

Dr. N. REEHANA

M.Sc., M.Phil., Ph.D.



Contact

Location:

Tiruchirappalli, Tamilnadu

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Live DNA:

<https://livedna.net/account/index.php>

Personal details

Date of Birth : 24-03-1987
Sex : Female
Nationality : Indian
Religion : Muslim
Marital Status : Married
Blood Group : A+^{ve}
Mother Tongue : Urdu
Linguistic Abilities : English, Tamil, Urdu

Summary

Charismatic, motivating Professor with teaching, research experience in Microbiology driven to inspire students to pursue academic and personal excellence. Strives to create a challenging and engaging learning environment in which students become life-long scholars and learners. Effectively utilise my strong interpersonal, communication, and hands-on demonstration skills to present concepts clearly and increase student understanding and a passion for scholarly work, presenting and publishing at conferences.

Skill Highlights

- Motivator
- Student mentoring
- Collaborations with inter and intra institutions
- Strong analytical skills & test analysis
- Good Explanation skills
- Good Communication
- Leadership Development
- Curriculum Development
- Decision Making
- Complex problem solver

Education

- **Ph.D** in Microbiology from Bharathidasan University, Tiruchirappalli, Tamil Nadu, India. Highly Commended in August, 2015.
- **M.Phil** in Microbiology from Bharathidasan University, Tiruchirappalli, Tamil Nadu, India. Completed with First Class, Distinction ++ in August, 2011.
- **Master** of Science in Microbiology from Jamal Mohamed College (*Autonomous*), Tiruchirappalli, Tamil Nadu, India. Completed with First Class, Distinction ++ in April, 2010.
- **Bachelor** of Science in Microbiology from A.V.C College (*Autonomous*), Mayiladuthurai, Bharathidasan University Tamil Nadu, India. Completed with First Class Distinction ++ in April, 2007.
- Completed course by SWAYAM portal by Govt. of India on '**Food Microbiology and Food Safety**' during September 2020.
- Completed **Innovation Ambassador (IA)** training '**Foundation level**' conducted in online mode by MoE's Innovation Cell and AICE during the IIC Calender year 2021-2022.

Research Experience

Bharathidasan University, Tiruchirappalli, Tamil Nadu, India

Senior Research Fellow

Apr. 2012 –Aug. 2015

- Attempted to develop DNA barcode from cyanobacteria.

Junior Research Fellow

Aug. 2010 –Aug. 2012

- Amplified phycocyanin gene of cyanobacteria and analyzed its structure using various bioinformatics tools.

PhD Researcher

Jan. 2012 –Aug. 2015

Purification, Characterization and Applications of Cyanobacterial Phycocyanin Pigment:

- Used scanning electron microscopy and confocal laser scanning microscopy for analyzing the three dimensional surface topology of cyanobacteria.
- Analyzed the biochemical and molecular characterization (16S rRNA gene) of cyanobacteria.
- The phycocyanin pigment was purified and characterized and the maximum pigment extraction was analyzed using response surface methodology.
- Examined the applications of phycocyanin pigment and characterized phycocyanin gene for analyzing its sequence based structure.

MPhil Researcher

Aug. 2010 –Aug. 2011

Sequence based Structural and Phylogenetic Analysis of C-Phycocyanin gene from Cyanobacteria:

- The biodiversity was studied from the both fresh and marine water using microscopy.
- The cyanobacterial specimens collected were subjected for identification, isolation and purification.
- The study was focused to understand the pigment at molecular level in the cyanobacteria.
- The genomic DNA was extracted and the amplification of C-Phycocyanin gene was done with the suitable primer PC β F and PC α R and the sequencing was performed. Structural and phylogenetic analysis was attained using the sequence to develop a molecular model.

Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamil Nadu, India.

Master's Researcher

Jun. 2008 – Apr. 2010

Partial characterization of phycocyanin gene from cyanobacteria – *Oscillatoria salina* NTDM51 and *Oscillatoria chlorina* NTDM56:

- The cyanobacterial cultures were isolated and its genomic DNA was isolated and *phycocyanin gene* amplified was submitted in **GenBank**.

A.V.C College (Autonomous), Mayiladuthurai, Tamil Nadu, India.

Undergraduate Researcher

June 2004 - Apr. 2007

Production and Antibacterial activities of Kefir:

- Kefir is a probiotic fermented product.
- Preparation of Kefir using milk as substrate with kefir grains as starter.
- Isolated probiotic strains from the fermented kefir and tested for their properties.
- Antibacterial activity of kefir was tested against the common bacterial pathogens.

Proficiency in Techniques

- Basic Microbiological techniques
- Antimicrobial Susceptibility Testing
- Immunological techniques and Biochemical techniques
- Spectrometric studies
- Plasmid & genomic DNA isolation and gene amplification
- Electrophoresis techniques (Agarose gel, SDS-PAGE)
- Techniques in Animal Cell Culture and *In Vitro* Toxicology
- Bioinformatics softwares (NCBI, Design expert 7.1.6, *insilico* analysis, Origin, Mega 5.04, Neb cutter, 1° structure, 2° structure and 3 dimensional structure prediction, Molecular modeling).

Instruments Proficiency

- PCR thermal cycler
- FT-IR
- Ultra Sonicator
- Microscope
- Lyophilizer
- Gel Documentaion
- Atomic Absorption Spectrophotometer
- HPLC

Area of Interest

Microbial Taxonomy (Conventional and Molecular methods), Computational Biology, Food Microbiology, Immunology and Molecular Biology, Environmental and Agricultural Microbiology.

Teaching Experience

Jamal Mohamed College, Tiruchirappalli, Tamil Nadu, India.
Assistant Professor-Microbiology

Sep 2015 to Present

Role as Assistant Professor

- ❖ Prepare a course study using approved curriculum that incorporates lectures labs
- ❖ Collaborate with other Microbiology faculties in developing the best program
- ❖ Incorporating new research ideas and facilities for the development of the department and students.
- ❖ Assisting students in making decisions regarding career choices and courses.
- ❖ Preparing research proposals for funding.
- ❖ Involved in preparing departmental input reports for Assessment Committee.
- ❖ Acted as a member in Board of Studies for regularization of Designing new courses, as appropriate Syllabus.
- ❖ Handling theory classes to the students via using visual aids, slides, and the good materials
- ❖ Taking labs and helping the students in getting done the practical.
- ❖ Ability to prioritize responsibilities, meet deadlines, and respond to students' legitimate needs in a timely manner.
- ❖ Attended and presented in many seminars and conferences.
- ❖ Acted as examiners for the theory and practical examinations at University and College levels.
- ❖ Organizing various class and interclass activities to increase the interaction between students
- ❖ Conducting presentation by the students on different topics for their development.
- ❖ Conducting extra classes for the weak students.
- ❖ Coordinating with the parents whenever required

Academic Responsibilities

- Intellectual Property Rights Development Cell Member from 2023.
- Innovation Coordinator from 2021 to till date.
- Department Placement officer from 2019 to till date.
- Acted as a Vice president of Microbiology Association from 2019 – 2020.
- Department Website in-charge from 2018 to till date.
- Department Library in-charge from 2016 to till date.

