Dr.R. RANJITH KUMAR M.Sc., M.Phil., Ph.D., PDF.
6-Annu Flats 4th Block, I Floor, Mangai Nagar
1st Cross St, Jafferkhanpet,
Chennai – 600083, Tamil Nadu, India.

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Number of Research Publications	**: 27**
Total Impact Factor	**: 45.07**
Total Citations	**: 2760**
h-index	**: 14**
i10 index	**: 15**
Number of Book Chapter(s)/ manual published	**: 04**

(https://scholar.google.com/citations?hl=en&user=IAvhZD8AAAAJ).

Career Objectives

To device plans for developing innovative teaching methods in order to improve the standard of student's caliber at the world class level. It is to equip average students with budding ideas so that they can excel in their academic realm. The main motto is to establish sound learning environment which meets their physical, emotional, intellectual, social, spiritual and creative needs.

I have a keen interest to build a strong research atmosphere among the students in the field of my specialization of **Biotechnology of algae** which will motivate students to pursue research careers and expose them to the larger arena of research. Therefore, I would like to offer my expertise for the availability of the resources and their success.

Area of Expertise

***Production of Alternate energy*:**	Biofuel from Algae -biodiesel, biogas, and bio-ethanol.
Phycoremediation:	Biotreatment of industrial wastewater for removal of recalcitrant compounds such as textile dyes, pesticides and heavy metals.
Waste management/recycling:	Nutrient removal from industrial and domestic waste and converting into biomass as bioenergy, and feedstock source.
Microalgae biomass production:	Using low cost medium as cost effective cutting edge techniques.
Value added products from algae:	like Phycocyanin, Phycoerythrin, Allophycocyanin, PHA, EPA, DHA & ω3 fatty acids.
Greenhouse gasses abatement:	Mitigation of CO_2 and other flue gases in the industrial emissions using microalgae cultivation and efficient gas to liquid mass transfer devices.

Future Prospect

- ✓ ***Industrial tie-up*** benefiting both institution and students
- ✓ Development of Biotechnology potential of ***Microalgae culture collection centre***
- ✓ Integrated approach for ***CO_2 sequestration*** and ***Biofuel production*** from selected microalgae strain
- ✓ ***Green-Green Technology*** of phycoremediation of wastewater- ***Zero discharge waste***
- ✓ Conduct workshop on Biotechnological application of microalgal biomass production and extraction of ***value added products***
- ✓ ***Create wealth from waste*** for the benefit of Public, students of School, College, Research scholar and entrepreneurs.

Educational Profile

Degree	Institution/University	Year of Passing
PDF in **Biotechnology of Algae**	**Durban University of Technology**, Durban, South Africa	2010-2012 (2 Years)
Ph.D. in Botany **(Algae Biotechnology)**	**Ramakrishna Mission Vivekananda College** (Autonomous), Chennai – 600004 [**University of Madras**]	June 2009
M.Phil. in Botany **(Algae Biotechnology)**		October 2005
M.Sc. in Botany		October 2001
B.Sc. in Botany		March 1999

Academic Position and Teaching Experience: Total - 11 years and 02 months

Position	Name of the Institution	Duration	Teaching experience
Assistant Professor	Madras Christian College (Autonomous), Tambaram, Chennai – 600059.	13.06.2016 to Till date	5 Years and 4 months
Head of the Department	Sri Chandra Prabu Jain College Minjur, Chennai – 606203.	03.12.2012 to 11.06.2016	3 years and 6 months
Temporary Faculty (post Doc).	Durban University of Technology (DUT) South Africa. Durban 4000.	01.07.2010 to 30.06.2012	2 years
Assistant Professor (Management)	Ramakrishna Mission Vivekananda College, (Autonomous), Chennai – 600004.	25.01.2010 to 30.05.2010	4 months and 10 days

Subject Taught

S.No	Institution/University	Courses handling
1	Madras Christian College (Autonomous)	**UG**: Algal Biotechnology, Ancillary Botany, Microbial Genetics, **Biotechnology of Tissue Culture (Practical)** **PG**: Biology and Biotechnology of Algae, Algal application, Microbial Technology, Bioinformatics, Research methodology, Instrumentation and Biostatistics.
2.	Sri Chandra Prabu Jain College	**UG**: Algology, Economic Botany, Horticulture, Plant Physiology, Plant Taxonomy & Morphology, Ecology, Genetics, Plant Pathology, Bacteria, fungi and viruses, Bryophytes & Pteriodophytes, Gymnosperms & Paleobotany
3	Ramakrishna Mission Vivekananda College	**UG**: Biotechnology of Algae, Algology, Ancillary Botany **PG**: Algology, Algal Biotechnology (**Special paper**)

