europass Curriculum vitae

PERSONAL INFORMATION

Harsha Chandima RATNAWEERA

Bergslia 24, 0870 Oslo (Norway)

+4798227777

harsha@nmbu.no

Sex Male | Date of birth 20/01/1962 | Nationality Norwegian

KEY QUALIFICATIONS

32 years of professional experience in teaching and R&D in water resources management, water supply & wastewater technology, surveillance of water quality, process control and modelling. Over 27 years of experience is initiating and management of international projects with 5-12 international partners with budgets upto 42 mill NOK. 12 years' experience in innovation management and commercialisation of research results.

WORK EXPERIENCE

01/01/2012–Present

Professor

Norwegian University of Life Sciences, Aas (Norway)
www.nmbu.no

Teaching, graduate and undergraduate research supervision, R&D project initiation and management

01/01/2014–31/12/2018

Head of Research, Faculty of Science and Technology

Norwegian University of Life Sciences - NMBU, Aas (Norway)
www.nmbu.no

Coordination of R&D of the department, Strategic development of research at the department.

01/08/2013–Present

Guest professor

Qingdao Technological University, Qingdao (China)
www.qdc.edu.cn/en

Teaching, supervision of graduate students, research coordination

20/10/2016–Present

Honorary Professor

Ukrainian State University of Chemical Technology, Dnepro (Ukraine)
www.udhtu.edu.ua

01/04/1999–31/12/2011

Director of Innovation and International projects

Norwegian Institute for Water Research- NIVA, Oslo (Norway)
www.niva.no

Responsible for initiation, coordination and management of innovation activities and international projects. Responsible for NIVA's subsidiries: Managing Director of NIVA-Tech AS, DOSCON AS, Chairman of the Board of NIVA-Poland, Ballast-Tech NIVA AS.

01/10/2008–Present

Technical Director

DOSCON AS, Oslo (Norway)
www.doscon.no

Innovator and founder of DOSCON AS, a company providing control systems for coagulant dosing control for water and wastewater treatment plants

01/08/2001–31/12/2011

Adjunct Professor

Norwegian University of Life Sciences, Aas (Norway)

Teaching; graduate and undergraduate supervision

01/09/1991–31/08/1998

Research Manager

Norwegian Institute for Water Research - NIVA, Oslo (Norway)

Coordination of R&D and contract research projects in water and wastewater treatment

01/09/1998–31/03/1999

Team Leader

Interconsult- COWI LtD, Oslo (Norway)
www.cowi.no

Coordination of water and wastewater projects

EDUCATION AND TRAINING

01/11/1987–28/02/1992

Doctor of Engineering (Dr.ing.)

EQF level 8

Norwegian University of Science and Technology - NTNU/NTH, Trondheim (Norway)
www.ntnu.no

Civil and environmental engineering: Water and wastewater treatment; Coagulation processes

01/09/1980–28/02/1987

M.Sc. (honours) in Chemical Engineering

EQF level 7

National Technical University of Ukraine - KPI, Kiev (Ukraine)
inter.kpi.ua

General Chemical Technology, Production of mineral fertilizer, Water and wastewater treatment

PERSONAL SKILLS

Foreign language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
Norwegian (Bokmal)	C2	C2	C2	C2	C2
Russian	C2	C2	C2	C2	C1
	Teaching certificate for Russian as a foreign language				
Singhalese	C2	C2	C2	C2	C2
	Mother tongue				

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

Organisational / managerial skills

I was a member of the top management at NIVA (220 employees) for 12 years; I was the Head of Research at NMBU during 2013-2018. At present managing a network (www.WaterHarmony.net) involving 50 universities from 33 countries.

Have organised the following international conferences:

2016: IWA Particle separation conference, Oslo, Norway

© European Union, 2002-2020 | http://europass.cedefop.europa.eu

2016: 1st EWA Conference on Water Management in Cold Climates, Spitsbergen

2018: NATO workshop on CYBERWATER 2018 Physical and Cyber Safety in Critical Water Infrastructure, Oslo, Norway

2019: EWA Green Capital Conference: Sustainable urban drainage solutions (SUDS), Oslo, Norway

2020: 2nd EWA/IWA conference on Water Management in Cold Climates, Harbin, China, 2020

Job-related skills

RG score: 29

H-index: 16

i10 index: 25

Citations: 1037

ADDITIONAL INFORMATION

Membership in academic and professional committees:

