

Dr. Sylas V.P.



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Educational Qualification

- **Ph.D.** in Environmental Science from Mahatma Gandhi University, Kerala, India (2010).
- **Master of Science (M.Sc.)** in Environment Science and Management, Mahatma Gandhi University, Kerala, India (2003).

Research Interests:

- Bioenergy – Microalgae and its applications; Biohydrogen production
- Invasive Species and Climate change
- Biomaterials – Bio-nanomaterials; Phytochemistry
- Environmental Microbiology
- Water and Sanitation – Community based water harvesting and sanitation

Research Experience : 20 Years

Honours /Awards

- Awarded full scholarship from Brown International Advanced Research Institute (BIARI), Brown University (USA) in 2013.
- Young Scientist Award – 2006 in National Seminar on Wetland Biodiversity, LAK Kerala and IIAB Hyderabad, India.

Achievements

- Listed in the World Scientist and University Rankings, AD Scientific Index in 2021, 2022 & 2023 by European Science Evaluation Centre, Germany
- Expert Member, River Health Monitoring Programme, MS Swaminathan Research Foundation and Asia Pacific Network Project.

Positions in Govt. bodies

- Member, KSBB-Kottayam District Level Technical Support Group, Kerala State Biodiversity Board, Govt. of Kerala.
- Member, District Biodiversity Coordination Committee, District Planning Committee, Kottayam

Administrative positions

- Director (i/c), Advanced Centre of Environmental Studies and Sustainable Development (ACESSD)- an Inter university Centre, (from December 2024 -to till date)
- Joint Director, Internal Quality Assurance Cell (IQAC), MG University, Kottayam (October 2019- July 2025)
- Joint Director, ACESSD – Inter University Centre (2020 onwards)
- Assistant Nodal Officer, IEDC, BIIC, MGU (2020 onwards)
- Member, Board of Studies, Environmental Science, MG University (2011 to present)
- Chairman of the UG Examination Board- Environment Science, MG University (2020 onwards)
- Member, Board of Studies, Environmental Science, Christ College (Autonomous), Irinjalakuda, Thrissur (2019- present).
- Member, NAAC Coordination Committee, MG University (2016 -2017)
- Warden, Men’s Hostel, Mahatma Gandhi University, Kottayam (July 2014 to January 2022)
- Life Member of Indian Association for Aquatic Biologists (IAAB), Hyderabad, India.
- Facilitator, K-DISC, Young Innovators Programme, Govt. of Kerala (2022)

Membership

- Life Member of Indian Association for Aquatic Biologists, Hyderabad.
- Member of Limnological Association of Kerala, Thrissur.

Research Guidance :

PhD awarded : **6 (Guide) + 2 (co-guide)**
 PhD ongoing : **6**
 MSc/M.Phil (guided) : **42/20**

Publications & Citations

Number of papers published in International journals : **56**
 No. of book chapters : **7**
 Genbank Submissions : **26**
 Number of papers presented in National /International conferences : **92**
 Invited Talk/Resource Person : **70**
 Citations : **962**
 h-index : **16** i10 Index : **19**

Editorial Assignment

Review Editor, Natural Resources Section in the Journal “Frontiers in Sustainable Resource Management” published by Frontiers Media, Switzerland

Research Projects undertaken : 8 Nos. (6 completed 2 ongoing)