Research Experience: Total 16 Years and 02 Months

Insititution	Duration	5
Madras Christian College (Autonomous), Tambaram, Chennai – 600059.	13.06.2016 to Till date	5 Year and 4 months
Shree chandra prabhu Jain College Minjur, Chennai-601203.	13.12.2013 to 11.06.2016	3 Years and 6 months
Durban University of Technology (DUT) South Africa. Durban 4000.	01.07.2010 to 30.06.2012	2 years
Ramakrishna Mission Vivekananda College, (Autonomous), Chennai – 600004.	25.01.2010 to 30.05.2010	4 months and 6 days
Shri A.M.M. Murugappa Chattiar Research Center (MCRC), Taramani, Chennai – 600114.	05.09.2008 to23.01.2010	1 year and 4 Months
M. Phil and Ph.D: Ramakrishna Mission Vivekananda College, (Autonomous), Chennai – 600004.	01.07.2004 to 30.10.2005	1 year and 5 Months
	01.11.2005 to 04.09.2008	3 years

Academic and Research Activities in MCC (13th June 2016 to till date)

- Published 5 articles, 1 Book chapter, 1 workshop manual and 2 articles are under review.
- Awarded and conducted 3days workshop under the scheme of "**Dissemination of innovative technology**- (DIT) 2017-2018"- on **"Dynamic programme on extraction of natural colourant as a value added products from *Spirulina* biomass for socio and economic empowerment of final year graduate students"** from19th to 21st February, 2019. Catalyzed & Supported by Tamil Nadu State Council for Science and Technology (TNSCST), Government of Tamil Nadu, held at Department of Botany, Madras Christian College.
- Served as **Resource person** to deliver lecture on "**Diversity of Algae, Fungi, bryophytes and plants**" for Middle School teachers from Kachipuram district, on **January 2019**- in In service Programme, Sponsored by Tamil Nadu State Council for Science and Technology (TNSCST), Government of Tamil Nadu, held at Department of Botany, Madras Christian College.
- Awarded "**Dr. APJ Abdul Kalam Award for Scientific Excellence – 2018"** Award from **MARINALABS** on **13-10-2018,** 14 Kavya Gardens, N. T. Patel Road, Nerkundram, Ch-107.
- Participated in the two day workshop on "**Strategies for Bio-Tech Entrepreneurship**" on 07.03.2017 & 08.03.2017 jointly organized by the Entrepreneurship Development Institute, Chennai and Translational Research Platform for Veterinary Biologicals, **TANUVAS** to be held at Conference Hall, Farmers Hostel, Tamil Nadu Veterinary and Animal Sciences University, Madhavaram Milk Colony, Chennai -51.
- Maintaining fast growing microalgae strain in our lab used the same for extraction of Natural pigments: Phycocyanin, Allophycocyanin and Phycoerythrin.
- Co-organizer for conducting National Conference on VBBBNA2018 and organizing committee member for conducting National symposium on NSCTP18.
- Done phycoremediation research in MCC sewage wastewater and published article in UGC approved journal.

Academic and Research activities in other Institutions (January 2010 to 12thJune 2016)

1) **Produced University Rank holder** during the academic year 2012–13 to 2015-16 in the Department of Plant Biology & Plant Biotechnology, Shree Chandraprabhu Jain College, Minjur.
2) **Received Centum Result Cash and Certificate Award** during the academic year 2013–14, 2014–15, and 2015–16 in the Department of Plant Biology & Plant Biotechnology, Shree Chandraprabhu Jain College, Minjur.
3) **Co-ordinator** for a one day training programme on "**Medicinal Food Process and Mushroom Cultivation**" to the Self Help Groups (SHG) in Minjur Taluk, Chennai on 11.01.2013 held at Shree Prabhu Jain College [Funded by Tamilnadu State Council for Science and Technology].
4) **Co-ordinator** for a one day training programme on "**Naveena Valaanmai, Crop management, Biofertilizer and Post and pre harvest water management**" to the farmers in Minjur Taluk, Chennai on 22.02.2013 held at Shree ChandraPrabhu Jain College [Funded by Tamilnadu State Council for Science and Technology].
5) Actively participated as **External & Internal practical examiner** to conduct practical Examination for all UG classes of Botany department in the same college and outside college.