- 2020 - Member of the Advisory Group, EU ERA-NET Water JPI
- 2019 - Member of the Management Council of European Water Association (EWA)
- 2011- Norwegian representative in the Council of the European Water Association (EWA)
- 2011- Member of the Management Committee (MC) of the IWA Specialist Group „Particle Separation".
- 2016- Member of the Norwegian National Committee of IWA
- 2013-2015: Chairman of the Norwegian Forum for Development and Technology (Norsk Bistandsforum)
- 2010- 2018: Member of the director group, Norwegian Polytechnical Association
- 2004-2012: Member of the Norwegian National Commission of UNESCO
- 2006-2008: Chairman of the Scientific Committee, Norwegian National Commission of UNESCO
- 2008-2012: Member, Steering Group, Nile Basin Research Program
- 2014- 2018: Deputy Chairman, VAnnforsk, Deputy Chair; Board member (2013-2016)

Selected projects

- Project Manager, Project Manager: MEMPREX-II: International partnership on membrane processes for research and educational excellence, INTPART program. (www.memprex.org) 5.9 mill NOK (2020-2023). A collaboration with 6 universities from USA, Canada, Japan and China.
- Project Manager, EU- ERANET Water JPI on Closing the Water Cycle Gap with Harmonised Actions for Sustainable Management of Water Resources. 1.9 mill € (2019-2021), Funded by Water JPI
- Project Manager, Managing nanoparticles and use of nanotechnology in water (NANOWATER), 0.3 mill NOK (2020-2021), Funded by DiKU-Norway
- Project Manager: Water quality measurement in sewers. 1.2 mill NOK (2017-2018), Regional Research Fund with Asker municipality
- Project Manager: International partnership on membrane processes for research and educational excellence, INTPART program. (www.memprex.org) 6 mill NOK (2016-2019). A collaboration with 6 universities from USA, Canada, Japan and China.
- Project Manager: Water Harmony Eurasia -Phase II, (www.waterh.net) SIU 6 mill NOK (2016-2019): A collaboration with 10 universities form Ukraine, Belarus, Tajikistan, Kazakhstan, Kyrgistan and Moldova
- Project Manager, Water Magic (www.watermagic.org) - SIU. 1.5 mill NOK (2015-2017): Water management in cold climates. A collaboration with universities from USA, Canada, Japan, South Korea and China.

© European Union, 2002-2020 | http://europass.cedefop.europa.eu

- Project Manager, Water Harmony- Erasmus+, (www.waterh.eu) 12 mill NOK, EU (2015-2018): A collaboration with 10 universities from Germany, Poland, China, Sri Lanka and Ukraine
- Project Manager, Regnbyge-3M: Holistic optimization of sewerage systems, (www.regnbyge3m.no) 5.5 mill NOK, RFF (2013-2016)
- Scientific coordinator, Water and Society – Inst. Capacity Building in Water mgmt and Climate Change adaptation, 36 mill NOK, 11 universities from 8 countries in Asia & Africa (2014-2018)
- Project Director, Water Harmony: Harmonisation of postgraduate education on water management and treatment, 7 mill NOK, 8 universities from 5 Eurasian countries (2011-2014)
- Project Manager, Improvement of Phosphate recovery, Polish-Norwegian Research Fund, 5 mill NOK, EEA Poland (2012-2015).
- Project Manager, UNECE/WHO Protocol on Water and Health – target setting in Ukraine, Tajikistan, Kyrgyzstan. Norwegian ministry of Foreign Affairs, 6 mill NOK (2009-2013)
- Project Manager, Restoration of Lake Wuiliangsuhai, Inner Mongolia, China (NORAD), NORAD and SIDA, 30 mill NOK (2004-2005)
- Project Manager, Integrated Coastal Zoning Management Plan, Sri Lanka. NORAD, 15 mill NOK (1996-2003)

■

Selected academic and professional publications - Peer-reviewed journals

2020: Ratnaweera, H. Meeting tomorrow's challenges in particle separation with coagulation. In Multidisciplinary Advances in Efficient Separation Processes, Editor: Chernyshova, I. American Chemical Society, USA, Chapter 7pp 207-223, doi**:** 10.1021/bk-2020-1348.ch007

2020: Nair, A.M., Hykkerud, A., Ratnaweera, H. A cost-effective IoT strategy for remote deployment of soft sensors – A case study on implementing a soft sensor in a multistage MBBR plant. Water Science & Technology, wst2020067, doi.org/10.2166/wst.2020.067.

