Member of the Management Council of EWA
2011-	Norwegian representative in the Council of the European Water Association (EWA)
2020-	Member of the Scientific Advisory Council, Aquateam, Norway
2020-	Member, Advisory Group, EU ERA-NET Water JPI
2008-2012	Member, Steering Group, Nile Basin Research Program, University of Bergen
2004-2012	Member of the Norwegian National Commission of UNESCO
2006-2008	Chairman of the Scientific Committee, Norwegian National Commission of UNESCO
2013-2015	Chairman of the Norwegian Forum for Development and Technology (Bistandsforum)

Fellowships, awards and prizes

2020-	IWA Fellow – International Water Association
2023	People's ambassador of the Shandong Province, China
2020	Qingdao International Scientific Cooperation Award, China
2012-2015	High-End Foreign Expert Fellowship, State Admin. of Foreign Experts Affairs, China
2012-2015	High-End Foreign Expert Fellowship, Shandong Government, China
2012-2017	High-End Foreign Expert, Fellowship from the Government of Qingdao, Chia
1988-1991	First foreign national to receive a university fellowship, Norwegian Uni. of Sci. & Tech.

Memberships of academies/ scientific societies / networks

2014-2018	Deputy Chairman, Norwegian Water Research Assoc.; Board member (2013-2016)
2004-2012	Member of the Norwegian National Commission of UNESCO
2006-2008	Chairman of the Scientific Committee, Norwegian National Commission of UNESCO

Language proficiency

Language	Reading	Writing	Speaking
English	Excellent	Excellent	Excellent
Norwegian	Excellent	Excellent	Excellent
Russian	Excellent	Good	Excellent
Sinhalese (mother tongue)	Excellent	Excellent	Excellent

Project management experience (examples)

2023-2025	Task Coordinator at NMBU, SMART4ENV: Enhancing Scientific Capacity of TUBITAK in Smart Env. Technologies for Climate Change Challenges. EU Horizon Europe, €1.5 mill
2022-2025	Task Coordinator at NMBU, WaterLine: Transforming advanced water skilling through extended reality water emulative centres. EU Horizon Europe, €2,1 mill
2022-2025	Coordinator at NMBU, Smart WB: Capacity Building in the field of Higher Education: Strand. Partnerships for transformation in higher education. Erasmus+, €0,72 mill
2022-2024	Project Manager, MONLINE: Innovative water quality monitoring for on-line surveillance /process control. Innovation Norway & Jiangsu Science & Tech. Dept, China. €0.78 mill
2022-2024	Concept Developer, Hybrid Sensors -Drinking Water. Res Council of Norway (RCN). €0.66 mill
2021-2026	Project Manager, Protecting aquatic ecosystem and Human health from micropollutants, INTPART-RCN, €1.1 mill (NO, BR). PATCHER project
2021-2023	Project Manager, Digitalisation of water industry by innovative education, Erasmus+ Knowledge Alliances, 12 partners (NO, DE, BG, CY, TR, RO). €1.1 mill www.digiwater.org

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2021-2023	Project Manager, DigiwatRO: Digitalisation of the water sector and water education in Romania and Norway. EEA Grants. €0.1 mill
2021-2023	Project Manager, Graduates for Climate Change adapted water management, 12 univ. from EU (NO, PL. DE), Asia (CN. LK, MN), Erasmus+ CBHE, €1 mill www.cc-water.net
2021-2023	Project Manager, Global mobility program, NMBU & UTS, Australia: Erasmus+ €0.02 mill
2021-2023	Project Manager, EU MSCA project on Development of Hybrid Soft Sensor for on-line monitoring of contaminants of emerging concern in water. ECO-SOS. €0.25 mill
2020-2028	Project Manager, BSc program, Qingdao Univ. of Technology, China. Collaboration between QUT-NMBU, Funded by Ministry of Education, China. >€1 mill
2020-2026	Scientific Coordinator, Water ESSENCE - creating synergy to meet the global challenges. NORAD, €1.7 mill, (NO, GH, KE, UG, ET, SSU, RW)
2019-2023	Project Manager, R&D in process control. Norwegian Tax Authority. €0.3 mill
2019-2021	Project Manager, Closing the Water Cycle Gap with Harmonised Actions, ERANET Water JPI (NO, SE, PL, RO, IL, NL, SG, AU, US, CN) €2 mill http://www.waterharmony.net/wjpi
2015-2023	Project Manager, International Partnership on membrane processes for Research & Educational excellence, INTPART-RCN, €1.1 mill, (US, CA, CN, JP, NO). MEMPREX-I/II.
2015-2019	Co-Project Manager, RECOVER: Resource recovery from WW. RCN. €2.4 mill
2015-2019	Project Manager, Holistic optimisation of sewers, treatment plant and recipients. RCN, € 0.4 mill
2014-2020	Scientific coordinator, Inst. Capacity Building in Water Mgmt & Climate Change Adaption, €3.1 mill, NOARD, 11 universities (NO, LK, BD, KR, UG, KE, ET, SS). www.wasoproject.org
2013-2015	International coordinator, UNECE- Protocol on Water and Health. Establishment of targets in Tajikistan, €0.15 mill (Independent consultant)
2013-2015	International coordinator, UNECE- Protocol on Water and Health. Establishment of targets in Kyrgyzstan, €0.15 mill (Independent consultant)
2011-2021	Project Manager, Water Harmony educational collaboration with 10 Eurasian universities, €1.1mill, HK-Dir-Norway. (NO, UA, BY, MD, KZ, KG, TJ) www.waterh.net
2009-2011	International coordinator, UNECE- Protocol on Water & Health. Est targets in Ukraine, €0.3 mill
2000-2001	Team Leader, Devel. of National WW Mgmtt Plan for Mongolia, World Bank €0.12 mill
1999-2000	Team Leader, Revision-National Env. Action Plan (NEAP) in Mongolia, World Bank. €0.12 mill