Additional Responsibility held in MCC

- Assisted for the Admission office in student admission academic year **2019-20.**
- Sports for all staff In-charge of Botany department from **2019.**
- Assisted for the Enrolment office in student enrolment, academic year **2017-18 and 2018-19.**
- Assisted for the Examination office adding dummy number in students answer sheets: **ODD Sem-2016, Even Sem-2017 and ODD Sem-2018 exams.**
- Assisted for the Examination office Total checking in scoring sheets: **ODD Sem-2016, Even Sem-2017 and ODD Sem-2018 exams.**
- Actively involved and participated all the assigned work from the college from **2016 to till date.**

Additional Responsibility held in Department, MCC

- Assisted for the preparation of Botany syllabus and curriculum revision and course name change (2017-2018).
- Assisted for the preparation of department staff publications, h-index, citation index, scopus, Webscience for the preparation NAAC reaccreditation work (2018).
- Organizing committee member in conducted National Symposium on Current trends in Plant Sciences [**NSCTPS18**], held at the Department of Plant Biology and Plant Biotechnology, Madras Christian College (Autonomous), Chennai on 22nd and 23rd February2018.
- Organizing committee member in conducted National Conference on Vistas in Biodiversity, Biology, Biotechnology and Nanotechnology of Algae [**VBBBNA2018**], held at the Department of Plant Biology and Plant Biotechnology, Madras Christian College (Autonomous), Chennai on 20th – 22nd September, 2018.
- Assisted for the preparation of department's related documentation work on DST-FIST assessment report 2019.
- Assisted for the preparation of department's equipment arrangements for DST-FIST assessment team visited on 4th may 2019.

- Assisted for the preparation of department's arrangements for Autonomy review Committee team visited on 19th June 2019.
- Staff in-charge for CA marks from 2019.

Research Awards

- Received an Award of **Certificate of Excellence** to the research article "*Dual role of microalgae: Phycoremediation of domestic wastewater and biomass production for sustainable biofuels production*" for the most downloaded authors articles from Journal of Applied Energy for the year **2011-2012.**
- Received an Award of **Highly Cited Review Paper** "Biodiesel from Microalgae: A Critical Evaluation from Laboratory to Large Scale Production" for the year of **2012–2013** from the Journal of Applied Energy.
- Received an Award of **Highly Cited Review Paper** "Biodiesel from Microalgae: A Critical Evaluation from Laboratory to Large Scale Production" for the year of **2015** from the Journal of Applied Energy.

Number of Research Publications: 27 + 2 papers under review

1) Jaya Rathi J, Sasirekha R and **R. Ranjith Kumar (2021).** Effect of physical and chemical treatments on breaking the seed dormancy of *Caesalpinia bonduc* (L.) Roxb. *Plant Sci. Today,* 2021, 8(3):572–577. https://doi.org/10.14719/pst.2021.8.3.1049. [Scopus, Web of Science, Clarivate Analytics, UG Care list Journal]. **IF. 0.7.**

2) Sharon Maria Jacob and **R. Ranjith Kumar** (2020). Sustainable initiative of using cyanobacteria as a liquid fertilizer for hydroponic cultivation: A waste to wealth utilization. *Journal of Emerging Technologies and Innovative Research.* 7(8), ***1430-1461.***
DOI: http://doi.one/10.1729/Journal.24259. IF. 5.7. [UG listed journal].

3) E. Udayan, A. Kathiravan, S. Mukund and **R. Ranjith Kumar** (2020). A case study of screening for larvicidal activity of *Ulva reticulata* and *Colpomenia sinuosa* acetone extracts against *Artemia salina*. *J. Algal Biomass Utln.*11(1): 84-88.

4) Beema Jainab, Amthul Azeez, Asma Fathima and **R. Ranjith Kumar** (2019). GC-MS analysis of the marine algae *Halymenia dilatata Zanardini* a potential source of fish feed in future. *Indian Hydrobiology.* 18(1&2), 164–169. **[UG listed journal].**

5) Vijayalakshmi. S, Alice Jennifer. C, Sharon Maria Jacob, Mukund. S and **Ranjith Kumar. R** (2019). Environmental Impact Assessment of micro algae employed in phycoremediation of sewage-effluent from Madras Christian College, Chennai, India. *J. Algal Biomass Utln.* 10(1):54-59.