Projects undertaken

1. Wastewater treatment and subsequent bioenergy production with carbon capture: A triple gain bioprocess using microalgal bioreactors – Principal Investigator, RUSA 2.0 Major Research Project – 110 Lakhs (on going)
2. Application of waste derived biochar technology in sustainable agriculture and climate change mitigation – Principal Investigator, RUSA 2.0 Major Research Project – 120 Lakhs (on going)
3. Conservation of threatened mangrove species and aquatic plants along the banks of Vembanad Lake – as Co-PI with Dr. Ammu Punnoose, (as PI) Assistant Professor, Regional Agricultural Research Station, Kumarakom, Kerala Agricultural University. Funded by Kerala State Biodiversity Board, Govt. of Kerala (5 Lakhs) (on going)
4. An investigation on the potential microalgal species for the production of biodiesel from Kuttanad wetland ecosystem, Kerala. Funded by UGC (Major Research Project) (2012 – 2015) – 5 Lakhs (Final stage).
5. Rhizosphere remediation of agro-pollutants: A case study from Kuttanad wetland ecosystem, Kerala – funded by DoECC, Govt. of Kerala – 0.4 Lakhs. (Completed).
6. Enzymatic saccharification of water hyacinth for the production of bioethanol : control by utilization approach – funded by DoECC, Govt. of Kerala – 0.4 Lakhs. (Completed).
7. An Interdisciplinary and Community oriented Innovative approach towards Sustainable Development – Obama Singh 21st Century Knowledge Initiative Award to SES, MGU – Co-investigator of Programme – 1. (40 lakhs) – Completed on August 2016.
8. Environmental Monitoring and Sustainable Utilisation of Vembanad Wetland Ecosystem – Co-Investigator (2.64 Cr) (Completed)

List of Publications

1. Jabir Athamanakath, Shijo Joy, Abin Varghese, Babu Padmakumar, Madhuraj Palat Kannankai, Joby Paul & Syllas Variyattel Paulose (2025). Role of elevational gradients and climate variables in tree diversity, composition, and regeneration in Chinnar Wildlife Sanctuary of the Western Ghats, India. *Discover Forests* 1: 52. <https://doi.org/10.1007/s44415-025-00056> .
2. Athamanakath, J., Varghese, A., & V.P. Syllas. (2025). Impact of human disturbances on the diversity of alien trees and shrubs in a university landscape in India. *Arboricultural Journal*, 1–15. <https://doi.org/10.1080/03071375.2025.2586909> .
3. Jabir Athamanakath, Shijo Joy, Abin Varghese, Babu Padmakumar, Madhuraj Palat Kannankai, Joby Paul & Syllas V.P. (2025). Tree diversity, composition, and regeneration status along disturbance gradients in tropical forests of southern Western Ghats, India. *Community Ecology* (2025). <https://doi.org/10.1007/s42974-025-00282-1>