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

2019: Kulesha, O.; Ratnaweera, H. 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, 1275, 11, 2019. doi:10.3390/w11061275

2019: Kulesha, O.; Maletskyi, Z.; Kvaal, K.; Ratnaweera, H. Strategy for Flux Enhancement in Biofilm Membrane Bioreactor Applying Prepolymerized and Non-Prepolypermized Inorganic Coagulants. Water, 446, 11, 2019. doi:10.3390/w11030446

2019: Maletskyi, Z.; Zigta, D.K.; Kulesha, O.; Ratnaweera, H. Chemical Enhancement for Retrofitting Moving Bed Biofilm and Integrated Fixed film Activated Sludge Systems into Membrane Bioreactors Membranes, 135, 9, 2019. doi:10.3390/membranes9100135

2019: Ratnaweera, Harsha; Smoczynski, Lech; Kalinowski, Slawomir; Cretescu, Igor; Smoczynski, Michal; Trifescu, Mihaela; Kosobucka, Marta. Study of Sludge Particles Formed during Coagulation of Synthetic and Municipal Wastewater for Increasing the Sludge Dewatering Efficiency. *Water* 2019 ;Volume 11.(101) p. 1-15

2018: Koronkiewicz, Stanislawa; Trifescu, Mihaela; Smoczynski, Lech; Ratnaweera, Harsha; Kalinowski, Slawomir. A novel automatic flow method with direct-injection photometric detector for determination of dissolved reactive phosphorus in wastewater and freshwater samples. *Environmental Monitoring & Assessment* 2018 ;Volume 190.(3)

2018: Kulesha, Olga; Maletskyi, Zakhar; Ratnaweera, Harsha. Multivariate chemometric analysis of membrane fouling patterns in biofilm ceramic Membrane bioreactor. *Water* 2018 ;Volume 10.(8) p. 1-23

2018: Kulesha, Olga; Maletskyi, Zakhar; Ratnaweera, Harsha. State-of-the-art of membrane flux enhancement in membrane bioreactor. *Cogent Engineering* 2018

2018: Liu, W; Ratnaweera, Harsha; Kvaal, Knut. Model-based measurement error detection of a coagulant dosage control system. *International Journal of Environmental Science and Technology* 2018 p. 1-10

2018: Ratnaweera, Harsha; Jenssen Sola, Kristin; Bjerkholt, Jarle Tommy; Lindholm, Oddvar G.. Infiltration and Inflow (I/I) to Wastewater Systems inNorway, Sweden, Denmark, and Finland. *Water* 2018 ;Volume 10.(1696) p. 1-17

2018: Ratnaweera, Harsha; Suthakaran, Navaratnam; Ketheesan, B; Subramaniam Sivakumar, Saravanamuttu.

Challenges in Utilizing Water Resources in Lower Reaches of Kanakarayanaru of Northern Sri Lanka for Efficient and Equitable Water Allocation. *INTERNATIONAL JOURNAL OF SCIENTIFIC & ENGINEERING RESEARCH,* 2018 ;Volume 9.(7) p. 821-826

2018: Ratnaweera, Harsha; Zhang, Duo; Lindholm, Geir.
DeepCSO: Forecasting of Combined Sewer Overflow at a Citywide Level using Multi-task Deep Learning. *arXiv.org* 2018 p. 1-23

2018: Ratnaweera, Harsha; Zhang, Duo; Lindholm, Geir; Martinez Almario, Nicolas. Exploiting Capacity of Sewer System Using Unsupervised Learning Algorithms Combined with Dimensionality Reduction. *arXiv.org* 2018 p. 1-29

2018: Ratnaweera, Harsha; Zhang, Duo; Skullestad Hølland, Erland; Lindholm, Geir. Enhancing Operation of a Sewage Pumping Station for Inter Catchment Wastewater Transfer by Using Deep Learning and Hydraulic Model. *arXiv.org* 2018 p. 1-25

2018: Sivchenko, Nataliia; Kvaal, Knut; Ratnaweera, Harsha.
Floc sensor prototype tested in the municipal wastewater treatment plant. *Cogent Engineering* 2018 ;Volume 5.(1)

2018: Wang, Xiaodong; Bi, Xuejun; Liu, Changqing; Ratnaweera, Harsha. Identifying critical components causing seasonal variation of activated sludge settleability and developing early warning tool. *Water Science and Technology* 2018 ; Volume 77.(6) p. 1689-1697