6) **R. Ranjith Kumar** and S. Mukund (2018). Comprehensive review on lipid extraction methods for the production microalgae biofuel. *J. Algal Biomass Utln.* 9(1): 48-61.

7) Mathimani, T., Nair, B.B. & **R. Ranjith Kumar** (2016). Evaluation of microalga for biodiesel using lipid and fatty acid as a marker – A central composite design approach. *J. Energy Inst.* 89 (3): 436–446. **IF. 3.774.**

8) **Ranjith Kumar, R.,** Hanumantha Rao, P. & M. Arumugam (2015). Lipid extraction methods from microalgae: A comprehensive review. *Front. Energy Res.* 2: 61. [doi: 10.3389/fenrg.2014.00061]. Hindex-10. **IF 2.7.**

9) **Ranjith Kumar. R.,** Ramesh, D., Mutanda, T., Rawat, I. & F. Bux (2015). Thermal behaviour and pyrolytic characteristics of freshwater *Scenedesmus* sp. biomass. *Eneg. Sour. Part A: Reco.Utili.Envi. Effe. 3*7 (13): 1383-1391. **IF. 0.894.**

10) Mutanda, T., **Ranjith Kumar, R.** & F. Bux (2014). Physico-chemical and biotic factors influencing microalgal seed culture propagation for inoculation of a large scale raceway pond. *African J. Biotech.* 13(35): 3607–3616. **IF.0.470.**

11) Mukund, S., Muthukumaran, M., **Ranjith Kumar, R.** & V. Sivasubramanian (2014). Evaluation of enzymatic and non-enzymatic antioxidants of Oscillatoria *terebriformis*. *Internat. J. Institut. Pharm. Life Sci.* 4(5): 56-59.

12) **Ranjith Kumar, R.**, Hanumantha Rao, P., Subramanian, VV. & V. Sivasubramanian (2014). Enzymatic and non-enzymatic antioxidant potentials of Chlorella vulgaris grown ineffluent of a confectionery industry. *J Food Science and Tech.* 51(2): 322-328. **IF.1.89.**

13) Bhola, V., Swalaha, F., **Ranjith Kumar,R.** & F. Bux (2014). Overview of the potential of microalgae for CO2 sequestration. Internat. J. Envir. Scie. and Techn. 11(7): 2103-2118. **IF. 2.031.**

14) Sivakumar, M., **Ranjith Kumar, R.** Shashirekha, V. & S. Seshadri (2014). Influence of Carbon dioxide on the Growth of Spirulina sp. (MCRC-A0003). *W. J. Micro and Biote. (WIBI),* DOI 10.1007/s11274-014-1688-y, 30 (10): 2775–2781. **IF. 2.652.**

15) Odinga, C.A., Swalah, F.M., Otieno, F.A.O., **Ranjith Kumar, R.** & F. Bux (2013). Investigating the efficiency of constructed wetland in the removal of heavy metals and enteric pathogens from *wastewater*. *Envi. Tech.* 2(1), 1-16. **IF. 1.918.**

16) Rawat.I., **Ranjith Kumar, R.**, Bhola, V. & F. Bux (2013). Improving the feasibility of producing biofuels from microalgae using wastewater. Envi. Techn. 34 (13-14): 1765- 1775. **IF. 1.918.**

17) Rawat. I, **Ranjith Kumar, R.**, Mutanda, T. & F. Bux (2013) Biodiesel from Microalgae: A Critical Evaluation from Laboratory to Large Scale Production. *J. Appl. Ener.* 103, 444–467. **IF. 8.426.**

18) Kotteswari, M., Murugesan, S. & **R. Ranjith Kumar** (2012). Phycoremediation of Dairy Effluent by using the Microalgae Nostoc sp. *Inter. J.Envir. Rese. and Devel.* 2 (1): 35-43. **IF. 0.540.**

Rawat. I., **Ranjith Kumar, R.**, Mutanda, T. & F. Bux (2011). Dual role of microalgae: Phycoremediation of domestic wastewater and biomass production for sustainable biofuels production. *Appl. Energy*: 88, 3411–3424. **IF. 8.426.**