4. S. Prasanth Narayanan, R. Paliwal, V.P. Syllas, A.P. Thomas, J.M.Julka (2025). *Drawida karatala*, a new species of earthworm (Clitellata, Moniligastridae) from the Western Ghats of India. *Opuscula Zoologica Budapest* 56 (3): 97 -109. <https://doi.org/10.18348/opzool.2025.3.97>
5. James Baben George, Neethu Cyril, Variyattel Paulose Syllas, Laigi Joseph, Beбето G Nair, MS Sreejith (2025). Therapeutic profiling of *Thespesia populnea* seed acetone extract: A mangrove-associated source of antioxidant, antimicrobial and cytotoxic activities. *Chemija* 36 (4): 207-227. <https://doi.org/10.6001/chemija.2025.36.4.1>
6. James Baben George, Neethu Cyril, Jyothi P. Ramachandran, Remya Radhamony, V.P. Syllas, Sam John. (2025). Novel approach to gold ion detection in aqueous solutions using silver nanoparticles synthesized from the seed extract of mangrove associate plant *Thespesia populnea*, *Results in Surfaces and Interfaces*, 21: 100634. <https://doi.org/10.1016/j.rsurfi.2025.100634>
7. Balan, Pradeep, Paulose, Syllas Variyattel, Joseph, Treesa and Devasia, Jessy Manichirickel. (2025). Retrieval of Spectral Responses of Rubber Plantations and its Association to Canopy Chlorophyll Content Using Sentinel 2 Data and Field Measurements. *Agricultural Research*. <https://doi.org/10.1007/s40003-025-00883-2>
8. James Baben George, Neethu Cyril, Sam John, Syllas V. P, Laigi Joseph, Saratchandran A. Divakaran and Pramod Kumar N. (2025). Bioactive seed oils of mangrove associates: Phytochemical profiling, antioxidant activity and in vitro cytotoxicity studies. (2025). *Journal of Applied and Natural Science*, 17(3), 1362-1372. <https://doi.org/10.31018/jans.v17i3.6823>
9. Joby Paul, R.P. Thomas, V.P. Syllas, John C. Mathew, B. Rajan, K.S. Unni (2025). Interrelationships of biological spectra, life-form, landform and functional vegetation type in the riparian forests of a tropical river. *Tropical Ecology* : 66, 35–44. <https://doi.org/10.1007/s42965-024-00362-9>
10. James Baben George, Neethu Cyril, Remya Radhamony, V P Syllas, Pramod Kumar N, M S Sreejith and Sam John (2025). Biogenic Silver and Gold Nanoparticles Capped by *Thespesia populnea* Metabolites: Catalytic Reduction and Antibacterial Potency. *Chemistry Select*. <https://doi.org/10.1002/slct.202503536>
11. C.T. Sunila, V.P. Syllas, Neethu Cyril, Raisa Kabeer, Jerry Mechery, B.N. Anila, Smitha Knox. (2025). Larvicidal effects of biofabricated iron nanoparticles made from the aqueous extracts of *Eupatorium adenophorum* and *Artocarpus hirsutus*, with their effect on the predatory efficiency of mosquito fish. *Nano-Structures & Nano-Objects*, 41: 101430. <https://doi.org/10.1016/j.nanoso.2024.101430> .
12. Peter E., Monisha J., Syllas V. P., and George S. A. (2025). How Environmentally Friendly Is the Disposal of Clear Aligners? A Gas Chromatography-Mass Spectrometry Study. *American Journal of Orthodontics and Dentofacial Orthopedics*. 167 (1): 39–46, <https://doi.org/10.1016/j.ajodo.2024.08.011>
13. Ambily V, Praveenkumar C.S., Sumayya Asharaf, Smitha Knox L., Anila B.N. and Syllas V.P. (2024). Comprehensive Analysis of Antibacterial and Antiproliferative Activities, and Characterization of Bioactive Compounds in The Marine Diatom, *Chaetoceros muellerii* OQ390046. *African Journal of Biomedical Research*, 27(3), 1955-1961. <https://doi.org/10.53555/AJBR.v27i3.4322>
14. Akhila Bindhuraj, Syllas Variyattel Paulose, Sumayya Asharaf & Saju Joseph.(2024). A comparative study on the treatment of kitchen grey water using microalgae consortia