Organisation of international conferences

2025	Conference Chairman, 14th IWA Conference on Instrumentation, Control and Automation, Oslo, Norway (confirmed)
2024	Conference Chairman, 3rd EWA/IWA Water Management in Changing Climates, 14-15 May 2024, IFAT, Munch, Germany
2020	Co-Chairman of the Scientific Committee, 2nd EWA/IWA conference on Water Management in Cold Climates, 100 participants, Harbin, China
2019	Co-Organizer, EWA Green Capital Conference: Sustainable urban drainage solutions (SUDS), ca. 140 participants, Oslo, Norway
2018	NATO Country Co-Director, NATO Workshop on CYBERWATER 2018 Physical and Cyber Safety in Critical Water Infrastructure, ca. 50 participants, Oslo, Norway
2016	Chairman of the organising committee, 1st EWA Conference on Water Management in Cold Climates, ca. 110 participants, Spitsbergen, Norway
2016	Chairman, IWA Particle Separation Conference, ca. 160 participants, Oslo, Norway

Supervision of students

Master's students	Ph.D. students	Post Docs	University/institution - Country
>35	13	4	Faculty of Science and Technology, NMBU

Other relevant professional experiences

2012-	Initiated and coordinating a Global Educational and Research network of 100 universities and research organisations from 54 countries on water – www.WaterHarmony.net

Patents and inventions

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2020	Invention patent: An intelligent and precise coagulant dosing control system based on multivariable control. Inventors: Wang Xiaodong; Yang Benliang; Harsha Ratnaweera. Chinese Patent No.: ZL 2020 1 0169710.2
2020	Invention patent: An intelligent chemical dosing system and control method. Inventors: Wang Xiaodong; Yang Benliang; Harsha Ratnaweera. Chinese Patent No.: ZL 2020 1 0269346.7
2020	Coagulant dosing controller for water treatment. Chinese Patent No.: ZL 2020 3 0091579.3, Designer: Wang Xiaodong; Yang Benliang; Harsha Ratnaweera
2020	Design patent: A multivariable control based intelligent and precise chemical dosing control software. Chinese copyright 2021SR1250931, Owner: Qingdao Doscon Environ. Tech Co., Ltd
2020	Design patent: An intelligent chemical dosing system and control software. Chinese copyright 2021SR1254943, Owner: Qingdao Doscon Environ. Tech Co., Ltd.

Invited presentations & Key notes- Examples from 2023 and 2022	
2023	Keynote at "MEMTEK 2023", *Development trends in digital tools in membrane processes.* 17-18 October 2023, Istanbul, Turkey
2023	Chair, Opening session. IWA Digital Water Summit, Bilbao. 14-16 Nov 2023
2023	Chair of the workshop on universities' role in achieving SDGs. IWA World Development Congress, 10-14 December 2023, Kigali, Rwanda.
2023	Invited speaker, German Water Association (DWA)'s dialogue. *Univ. – Industry partnerships on digitalization promoting SDGs in & beyond Europe.* 19.09.2023. Berlin. Germany
2023	Invited speaker, Ugandan Water Res. inst. on Univ-Industry partnership. Entebbe, 26.09.2023
2023	Speaker and session chair: 28th Annual Conference of the IEEE Industrial Electronics Society, *Achieving legislative requirements with digital tools.* 11.09.2023. Sinaia, Romania
2023	Speaker and workshop co-organiser: UN Water conference: Better governance of water in massive river systems. 24.03.2023. New York, USA
2022	Invited speaker at the JSWA/WEF/EWA Sendai conference. *Identification of process disruptions using hybrid sensors.* 16.11.2022. Sendai, Japan
2022	Keynote at the International forum on "Green economy is the main trend of the new decade", December 2022. South Kazakhstan University, Kazakhstan
2022	Coordinator of the workshop on the facilitation of faster uptake of innovations, IWA World Water Congress, Copenhagen, September 2022