19) Hanumantha Rao. P., **Ranjith Kumar, R.**, Raghavan, BG., Subramanian, VV. & V. Sivasubramanian (2011). Application of phycoremediation technology in the treatment of wastewater from a leather-processing chemical manufacturing facility. *Water SA.* Vol. 37 (1), 07-14. **IF. 1.077.**

20) Hanumantha Rao, P., **Ranjith Kumar, R.**, Raghavan, BG., Subramanian, VV. & V. Sivasubramanian (2011). Is phycovolatilization of heavy metals a probable (or possible) physiological phenomenon? An in situ pilot-scale study at a leather-processing chemical industry. *Water Environ Res.* 83(4): 291-297. **IF. 1.240.**

21) Sivasubramanian, V., Subramanian, VV., **Ranjithkumar, R.** & M. Muthukumaran (2010). Production of algal biomass integrated with Phycoremediation – A sustainable and economically viable approach. *J. Algal Biomass Utln.* 1 (4): 10 – 57. **UGC approved Journal.**

22) Hanumantha Rao, P. **Ranjith Kumar, R.**, Subramanian, VV. & V. Sivasubramanian (2010). Environmental impact assessment of Chlorella vulgaris employed in phycoremediation of effluent from a leather-processing chemical industry. *J. Algal Biomass Utln.* 1 (2): 42-50. **UGC approved Journal.**

23) Mohan, N., Hanumantha Rao, P., **Ranjith Kumar, R.** & V. Sivasubramanian (2010). Mass Cultivation of Chroococcus turgidus and Oscillatoria sp. and Effective Harvesting of Biomass by Low-cost methods. *Nature Precedings* : doi:10.1038/npre.2010.4331.1 : Posted 5 Apr 2010. **IF. 0.150.**

24) Mohan, N., Hanumantharao, P., **Ranjith Kumar, R.**, Sivasankaran, S.& S. Sivasubramanian (2009). Studies on mass cultivation of chlorella vulgaris and effective harvesting of biomass by low-cost methods. *J. Algal Biomass Utln.* 1 (1): 29 – 39. **UGC approved Journal.**

25) Sivasubramanian, V. Subramanian, VV., Raghavan, BG. & **R. Ranjith Kumar** (2009). "Large scale phycoremediation of acidic effluent from an alginate industry" *ScienceAsia.* 35, 220–226. **IF. 0.652.**

26) Vignesh, M., Shivsankar, S., Hanumantha Rao, P., **Ranjith Kumar, R.** & V. Sivasubramanian (2006). "Phycoremediation of effluent from tannery and pharmaceutical industries a lab study. *Indian Hydrobiology* 9(1): 51-60. **UGC approved Journal.**

27) **Ranjith Kumar, R.**, Hanumantha Rao, P., Raghavan BG., Subramanian, VV. & V.Sivasubramanian (2005). Studies on the extraction and purification of pigments from the effluent of an alginate industry. Proceedings of National Symposium on 'Microbial and Plant Biotechnology' held at Loyola College, Chennai from 17th to 19th February 2005.

Total Book Chapter (s) / manual published : 04

1) **R. Ranjith Kumar** (2019) workshop Manual on **"Dynamic programme on extraction of natural colourant as a value added products from *Spirulina* biomass for socio and economic empowerment of final year graduate students"** Catalyzed & Supported by Tamil Nadu State Council for Science and Technology (TNSCST), Government of Tamil nadu, held at Department of Botany, Madras Christian College.

2) Rao P.H., Kumar R.R., Mohan N. (2019) Phycoremediation: Role of Algae in Waste Management. In: Bharagava R. (eds) Environmental Contaminants: Ecological Implications and Management. Microorganisms for Sustainability, vol 14. Springer, Singapore. https://doi.org/10.1007/978-981-13-7904-8_3.

3) Rawat I, **R. Ranjith Kumar** and F. Bux (2013). Phycoremediation by HRAPs in: Potential Biotechnological Applications of Microalgae: Biodiesel and Value Added Products. **Taylor and Francis. ISBN 13: 9781466515291** ISBN 10: **1466515295**.