Other Academic Activities

- Member, Board of Studies in Microbiology (UG & PG), A.V.C. College (Autonomous), Mayiladuthurai from 2019 to 2022.
- Member, Board of Studies in Microbiology (B.Sc., M.Sc. and M.Phil) in Jamal Mohamed College, Trichy.
- Chairman for Microbiology in Annamalai University, Chidambaram.
- Question paper setter for Bharathidasan University, Bharathiyar University, Madurai Kamaraj University, Annamalai University, Dhanalakshmi Srinivasan College, A.V.C. College, National College, Vivekananda College for Women, Hajee Karutha Rowther Howdia College.

Membership in Professional Societies

- Served as a **Coordinator of Microbiologist Society, India** for Bharathidasan University and their affiliated Colleges of Tamil Nadu state for a period of One year from 15th June 2020 to 14th June 2021.
- Life Time Member in Microbiologists Society, India since 2020.

Research Supervision

	Guided	Thesis Submitted	Guiding
P.G.	19	NA	04
M.Phil	03	-	-
Ph.D.	-	-	02

As Reviewer

No.	Journal Name	Publisher
1.	Biocatalysis and Agricultural Biotechnology	Elsevier
2.	Applied Biochemistry and Biotechnology	Springer

Citation Profile

Details	Scopus	Google Scholar
Number of Citations	104	153
h-Index	02	04
i-10 index	-	03

Publications

International: 7; National: 5

- M. Mohamed Mahroop Raja, **N. Reehana**, A. Asrar Ahamed, and A. Fasila Begum 2023. Characterization of bioactive compound isolated from *Micromonospora marina* KPMS1 and its activity against emerging antibiotics resistant strains of *Klebsiella pneumoniae* HAUTI7 and *Proteus vulgaris* HAUTI14. *International Journal of Biological Macromolecules.*, 250-125954. **(IF:8.2)**
- M. M. R. Mohamed, **N. Reehana** and A. Fasila Begum 2023. Biosynthesis and Characterization of L-Asparaginase Isolated from marine *Streptomyces antibioticus* KPMS7. *Indian Journal of Pharmaceutical Sciences.*, 85(3): 603-612.
- M. Mohamed Mahroop Raja and **N. Reehana** and A. Fasila Begum 2022. Multidrug resistant *Staphylococcus aureus* isolated from UTI site and its biofilm inhibition activity with nanomaterials in reference with standard. *International Journal of Zoological Investigations.*, 8: 152-159.
- M. Mohamed Mahroop Raja and **N. Reehana**. 2020. Analysis of Multiple antibiotics resistant and Molecular epidemiology of *Escherichia coli* and *Pseudomonas aeruginosa*. *International Journal of Pharmaceutical Sciences and Research.*, 11(8): 3763-3771.
- M. Mohamed Mahroop Raja, A. Raja and **N. Reehana**. 2019. Biochemical screening of marine *Micromonospora marina* KPMSI (MH036351) and its antibacterial activity against multidrug resistant bacteria. *Asian journal of Pharmaceutical and clinical research.*, 12(2): 405-410.
- A. Parveez Ahamed, M.U. Rasheed, K. Peer Muhamed Noorani, **N. Reehana**, S. Santhoshkumar, M. Mohamed Imran, Naiyf S.Alharbi, C. Arunachalam, Sulaiman Ali Alharbi, M. A. Akbarsha and N. Thajuddin. 2017. *In vitro* antibacterial activity of MGDG-Palmitoyl from *Oscillatoria acuminata* NTAPC05 against extended spectrum beta lactamase-producers. *The Journal of Antibiotics.*, 00, 1–9. doi:10.1038/ja.2017.40. **(IF: 3.424)**
- M. Mohamed Imran, **N. Reehana**, K. A. Jayaraj, A. Parveez Ahamed, D. Dhanasekaran, N. Thajuddin, Naiyf S. Alharbi and G. Muralitharan.2016. Statistical optimization of exopolysaccharide production by *Lactobacillus plantarum* NTMI05 and NTMI20, *International Journal of Biological Macromolecules.*, 93:731- 745. **(IF: 8.2)**
- M. Mohamed Imran, **N. Reehana**, G. Muralitharan and N. Thajuddin. 2014. Molecular phylogeny and *in silico* analysis of 18S rRNA genes from selected microalgal cultures. *Seaweed Research Utilization Journal.*, 36(1&2):126-135.
- **N. Reehana**, A. Parveez Ahamed, D. Mubarak Ali, A. Suresh. R. Arvind Kumar and N. Thajuddin. 2013. Structure based computational analysis and molecular phylogeny of C-phycocyanin gene from the Selected Cyanobacteria. *International Journal of Biological, Life Science and Engineering.*, 7 (1): 1170-1174.
- **N. Reehana**, A. Parveez Ahamed and N. Thajuddin. 2013. Phylogenetic characterization and homology modeling of C-Phycocyanin gene from *Oscillatoria nigroviridis* NTRI01. *Phykos.*, 43 (1): 39-45.

- **N. Reehana**, A. Parveez Ahamed and N. Thajuddin. 2012. In vitro studies on bactericidal effect of selected cyanobacteria against bacterial pathogens. *International Journal of Medicobiological Research.*, 1(7): 345-347.
- M. Mohamed Imran and **N. Reehana**. 2011. Animal feed utilization using anaerobic microbial flora in cattles. *Journal of Pure and Applied Microbiology.*, 5(2):769-774. **(IF:0.157)**

