

Personal Information **Dr. Sathish Kumar Ramachandran**

Associate Professor (Research),
Centre for Waste Management (CWM),
Sathyabama Institute of Science and Technology, (Deemed to be University),
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Academic Qualifications

Degree	Specialization	Institution/ University	Year	Remarks
Ph. D	Chemical Engineering	National Institute of Technology- Tiruchirappalli, Tamil Nadu, India	Sep 2016 – Sep 2020	Highly Commended
Master of Engg.	Environmental Engineering	Alagappa Chettiar College of Engineering & Technology, Karaikudi/ Anna University, Tamil Nadu, India.	Sep 2009 – May 2011	82 % (1 st Class with Distinction)
Diploma	Industrial Safety (Distance Education)	Annamalai University, Annamalainagar, Tamil Nadu, India.	Sep 2010 – May 2011	82 % (1 st Class with Distinction)
B. Tech	Biotechnology	P.R Engineering College Anna University, Tamil Nadu, India.	Sep 2005 – May 2009	76% (1 st Class)

Professional (Research/Teaching)

Associate Professor- Research (Sep,2023- Present)	Centre for Waste Management (CWM), Sathyabama Institute of Science & Technology (SIST- Deemed University) , Chennai, Tamil Nadu, India.
Associate Professor- Research (July,2021- Aug, 2023)	Department of Biomaterials, Saveetha Institute of Medical and Technical Sciences (SIMATS- Deemed University) , Chennai, Tamil Nadu, India.
Senior Proposal Engineer (Oct, 2020 – Jun, 2021)	Projects Department, Eco Care Engg. Pvt. Ltd., Chennai, Tamil Nadu, India.
Research Associate (Sep, 2013 – Jun, 2016)	Department of Chemical Engineering, National Institute of Technology- Tiruchirappalli , Tamil Nadu, India.
Assistant Professor (June, 2012- May, 2013)	Department Civil Engineering, Dhanalakshmi Srinivasan Engineering College , Tamil Nadu, India.
Assistant Professor (Jan, 2012- May, 2012)	Department Civil Engineering, M.N.S.K. College of Engineering , Pudukkottai, Tamil Nadu, India.
Shift Engineer (May, 2011-Dec, 2011)	ETP treatment plant (Chennai Petro chemical Limited- Site, Manali, Chennai), Pure Enviro Engg. Pvt Ltd , Chennai, Tamil Nadu, India.

International Research Exposure

Sep 2022- Jun 2023	International Visiting Post Doc Scholarship in Prince of Songkla University , Thailand (Reinventing University Project 2564-2565)
June 2015	Visiting Student, Advanced Membrane Technology Research Centre (AMTEC), Universiti Teknologi Malaysia (UTM) , Malaysia.
March 2014	Visiting Student, Department of Environmental Engineering, Konkuk University , Seoul, South Korea.

Funded Projects

S.No.	Title of Project	Role	Funding Agency	Status	Amount
1.	Vanillin decorated Zn-Fe nanocomposite embedded polyether sulfone hollowfiber membranes for low pressure desalination.	PI	TNSCST, Innovation and Project Development Scheme	Accepted. Waiting for fund release.	INR 1,00,000/-
2.	Biofilm Engineering Methods for Enhancing the Performance of Microbial Fuel Cells	PI	SP/YO/2021/2243, DST- SYST Scheme, DST India	Accepted. Waiting for fund release.	INR 29,70,000/-
3.	Fabrication of Membrane desalination (MD) prototype	Team member	IIT-Madras- Carbon Zero Challenge-2019	Completed (Aug 2018 - June 2019)	INR 5,00,000/-

Awards & Fellowship

- **Best Oral Presentation Award**- during 'STWTD-2020' eConference, NIT-Calicut (2020).
- **Best Oral Presentation Award**- during 'ICMHCEE2019' Conference, NIT-Tiruchirappalli (2019).
- DST Project **Research Associate Fellowship**, Indo-Korea Research Project (INT-Korea P-20/2013), National Institute of Technology- Tiruchirappalli, Tamil Nadu.