- and microalgae-synthesized silver nanoparticles. *Environmental Science and Pollution Research* **31**, 67521–67533. <https://doi.org/10.1007/s11356-024-33655-6>
15. Jabir A., Abin Varghese and **Sylas V.P.** (2024). Niche overlap between the endemic *Albizia lathamii* and the invasive *Prosopis juliflora* in response to changing climate: insights from a protected area in Western Ghats, India. *International Journal of Forestry*. <https://doi.org/10.1080/13416979.2023.2300911>
 16. Jabir Athamanakath, Abin Varghese and V.P. Sylas (2024). Landscape-level analysis of disturbance regimes in Chinnar Wildlife Sanctuary, a protected area of Western Ghats, India. *Remote Sensing. Letters.*, 15 (11): 1195-1208, <https://doi.org/10.1080/2150704X.2024.2420289>
 17. Deepa Sam, Smitha Knox L., Sumayya Asharaf, Anila B.N, and Sylas V.P. (2024). Phytochemical profiling and evaluation of antibacterial, antifungal, and antiproliferative activities of *Alpinia galanga* rhizome extracts. *South Eastern European Journal of Public Health*, 1386–1397. <https://doi.org/10.70135/seejph.vi.2908>
 18. Athamanakath, J., Moorchilot, V. S., Raveendran, L., V.P. Sylas & Jayakumar, S. (2024). Preliminary investigation into mud-puddling behavior in *Appias spp.* (Albatross Butterflies) at Aralam Wildlife Sanctuary, India. *Environment Conservation Journal*, 25(2), 500–508. <https://doi.org/10.36953/ECJ.25752732>
 19. Ambily V, Praveenkumar C.S. and Sylas V.P. (2024). In vitro study on the stress induced biomass and lipid production by marine diatom, *Chaetoceros muellerii* OQ390046. *African Journal of Biological Sciences*. 6 (15): 4531-4566 <https://doi.org/10.48047/AFJBS.6.15.2024.4531-4566>
 20. Joseph, L., **Sylas, V.P.**, Cyril, N. *et al.* (2024). Removal of endrin from aqueous medium using Accacia wood biochar: kinetics and thermodynamic studies. *Biomass Conversion and Biorefinery* 14, 6039–6051 <https://doi.org/10.1007/s13399-021-01435-8>.
 21. Jabir Athamanakath, Shijo Joy, Babu Padmakumar & **V. P. Sylas** (2023) Effect of invasive plant, *Prosopis juliflora* on tree diversity in the southern tropical thorn forest of Western Ghats, India, *International Journal of Environmental Studies*, <https://doi.org/10.1080/00207233.2023.2287342>
 22. C.S.Praveen Kumar, VP Sylas, J Mechery, V Ambily, R Kabeer, CT Sunila (2023). Phycoremediation of cashew nut processing wastewater and production of biodiesel using *Planktochlorella nurekis* and *Chlamydomonas reinhardtii*. *Algal Research* 69, 102924. <https://doi.org/10.1016/j.algal.2022.102924>
 23. Jerry Mechery, P Kumar CS, V Ambily, A Varghese, **VP Sylas** (2023). Dark fermentation of pretreated hydrolysates of pineapple fruit waste for the production of biohydrogen using bacteria. isolated from wastewater sources. *Environmental Technology*, 1-18. <https://doi.org/10.1080/09593330.2022.2164743>
 24. Jibin, Keloth Paduvilan, Silpa Augustine, Prajitha Velayudhan, Jesiya Susan George, Sisanth Krishnageham Sidharthan, **Sylas Variyattel Poullose**, and Sabu Thomas. (2023). Unleashing the Power of Graphene-Based Nanomaterials for Chromium(VI) Ion Elimination from Water. *Crystals* 13 (7): 1047. <https://doi.org/10.3390/cryst13071047>
 25. Pradeep, B., **Sylas, V.P.** & Jessy, M.D. (2022). A framework for assessing the vulnerability of rubber plantations to the impacts of climate change with special