Book Chapters: Published: 10

- **N. Reehana**, M. Mohamed Imran, Thajuddin, N. and D. Dhanasekaran. (2023), **Small-scale Production and Business Plan for Phycocyanin from Cyanobacteria. In: Food Microbiology Based Entrepreneurship Making Money From Microbes** (Eds) by Natarajan Amaresan, Dhanasekaran Dharumadurai, Olubukola Oluranti Babalola ISBN No 978-981-19-5040-7. **Springer Nature Singapore Pte Ltd.**, pages 253-277.
- **N. Reehana** and M. Mohamed Imran. (2022), **Innovation in Food Product Development. In: A Multidisciplinary Approach in Innovation Paradigm** (Eds) by Dimple Sapuro, Seema, Ramesh Chandra Panda ISBN NO. 978-93-5470-823-7. Swaranjali Publication, pages 137-153.
- **N. Reehana**, M. Mohamed Imran, Thajuddin, N. and D. Dhanasekaran. (Editors.) (2022), **Molecular symbiotic interactions of cyanobacterial association in nonvascular seedless plants. In: Developments in Applied Microbiology and Biotechnology, Microbial Symbionts Functions and Molecular Interactions on Host** (Eds) by D. Dhanasekaran, ISBN No 978-0-323-99334-0. **Academic Press, Elsevier**, London Wall, United Kingdom, pages 295-309.
- **N. Reehana**, M. Mohamed Imran, Thajuddin, N. and D. Dhanasekaran. (Editors.) (2021), **Synbiotics in Nutrition. In: Advances in Probiotics Microorganisms in Food and Health** (Eds) by D. Dhanasekaran, A. Sankaranarayanan. ISBN No: 978-0-12-822909-5. **Academic Press, Elsevier**, London Wall, United Kingdom, pages 149-161.
- M. Mohamed Imran, **N. Reehana**, G. Muralitharan, Thajuddin, N. and D. Dhanasekaran. (Editors.) (2021), **New Formulations and Products in Prebiotic Food. In: Advances in Probiotics Microorganisms in Food and Health** (Eds) by D. Dhanasekaran, A. Sankaranarayanan. ISBN No: 978-0-12-822909-5. **Academic Press, Elsevier**, London Wall, United Kingdom, pages 437-447.
- **N. Reehana**, M. Mohamed Imran, Thajuddin, N. and D. Dhanasekaran. (Editors.) (2021), **Role of Human Gut Microbiome in Health and Disease. In: Microbiome-Host Interactions** (Eds) by D. Dhanasekaran Dhiraj Paul, N. Amaresan, A. Sankaranarayanan, Yogesh S. Shouche. ISBN No: 978-1-003-03752-1. **CRC press, Taylor & Francis Group**, Boca Raton, FL, USA, pages 101-112.
- **N. Reehana**, M. Mohamed Imran, Thajuddin, N. and D. Dhanasekaran. (Editors.) (2019), **Cider Production Techniques in North America and Europe. In: Fermented Food Products** (Eds) by A. Sankaranarayanan, N. Amaresan and D. Dhanasekaran. ISBN No: 13: 978-0-367-22422-6. **CRC press, Taylor & Francis Group**, Boca Raton, FL, USA, pages 329-340.

- M. Mohamed Imran, **N. Reehana**, G. Muralitharan, Thajuddin, N. and D. Dhanasekaran. (Editors.) (2019), **Fermented Indigenous Milk Products. In: Fermented Food Products** (Eds) by A.Sankaranarayanan, N.Amaresan and D.Dhanasekaran. ISBN No: 13: 978-0-367-22422-6. **CRC press, Taylor & Francis Group**, Boca Raton, FL, USA, pages 269-286.
- **N. Reehana**, M. Mohamed Imran, Thajuddin, N. and D. Dhanasekaran. D. (Editors.) (2018), **Cyanobacterial Toxins as Biolarvicides for Blood Sucking Vectors. In: Microbial Control of Vector Borne Diseases.** (Eds) by B.K. Tyagi and D.Dhanasekaran. ISBN No: 13: 978-1-138-05581-0. **CRC press, Taylor & Francis Group**, Boca Raton, FL, USA, pages 315-334.
- **N. Reehana** and Thajuddin, N. (Editors.) (2016), **“Response Surface Methodology (RSM). In: Biological Techniques: A Laboratory Manual,** (Eds) by N.Thajuddin, T. Senthil Kumar and D. Dhanasekaran. ISBN No.978-93-80622-41-5. Yazhini Publications, Cuddalore, pages 153-163.

Acted as Resource Person: 25

- Delivered a lecture in One day Workshop **“Navigating the dynamic landscape of startups”** held on 15th December 2023 organized by Holy Cross Innovation and Incubation Council (HCIICT) in association with PG and Research Department of Mathematics, Holy Cross College (Autonomous), Tiruchirappalli.
- Acted as Evaluator in State Level **31st National Children’s Science Congress-2023** co-ordinated by Taminadu Science Forum (TNSF) during 25th November 2023 held at Nehru Memorial College, Puthanampatti Tiruchirappalli.
- Acted as Evaluator in District Level **31st National Children’s Science Congress-2023** co-ordinated by Taminadu Science Forum (TNSF) during 30th October 2023 held at Jamal Mohamed College (Autonomous), Tiruchirappalli.
- Acted as an Executive Committee Member in the One day International Conference on **“Future Challenges of Microbes in Environment (ICFCME-2023)”** held on 23rd February 2023 organized by P.G and Research Department of Microbiology, Jamal Mohamed College (Autonomous), Tiruchirappalli.
- Acted as a Judge for the **15th Annual Science Fair (NSF) 2023**, Display of Research based projects by school students held on 21st and 22nd January 2023 organized by Jamal Mohamed College (Autonomous), Tiruchirappalli in association with Organisation of Muslim Educational Institutions and associations of Tamilnadu (OMEIAT).
- Delivered a lecture in **“Bioproducts Development from Cyanobacteria- A startup to Entrepreneur”** held on 26th September 2022 organized by Department of Microbiology, Thanthai Hans Roever College (Autonomous), Perambalur, Tamilnadu, India.
- Delivered a lecture in **“ Importance of Intellectual Property Rights for Innovative Products”** held on 29th August 2022 organized by Jamal Innovation and Incubation Center (JIIC), Jamal Mohamed College (Autonomous), Tiruchirappalli in association with Institution’s Innovation Council (IIC), Ministry of Education Cell (MIC).