Publications in Referred Journals

1. **Ramachandran SK**, Sathishkumar P, Membrane-based techniques for pollutants removal: an outlook on recent advancements, *Current Opinion in Environmental Science & Health*, <https://doi.org/10.1016/j.coesh.2023.100513>.
2. H. Subramanian, H. Santhaseelan, V.T. Dinakaran, V. Devendiran, A.J. Rathinam, A. Mahalingam, **S.K. Ramachandran**, A. Muthukumarasamy, K. Muthukumar, T. Mathimani, Hydrothermal synthesis of spindle structure copper ferrite-graphene oxide nanocomposites for enhanced photocatalytic dye degradation and in-vitro antibacterial activity, *Environ. Res.* 231 (2023) 116095. **Impact factor: 8.3 (Q1 Journal)**.
3. Krishnan M, Subramanian H, **Ramachandran SK**, Muthukumarasamy A, Ramadoss D, Mahalingam A, Rathinam AJ, Dahms H-U, Hwang J-S. (2023) Synthesis of Bimetallic BiPO₄/ZnO Nanocomposite: Enhanced Photocatalytic Dye Degradation and Antibacterial Applications. *Int. J. Mol. Sci.* 2023; 24: 1947. **Impact factor: 6.208 (Q1 Journal)**.
4. **Sathish Kumar R**, Leta D. T, Mohammedsani Abdulkadir A.G, Duraimurugan alias Saravanan D, Experimental design and optimization of decolourization of Reactive Black 5 dye using cloud point extraction Hindawi, *Journal of Chemistry* (accepted) **Impact factor: 3.241 (Q2 Journal)**.
5. D. Ganapathy, C. Shivalingam, R. Shanmugam, A.K. Sundramoorthy, K. Murthykumar, S. Pitchiah, S. Sekaran, **S.K. Ramachandran**, Recent Breakthrough of Bismuth-Based Nanostructured Materials for Multimodal Theranostic Applications, *J. Nanomater.* 2022 (2022) 1-7. <https://doi.org/10.1155/2022/4944320>.
6. R.M.A. Ismail, R. Rathinam, M. Al-Jamal, **S.K. Ramachandran**, H. Al-Mattarneh, B. Pant, P.Y. Patil, Mn-BIM Based Photo-Catalytic Degradation of Hazardous Industrial Organic Pollutants in Fresh Water, *Recent Adv. Biomed. Eng.* 117 (2022) 53-58. <https://doi.org/10.4028/p-1c4w1k>.
7. R.M.A. Ismail, E.A. Enemose, M. Al-Jamal, **S.K. Ramachandran**, H. Al-Mattarneh, D. Gangodkar, Co-MoF Derived Colorimetric Sensors for Detection of Environmental Toxic Heavy Metal Analysis, *Recent Adv. Biomed. Eng.* 117 (2022) 43-49. <https://doi.org/10.4028/p-6pqbv5>.
8. S. Agarwal, D. Nallaswamy, **S.K. Ramachandran**, S. Maiti, V. Agarwal, D. Ganapathy, Cyanoacrylate Adhesives: A boon To Dentistry -A Literature Review, *J. Coast. Life Med.* 10 (2022) 372 - 379-372 - 379. <https://www.jclmm.com/index.php/journal/article/view/81>.
9. D.G. Vatika Agarwal , Sanjog Agarwal, Deepak Nallaswamy, **Sathish Kumar Ramachandran**, Subhabrata Maiti, Methods of Wound Management in Dentistry: An Insight into Wound Closure -A

Literature Review, *J. Coast. Life Med.* 10 (2022) 380 – 386.

<https://www.jclmm.com/index.php/journal/article/view/82>.