- reference to Kerala, India. *Journal of Rubber Research* **25**, 387–399. <https://doi.org/10.1007/s42464-022-00186-z>
26. Raisa Kabeer, **Sylas V. P.**, Praveen Kumar C. S., Thomas A. P., Shanthiprabha V., Radhakrishnan E. K. & Baiju K. R. (2021) Role of heavy metal tolerant rhizosphere bacteria in the phytoremediation of Cu and Pb using *Eichhornia crassipes* (Mart.) Solms, International Journal of Phytoremediation, <https://doi.org/10.1080/15226514.2021.2007215>
 27. C.S. Praveen Kumar, **VP Sylas**, Neethu Cyril, V Ambily, CT Sunila, NP Sreekanth, Manoj P Rayaroth (2021). Acetaminophen removal using green synthesized iron nanoparticles with a fresh water microalga, *Planktochlorella nurekis*. Nano-Structures & Nano-Objects 26. <https://doi.org/10.1016/j.nanoso.2021.100700>.
 28. Babu Padmakumar, NP Sreekanth, V Shanthiprabha, Joby Paul, K Sreedharan, Toms Augustine, KK Jayasooryan, M Rameshan, V Arunbabu, Mahesh Mohan, **VP Sylas**, EV Ramasamy, AP Thomas (2021). Unveiling tree diversity and carbon density of homegarden in the Thodupuzha urban region of Kerala, India: a contribution towards urban sustainability. Tropical Ecology: 1-17 . <https://doi.org/10.1007/s42965-021-00149-2>.
 29. S Snigdha, P Jishma, Kalarikkal Nandakumar, **VP Sylas**, Sabu Thomas, EK Radhakrishnan (2021). Laponite® nanoclay gel based microenvironment for plant probiotic rhizobacterial delivery. *Rhizosphere* 18: 100346. <https://doi.org/10.1016/j.rhisph.2021.100346>.
 30. Praveen Kumar C.S., Ambily V., Jerry Mechery, Daniya . Thomas, Jomon P.J. and **Sylas V.P.** (2020). Phycoremediation of Paper and Pulp Mill Effluent using *Planktochlorella nurekis* and *Chlamydomonas reinhardtii* – A comparative study. Journal of Environmental Treatment Techniques 8 (2) : 809-817.
 31. Neethu Cyril, James Baben George, Pratheesh V. Nair, Laigi Joseph, Sunila C.T., Smitha V.K., Anila B.N. and **Sylas V.P.** (2020). Catalytic activity of Derris trifoliata stabilized gold and silver nanoparticles in the reduction of isomers of nitrophenol and azo violet. Nano-Structures & Nano-Objects 22 (1) : 100430. <https://doi.org/10.1016/j.nanoso.2020.100430>
 32. Laigi Joseph, **Sylas V.Paulose**, ^aNeethu Cyril, Sanu K. Santhosh, AbinVarghese, Anila B. Nelson, Smitha V.Kunjankutty and Sreedharan Kasu (2020). Organochlorine pesticides in the soils of Cardamom Hill Reserve (CHR), Kerala, India: Geo spatial distribution, ecological and human health risk assessment. Environmental Chemistry and Ecotoxicology. **2**: 1-11. <https://doi.org/10.1016/j.enceco.2020.01.001>
 33. Jerry Mechery, Daniya M. Thomas, Praveenkumar C.S., Laigi Joseph and **Sylas V.P.** (2019). Biohydrogen production from acidic and alkaline hydrolysates of paddy straw using locally isolated facultative bacteria through dark fermentation. Biomass Conversion and Biorefinery (Springer) DOI : <https://doi.org/10.1007/s13399-019-00515-0>.
 34. Neethu Cyril, James Baben George, Laigi Joseph and **Sylas V.P.** (2019). Catalytic Degradation of Methyl Orange and Selective Sensing of Mercury Ion in Aqueous Solutions Using Green Synthesized Silver Nanoparticles from the Seeds of *Derris trifoliata*. Journal of Cluster Science 30 (2): 459 - 468. <https://doi.org/10.1007/s10876-019-01508-9>
 35. Neethu Cyril, James Baben George, Laigi Joseph, Raghavamenon, A. C., and **Sylas V.P.** (2019). Assessment of antioxidant, antibacterial and anti-proliferative (lung cancer line A549) activities of green synthesized silver nanoparticles from *Derris trifoliata*. Toxicology Research. 8 : 297-308. (Royal Society of Chemistry-RSC) <https://doi.org/10.1039/c8tx00323h>