- Acted as a Resource person in the Young Student Scientist Programme (YSSP-2022) on **“Isolation and Identification of Microorganisms”** held on 25th May 2022, catalyzed and supported by Tamil Nadu State Council for Science and Technology conducted at Jamal Mohamed College (Autonomous), Tiruchirappalli.
- Acted as an Executive Committee Member in A State Level Workshop on **“Production and Formulation of Bioinoculants”** held on 31st March 2022 organized by P.G and Research Department of Microbiology, Jamal Mohamed College (Autonomous), Tiruchirappalli in association with Internal Quality Assurance Cell (IQAC).
- Acted as a Judge for the Slogan Competition in the **International e Conclave on Women Scientist in Science and Technology with Special Reference to Biotechnology (IWSC22)** held on 9th March 2022 organized by Nano & Biomaterials Association, School of Life Sciences, B.S. Abdur Rahman Crescent Institute of Science and Technology, Chennai in association with Biotech Research Society, India (BRSI).
- Delivered a lecture in **“National workshop on Molecular Methods in Taxonomy to Biotechnology of Actinobacteria and Cyanobacteria (MoMeTBAC-22)”** held on 8th March 2022 organized by Department of Microbiology, Bharathidasan University, Tiruchirappalli, Tamilnadu, India.
- Acted as a Judge for the poster presentation in the **National Science Day Celebrations-2022** held on 25th to 28th February 2022 organized by Jamal Mohamed College, (Autonomous), Tiruchirappalli.
- Delivered a lecture in **“Viable products from biomaterials: A startup perspective”** held on 23rd February 2022 organized by Jamal Innovation and Incubation Center (JIIC), Jamal Mohamed College (Autonomous), Tiruchirappalli in association with Institution’s Innovation Council (IIC), Ministry of Education Cell (MIC).
- Delivered a lecture in **“RSM & Microalgal Pigment Technology”** held on 16th April 2021 organized by Department of Microbiology, Bharathidasan University, Tiruchirappalli, Tamilnadu, India.
- Acted as a Resource person in the National Webinar on **“IP and Wealth Creation”** held on 9th February 2021 organized by the Department of Botany, Bishop Heber College, Tiruchirappalli. Tamilnadu, India.
- Acted as a Judge in the International Level Virtual Lecture-**Workshop and Drawing Competition on Microbiologist in World Scenario** held on November 24th to November 25th 2020 organized by the School of Life Sciences, B.S.Abdur Rahman Crescent Institute of Science and Technology, Chennai in association with Microbiologists Society, India.
- Acted as Evaluator in **State Level 27th National Children’s Science Congress-2019** co-ordinated by **Taminadu Science Forum (TNSF)** during 15th &16th November 2019 held at Arcot Sri Mahalakshmi College for Women, Vilappakkam, Arcot.
- Acted as Evaluator in **‘The Future Scientist’ programme** for school students organized by **Tamilnadu Science Forum (TNSF)** jointly with The Hindu and VIT, Vellore on 13 October,

2019 held at National College (Autonomous), Tiruchirappalli – 620 001.

- Delivered a lecture in Refresher course of Life sciences on “**Microalgal biodiesel production, Mushroom cultivation and Response surface methodology**” held on June 28th, 2018 at Bharathidasan University, organized by UGC-Human Resource Development Centre, Bharathidasan University, Tiruchirappalli, Tamilnadu, India.
- Acted as judge in the **Cenitterz’17, an intercollegiate science event** organized by Department of Microbiology, Bharathidasan University, Tiruchirappalli, Tamilnadu, India on February 28th, 2017.
- Delivered a lecture in Refresher course of Life sciences on “**Response surface methodology**” held on November 11th, 2016 at Bharathidasan University, organized by UGC-Human Resource Development Centre, Bharathidasan University, Tiruchirappalli, Tamilnadu, India.
- Delivered a lecture in Refresher course of Life sciences on “**Response surface methodology**” held on March 9th, 2016 at Bharathidasan University, organized by UGC-Human Resource Development Centre, Bharathidasan University, Tiruchirappalli, Tamilnadu, India.
- Acted as Resource person in a one day workshop on “**DNA Finger Printing**” held on October 3rd, 2015 at A.V.V.M Sri Pushpam College, jointly organized by Department of Microbiology, Bharathidasan University, Tiruchirappalli, Tamilnadu, India.
- Acted as Resource person in a one day workshop on “**Advanced Molecular Techniques**” held on October 31st, 2015 at Bharathidasan University Constituent College for Women, jointly organized by Department of Microbiology, Bharathidasan University, Tiruchirappalli, Tamilnadu, India.
- Acted as Resource person in a one day workshop on “**DNA Finger Printing**” held on December 11th, 2013 at Government Arts College for Women (*Autonomous*), Pudukkottai, Tamilnadu, India.

Awards/ Honours

- Awarded as the **Best Women Researcher in Science Faculty** for the academic year **2022 - 23** by Jamal Mohamed College (*Autonomous*), Tiruchirappalli. Tamilnadu.
- Received fund for the **Seed Money Research Project Scheme** (2022-2023) from Jamal Mohamed College, Tiruchirappalli -620020.
- Awarded with **Maulana Azad National Fellowship (MANF)** for the year **2010- 11** by **University Grants Commission** (UGC), Govt. of India, New Delhi (Ref. No: F1-17.1/2010/MANF-MUS-TAM-4822/SA-III/Website dated 22 September 2011).

(Best poster: 2; Best paper: 4)

- Received the **Best paper award** to the paper entitled “*Purification and Characterization of phycocyanin from the efficient cyanobacterial strains*” in two days National Symposium on “Recent Advances in Modern Biology and Rural Development” held at A.V.V.M Sri Puspham

College, Poondi – 613 503, Thanjavur District, Tamilnadu on October 5th & 6th, 2017 jointly with the Department of Microbiology, Bharathidasan University, Tiruchirappalli, Tamilnadu.

- Received the **Best poster award** for the paper entitled “*Optimization and characterization of scytonemin produced by Oscillatoria boryana NTRI09 and Geitlerinema pseudacutissimum NTRI18*” held on November 15th - 17th, 2013 at Visva Bharathi (A Central University), Santiniketan, West Bengal.
- Received the **Best poster award** for the paper entitled “*Various environmental Stress conditions for the production of mycosporin like amino acids by Oscillatoria boryana NTRI12*” held on September 5th & 6th, 2013 at the Department of Microbiology, Bharathidasan University, Tiruchirappalli, Tamilnadu.
- Received the **Best paper award** to the paper entitled “*Biodiversity of microalgae in the Puliyanthangal lake of Ranipet of Tamil Nadu (India)*” held on July 20th – 21st, 2013 at National Academy of Biological Sciences (NABS) jointly with the Department of Microbiology, Bharathidasan University, Tiruchirappalli, Tamilnadu.
- Received the **Best paper award** to the paper entitled “*Phylogenetic characterization and homology modeling of C-Phycocyanin gene from Oscillatoria nigroviridis NTRI01*” held on March 25th – 26th, 2013 at Punjabi University, Patiala, Punjab, India.
- Received the **Best paper award** to the paper entitled “*Bio and chemical synthesis of nanoparticles and antimicrobial activity against isolated plant pathogens*” held on February 9th& 10th, 2011 at Dr. Zakir Hussain College, Ilayangudi – 630 702 jointly with Ganapathy College of Engineering, Paramakudi.
- Awarded with **second prize for proficiency in Microbiology** for the year **2010-2011** by Jamal Mohamed College (*Autonomous*), Tiruchirappalli.
- Awarded with **special award as joint secretary** for proficiency in department activities in Microbiology for the year **2008-2009** by Jamal Mohamed College (*Autonomous*), Tiruchirappalli.