2018: Wang, Xiaodong; Xuejun, Bi; Hem, Lars John; Ratnaweera, Harsha. Microbial community composition of a multi-stage moving bed biofilm reactor and its interaction with kinetic model parameters estimation. *Journal of Environmental Management* 2018 ; Volume 218. p. 340-347

2018: Zhang, Duo; Lindholm, Geir; Ratnaweera, Harsha.
Use long short-term memory to enhance Internet of Things for combined sewer overflow monitoring. *Journal of Hydrology* 2018 ;Volume 556. p. 409-418

2018: Zhang, Duo; Martinez, Nicolas; Lindholm, Geir; Ratnaweera, Harsha. Manage Sewer In-Line Storage Control Using Hydraulic Model and Recurrent Neural Network. *Water resources management* 2018 ;Volume 32.(6) p. 2079-2098

2017: Kulesha, Olga; Maletskyi, Zakhar; Todt, Daniel; Ratnaweera, Harsha. Development and validation of performance evaluation protocol for small wastewater treatment MBR system. *International IWA Conference on Sustainable Solutions for Small Water and Wastewater Treatment Systems* 2017 p. 671-673

2017: Sivchenko, Nataliia; Ratnaweera, Harsha; Kvaal, Knut.
Approbation of the texture analysis imaging technique in the wastewater treatment plant. *Cogent Engineering* 2017 ;Volume 4.(1)

2017: Victor-Ortega, Maria Dolores; Ratnaweera, Harsha.
Double filtration as an effective system for removal of arsenate and arsenite from drinking water through reverse osmosis. *Process Safety and Environmental Protection* 2017 ; Volume 111. p. 399-408

2017: Zhang, D., Hølland, E.S., Lindholm, G., Ratnaweera, H.: Hydraulic modeling and deep learning based flow forecasting for optimizing inter catchment wastewater, Journal of Hydrology, Available online 21 November, https://doi.org/10.1016/j.jhydrol.2017.11.029

2017: Wei, L., Ratnaweera, H.: Feed-forward-based software sensor for outlet turbidity of coagulation process considering plug flow condition. *International journal of Environmental Science and Technology, DOI: 10.1007/s13762-017-1284-4.*

2017: Wang, X., Kvaal, K., Ratnaweera, H.: Characterization of influent wastewater with periodic variation and snow melting effect in cold climate area. *J. of Computers & Chemical Engineering, 106, 202-21, https://doi.org/10.1016/j.compchemeng.2017.06.009*

2017: Wang, X., Ratnaweera, H., Holm, J.A., Olsbu, V.: 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*

2017: Manamperuma, L., Wei, L., Ratnaweera, H. Multi-parameter based coagulant dosing control. *Water Science and Technology 75 (9), 2157-2162*

2017: Vijakanth, V., Sivakumar, S., Ratnaweera, H.: WaterAvailability Study of Groundwater in Jaffna Peninsula of Northern Sri Lanka. *International Journal of Scientific and Engineering Research, 8(1):1563-1567*

2017: Smoczyński, L., Kalinowski, S., Ratnaweera, H., Kosobucka, M., Trifescu, M. Pieczulis-Smoczyńska, K.: Electrocoagulation of municipal wastewater - a pilot-scale test. *Desalination and water treatment 72:162-168. DOI: 10.5004/dwt.2017.2065*

2017: Smoczyński, L., Ratnaweera, H., Smoczyński, M., Kosobucka, M., Pieczulis-Smoczyńska, K.: Sizes of particles formed during municipal wastewater treatment, *Water Science & Technology 75(4), DOI: 10.2166/wst.2016.546*

2016: Manamperuma, L., Ratnaweera, H., Heistad, A., Vasenko, L. 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. DOI: 10.1504/IJETM.2016.10003115*

2016: Manamperuma, Lelum Duminda M.; Wei, Liu; Ratnaweera, Harsha. Multi-parameter based coagulant dosing control. IWA conference for the specialist group on particle separation, 2016, Oslo, Norway.; 2016-06-23 - 2016-06-25

2016: Sivchenko, Nataliia; Ratnaweera, Harsha; Kvaal, Knut.
Approbation of the texture analysis imaging technique in the wastewater treatment plant. Advances in particle science and separation: meeting tomorrow's challenges; 2016-06-22 - 2016-06-24

2016: Wang, Xiaodong; Bi, Xunjun; Liu, Changqing; Ratnaweera, Harsha**.** Systematical Study of Activated Sludge Settleability Seasonal Variation Based on Multivariate Statistical Analysis. European Water Association Conference:Water management in cold climate; 2016-06-25 - 2016-06-27

2016: Liu, W., & Ratnaweera, H. Improvement of multi-parameter based feed-forward coagulant dosing control systems with feed-back functionalities. *Water Science and Technology*, wst2016180.