Teaching	
Annually	2-year MSc program on Intelligent Water Technology, NMBU (new from 2024)
Annually	THT271: Water and wastewater treatment - Basics, 15 ECTS, NMBU, contributing lecturer
Annually	THT310: Water & wastewater treatment- Advanced, 10 ECTS, NMBU, course responsible
Annually	THT311: Special topics in w&ww treatment, 10 ECTS, NMBU, Course responsible
Annually	THT313: Water management in Changing Conditions, 5 ECTS, NMBU, Course responsible
Annually	THT201: Rapid methods in water quality analysis. 5 ECTS, NMBU. Contributing lecturer
Annually	KJM220: Water chemistry, 10 ECTS, NMBU, Contributing lecturer
2021-2022	Water treatment specialised course, National Technical University of Ukraine (lecturer)
2019-2021	Coordinator and lecturer, 12 webinars on aspects of water management for Eurasia.
2021-2028	Coordinator of the joint BSc program on water management between Qingdao University of Technology, China and NMBU, lecturer in several courses
2022	SUNY Stoney Brook- NMBU: Glocal Adaptation of Nanotech in Water. Co-coordinator
2019-2022	International Winter School on Arctic Water Mgmt, Harbin Institute of Technology, China
2018-2021	Postgraduate course on water management at Univ. of Peradeniya, Sri Lanka, lecturer

Evaluation committees for recruitment (selected)	
2024	Chair, expert committee- evaluation of B Plosz for Professor Oslo Metropolitan Univ., Norway
2023	Evaluation of Elin Lavonen for the post of Adjunct Professor, Alto University, Finland
2023	Evaluation of Ilkka Miettinen -Adjunct Professor, Alto University, Finland

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2023	Chair of the expert committee – Adjunct professor in water chemistry, NMBU, Norway
2022	Evaluation of the PhD thesis of Jannatul Rumky: Valorization of sludge, Lahiti University, Finland
2021	EvaluatorPhD thesis, S Wang: Pyrolysis of Biodegradable Waste. KTH-Royal Inst of Tech, Sweden
2021	Evaluation of the PhD thesis of V A Vijayageetha, Bharathiar University, India
2021	Evaluation of Ming Li for promotion to Associate Professor, University of Michigan-Flint, USA
2020	Chair of the expert committee- Associate Professor in Sustainable Urban Development, Water and Environmental Engineering, Oslo Metropolitan University
2020	Chair of the expert committee- Professor in water transport systems, NMBU
2019	Chair of the expert committee- evaluation of Tone Muthanna for Professor, NTNU
2018	Chair of the evaluation of the PhD thesis of E Christensen, Use of zirconium and chitosan coagulants for physicochemical water treatment. Norwegian School of Veterinary Science
2017	Evaluator, PhD thesis of B Hønsvall: Env microorganisms – University of South Eastern Norway
2013	Member of the evaluation committee- Asso. Professor in Hydraulic/Env. Engineering, NTNU

Evaluation committees for project proposals (selected)

2023	Mitacs Accelerate project: Proposal evaluator
2023	4th National Plan for Research, Development and Innovation for the period 2022-2027, Romanian Ministry of Research, Innovation and Digitization. Proposal evaluator
2023	Fondecyt Research Project Competition 2024, National Research & Dev. Agency, Chile. Evaluator
2022	Norwegian Research Council. Inland Regional Program: Proposal evaluator
2020	EU CHIST-ERA program: Proposal evaluator

Other activities – expert witness, expert judge

2013	Expert judge, legal proceedings on flood damage compensation between the Fredrikstad municipality and consortium of insurance companies (10 days)
2023	Expert witness, legal proceedings on sea deposition of tailings from rutile mines, Førde, Norway
2020	Expert statement, Norwegian parliament, vulnerability and environ. protection of Spitsbergen.

Journals – editorial boards and reviewer

2023	Editor	Digitalisation Aspects in the Water Sector – Discover Water. Springer Nature.
2022	Editor	Special Issue "Recent Advances in WW Treatment and Transport". MDPI, IF=3.5
2021	Editor	Journal of Ecological Engineering (JEE), IF=1.3
2022	Guest editor	Journal of Water and Climate Change, IWA, IF=2.8
2005-	Reviewer	Water Sci. & Tech, J. of Env. Chemical Eng., Env. Sci and Pollution Research, Water Practice and Technology, Cleaner Production, Water Process Engineering, Chemosphere, MDPI- Methods and Protocols, Separation and Purification Technology

Publication matrices

h-index: 24; i10-index: 56; citations: 2273; peer reviewed publications>100

Selected peer-reviewed publications – Harsha Ratnaweera

Nair, A., Yavorska, V., Hykkerud, A., Ratnaweera, H.; A cloud-based infrastructure to deploy supervisory forecast models for predictive coagulant dosing control. Water Practice and Technology 2024; wpt2024091. doi: https://doi.org/10.2166/wpt.2024.091

Loganathan, P.; Kandasamy, J.; Ratnaweera, H.; Vigneswaran, S. Treatment Trends and Hybrid Methods for the Removal of Poly- and Perfluoroalkyl Substances from Water—A Review. Appl. Sci. 2024, 14, 2574. https://doi.org/10.3390/app14062574