Papers & Posters Presented at National & International Conferences: 17

- Presented a research paper entitled “**Biodiversity of Microalgae from Panjappur pond of Tiruchirappalli, Tamil Nadu (India)**” in the International Conference on “Algae: food, feed, fuels, and Fine Chemicals – ICA-F4’23 held on 6 to 8th, September 2023 at National Repository for Microalgae and Cyanobacteria (NRMC)-Fresh water and Marine divisions and Department of Microbiology, School of Life Sciences, Bharathidasan University, Tamilnadu, India.
- Presented a research paper entitled “**Evaluation of Biofilm formation on various materials by Pseudomonas aeuroginosa**” in the International Conference on “Converging Research Approaches in Life Science for Future Advancement” held on 15th February, 2023 at Department of Microbiology, Sengamala Thayar Educational Trust Women’s College, Sundarakottai, Mannargudi, Tamilnadu, India.
- Presented a paper entitled “**Conversion of Whey into Biofertilizer through fermentation process**” in the National Conference on Post Covid-19 Complications- A Biotechnological

Approach (PCBA'22) held on 7th and 8th September, 2022 at Jamal Mohamed College, Tiruchirappalli, Tamilnadu, India.

- Presented a paper entitled **“Synthesis of ZnO nanoparticles from probiotic isolate and its antibacterial property”** in the International Conference on Emerging outlook and Recent trends in Microbiology held on 26th August, 2022 at Shrimati Indra Gandhi College, Tiruchirappalli, Tamilnadu, India.
- Presented a paper entitled **“Characterization of Exopolysaccharides Produced by Efficient Cyanobacterial Species and Its Application”** in the 7th International Conference on Innovations in Chemical and Environmental Research [ICICER-2022] held on 25th May, 2022 at Jamal Mohamed College, Tiruchirappalli, Tamilnadu, India.
- Presented a paper entitled **“Phylogenetic analysis of Nostoc sp. Using 16SrRNA gene sequence”** in the International Seminar on Microbial interventions for the welfare of Human beings [MIWHB-2019] held on 09th Aug, 2019 at Sengamala Thayar Educational Trust Women’s College, Sundarakottai, Mannargudi, Tamilnadu, India.
- Presented paper on **“Extraction and Partial Characterization of Inulin from Garlic and Testing its Synbiotic Efficacy”** in National Seminar on **“Frontiers in Bio-mimicry Medicine (FBM 2019)”** held on 01st February, 2019 at Srinivasan College of Arts & Science, Perambalur. Tamilnadu, India.
- Presented paper on **“Screening and optimization of Mycosporine like amino acids from *Anabaena variabilis* NTRI56”** in International Seminar on **“Life Science- Recent Trends & Applications”** held on 09th February, 2018 at Dhanalakshmi College of Arts & Science for Women, Perambalur. Tamilnadu, India.
- Presented a research paper entitled **“Extraction and characterization of scytonemin from *Spirulina subsalsa* NTRI14”** in the International Seminar on **“Microbes, Microbial Processes and Products”** held on 12th September, 2017 at Department of Microbiology, Sengamala Thayar Educational Trust Women’s College, Sundarakottai, Mannargudi, Tamilnadu, India.
- Presented a research poster entitled **“Biodiversity and Molecular characterization of cyanobacteria in Vellore, Tamilnadu”** in National Conference on **Biodiversity, Biology and Biotechnology of Algae** held on January 9th & 10th, 2017 at University of Madras, Chennai, Tamilnadu, India.
- Presented a research poster entitled **“Biosynthesis and characterization of zinc oxide nanoparticle using *Lactobacillus* sp.”** in National Seminar on **Frontiers in Biosciences** held on 5th March, 2016 at Jamal Mohamed College, Tiruchirappalli, Tamilnadu, India.
- Presented a research poster entitled **“Molecular phylogenetic and computational analysis of C-phycocyanin gene from cyanobacterium *Phormidium rubroterricola* NTRI02”** held on 26th & 27th March, 2012 at Alagappa University, Karaikudi, Tamilnadu, India.

- Presented a paper entitled “**Extraction and Estimation of Phycobiliprotein from cyanobacteria *Oscillatoria salina* NTDM51 and *Oscillatoria chlorina* NTDM56**” held on 17th March 2012 at Jamal Mohamed College, Tiruchirappalli, Tamilnadu, India.
- Presented a paper entitled “**Sequence based *insilico* analysis of C-phyco cyanin gene from the cyanobacterium *Oscillatoria salina* NTDM51**” held on February 17th& 18th, 2012 at Cauvery College for Women, Tiruchirappalli jointly with the Department of Microbiology, Bharathidasan University.
- Presented a paper entitled “**Structural analysis of C-phyco cyanin gene from the selected Cyanobacteria**” held on July 7th- 9th, 2011 at Queen Mary’s College, Chennai, Tamilnadu.
- Presented a research poster entitled “**Scientific validation of medicinal plants**” held on January 24th& 25th, 2009 at Srimad Andavan Arts & Science College, Tiruchirappalli, Tamilnadu, India.
- Presented a research poster entitled “**Evaluating the prevalence of Syphilitic associated with pregnant women and other individual**” held on September 19th, 2006 at Bishop Heber College, Tiruchirappalli, Tamilnadu, India.

Faculty Development Programme Attended: 18

- Participated in one week Faculty Development Programme on “**Upskill your Resources**” (Under UGC Autonomy Grant) held on 7th July 2023 to 13th July 2023 organized by Department of Business Administration (SF), Ayya Nadar Janaki Ammal College, Sivakasi.
- Participated in one day Faculty Development Programme on “**Preparation of winning research proposals**” held on 8th February 2023 organized by Post Graduate and Research Department of Chemistry under DBT Star College Scheme, Jamal Mohamed College (Autonomus), Tiruchirappalli.
- Participated in one day Faculty Development Programme on “**Intellectual Property Rights**” held on 9th February 2022 organized by Post Graduate and Research Department of Physics and Institution’s Innovation Council, Jamal Mohamed College (Autonomus), Tiruchirappalli.
- Participated in six days Faculty Development Programme on “**Digital teaching and learning**” held on 24th January to 29th January 2022 organized by Department of Chemistry, Jamal Mohamed College (Autonomus), Tiruchirappalli, under the DBT star college scheme.
- Participated in the 3 days Online Faculty Development Programme on “**Challenges in Microbiological Invention and Intellectual Property Rights**” held from 23rd September to 25th September 2021 organized by Internal Quality Assurance Cell, Ayya Nadar Janaki Ammal College, Sivakasi under UGC PARAMARSH Scheme.
- Participated in the 6 days Online International Faculty Development Programme on “**Recent Trends in Transforming Life Sciences – Focus on Academia & Industry Symbiosis**” from 13th September to 18th September 2021 organized by Department of Biotechnology, Nizam College (Autonomus), in association with Government City College and Loyola Academy, Hyderabad.