2016: Sivchenko, N., Kvaal, K., & Ratnaweera, H. Evaluation of image texture recognition techniques in application to wastewater coagulation. *Cogent Engineering*, *3: 1206679, http://dx.doi.org/10.1080/23311916.2016.1206679).*

2016: Smoczyński, L., Ratnaweera, H., Kosobucka, M., Smoczyński, M., Kalinowski, S., & Kvaal, K. Modelling the structure of sludge aggregates. *Environmental technology*, *37*(9), 1122-1132.

2016: Manamperuma, L. D., Ratnaweera, H. C., & Martsul, A. Mechanisms during suspended solids and phosphate concentration variations in wastewater coagulation process. Environmental technology, 1-17. doi:10.1080/09593330.2016.1150354

2016: Kozminykh, P., Heistad, A., Ratnaweera, H. C., & Todt, D. Impact of organic polyelectrolytes on coagulation of source-separated black water.*Environmental technology*, *37(14), 1723-1732.*

2016: Smoczynski, Lech; Ratnaweera, Harsha; Kosobucka, Marta; Smoczynski, Michal; Pieczulis-Smoczynska, Krystyna; CRETESCU, Igor.
Size of aggregates formed during coagulation and electrocoagulation of synthetic wastewater. *Journal of Environmental Protection and Ecology* 2016 ; Volume 17.(3) p. 1160-1170

2015: Kalashnykov, Yurii; Sivchenko, Nataliia; Ratnaweera, Harsha; Kvaal, Knut. Relationships between floc features and coagulation-flocculation treatment efficiencies of various model wastewaters. I: *Selected publications from the Water Harmony Project: Water Research and Technology*. Norway: Water Harmony Project 2015 ISBN 9788299997812. p. 81-89

2015: Manamperuma, Lelum Duminda M.; Ratnaweera, Harsha; Heistad, Arve; Martsul, Alena; Vasenko, Liubov.
Impact on plant availability of phosphorus in sludge after coagulation. Nutrient Removal and Recovery moving innovation into practice; 2015-05-18 - 2015-05-21

2015: Manamperuma, Lelum Duminda M.; Ratnaweera, Harsha.
Coagulation mechanisms during the substitution of inorganic salts with cationic polymers to increase the sludge value.. *Journal of Water Resource and Protection* 2015 ;Volume 7.(17) p. 1495-1501

2015: Martsul, Alena; Manamperuma, Lelum Duminda M.; Ratnaweera, Harsha. Improvement of plant availability of phosphates in coagulated sludge. I: *Selected publications from the Water Harmony Project: Water Research and Technology*. Norway: Water Harmony Project 2015 ISBN 9788299997812. p. 116-122

2015: Ratnaweera, Harsha; Astrelin, Igor. Selected publications from the Water Harmony Project: Water Research and Technology. Norway: Water Harmony Project 2015 (ISBN 9788299997812) 320 p.

2015: Ratnaweera, Harsha; Fettig, Joachim. State of the Art of Online Monitoring and Control of the Coagulation Process. *Water* 2015 ; Volume 7.(11) p. 6574-6597

2015: Vasenko, Liubov; Manamperuma, Lelum Duminda M.; Heistad, Arve; Ratnaweera, Harsha. Improvement of plant availability of Phosphates during coagulation. I: *Selected publications from the Water Harmony Project: Water Research and Technology*. Norway: Water Harmony Project 2015 ISBN 9788299997812. p. 253-260

2015: Manamperuma, L. and Ratnaweera, H. Coagulation Mechanisms during the Substitution of Inorganic Salts with Cationic Polymers to Increase the Sludge Value. Journal of Water Resource and

Protection, 7, 1495-1501. doi: 10.4236/jwarp.2015.717123.