4) Murugesan S. R. Dhamotharan, **R. Ranjith Kumar**, T. Mutanda, F. Bux (2012), Phycoremediation: An Alternative for Cost-Effective Treatment of Waste Streams. Book chapter. **Advances in Environmental Research**. Volume 24. **ISBN: 978-1-61942-204-9**.

Dissertation supervision: in MCC M.Sc. Dissertation - 15 completed + 3 currently doing

S.No	Dissertation Title No)	Year	Student name (s) (Reg.
1.	Extraction of Bioactive pigment Phycocyanin from the *Spirulina* sp. and Enhancement of biomass production using low-cost medium.	2016-17	Diya James (15BO104) Naveena Sharon (15BO109) and S. Vijay (15BO126)
2.	Impact of using microalgae for treating sewage waste of Madras Christian College.	2017-18	S. Vijayalakshmi (164BO122)
3.	Characterization and optimization of physicochemical properties of detergent wastewater using selected microalgae.		C. Alice Jennifer (164BO101)
4.	Phycoremediation of textile industry dye effluent using immobilized algae.		S. Gnanajoythi (164BO107)
5.	Techno-economic model of hydroponic vegetable cultivation using microalgae as liquid fertilizer.	2018-19	Sharon Mira Jacob (1701712073016)
6.	Novel production of natural pigment phycocyanin from *Spirulina* biomass: A case study of a techno economical process.		A. Kathiravan (1701712073023)

7.	Enhanced *Spirulina* biomass production by different methods from lab to small scale pilot plant experiment.		E. Udayan (1701712073026)
8.	Effect of liquid seaweed fertilizer enhances the seed germination and growth of medicinal greens	2019-20	N. Mukeshbabu (1801712073022)
9.	Desalination of seawater using microalgae and natural coagulants using a miniature desalination setup		R. Syed Abdul latheef (1801712073024)
10.	Outdoor production of *Spirulina* using MCC medium		K.Vijay (1801712073026)
11.	Enzymatic and Non Enzymatic Antioxidant Potential of *Chlorella vulgaris*	2020-21	G. Bhavatharani (1901712073002)
12.	Phycoremediation of Dye effluent and Estimation of Algal growth by Wet and Dry weight analysis		S. Monika Jency (1901712073011)
13.	Spirulina biomass production and its application in soap making		M. Jeyslen Priscilla Devapriya (1901712073002)
15.	Currently 3 students doing their M.Sc. dissertation under my guidance.		

Nature of duties performed in previous institutions

Post Doctoral Fellowship at DUT

Co-supervisor for 2 M.Tech. & 2 D.Tech students. Also involved in various research projects:
[i] Microalgal Biotechnology;
[ii] Phycoremediation of Municipal Wastewater (EThekwini Municipality);
[iii] Studies on the biodiesel production from treated microalgae biomass and their by-products;
[iv] Constructed Wetlands (CWs) for Wastewater and Storm water treatments;
[v] CO_2 flue gas sequestration using indigenous microalgae;
[vi] Chloroplast genome sequencing of biodiesel producing microalgae strains from extreme climates in India and South Africa [Funded by DST and NRF].

Research Associate at MCRC

Worked in two research projects:
[i] CO_2 sequestration using microalgae - Efficient use of CO_2 from a Bio-Hydrogen;
[ii] Bio-Hydrogen production by Bacteria using spent wash substrate.

Techniques Known

- Basic algal culture techniques
- Sample collection
- Microalgae identification and purification techniques
- Mass cultivation of microalgae
- Feasibility study techniques
- Pilot-scale effluent treatment
- Physico-chemical analysis
- Algal pigments extraction and purification techniques
- Basic biochemical and microbiological techniques
- DNA isolation from algae and various plant materials
- Plant Tissue Culturing

Instrumentation Skills

- ✓ Hach portable instrument for analysis of pH, EC, DO & Salinity
- ✓ UV-visible Spectrophotometry
- ✓ Flame Photometry
- ✓ Atomic Absorption Spectroscopy
- ✓ Centrifuge
- ✓ Electrophoresis
- ✓ Chromatography [Ion-exchange, Gel filtration, Paper, Gas, Column & Thin Layer]

National and International Seminars/Symposia: 20

1) Participated in the **National Symposium** on "Algae Biology and Industrial Applications" held at R.K.M. Vivekananda College, Chennai (Sept. 2004).

2) Presented a paper on "Studies on the extraction and purification of pigments from the effluent of an alginate industry" in the **National Symposium** on Microbial and Plant Biotechnology held at Loyola College, Chennai (Feb. 2005).