- Participated in the 5 days **Faculty Enrichment Programme** held on 21st June to 25th June 2021 organized by Internal Quality Assurance Cell, Jamal Mohamed College, Tiruchirappalli.
- Participated in the 5 days Online Short Term Training Programme on **“Be the change teaching learning process”** held on 5th April to 10th April 2021 organized by HR and Faculty training academy, B.S.Abdur Rahman Crescent Institute of Science and Technology, Chennai.
- Participated in the One Week Short Term Training Programme (STTP)- online (AQIS 2019-2020) on **“Training for Teachers Orientation for Newly Admitted Students”** held on 22nd February to 27th February 2021 organized by Department of Science and Humanities, Indra Ganesan college of engineering, Tiruchirappalli.
- Participated in six days Faculty Development program on **“E-Content Development”** held on 30th June to 4th July 2020 organized by Internal Quality Assurance Cell of Jamal Mohamed College, Tiruchirappalli.
- Participated in one day Faculty Development Webinar on **“Drug Design & Development”** held on 10th June 2020 organized by Department of Chemistry, Sapthagiri College of Engineering, Bangalore.
- Participated in one day National Level Live Faculty Development Programme (Webinar) on **“Future of Examinations: Bloom’s Taxonomy and Multiple Assessment Tools”** held on June 8th, 2020 organized by G.T.N. Arts College (Autonomous), Dindigul.
- Participated five days Online Faculty Development program on **“Evolution of Teaching Learning Process- POST COVID 19”** held on 11th May to 15th May 2020 organized by Bharath Institute of Higher Education and Research.
- Participated one day Online Faculty Development program- Webinar on **“Trends and opportunities in Life Science Sector”** held on 3rd May 2020 organized by PG Department of Microbiology, Cauvery College for Women (Autonomous), Trichy.
- Participated two days Online Faculty Development programme on **“SPSS for U- Writing a Research Article”** held on 25th& 26th April 2020 organized by Academy of Maritime Education and Training (AMET)- Deemed to be University, Kanathur, Chennai, Tamilnadu & DK International Research Foundation, Perambalur, Tamilnadu.
- Attended the Faculty Development Program – Zoom Webinar Series on **“Novel Microbes and Newer Threats”** held on 20th April - 2nd May, 2020 organized by Sathyabama Institute of Science and technology in association with Indian Association of Applied Microbiologists (IAAM) & California Institute of Science and Medicine, USA.
- Participated in an Orientation Programme on **“Preparing Course Outcomes in the Curriculum Design”** held on 03rd January 2020 organized by Curriculum Development Cell, Jamal Mohamed College, Tiruchirappalli.
- Participated in Staff Enrichment Programme on **“Ownership Culture”** held on 14th June 2019 organized by Internal Quality Assurance Cell of Jamal Mohamed College, Tiruchirappalli.

Workshops & Trainings Attended: 16

- Participated in one day Workshop for the evaluators as a part of District level preparation for the NCSC 2023 on 17th October 2023 at St. Joseph College, Tiruchirappalli, Tamilnadu, India.
- Participated in one day National level workshop on **“Green energy and Clean environment”** on 2nd August 2023 at Paavendhar College of Arts and Science, M.V South, Thalaivasal (TK), Salem (Dt).
- Participated in two days Hands on training workshop on **“High Performance Liquid Chromatography”** on 13th and 14th September 2022 at Jamal Mohamed College, Tiruchirappalli, Tamilnadu, India in collaboration with Waters Pacific Pvt Ltd., Bangalore, Karnataka, India.
- Participated in one day National workshop on **“Bio-Informatics: future role of computing in Biology (FRCB-2020)”** on 13th February 2020 at Srinivasan College of Arts and Science, Perambalur, Tamilnadu, India.
- Participated in one day National workshop on **“Conservation of Indigenous Knowledge in Current Medicine System”** on 22nd February 2020 at Kongu College of Arts and Science, Karur, Tamilnadu, India.
- Participated in one day workshop on **“Quality Enhancement of Research: New Paradigm in Trans disciplinary Approaches & IPR”** by IQAC & Innovation and Incubation Centre on 06th September 2019 at Jamal Mohamed College, Tiruchirappalli, Tamilnadu, India.
- Participated in one day workshop on **“Staff Enrichment Programme on Ownership Culture”** by Internal Quality Assurance Cell on 14th June 2019 at Jamal Mohamed College, Tiruchirappalli, Tamilnadu, India.
- Participated in State Level Guest Lecture cum Hands on Workshop on **“An Overview of NGS methods, NGS File formats and Data Analysis & Variant Analysis of NGS Data using GALAXY Server”** on 23rd January 2019 at Bishop Heber College, Tiruchirappalli, Tamilnadu, India.
- Participated in two day workshop on **“Professional Development for Academic Leadership in Curriculum Design”** by Curriculum Development Cell on 18th & 19th January 2019 at Jamal Mohamed College, Tiruchirappalli, Tamilnadu, India.
- Participated in one day workshop on **“Writing Winnable Project Proposals”** by Internal Quality Assurance Cell on 23rd June 2018 at Jamal Mohamed College, Tiruchirappalli, Tamilnadu, India.
- Participated in a State Level workshop on **“Organic Farming Production (An Entrepreneurship Programme)”** held on 27th & 28th January 2017 at Jamal Mohamed College, Tiruchirappalli, Tamilnadu, India.
- Participated in one day workshop on **“The Role of a Teacher in the Present Scenario”** organized by Internal Quality Assurance Cell on 10th December, 2016 at Jamal Mohamed College, Tiruchirappalli.

- Participated ten days hands on training workshop on **“Techniques in Animal Cell Culture and *In Vitro* Toxicology”** held on April 1st - 10th, 2014 at Mahatma Gandhi-Doerenkamp Center (MGDC), Bharathidasan University, Tiruchirappalli, Tamilnadu, India.
- Participated a six days workshop on **“Short term training programme in HPLC, GC, and AAS”** held on January 5th -10th, 2013 at VIT University, Vellore, Tamilnadu, India.
- Participated a three days’ workshop on **“DNA Barcoding of Fish and Marine Life-Molecular Analysis and Bioinformatics Approaches (FISHCODE 2012)”** held on September 12th – 14th, 2012 at Department of Marine Science, Bharathidasan University, Tiruchirappalli, Tamilnadu, India.
- Participated two days workshop on **“Hands on training programme on PCR, 2D PAGE, Gel documentation and Nikon photo Microscopy”** held on September 24th& 25th, 2009 at Jamal Mohamed College (*Autonomous*), Tiruchirappalli, Tamilnadu, India.