2015: Ratnaweera, H. and Fettig, J.: State of the art of on-line monitoring and control of the coagulation process. Review paper: *Water 7(11):6574-6597, DOI: 10.3390/w7116574*

2015: Smoczyński, L; Ratnaweera, H; Kosobucka, M; Smoczyński, M; Kalinowski, S and Kvaal, K: Modelling the structure of sludge aggregates, *Environmental Technology 37(9):1-11 November 2015, DOI: 10.1080/09593330.2015.1102332*

2015: Astrelin I; Ratnaweera, H: Physical water and wastewater treatment, textbook for graduate studies, Water Harmony, Norway

2014: SmoczynIski, Lech; Ratnaweera, Harsha; Kosobucka, Marta; SmoczynIski, Michal. Erratum: Image analysis of sludge aggregates (Sep. Purif. Technol. (2014):122:412-420). *Separation and Purification Technology* 2014 ; Volume 135.

2014: Smoczyński, Lech; Ratnaweera, Harsha; Kosobucka, Marta; Smoczyński, Michał. Image Analysis of Sludge Aggregates. *Separation and Purification Technology* 2014 ; Volume 122.(10. Feb.) p. 412-420

2014: Sivchenko, N; Kvaal, K; Ratnaweera, H; 2014: Image analysis of flocs and mathematical modelling applied to coagulation-flocculation process. IWA Specialist Conference “Advances in particle science and separation: from mm to nm scale and beyond", June 15-18, Sapporo, Japan.

2014: Manamperuma L, Ratnaweera H, (2014) Coagulation mechanisms during the substitution of inorganic salts with cationic polymers to increase the sludge value. IWA Conference Advances in particle science and separation, Sapporo, Japan, 15-18 June 2014.

2014: Wei, L; Ratnaweera, H; Heping, S; 2014: Improving a multi-parameter based dosing control system; Proceedings of Advances in Particle Science and Separation: From mm to nm scale and beyond, IWA Specialist Conference, Sapporo, Japan, June 15-18 2014

2014: Smoczynski, L; Ratnaweera, H; Kosobucka, M; Smoczynski, M; Image analysis of sludge aggregates, Separation and Purification Technology, 135, 286-286, Elsevier Science

2014: Smoczyński, L; Ratnaweera, H; Kosobucka, M; Kvaal, K; Smoczyński, M; 2014: Image analysis of sludge aggregates obtained at preliminary treatment of sewage, Water Science & Technology, 70, 6, 1048-1055, IWA Publishing

2014: Kosobuka, M: Smoczynski, L; Ratnaweera, H; Wardzynsja, R; Zaleska-Chrost, B; 2014: Prelimenray removal of phosphates from municipal wastewater, Proceedings of ECOpole, 8, 2, 393

2013: Wei, L., Ratnaweera, H., Heping, S. 2013: Better treatment efficiencies and process economics with real-time coagulant dosing control; Proceedings of the Instrumentation, Control and Automation ICA 2013 Conference, Narbonne, France, 18-20 September 2013

2013: Sivchenko, N; Kvaal, K; Ratnaweera, H; 2013: Characterization of flocs in coagulation-flocculation process by image analysis and mathematical modelling. 13th Nordic Wastewater Conference, October 8–10, Malmö, Sweden.

2013: Ratnaweera, H; 2013: Phosphorus recovery from wastewater: should we redesign our treatment plants?, 2013, VANN, 04, 551-556 (in Norwegian)

2013: Manamperuma L; Ratnaweera H; Rathnaweera S; 2013: Retrofitting coagulant dosing control using real-time water quality measurements to reduce coagulant consumption, Instrumentation, Control and Automation Conference (ICA) 2013, Narbonne, France, 18-20 September 2013

2012: Ratnaweera, Harsha. Role of innovation in water supply and sanitation. Latest international achievements in chemical industry and construction material production; 2012-11-22 - 2012-11-23

2009: Plosz, B; Liltved, H; Ratnaweera, H; 2009: Climate change impacts on activated sludge wastewater treatment: a case study from Norway, Water Science & Technology, 60, 2, 533–541, IWA Publishing

2008: Håkonsen, Tor; Helgesen, Harald; Ratnaweera, Harsha; Lindholm, Oddvar. Bruk av kitosan i vannbehandling - praktiske erfaringer: Practical use of chitosan in water treatment. Nordisk Drikkevannskonferanse; 2008-06-09 - 2008-06-11

2008: Håkonsen, Tor; Ratnaweera, Harsha; Lindholm, Oddvar.
The use of chitosan in water treatment - an evaluation of practical application. "Leading Edge Technologies-LET08" IWA-Conference; 2008-06-01 - 2008-06-04