Loganathan, P., Kandasamy, J., Ratnaweera, H. et al. Use of wastewater alum-coagulation sludge as a phosphorus fertiliser – a mini review. Environ Sci Pollut Res 31, 18412–18421 (2024). https://doi.org/10.1007/s11356-024-32497-6

Ratnaweera, H., Nair, A., Hykkerud, Q., Sivchenko, N., Ratnaweera, D. and Condrachi, L. (2023). Achieving legislative requirements in wastewater treatment using digital tools. IEEE 28th International Conference on

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Emerging Technologies and Factory Automation (ETFA), Sinaia, Romania, 2023, pp. 1-4. https://doi.org/10.1109/ETFA54631.2023.10275453

Wang, X., Chen, S., Bi, X., Chen, N., Yang, T., Wang, L., Maletskyi, Z., & Ratnaweera, H. (2023). Morphological image analysis of biofilm evolution with quantitative analysis in a moving bed biofilm reactor. Science of The Total Environment, 856, 159199. https://doi.org/10.1016/J.SCITOTENV.2022.159199

Abeyratne, W. M. L. K., Weerakoon, S. B., Neluwala, P., & Ratnaweera, H. (2023). Suspended solid removal efficiency of plate settlers and tube settlers analysed by CFD modelling. Water Science and Technology, 87(9), 2116–2127. https://doi.org/10.2166/WST.2023.107

Antonio, M., Rodrigues, S., Scarazzato, T., Guillen Burrieza, E., Hermassi, M., Devaisy, S., Kandasamy, J., Nguyen, T. V., Ratnaweera, H., & Vigneswaran, S. (2023). Membranes in Water Reclamation: Treatment, Reuse and Concentrate Management. Membranes 2023, Vol. 13, Page 605, 13(6), 605. https://doi.org/10.3390/MEMBRANES13060605

Chen, N., Wang, X., Huang, M., Maletskyi, Z., Ratnaweera, H., & Bi, X. (2023). Quantitative study of biofilm yield and biomass distribution of a multi-stage moving-bed biofilm system. Water Reuse, 13(2), 250–268. https://doi.org/10.2166/WRD.2023.009

Devaisy, S., Kandasamy, J., Aryal, R., Johir, M. A. H., Ratnaweera, H., & Vigneswaran, S. (2023). Removal of Organics with Ion-Exchange Resins (IEX) from Reverse Osmosis Concentrate. Membranes, 13(2), 136. https://doi.org/10.3390/membranes13020136

Kyrii, S., Maletskyi, Z., Klymenko, N., Ratnaweera, H., Mitchenko, T., Dontsova, T., & Kosogina, I. (2023). Impact of modification by red mud components on the sorption properties of activated carbon. Applied Surface Science Advances, 16, 100412. https://doi.org/10.1016/J.APSADV.2023.100412

Loganathan, P., Kandasamy, J., Ratnaweera, H., & Vigneswaran, S. (2023). Submerged membrane/adsorption hybrid process in water reclamation and concentrate management—a mini review. Environmental Science and Pollution Research, 30(15), 42738–42752. https://doi.org/10.1007/s11356-022-23229-9

Loganathan, P., Vigneswaran, S., Kandasamy, J., Cuprys, A. K., Maletskyi, Z., & Ratnaweera, H. (2023). Treatment Trends and Combined Methods in Removing Pharmaceuticals and Personal Care Products from Wastewater—A Review. Membranes, 13(2), 158. https://doi.org/10.3390/MEMBRANES13020158

Loganathan, P., Vigneswaran, S., Kandasamy, J., Nguyen, T. V., Katarzyna Cuprys, A., & Ratnaweera, H. (2023). Bisphenols in water: Occurrence, effects, and mitigation strategies. Chemosphere, 328, 138560. https://doi.org/10.1016/J.CHEMOSPHERE.2023.138560

Nguyen, T. H., Nguyen, T. V., Vigneswaran, S., Ha, N. T. H., & Ratnaweera, H. (2023). A Review of Theoretical Knowledge and Practical Applications of Iron-Based Adsorbents for Removing Arsenic from Water. Minerals 2023, Vol. 13, Page 741, 13(6), 741. https://doi.org/10.3390/MIN13060741

Zhou, X., Jiang, Z., Gu, J., Bi, X., Liu, J., Wang, X., Yang, T., Shi, X., Cheng, L., Huang, S., Wang, X., Ratnaweera, H., Maletskyi, Z., & Nie, S. (2023). Performance characteristics and bacterial community analysis of a novel two-step-feed three-stage A/O-MBBR system for nitrogen removal in municipal wastewater. Journal of Water Process Engineering, 52, 103513. https://doi.org/10.1016/J.JWPE.2023.103513

Fonseka, C., Ryu, S., Choo, Y., Naidu, G., Kandasamy, J., Thiruvenkatachari, R., Foseid, L., Ratnaweera, H., Vigneswaran, S. (2023). Selective recovery of europium from real acid mine drainage by using novel amine based modified SBA15 adsorbent and membrane distillation system, Journal of Water Process Engineering, Volume 56, 104551, https://doi.org/10.1016/j.jwpe.2023.104551