Seminars Attended: 14

- Participated One Day Research Seminar on “Data Handling and Visualization Techniques using Data structure Python” held on 2nd September 2023 organized by Institution’s Innovation Council (IIC) and Department of Information Technology, Bon Secours College for Women, Thanjavur.
- Participated Two day NAAC collaborated National Virtual Seminar on **“Holistic and Multidisciplinary approach towards National Higher Education Quality Framework”** held on 5th July 2023 & 6th July 2023 organized by Cauvery College for Women (Autonomous), Tiruchirappalli.
- Participated One Day orientation programme on **“Gender and Socialisation”** held on 21st December 2022 organized by Department of Women’s studies, Bharathidasan University, Khajamalai Campus, Tiruchirappalli-23 and Centre for Human Excellence, Jamal Mohamed College, Tiruchirappalli.
- Participated Two Days International Conference on **“Microbiome and Synthetic Biology (ICMSB-2022)”** held on September 22nd and 23rd 2022 organized by Department of Microbiology, School of Life sciences, Bharathidasan University, Tiruchirappalli in association with Society of Chemical and Synthetic Biology.
- Participated One Day National Seminar on **“Future of Algal Biotechnology (FAB-2022)”** held on June 18th, 2022 organized by Department of Microbiology, Bharathidasan University, Tiruchirappalli in association with Microbiologist Society of India (MBSI) Tamil Nadu, India.
- Participated Two Days International Seminar on **“Unraveling Therapeutic Resources from Nature’s Treasure”** held on April 20th and 21st, 2022 organized by PG and Research Department of BioSciences, Chennai, India, in association with IQAC cell, MSCAS.
- Participated in **“CME Programme: Conference on Regenerative Medicine & Dentistry”** held on March 01st, 2020 organized by Department of Biotechnology and Microbiology, National College in association with Department of Regenerative Medicine, Maruthi Hospital, Trichy & The Indian Stem Cell Study Group (ISCSG).

- Participated Two Days National Seminar on “**Microbes in Women Health**” held on July 11th and 12th, 2019 organized by Department of Microbiology, Bharathidasan University, Tiruchirappalli in collaboration with Trichy Obstetric & Gynecological Society of India (TRIOGS) Tamil Nadu, India.
- Participated One Day International Seminar on “**Emerging Trends in Biological Research (ETBR 2018)**” held on March 03rd, 2018 organized by Department of Microbiology, Jamal Mohamed College, Tiruchirappalli.
- Participated Two Days National Seminar on “**Cutting Edge Microbial Research and Challenges**” held on September 25th & 26th, 2013 organized by Department of Microbiology, Bharathidasan University, Tiruchirappalli.
- Participated Two day National Conference on “**Microbiological Research in 21st Century**” held on 27th and 28th February 2012 organized by Department of Microbiology, Bharathidasan University, Tiruchirappalli.
- Participated One Day ICMR sponsored National Level Forum on “**Emerging Debates on Communicable Disease**” held on February 28th, 2011 organized by Department of Microbiology, Jamal Mohamed College, Tiruchirappalli.
- Participated One Day National Seminar on “**Diagnosis of Infectious Diseases by Molecular Biological Methods**” held on February 29th, 2010 organized by Department of Microbiology, Bharathidasan University, Tiruchirappalli.
- Participated One Day Seminar on “**Advances in Molecular Biosciences**” held on November 25th, 2009 organized by Department of Molecular Biosciences, Bishop Heber College, Tiruchirappalli.

Webinars Attended: 50

- Participated in the one day National Webinar on “**E-Waste Management**” held on October 28th, 2021 organized by Leo Club, Cauvery College for women (Autonomous), Trichy, Tamil Nadu.
- Participated in the Two days International Conference on “**Recent Trends in Drug Discovery and Development**” held during October 08th to 09th, 2021 organized by the Department of Chemistry under the aegis of IQAC, Maitreyi College, University of Delhi on virtual platform.
- Participated in the one day webinar on “**Patent Filing Process and Challenges**” held on September 30th, 2021 organized by Intellectual property rights Cell, Jamal Mohamed College (Autonomous), Tiruchirappalli.
- Participated in the one day International Webinar on “**Global Issues: Gender Equality & Women’s Empowerment**” held on November 11th, 2021 organized by IQAC cell and PG and Research Department of Biotechnology, Mohamed Sathak College of Arts and Science, Chennai, India, in association with International Internship University, Romania.

- Participated in the one day International virtual colloquium on **“Microbiome World: Survival versus Expiry ”** held on July 9th, 2021 organized by Department of Microbiology, Srinivasan College of Arts and Science, Perambalur, Tamil Nadu.
- Participated in the one day International webinar on **“Microbiome: Understanding the host pathogen interactions”** held on June 18th, 2021 organized by Department of Zoology, Sadakathullah Appa College, Tirunelveli, Tamil Nadu.
- Participated in the Two days International webinar on **“Current Scenario in Therapeutics- Prospects and Challenges”** held on March 18th to March 19th, 2021 organized by Department of Life Science, Srimad Andavan Arts and Science College (Autonomous), Tiruchirappalli.
- Participated in one day National Webinar on **“Patenting of Biotechnological Inventions in India”** held on January 29th, 2021 organized by Guru Nanak College (Autonomous), Chennai.
- Participated in the 2nd International conference on **“Recent Trends in Biotechnology (ICRTB-2021)”** held on January 19th, 2021 organized by Department of Biotechnology, Jamal Mohamed College, Tiruchirappalli.
- Participated International e-Conference on **“Cyanobacterial and Algal Biotechnology (CAB’2020)”** held on December 18th to December 20th, 2020 organized by Department of Microbiology, Bharathidasan University, Tiruchirappalli.
- Participated in one day Webinar on **“National Education Policy- 2020”** held on August 8th, 2020 organized by Internal Quality Assurance Cell of Jamal Mohamed College, Tiruchirappalli.
- Participated in International Webinar Lecture Series on **“Biological Sciences”** held on July 6th to July 8th, 2020 organized by PG & Research Department of Botany, Jamal Mohamed College, Tiruchirappalli.
- Participated in the International level online panel discussion on **“Leading the way forward in unprecedented times: with a special reference to the global market and economy”** held on July 6th, 2020 organized by CMS, Jain (Deemed to be university), Bengaluru.
- Participated in one day National level Webinar on **“Introduction to Big Data and its Ecosystems”** held on July 5th, 2020 organized by PG Department of Computer Science, Government Arts and Science College, Gudalur, Nilgiris.
- Participated in National Webinar on **“Development of selected Multi-Valent Metal Ions functionalized Mesoporous Materials and their Applications”** held on July 2nd, 2020 organized by Department of Science and Humanities, Vel Tech High Tech Dr. Rangarajan Dr. Sakunthala Engineering College, Chennai.
- Participated in one day Webinar on **“Recent Trends in Medical Microbiology”** held on July 2nd, 2020 organized by PG & Research Department of Microbiology, Idhaya College for Women, Kumbakonam.