10. **Sathish Kumar R.**, Arthanareeswaran G., Ismail A.F., Jihyang Kweon, (2020), Enhanced performance of Mindel membranes by incorporating conductive polymer and inorganic modifier for application in direct methanol fuel cells (DMFCs), *Asia-Pac J Chem Eng.* **15**, 2473 **John Wiley & Sons, Ltd, Impact factor: 1.77 (Q2 Journal)**.
11. S. Bisht, S. Balaguru, **Sathish Kumar. R.**, A. Gangasalam, J. Kweon, (2021) Proton exchange composite membranes comprising SiO₂, sulfonated SiO₂, and metal-organic frameworks loaded in SPEEK polymer for fuel cell applications, *J. App. Poly. Sci.* **138** 50530. **John Wiley & Sons, Ltd, Impact factor: 3.057 (Q2 Journal)**.
12. Anirudh Singh, **Sathish Kumar R.**, Gumpu M. B., Zsuzsanna L., Veréb. G., Kertész S., Arthanareeswaran G. (2021) Titanium dioxide doped hydroxyapatite incorporated photocatalytic membranes for the degradation of chloramphenicol antibiotic in water, *J. Chem. Technol. Biotechnol.* **96**, 1057-1066 **John Wiley & Sons, Ltd, Impact factor: 3.709 (Q1 Journal)**.
13. Lukka Thuyavan, Y., Arthanareeswaran, G., Ismail, A. F., Goh , P. S., Shankar, M. V., Ng, B. C., **Sathish Kumar, R.**, Venkatesh, K. (2021) Binary metal oxides incorporated polyethersulfone ultrafiltration mixed matrix membranes for the pretreatment of seawater desalination, *J. App. Poly. Sci.* **138**, 49883 **John Wiley & Sons, Ltd, Impact factor: 3.057, (Q2 Journal)**.
14. **Sathish Kumar, R.**, Arthanareeswaran, G. (2019). Nano-curcumin incorporated polyethersulfone membranes for enhanced anti-biofouling in treatment of sewage plant effluent. *Mater. Sci. Eng. C.*, **94**, 258–269. **Elsevier, Impact factor: 8.457 (Q1 Journal)**
15. **Sathish Kumar, R.**, Arthanareeswaran, G. (2018). Reduction of chemical oxygen demand and colour from the rice mill wastewater by chitosan/2(5 H)-furanone-incorporated ultrafiltration membrane system. *Sep. Sci. Technol.*, **6395**, 1–17. **Taylor & Francis, Impact factor: 2.475 (Q2 Journal)**.
16. **Sathish Kumar, R.**, Arthanareeswaran, G., Lukka Thuyavan, Y., Ismail., A.F. (2017). Enhancement of permeability and antibiofouling properties of polyethersulfone (PES) membrane through incorporation of quorum sensing inhibition (QSI) compound. *J. Taiwan Inst. Chem. Eng.*, **72**, 200–212. **Elsevier, Impact factor: 5.477 (Q1 Journal)**.
17. **Sathish Kumar, R.**, Arthanareeswaran, G., Paul, D., Kweon, J.H. (2015). Modification methods of polyethersulfone membranes for minimizing fouling - Review. *Membr. Water Treat.*, **6**, 323–337. **Techno-Press, Impact factor: 1.092 (Q3 Journal)**.
18. **Sathish Kumar, R.**, Arthanareeswaran, G., Paul, D., Kweon, J.H., (2015). Effective removal of humic acid using xanthan gum incorporated polyethersulfone membranes. *Ecotoxicol. Environ. Saf.*, **121**, 223–228. **Elsevier, Impact factor: 7.129 (Q1 Journal)**.

Thesis

PhD Thesis: “Quorum sensing inhibitors embedded polyethersulfone membranes for enhancement of biofouling resistance in wastewater treatment” (Supervisor: Dr. G. Arthanareeswaran, Professor, Department of Chemical Engineering, National Institute of Technology, Tiruchirappalli, Tamilnadu, India.)