3) Participated in the **National Symposium** on "Marine Plants, their chemistry and utilization" conducted by Seaweed Research and Utilization Association held in Tuticorin (June 2005).

4) Participated in the **National Symposium** on "Algae and Environment" held at R.K.M. Vivekananda College, Chennai (Sept. 2005).

5) Attended **National Symposium** on "Algae, Man and Biosphere" conducted at Poondi Pushpam College, Thanjavur, (Feb. 2006).

6) Presented a paper on "Microalgal Bio-diversity in various industrial effluents" in the **National Symposium** on Algal Biodiversity and its role in Bioremediation held at R.K.M.Vivekananda College (Sept. 2006). **Awarded Second prize for best oral presentation**.

7) Participated in the **National Conference** on "Recent Advancements In Material Science RAMS2006" held at R.K.M. Vivekananda College, Chennai (Dece. 2006).

8) Presented a Poster on "Occurrence of Microalgae in wastewaters and Industrial Effluents" in the **National conference** on Current Trends in Algal Biodiversity and Biotechnology, held by Center for advanced studies in Botany, **University of Madras, India**, 7-8th, February 2008.

9) Presented a paper on "Phycoremediation of acidic effluent from confectionery industry near Chennai, India" in the **International conference on Algal Biomass Resources and Utilization** held at Stella Maris College, Chennai – 600 086 (July 2009).

10) Presented a paper on "**Carbon dioxide sequestration using microalgae"** In house seminar in Shri AMM Murugappa Chettiar Research centre, Tharamani, Chennai, 3rd December 2008.

11) Presented a paper on "**Overview of Microalgae as an Energy Source"** In house seminar in Shri AMM Murugappa Chettiar Research centre, Tharamani, Chennai, 13th July2009.

12) Presented a paper on "**Phycoremediation of Acidic Industrial Effluent (Confectionery effluent)"**In house seminar in Shri AMM Murugappa Chettiar Research centre, Tharamani, Chennai, 21st September2009.

13) Presented a Poster on "Influence of Carbon dioxide on the Growth of Microalgae, Spirulina sp. (MCRC-A0003), in a Tubular Photo bioreactor" in the **7th Asia pacific conference on Algal Biotechnology**, held by Botany department, **Delhi University North campus, New Delhi, India**, 1–4 December 2009.

14) Presented a paper on Physico-chemical and biotic factors influencing microalgal seed culture propagation for inoculation of a large scale raceway pond. In the 4th **International Conference** on Appropriate Technology Proceedings. Ghana, Accra, 24–27 November 2010.

15) Biomass, metabolite accumulation and morphological characteristics of *Chlorella vulgaris* cells exposed to different free chlorine dosages. **Durban University of Technology**, South Africa.July 2011.

16) Participated as a volunteer for **COP-17** held at Durban, South Africa and exhibition was conducted about Microalgae CO_2 sequestration and biodiesel production by (**IWWT**) Institute for Water and Waster Technology, Durban University of Technology, from 28th November 2011 to 9th December 2011.

17) Presented a paper on Isolation, Identification & Screening of fast growing microalgae for Phycoremediation in Madras Christian College Sewage. In the National Symposium on Current trends in Plant Sciences [**NSCTPS18**], held at the Department of Plant Biology and Plant Biotechnology, Madras Christian College (Autonomous), Chennai on 22nd and 23rd February2018.

18) Awarded Best poster award. Presented a poster on Extraction and Characterisation of Phycocyanin pigment from *Spirulina platensis* (Muttukaddu isolation). In the National Symposium on Current trends in Plant Sciences [**NSCTPS18**], held at the Department of Plant Biology and Plant Biotechnology, Madras Christian College (Autonomous), Chennai on 22nd and 23rd February2018.

19) Presented a poster on Assessment of Spirulina biomass cultivation using low-cost medium: A case study. In the National Symposium on Current trends in Plant Sciences [**NSCTPS18**], held at the Department of Plant Biology and Plant Biotechnology, Madras Christian College (Autonomous), Chennai on 22nd and 23rd February2018.