2005: Ratnaweera, Harsha. Challenges and Opportunities in Implementation of the WFD in Norway. XXV INTERNATIONAL SCHOOL OF HYDRAULICS; 2005-09-12 - 2005-12-16

2005: Ratnaweera, Harsha. Coastal Zone management experiences from Sri Lanka; the road to achieving goals in a variable political and administrative landscape. Norwegian Forum for Development Cooperation in Fisheries: Sri Lanka for beginners; 2005-10-26 - 2005-10-27

2005: Ratnaweera, Harsha. Integrated water resources management and knowledge transfer. OECD Workshop on International Scientific and Technological Co-operation for Sustainable Development; 2005-11-20 - 2005-11-23

2005: Ratnaweera, Harsha; Smoczynski, Lech; Lewandowski, Andrzej. Efficient coagulant dosing in wastewater treatment. *?* 2005 (505) p. 347-352

2003: Lei, Lu; Ratnaweera, Harsha; Lindholm, Oddvar.
Coagulant dosage control in chemical wastewater treatment plants- A review and modeling approaches. *Vatten* 2003 ;Volume 59.(4) p. 227-236

2002: Lei, Lu; Ratnaweera, Harsha; Lindholm, Oddvar.
Simulation Program for Wastewater Coagulation. 10th International Gothenburg Symposium on Chemical Water and Wastewater Treatment; 2002-06-17 - 2002-06-19

2002: Lei, Lu; Ratnaweera, Harsha; Lindholm, Oddvar; Lileng, Knut.
Model-based real-time control of coagulant dosing. Int. conf. of Automation in water quality AutMoNet 2002; 2002-05-21 - 2002-05-22

2002: Ratnaweera, Harsha; Lindholm, Oddvar; Lei, Lu.
Simulation Programs for Waste Water Coagulation. *Water Science and Technology* 2002 ; Volume 46.(04.mai) p. 27-33

2001: Ratnaweera, Harsha; Lei, Lu; Lindholm, Oddvar.
Simulation program for wastewater coagulation. IWA - conference; 2001-10-15 - 2001-10-18

Supervision of PhD students

Hykkerud, A.: Water quality modelling in sewers

Jensen, K.S.: Management of sewer overflow systems

Muralidaran A.N.: Advanced control of wastewater processes

2018: Wang, X.: Control of biological wastewater treatment processes

Zhang, D.: Simulation and modelling of wastewater systems

2018: Sivchenko, N.: Image analysis in water treatment

2019: Kulesha, O.: MBR process optimsation

Vijaykanth, V: Conjunctive use of ground water, inland surface water and coastal water for effective sustainable potable water for Jaffna Peninsula and Islands

2016: Wei, L. Enhancement of Coagulant Dosing Control in Water and Wastewater Treatment Processes

2016: Manamperuma, L. Optimisation of the coagulation process to improve plant availability of phosphorus in wastewater sludge

2014: Håkonsen, T.: Chitosan, a coagulant for drinking water treatment : an assessment of practical conditions

2010: Rathnaweera, S.: Modelling and optimisation of wastewater coagulation

2003: Lei, L.: Model-based control and simulation of wastewater coagulation

Countries worked in

Australia, Czech. Rep., Canada, China, Ghana, Japan, Kyrgyzstan, Kazakhstan, Mongolia, Nigeria, Norway, Poland, Serbia, Spain, Sri Lanka, Tanzania, Tajikistan, Venezuela, Ukraine, USA (Short business visits to Azerbaijan, Australia, Bangladesh, Canada, Cambodia, Estonia, Ethiopia, India, Island, Japan, Mozambique, Philippines, Russia, South Africa, South Sudan, UK, Uganda + most European countries)

Present research activities and fields of interests:

Modelling and optimization of coagulation processes in water and wastewater treatment, Real-time monitoring and control of treatment processes, Holistic optimization of sewerage systems, virtual sensors and validation of measurements, Reverse Osmosis process for heavy metal removal, Image analysis for sensor development, Water Resources Management, Harmonisation of water related graduate studies in Asia, Africa and Eurasia with Norway. E-learning platforms.

Signature

I, the undersigned certify that, to the best of my knowledge and belief, this Curriculum Vitae correctly describes myself, my qualifications and experience.

01.03.2020

© European Union, 2002-2020 | http://europass.cedefop.europa.eu