36. Raisa Kabeer, Rinoy Varghese and **V. P. Sylas** (2018). Rhizosphere of water hyacinth as a niche for multidrug resistant *Aeromonas taiwanensis* and *Paenibacillus taiwanensis*: A study from a tropical wetland of South India. *Rhizosphere* 6 : 20 -22. <https://doi.org/10.1016/j.rhisph.2018.01.007>
37. Raisa Kabeer, Rinoy Varghese and **V. P. Sylas**(2018). Metal tolerant and antibiotic resistant bacteria from the rhizosphere of water hyacinth: a study from a wetland receiving non point source of contamination. *Int. Res. J. Env. Sci.*, 7 (6) :34-45.
38. Jerry Mechery, Biji B., Daniya M. Thomas and **Sylas V.P.** (2017). Biohydrogen production by locally isolated facultative bacterial species using the biomass of *Eichhornia crassipes*: effect of acid and alkali treatment. *Energy, Ecology and Environment*: <https://doi.org/10.1007/s40974-017-0069-4>
39. Sabu Rohini, R Aswani, M Kannan, **VP Sylas**, EK Radhakrishnan (2017). Culturable Endophytic Bacteria of Ginger Rhizome and their Remarkable Multi-trait Plant Growth-Promoting Features. *Current microbiology*: 75 (4), 505-511. <https://doi.org/10.1007/s00284-017-1410>
40. Anila B.N., Muraleedharan Nair M.K. and **Sylas V.P.** (2017). Synthesis Characterization and Antimicrobial Analyses of Iron (III) Complexes of 1-(imino-4-antipyrinyl)-8-aminonaphthalene. *Research Journal of Pharmaceutical, Biological and Chemical Sciences* 8(1):161-172.
41. Anila B.N., Muraleedharan Nair M.K., Jisha Sreedharan and **Sylas V.P.** (2017). Synthesis, Characterization, Molecular Modeling, Antimicrobial and DNA Binding Studies of Cobalt(II) Complexes of 2,3-(Diimino-4'-antipyrinyl)butane with Varying Counter Ions. *Asian Journal of Chemistry* 29(3) : 691-702.
42. Daniya M. Thomas, Mechery Jerry and **V. P. Sylas** (2016) Carbon dioxide capture strategies from flue gas using microalgae: A review. *Environmental Science and Pollution Research* 23 (17): 16926–16940. <https://doi.org/10.1007/s11356-016-7158-3> .
43. K. Raisa and **V. P. Sylas** (2016) Heavy metal tolerance pattern and antibiotic susceptibility of *Chromobacterium piscinae*, an opportunistic pathogen isolated from the Rhizosphere of water hyacinth. *Academia. Journal of Microbiological Research* 4(5): 086-091. DOI: 10.15413/ajmr.2016.0111
44. M. T. Daniya, M. Jerry, **V. P. Sylas** (2016) Isolation of native flue gas tolerant microalga from a mixed culture grown under stress condition, *International Journal of Environmental Sciences* 6(6): 970-978. DOI:10.6088/ijes.6091
45. BN Anila, PK Radhakrishnan, MK Muraleedharan Nair, Raisa Kabeer **and VP Sylas** (2016). Synthesis, characterization and antimicrobial analyses of nickel (II) complexes of 2,3-(Diimino-4'-antipyrinyl) butane. *International Journal of Chemical Studies*. 4(4): 206-212.
46. BN Anila, PK Radhakrishnan, MK Muraleedharan Nair, Raisa Kabeer **and VP Sylas** (2016). Synthesis, Characterization, Thermal Decomposition And Antimicrobial Studies Of Iron (III) Complexes Of 2,3-(Diimino-4'-Antipyrinyl)Butane With Varying Counter Ions. *Journal of Chemical and Pharmaceutical Research*, 8(9):64-72.
47. **Sylas V.P.**, Mary Jaimol Antony, John C. Mathew and A.P. Thomas (2015). Distribution of phytoplankton in relation with water quality of Alappuzha-Changanasserry Canal of Kuttanad Wetland Ecosystem, Southern India. *International Journal of Current Research*. Vol. 7 (3). 13738 - 13743 pp.