Țîru, A.E., Vasiliev, I., Diaconu, L., Vilanova, R., Voipan, D. and Ratnaweera, R. (2023). Integration of ANN for Accurate Estimation and Control in Wastewater Treatment. IEEE 28th International Conference on Emerging Technologies and Factory Automation (ETFA), Sinaia, Romania, 2023, pp. 1-4, https://doi.org/10.1109/ETFA54631.2023.10275569

Ghinea, L.M., Miron, M. and Ratnaweera, H. (2023). A Deep Learning Approach For Faults Recognition of Dissolved Oxygen Sensor in Wastewater Treatment Plants. IEEE 28th International Conference on Emerging

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Technologies and Factory Automation (ETFA), Sinaia, Romania, 2023, pp. 1-5 https://doi.org/10.1109/ETFA54631.2023.10275716 .

Devaisy, S., Kandasamy, J., Nguyen, T. V., Johir, M. A. H., Ratnaweera, H., & Vigneswaran, S. (2022). Comparison of Membrane-Based Treatment Methods for the Removal of Micro-Pollutants from Reclaimed Water. Water 2022, Vol. 14, Page 3708, 14(22), 3708. https://doi.org/10.3390/W14223708

Dubovik, V., Ratnaweera, H., Markevich, R., Issayeva, A., Maletskyi, Z., & Sorogovets, V. (2022). Inhibition effects of petroleum products on nitrogen and phosphorous removal. IOP Conference Series: Earth and Environmental Science, 981(4), 042008. https://doi.org/10.1088/1755-1315/981/4/042008

Fonseka, C., Ryu, S., Naidu, G., Kandasamy, J., Ratnaweera, H., & Vigneswaran, S. (2022). Metal-organic frameworks for recovery of valuable elements. Nano-Enabled Technologies for Water Remediation, 377–392. https://doi.org/10.1016/B978-0-323-85445-0.00016-3

Li, F., Wang, X., Yang, M., Zhu, M., Chen, W., Li, Q., Sun, D., Bi, X., Maletskyi, Z., & Ratnaweera, H. (2022). Detection Limits of Antibiotics in Wastewater by Real-Time UV–VIS Spectrometry at Different Optical Path Length. Processes 2022, Vol. 10, Page 2614, 10(12), 2614. https://doi.org/10.3390/PR10122614

Mojiri, A., Zhou, J. L., Ratnaweera, H., Rezania, S., & Nazari V, M. (2022). Pharmaceuticals and personal care products in aquatic environments and their removal by algae-based systems. Chemosphere, 288, 132580. https://doi.org/10.1016/J.CHEMOSPHERE.2021.132580

Nair, A., Hykkerud, A., & Ratnaweera, H. (2022). Estimating Phosphorus and COD Concentrations Using a Hybrid Soft Sensor: A Case Study in a Norwegian Municipal Wastewater Treatment Plant. Water 2022, Vol. 14, Page 332, 14(3), 332. https://doi.org/10.3390/W14030332

Nair, A., Weitzel, J., Hykkerud, A., & Ratnaweera, H. (2022). Supervised machine learning based system for automatic fault-detection in water-quality sensors. 2022 26th International Conference on System Theory, Control and Computing, ICSTCC 2022 - Proceedings, 64–67. https://doi.org/10.1109/ICSTCC55426.2022.9931788

Ødegaard, H., Ratnaweera, H., & Rusten, B. (2022). Instrumentation, control and automation (ICA) of MBBR plants for nutrient removal in wastewater: ICA of MBBR plants. Celebrating Passion for Water, Science and Technology, 1–16. https://doi.org/10.2166/9781789063370_0001

Pradhan, M., Johir, M. A. H., Kandasamy, J., Ratnaweera, H., & Vigneswaran, S. (2022). Effects of Viscosity on Submerged Membrane Microfiltration Systems. Membranes, 12(8), 780. https://doi.org/10.3390/MEMBRANES12080780

Ratnaweera, H., Sætersdal, T., Weerakoon, S. B., & Mutua, F. M. (2022). Editorial: Water management addressing societal and climate change challenges. Journal of Water and Climate Change, 13(2), v–vii. https://doi.org/10.2166/WCC.2022.001

Smotraiev, R., Nehrii, A., Koltsova, E., Anohina, A., Sorochkina, K., & Ratnaweera, H. (2022). Comparison of wastewater coagulation efficiency of pre-polymerised zirconium and traditional aluminium coagulants. Journal of Water Process Engineering, 47, 102827. https://doi.org/10.1016/J.JWPE.2022.102827

Wang, X., Wu, Y., Chen, N., Piao, H., Sun, D., Ratnaweera, H., Maletskyi, Z., & Bi, X. (2022). Characterization of Oxidation-Reduction Potential Variations in Biological Wastewater Treatment Processes: A Study from Mechanism to Application. Processes 2022, Vol. 10, Page 2607, 10(12), 2607. https://doi.org/10.3390/PR10122607