Master of Engineering Thesis: “Assessment of quality of streams in Anamalai Hills” (Supervisor: Dr. A.S.S.Sekar, Professor, Department of Civil Engineering, Alagappa Chettiar College of Engineering & Technology, Tamilnadu, India.)

Book Chapters

1. S. Mubarak, N. Divakaran, A. Raghavan, **S.K. Ramachandran**, J. Wang, Advanced 2D Nanomaterials for Additive Manufacturing, in: Nanotechnology-Based Addit. Manuf., Wiley, 2023: pp. 335–368. <https://doi.org/10.1002/9783527835478.ch12>. (ISBN: 9783527835478)
2. **Sathish Kumar R.**, Muthukumar K., 2023, Mechano-morphological Analysis of Electrospun Nanofibers, Publisher: CRC Press. Book: Electrospun Nanofibers from Bioresources for High- Performance Applications, Editors: Praveen K.M. Rony Thomas Murickan, Jobin Joy, Hanna J. Maria, Jozef T. Haponiuk, Sabu Thomas. PP 49-59 (ISBN: 9781032126463)
3. **Sathish Kumar, R.**, Arthanareeswaran, G., 2018, Biofouling in a Membrane System: Mechanisms, Monitoring and Controlling Publisher: Nova Science Publishers, Inc. Book: Membrane Bioreactors and Fouling: A Review and Directions for Research Editor: Jose King, PP 71-101 (ISBN: 978-1-53614-363-8).
4. **Sathish Kumar R.**, Arthanareeswaran G., Ahmad Fauzi Ismail, Muhammad Sihwan Abdullah, Be Cheer Ng, 2018, Chapter 4, Nuclear Magnetic Resonance (NMR) Spectroscopy, Book: Membrane Characterization,

Publisher: Elsevier, Editors: Nidal Hilal, Ahmad Fauzi Ismail, Takeshi Matsuura, Darren Oatley-Radcliffe, pp.69-79 (ISBN: 978-0-444-63776-5).

Research/Teaching Interest

Bioprocess Engineering/ Environmental Biotechnology/ Unit operations/ Water and wastewater treatment/ Solid waste management/ Separation Techniques / Enzyme Technology / Mixed Contaminants / Bioremediation

Reviewer of International Scientific Journals

Science of the Total Environment / Environmental Pollution/ Journal of Applied Polymer Science/ Chemosphere/ Journal of the Taiwan Institute of Chemical Engineers/ Environmental Technology/ Environmental Research

Invited Lecture

Delivered a guest lecture on "Membranes for wastewater treatment" at Department of Chemical Engineering, St. Michael College of Engg. & Technology, Kalaiyarkoil, Sivaganga Dt, Tamilnadu on 22nd May, 2023.

Delivered an invited talk on "Instrumental Methods for Thin Film Characterisation" at "International FDP on Disruptive Technologies for Next Gen Computing" organized by Sri Krishna College of Technology, Coimbatore, India held during 14th - 16th, December 2022.

Seminar/Workshop/Conference conducted

- Organizing Secretary for SIMATS- Science Day -2023, Saveetha University, Chennai, India.
- Student co-ordinator for International Conference International Conference on Membrane Technology and its Applications (MemSep 2017), NIT-T.

Membership in Scientific Societies

1. Life member - International Association of Engineers (IAENG) (Membership Number:158782).
2. Life member - Asia-Pacific Chemical, Biological& Environmental Engineering Society (APCBEEES) (Membership Number: 201642).

Reference

1. Dr. G. Arthanareeswaran,
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Declaration

I hereby declare that all the information provided by me in this document is factual and correct to the best of my knowledge and belief.

Date: 11.10.2023

Place: Chennai

Yours Sincerely,



SATHISH KUMAR R)