48. Jerry Mechery, Praveenkumar C.S., Deepa Nair K. and **Sylas V.P.** (2014). Biohydrogen production by microbial communities isolated from biogas plant slurry using glucose as substrate. *International Journal of Current Research*. Vol. 6 (12). 10942- 10945 pp.
49. Raisa Kabeer, Rinoy Varghese, Kannan V.M., John Richard Thomas and **V.P. Sylas** (2014). Rhizosphere bacterial diversity and heavy metal accumulation in *Nymphaea pubescens* in aid of phytoremediation potential. *Journal of Bioscience and Biotechnology* Vol. 3 (1) : 89 - 95 pp.
50. Jerry Mechery, Abin Varghese and Sylas V.P.. (2014). DPSIR based State of Environment for Velloor region in Kottayam District, Kerala, India. *The Environment-Journal of Environmental Sciences*, University of Belgrade, Serbia. Vol 2 (1): 7 -12.
51. Raisa Kabeer, Rinoy Varghese, Jayasooryan K.K., Joshy K.G, Praveenkumar C.S. and **V.P. Sylas** (2014). Removal of copper by *Eichhornia crassipes* and the characterization of associated microflora of the rhizosphere system. *Environment Asia*. Vol. 7 (2): 19-29. DOI10.14456/ea.2014.20.
52. Raisa Kabeer, Rinoy Varghese, Jayasooryan K.K., Joshy K.G, Ambily V. and **V.P. Sylas** (2013). Removal of Zinc, Lead and Cadmium by water hyacinth (*Eichhornia crassipes*). *International Journal of Current Research*. Vol. 5 (9). 2506- 2509 pp.
53. Bull C., Tang C. and **Sylas V.P.** (2012). Rainwater harvesting in an Indian Village. *World Environmental and Water Resource Congress*. ASCE Publication. 768 -775pp. [doi.org/10.1061/41114\(371\)85](https://doi.org/10.1061/41114(371)85)
54. John C.M., **Sylas V.P.**, Joby Paul and Unni K.S. (2009). Floating Islands in a tropical wetland of Peninsular India. *Wetlands Ecology and Management*,17 (6):641-653. <https://doi.org/10.1007/s11273-009-9140-z> .
55. P. C. Abhilash, Nandita Singh, **V. P. Sylas**, B. Ajay Kumar, John C. Mathew, R. Satheesh and A. P. Thomas (2008): Eco-distribution Mapping of Invasive Weed *Limncharis flava* (L.) Buchenau Using Geographical Information System: Implications for Containment and Integrated Weed Management for Ecosystem Conservation. *Taiwania*, 53(1): 30 – 41. DOI: 10.6165/tai.2008.53(1).30
56. T. Bindu, **V.P. Sylas**, M. Mahesh, P.S. Rakesh and E.V. Ramasamy (2008). Pollutant removal from domestic wastewater with Taro (*Colocasia esculenta*) planted in a subsurface flow system. *Ecological Engineering* 1257: 1 – 15. <https://doi.org/10.1016/j.ecoleng.2008.02.007> (Elsevier)

Book chapters

1. Akhila B, Ashitha VV, Shijo Joy, Sumayya Asharaf and Sylas VP (2024). Characterization and antimicrobial efficacy of biosynthesized silver nanoparticles using freshwater microalgae consortium. In: Suresh S., Nitha B. and Ananth Kumar R.T. (Eds.). *Energy, Environment and Health For A Sustainable Future*. Grenze Scientific Society, Trivandrum, Kerala, India. Pp 79-83. ISBN: 978-81-955890-9-8.
2. Ashitha VV, Akhila B, Shijo Joy, Sumayya Asharaf and Sylas V (2024). Phycoremediation of Dairy Effluent Utilizing *Parachlorella kessleri* microalgae: A Comprehensive Study. In : Suresh S., Nitha B. and Ananth Kumar R.T. (Eds.). *Energy, Environment and Health For A Sustainable Future*. Grenze Scientific Society, Trivandrum, Kerala, India. Pp 84-88.. ISBN: 978-81-955890-9-8.

3. Shijo Joy, Akhila B, Ashitha VV, Sumayya Asharaf and Syllas VP (2024). Comparative Analysis of Different Growth Media on Biomass, Chlorophyll and Lipid Content of *Parachlorella kessleri* and *Chlorococcum humicola*. In: Suresh S., Nitha B. and Ananth Kumar R.T. (Eds.). Energy, Environment and Health For A Sustainable Future. Grenze Scientific Society, Trivandrum, Kerala, India. Pp 93-97. ISBN: 978-81-955890-9-8.
4. Sumayya Asharaf, Ashitha VV, Akhila B, Shijo Joy and Syllas VP (2024). A Comparative Study on the Pharmacological Properties of *Parachlorella kessleri* and *Chlorococcum humicola* Isolated from A Tropical Wetland Ecosystem. In: Suresh S., Nitha B. and Ananth Kumar R.T. (Eds.). Energy, Environment and Health For A Sustainable Future. Grenze Scientific Society, Trivandrum, Kerala, India. Pp 98-101. ISBN: 978-81-955890-9-8.
5. Syllas V.P., John C.M., Joby Paul. Unni K.S., Thomas A.P. and E.V. Ramasamy (2010). Documentation and distribution of aquatic plants in relation with certain environmental variables of Kuttanad wetland ecosystem, Kerala. In : Taxonomy and Biodiversity. A. Bijukumar, M.P. Nayar, R.V. Varma and C.K. Peethambaran (Eds.). Narendra Publishing House, New Delhi. 377- 391pp.
6. Syllas V.P. and PrasanthNayaranan (2019). *Kuttanad thaneerthadam neridunna velluvilikalum samrakshanavum (in Malayalam)*. In : Pampa nadhi : Paristhithi, samskaram, paripalanam. Gireeshkumar R., Ajay M.G. and Al Nousher Seth (Eds.). Published by DC Books, Kottayam & M.G. University, Kottayam. ISBN: 978-81-264-7665-7.
7. Vigimol P.V. and Syllas V.P. (2019). *Pothujanaaarogyavum jalasrothasukalude samrakshanavum. (in Malayalam)*. In : Pampa nadhi : Paristhithi, samskaram, paripalanam. Gireeshkumar R., Ajay M.G. and Al Nousher Seth (Eds.). Published by DC Books, Kottayam & M.G. University, Kottayam. ISBN: 978-81-264-7665-7.