Wu, T., Su, B., Wu, H., Wang, S., Wang, G., Ratnaweera, H., Weerakoon, S. B., Zhang, Z., & Yao, B. (2022). Scenario optimization of water supplement and outflow management in Yilong Lake based on the EFDC model. Hydrology Research, 53(4), 519–531. https://doi.org/10.2166/nh.2022.113

Zhou, X., Zhang, Y., Li, Z., Sun, P., Hui, X., Fan, X., Bi, X., Yang, T., Huang, S., Cheng, L., & Ratnaweera, H. (2022). A novel two-stage anoxic/oxic-moving bed biofilm reactor process for biological nitrogen removal in a full-scale municipal WWTP: Performance and bacterial community analysis. Journal of Water Process Engineering, 50, 103224. https://doi.org/10.1016/J.JWPE.2022.103224

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Cuprys, A., Maletskyi, Z., Rouissi, T., Ratnaweera, H., Brar, S. K., Knystautas, E., & Drogui, P. (2021). Insights into the simultaneous sorption of ciprofloxacin and heavy metals using functionalized biochar. Water (Switzerland), 13(19), 2768. https://doi.org/10.3390/W13192768

Jamil, S., Loganathan, P., Kandasamy, J., Ratnaweera, H., & Vigneswaran, S. (2021). Comparing nanofiltration membranes effectiveness for inorganic and organic compounds removal from a wastewater-reclamation plant's micro-filtered water. Materials Today: Proceedings, 47, 1389–1393. https://doi.org/10.1016/J.MATPR.2021.02.618

Mojiri, A., Zhou, J. L., Ratnaweera, H., Ohashi, A., Ozaki, N., Aoi, Y., Vakili, M., & Kindaichi, T. (2021). Performance optimization of a chitosan/anammox reactor in nitrogen removal from synthetic wastewater. Journal of Environmental Chemical Engineering, 9(3), 105252. https://doi.org/10.1016/J.JECE.2021.105252

Mojiri, A., Zhou, J. L., Ratnaweera, H., Ohashi, A., Ozaki, N., Kindaichi, T., & Asakura, H. (2021). Treatment of landfill leachate with different techniques: an overview. Journal of Water Reuse and Desalination, 11(1), 66–96. https://doi.org/10.2166/WRD.2020.079

Nair, A. M., Haugen, F. A., & Ratnaweera, H. (2021). Economic Model Predictive Control for optimal struvite recovery. Journal of Environmental Management, 280, 111830. https://doi.org/10.1016/J.JENVMAN.2020.111830

Sola, K. J., Bjerkholt, J. T., Lindholm, O. G., & Ratnaweera, H. (2021). What Effect Does Rehabilitation of Wastewater Pipelines Have on the Share of Infiltration and Inflow Water (I/I-Water)? Water 2021, Vol. 13, Page 1934, 13(14), 1934. https://doi.org/10.3390/W13141934

Nair, A. M., Gonzalez-Silva, B. M., Haugen, F. A., Ratnaweera, H., & Østerhus, S. W. (2020). Real-time monitoring of enhanced biological phosphorus removal in a multistage EBPR-MBBR using a soft-sensor for phosphates. Journal of Water Process Engineering, 37, 101494. https://doi.org/10.1016/J.JWPE.2020.101494

Ratnaweera, H. (2020). Meeting Tomorrow's Challenges in Particle Separation with Coagulation. ACS Symposium Series, 1348, 207–223. https://doi.org/10.1021/BK-2020-1348.CH007

Sola, K. J., Bjerkholt, J. T., Lindholm, O. G., & Ratnaweera, H. (2020). Analysing consequences of infiltration and inflow water (I/I-water) using cost-benefit analyses. Water Science and Technology, 82(7), 1312–1326. https://doi.org/10.2166/WST.2020.395

Kulesha, O., Maletskyi, Z., Kvaal, K., & Ratnaweera, H. (2019). Strategy for Flux Enhancement in Biofilm Ceramic Membrane Bioreactor Applying Prepolymerized and Non-Prepolymerized Inorganic Coagulants. Water 2019, Vol. 11, Page 446, 11(3), 446. https://doi.org/10.3390/W11030446

Kulesha, O., & Ratnaweera, H. (2019). Computational Thermodynamic Analysis of the Interaction between Coagulants and Monosaccharides as a Tool to Quantify the Fouling Potential Reduction in the Biofilm Membrane Bioreactor. Water 2019, Vol. 11, Page 1275, 11(6), 1275. https://doi.org/10.3390/W11061275

Liu, W., Ratnaweera, H., & Kvaal, K. (2019). Model-based measurement error detection of a coagulant dosage control system. International Journal of Environmental Science and Technology, 16(7), 3135–3144. https://doi.org/10.1007/S13762-018-1895-4

Maletskyi, Z., Zigta, D. K., Kulesha, O., & Ratnaweera, H. (2019). Chemical Enhancement for Retrofitting Moving Bed Biofilm and Integrated Fixed Film Activated Sludge Systems into Membrane Bioreactors. Membranes 2019, Vol. 9, Page 135, 9(10), 135. https://doi.org/10.3390/MEMBRANES9100135