20) Presented a paper on Environmental impact assessment of microalgae employed in phycoremediation of sewage effluent from Madras Christian College (MCC). In the National Conference on Vistas in Biodiversity, Biology, Biotechnology and Nanotechnology of Algae – [**VBBBNA2018**], held at the Department of Plant Biology and Plant Biotechnology, Madras Christian College (Autonomous), Chennai on 20th – 22nd September, 2018.

Workshops and Trainings: 07

1) Participated in **GDEST India – U.S. workshop** on Agricultural Biotechnology for the Global Public Good conducted by **M. S. Swaminathan Research Foundation** during October 4-6, 2006.

2) Participated in the two days workshop on "**Three Dimensional Structure Determination Of Biommolecules**" held at R.K.M Vivekananda College, Mylapore, Chennai- 600 004, on 15 -16 December 2006.

3) Participated in "**Imminent Drive**" workshop conducted by SRM Bioinformatics, Chennai, on Febraury 2008.

4) Participated in **GC-MS workshop** conducted by IIT Madras Chennai, on November 2008.

5) Participated in the one day workshop on "**Edible Mushroom cultivation**" held by the Botany department, R.K.M Vivekananda College, Mylapore, Chennai- 600 004, on 9th March 2015.

6) Participated in the one day workshop on "**Contemporary Research Avenues in the Bioscience**" held by the Vivekananda Instiute Of Tropical Mycology, R.K.M. Vivekananda College, Mylapore, Chennai- 600 004, on 9th March 2015.

7) Participated in the one day Training programme on "**Human Education**" Sponsered by Animal Walfare Board of India, held Sri Chandra Prabu Jain College Minjur, Chennai – 606203, on 7th Agust 2015.

Industrial Experience

Name of the Company	Project Done
SNAP Alginates & Natural Products Ltd., Ranipet, Tamil Nadu	Extraction of Phycobili pigments from the effluents (**Alginate Manufacturing Company**).
Perfetti Van Melle India limited, Chennai, Tamil Nadu	Treatment of Acidic effluents by microalgae through sloping pond technology. Proposed to establish scaled up phycoremediation palnt through the effective pilot-scale studies. (**Confectionery Manufacturing Company**).
Svis Labs India Pvt. Ltd., Ranipet, Tamil Nadu	Treatment of Acidic effluents by microalgae through sloping pond technology. (**Ibuprofen drug Intermediate Manufacturing Company).**
Stahl India Pvt. Ltd., Ranipet, Tamil Nadu	Standardised methods to treat leather processing wastewater through phycoremediation. (**Leather processing Chemical Manufacturing Company).**

Other Activities

- Acted as a guest in "MK TV" on NEET Victory namathay live programme on 6th April 2019 (Direct live programme from 5.00 PM to 6.00 PM).
- Invited as an **Evaluator** for Student projects at District level by National Children's Science Congress-2018, Tamil Nadu Science Forum- South Chennai, on Sunday, October 2018, held at Sivakasi Nadar Higher Secondary School, Egmore, Chennai-600 008.
- Attended as the **Chief Guest** in various meetings held at different colleges and schools and delivered motivational speech.
- Acted as **Chief invigilator** in the Tamil Nadu government conducted TNPSC (Tamil Nadu Public Service Commission) Group-II on 29.06.2014 held at Shree ChandraPrabhu Jain College.
- **Quiz coordinator** at SCP Jain College during the academic year 2013–14.
- **Volunteer and Blood Donor**–Annual Blood Donation Camp conducted in various Colleges.
- Participated and worked as a **volunteer** at **National Youth Conference** held at Ramakrishna Mission Belur Math, Kolkata (1998–1999).
- **Won Prizes** in many Intra-College Athletic Competitions.
- Winner in Intra-College Kabaddi Competition.
- Runner-up in Intra-College Kho-Kho Competition.

Personal Profile

Name	:	Dr. R. Ranjith Kumar
Father's Name	:	K.A. Ramanathan
Date of Birth	:	04.04.1979
Nationality	:	Indian
Sex	:	Male
Marital Status	:	Married
Languages Known	:	English & Tamil
Hobbies	:	Reading Books and Volleyball
Permanent Address	:	Vaipoor (Village & Post) Vettavalam (Via) Thiruvannamalai (District) – 606 754.

Declaration Affirmation

I Dr. R. Ranjith Kumar do hereby declare that all the details furnished above are true to the best of my knowledge and ability.

Place : Chennai
Date : 18.10.2021

(R. RANJITH KUMAR)