NCBI Genbank submission

1). MF471320.1 2). MF471321.1 3). MF471322.1 4). MF471323.1
 5). MF471324.1 6). MF471325.1 7). MF471326.1 8). MF092858.1
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88. **Sylas V. P.**, John C. Mathew, Joby Paul, K. S. Unni, R. Satheesh and A. P. Thomas (2006). Aquatic plant diversity of Kuttanad wetland ecosystem. In *Proceedings of National Conference of Wetland Biodiversity*, February 02-03, 2006, Thrissur, organized by Limnological Association of Kerala (LAK) & Indian Association for Aquatic Biologists (IAAB), Hyderabad. p 67 - 69.

89. Mary Jayamol Antony, **Sylas V.P.**, John C.M., Unni K.S. and Thomas A.P. (2006). Environmental variables and diatom diversity⁷ of Alappuzha-Changanasserry canal, a fresh water body of Kuttanad. In *Proceedings of National Conference of Wetland biodiversity*. February 02-03, 2006, Thrissur, organized by Limnological Association of Kerala (LAK) & Indian Association for Aquatic Biologists (IAAB), Hyderabad. p 89 – 92.
90. John C.M., Unni, K.S., Satheesh R., Thomas A.P. and **Sylas V.P.** (2005). Aquatic plant communities of Kuttanad rice agroecosystem – the threat posed by invading nuisance weeds. *Proceedings of the 17th Kerala Science Congress*, KFRI, Peechi. p 98 - 101.
91. **Sylas V.P.** John C.M., Unni, K.S., Satheesh R. and Thomas A.P (2005). Invasive aquatic weeds of the canals, rivers and slow flowing ecosystems of Kuttanad in relation to paddy fields. Paper presented in the *National Conference on Wetland Conservation* organized by Department of Zoology, Mar Thoma College for Women, Perumbavoor, Kerala. p 03 – 08.
92. Shanthi Prabha V., Anisha M., Jisha Kuriem, Rajimol. S., **Sylas V.P.**, Thomas A.P. and Unni K.S (2005). A study on the distribution of planktonic forms, benthos and periphyton at Pallom region of Kuttanad, Kerala. *Proceedings National Conference on Wetland Conservation* organized by Department of Zoology, Mar Thoma College for Women, Perumbavoor, Kerala. p 15 – 26.

Extension activities

- Advisor of Aiswarya Screwpine Society, Achinakom, Kottayam – A Women entrepreneur supported by ICICI CSR and MSSRF, Chennai.
- Advisory Board Member, EcoR Foundation, Kochi – An Environmental NGO.
- Programme Coordinator of Rainwater for Humanity, a collaborative Project of School of Environmental Sciences, M.G. University and Brown University, USA.
www.rainwaterforhumanity.org (from 2007 - 2015)
- Resource Person for Environmental education programmes for Public as well as students by the School of Environmental Sciences, M.G. University.

Radio talks (during last 5 years)	:	5
Training programmes attended	„	10
Seminars organized (as Convenor)	:	5
(as Co-convenor)	:	7 (International) 3 (National)