Nair, A. M., Fanta, A., Haugen, F. A., & Ratnaweera, H. (2019). Implementing an Extended Kalman Filter for estimating nutrient composition in a sequential batch MBBR pilot plant. Water Science and Technology, 80(2), 317–328. https://doi.org/10.2166/WST.2019.272

Smoczynski, L., Kalinowski, S., Cretescu, I., Smoczynski, M., Ratnaweera, H., Trifescu, M., & Kosobucka, M. (2019). Study of Sludge Particles Formed during Coagulation of Synthetic and Municipal Wastewater for Increasing the Sludge Dewatering Efficiency. Water 2019, Vol. 11, Page 101, 11(1), 101. https://doi.org/10.3390/W11010101

CV Harsha Ratnaweera

Koronkiewicz, S., Trifescu, M., Smoczynski, L., Ratnaweera, H., & Kalinowski, S. (2018). A novel automatic flow method with direct-injection photometric detector for determination of dissolved reactive phosphorus in wastewater and freshwater samples. Environmental Monitoring and Assessment, 190(3), 1–12. https://doi.org/10.1007/S10661-018-6511-Z

Korshin, G. V., Sgroi, M., & Ratnaweera, H. (2018). Spectroscopic surrogates for real time monitoring of water quality in wastewater treatment and water reuse. Current Opinion in Environmental Science & Health, 2, 12–19. https://doi.org/10.1016/J.COESH.2017.11.003

Sola, K. J., Bjerkholt, J. T., Lindholm, O. G., & Ratnaweera, H. (2018). Infiltration and Inflow (I/I) to Wastewater Systems in Norway, Sweden, Denmark, and Finland. Water 2018, Vol. 10, Page 1696, 10(11), 1696. https://doi.org/10.3390/W10111696

Wang, X., Bi, X., Hem, L. J., & Ratnaweera, H. (2018). Microbial community composition of a multi-stage moving bed biofilm reactor and its interaction with kinetic model parameters estimation. Journal of Environmental Management, 218, 340–347. https://doi.org/10.1016/J.JENVMAN.2018.04.015

Wang, X., Bi, X., Liu, C., & Ratnaweera, H. (2018). Identifying critical components causing seasonal variation of activated sludge settleability and developing early warning tool. Water Science and Technology, 77(6), 1689–1697. https://doi.org/10.2166/WST.2018.053

Zhang, D., Hølland, E. S., Lindholm, G., & Ratnaweera, H. (2018). Hydraulic modeling and deep learning based flow forecasting for optimizing inter catchment wastewater transfer. Journal of Hydrology, 567, 792–802. https://doi.org/10.1016/J.JHYDROL.2017.11.029

Zhang, D., Martinez, N., Lindholm, G., & Ratnaweera, H. (2018). Manage Sewer In-Line Storage Control Using Hydraulic Model and Recurrent Neural Network. Water Resources Management, 32(6), 2079–2098. https://doi.org/10.1007/S11269-018-1919-3

Liu, W., & Ratnaweera, H. (2017). Feed-forward-based software sensor for outlet turbidity of coagulation process considering plug flow condition. International Journal of Environmental Science and Technology, 14(8), 1689–1696. https://doi.org/10.1007/S13762-017-1284-4

Manamperuma, L., Wei, L., & Ratnaweera, H. (2017). Multi-parameter based coagulant dosing control. Water Science and Technology, 75(9), 2157–2162. https://doi.org/10.2166/WST.2017.058

Sayid Mia, M. A., Nur-E-Alam, M., Huque, S., Rahman, M. M., & Ratnaweera, H. (2017). Biogas Production through Anaerobic Digestion of Tannery Solid Waste. Iranica Journal of Energy & Environment, 8(3), 210–215. https://www.ijee.net/article_64684.html

Sivchenko, N., Ratnaweera, H., & Kvaal, K. (2017). Approbation of the texture analysis imaging technique in the wastewater treatment plant. Cogent Engineering, 4(1), 1373416. https://doi.org/10.1080/23311916.2017.1373416

Smoczyński, L., Kalinowski, S., Ratnaweera, H., Kosobucka, M., Trifescu, M., & Pieczulis-Smoczyńska, K. (2017). Electrocoagulation of municipal wastewater - a pilot-scale test. Desalination and Water Treatment, 72, 162–168. https://doi.org/10.5004/DWT.2017.20654

Smoczynski, L., Kosobucka, M., Pieczulis-Smoczyński, K., Smoczyński, M., & Ratnaweera, H. (2017). Sizes of particles formed during municipal wastewater treatment. Water Science and Technology, 75(4), 971–977. https://doi.org/10.2166/WST.2016.546

Víctor-Ortega, M. D., & Ratnaweera, H. C. (2017). Double filtration as an effective system for removal of arsenate and arsenite from drinking water through reverse osmosis. Process Safety and Environmental Protection, 111, 399–408. https://doi.org/10.1016/J.PSEP.2017.08.001

Wang, X., Kvaal, K., & Ratnaweera, H. (2017). Characterization of influent wastewater with periodic variation and snow melting effect in cold climate area. Computers & Chemical Engineering, 106, 202–211. https://doi.org/10.1016/J.COMPCHEMENG.2017.06.009

CV Harsha Ratnaweera

Wang, X., Ratnaweera, H., Holm, J. A., & Olsbu, V. (2017). Statistical monitoring and dynamic simulation of a wastewater treatment plant: A combined approach to achieve model predictive control. Journal of Environmental Management, 193, 1–7. https://doi.org/10.1016/J.JENVMAN.2017.01.079

Kozminykh, P., Heistad, A., Ratnaweera, H. C., & Todt, D. (2016). Impact of organic polyelectrolytes on coagulation of source-separated black water. Environmental Technology, 37(14), 1723–1732. https://doi.org/10.1080/09593330.2015.1130175

Liu, W., & Ratnaweera, H. (2016). Improvement of multi-parameter-based feed-forward coagulant dosing control systems with feed-back functionalities. Water Science and Technology, 74(2), 491–499. https://doi.org/10.2166/WST.2016.180

Manamperuma, L. D., Ratnaweera, H. C., & Martsul, A. (2016). Mechanisms during suspended solids and phosphate concentration variations in wastewater coagulation process. Environmental Technology, 37(19), 2405–2413. https://doi.org/10.1080/09593330.2016.1150354

Manamperuma, L., Ratnaweera, H., Heistad, A., & Vasenko, L. (2016). Effect of degree of prepolymerisation of coagulant and ratio of phosphate-inorganic metal on coagulated sludge. International Journal of Environmental Technology and Management, 19(3–4), 278–287. https://doi.org/10.1504/IJETM.2016.082254

Sivchenko, N., Kvaal, K., & Ratnaweera, H. (2016). Evaluation of image texture recognition techniques in application to wastewater coagulation. Cogent Engineering, 3(1). https://doi.org/10.1080/23311916.2016.1206679

Smoczyński, L., Ratnaweera, H., Kosobucka, M., Smoczyński, M., Kalinowski, S., & Kvaal, K. (2016). Modelling the structure of sludge aggregates. Environmental Technology, 37(9), 1122–1132. https://doi.org/10.1080/09593330.2015.1102332

Manamperuma, L. D., Ratnaweera, H. C., Manamperuma, L. D., & Ratnaweera, H. C. (2015). Coagulation Mechanisms during the Substitution of Inorganic Salts with Cationic Polymers to Increase the Sludge Value. Journal of Water Resource and Protection, 7(17), 1495–1501. https://doi.org/10.4236/JWARP.2015.717123

Ratnaweera, H., & Fettig, J. (2015). State of the Art of Online Monitoring and Control of the Coagulation Process. Water 2015, Vol. 7, Pages 6574-6597, 7(11), 6574–6597. https://doi.org/10.3390/W7116574

Plósz, B. G., Liltved, H., & Ratnaweera, H. (2009). Climate change impacts on activated sludge wastewater treatment: a case study from Norway. Water Science and Technology, 60(2), 533–541. https://doi.org/10.2166/WST.2009.386

Ratnaweera, H., Lei, L., & Lindholm, O. (2002). Simulation program for wastewater coagulation. Water Science and Technology, 46(4–5), 27–33. https://doi.org/10.2166/WST.2002.0543

Ratnaweera, H., Hiller, N., & Bunse, U. (1999). Comparison of the coagulation behavior of different Norwegian aquatic NOM sources. Environment International, 25(2–3), 347–355. https://doi.org/10.1016/S0160-4120(98)00112-3

Selmer-Olsen, E., Ratnaweera, H. C., & Pehrson, R. (1996). A novel treatment process for dairy wastewater with chitosan produced from shrimp-shell waste. Water Science and Technology, 34(11), 33–40. https://doi.org/10.1016/S0273-1223(96)00818-9

Berge, D., Ratnaweera, H., & Efraimsen, H. (1994). Degradation of Recalcitrant Chlorinated Organics by Radiochemical and Biochemical Oxidation. Water Science and Technology, 29(5–6), 219–228. https://doi.org/10.2166/WST.1994.0716

Fettig, J., & Ratnaweera, H. (1993). Influence of Dissolved Organic Matter on Coagulation/Flocculation of Wastewater by Alum. Water Science and Technology, 27(11), 103–112. https://doi.org/10.2166/WST.1993.0269

Ratnaweera, H., Odegaard, H., & Fettig, J. (1992). Coagulation with Prepolymerized Aluminium Salts and their Influence on Particle and Phosphate Removal. Water Science and Technology, 26(5–6), 1229–1237. https://doi.org/10.2166/WST.1992.0565

CV Harsha Ratnaweera

Fettig, J., Ratnaweera, H. C., & Ødegaard, H. (1990). Simultaneous Phosphate Precipitation and Particle Destabilization Using Aluminium Coagulants of Different Basicity. Chemical Water and Wastewater Treatment, 221–242. https://doi.org/10.1007/978-3-642-76093-8_15