- Participated in two days International Webinar on “**Recent Advances in Life Science**” held on June 19th to June 20th, 2020 organized by PG & Research Department of Biotechnology and Biochemistry, Marudhar Kesari Jain College for Women, Vaniyambadi
- Participated in Webinar on “**Virtual Symposium on Multifunctional Materials**” held on June 17th, 2020 organized by Department of Physics, SRM Institute of Science and Technology.
- Participated in National Webinar on “**Combat Corona- The New World Order**” held on June 16th, 2020 organized by Department of Chemistry and Biochemistry, Jyothi Nivas College Autonomous.
- Participated in International Level Webinar on “**Role of Nutrients in Immune Health- Special focus on COVID 19**” held on June 15th, 2020 organized by PG Department of Home Science, Queen Mary’s College, Chennai.
- Participated one day Webinar on “**Research, Innovations and Extension**” held on June 15th, 2020 organized by Internal Quality Assurance Cell, Khadir Mohideen College, Adirampattinam.
- Participated one day National level Webinar on “**Role of Nanomaterials in Electrochemical devices and photocatalysis**” held on June 15th, 2020 organized by Dr.M.G.R Educational and Research Institute, Chennai.
- Participated two days International Webinar on “**Research Avenues in Biochemistry**” held on June 11th and June 12th, 2020 organized by The American College, Madurai.
- Participated in International Web Conference on “**Emergence of Alternative Therapeutic to Contagious Diseases**” held on June 11th and June 12th, 2020 organized by PG and Research Department of Zoology, Sri Vasavi College, Erode.
- Participated in Webinar on “**Microalgal Genes- The Novel Therapeutic Tool to Engineer Crop Plants**” held on June 9th, 2020 organized by Department of Biotechnology, Sri Venkateshwara College of Engineering.
- Participated in Webinar on “**Current & Sustainable Trends in Food Biotechnology**” held on June 9^h, 2020 organized by Department of Biotechnology, St. Peter’s College of Engineering & Technology, Chennai.
- Participated in Webinar on “**Biotherapeutic Role of Probiotics**” held on June 5th, 2020 organized by Department of Biotechnology, Sri Venkateshwara College of Engineering.
- Participated two days International Virtual Conference on COVID 19 “**Recent Updates and Current Advances**” held on June 3rd and June 4th, 2020 organized by Department of Microbiology, The American College, Madurai.
- Participated one day Webinar on “**How to start an NGO and handle projects efficiently**” held on June 3rd, 2020 organized by Madras School of Social work, Chennai.

- Participated one day Webinar on **“Transforming Challenges into Opportunities- An Overview of Corporate Secretaryship”** held on June 3rd, 2020 organized by The Alpha Arts and Science College.
- Participated in one day International Webinar on **“Graphology for Personality Assessment and Development”** held on June 2nd, 2020 organized by Department of Forensic Science, G.T.N. Arts College (Autonomous), Dindigul.
- Participated in the Indo-UK Virtual Conference on **“Current Innovations and the Future of Therapeutic Developments”** held on June 1st to June 3rd, 2020 organized by Vellore institute of Technology, Vellore.
- Participated in two days International Webinar on **“Recent trends in Applied Sciences”** held on May 29th and May 30th, 2020 organized by Senthil Research Advocacy Forum, V.H.N. Senthikumara nagar College, Virudhunagar.
- Participated in Webinar on **“Magnetic Nanocarriers for Enhanced Enzyme Activity”** held on May 30th, 2020 organized by Department of Biotechnology, Prathyusha Engineering College, Chennai.
- Participated in Leadership Talk on **“Indian Civilization and History”** held on May 30th, 2020 organized by MHRD’s Innovation Cell.
- Participated one day National Webinar on **“Essence of physical fitness during lockdown”** held on May 30th, 2020 organized by Dr.M.G.R Educational and Research Institute, Chennai.
- Participated in three day International Webinar conference on **“Biomaterials on Healthcare Application”** held on May 28th to May 30th, 2020 organized by Department of Biotechnology, Karunya Institute of Technology and Sciences.
- Participated one day Webinar on **“A Stroll through the mystical Quantum Mechanics”** held on May 29th, 2020 organized by PG Department of Physics, Bhaktavatsalam Memorial College for Women, Chennai.
- Participated one day Webinar on **“Metal complexes to metal nanoparticles for efficient catalysis”** held on May 28th, 2020 organized by School of Chemical and Biotechnology, SASTRA Deemed to be University.
- Participated one day National Webinar on **“Investigations of Nano-Crystals”** held on May 25th, 2020 organized by Department of Chemistry and Research & Development Cell, MASS College of Arts and Science, Kumbakonam.
- Participated one day International Webinar on **“COVID-19 Vaccine Development”** held on May 15th, 2020 organized by Department of Microbiology, Ayya Nadar Janaki Ammal College (Autonomous), Sivakasi.
- Participated one day Webinar on **“Why Train Faculty”** held on April 30th, 2020 organized by Biocon Academy.
- Has successfully completed the course **“Defeat COVID-19 be a champion”** on April 29, 2020 organized by Gulf Medical University, Academic Health Center.

- Participated Health Emergencies programme on “**Clinical Care Severe Acute Respiratory Infection**” held on April 23rd, 2020 organized by World Health Organization.
- Participated Health Emergencies programme on “**Severe Acute Respiratory Infection (SARI) Treatment Facility Design**” held on April 20th, 2020 organized by World Health Organization.
- Participated Health Emergencies programme on “**Emerging respiratory viruses, including COVID-19: methods for detection, prevention, response and control**” held on April 18th, 2020 organized by World Health Organization.
- Participated one day E-Conference on “**Contagious Disease Management: Perspective to COVID-19**” held on April 16th, 2020 organized by Biological Science Forum (A Scientific Community of India).
- Has successfully completed 5 days online course on “**Stress Management**” held on April 13-17th, 2020 organized by Department of Management and Research, AVS College of Arts & Science, Salem.
- Participated Health Emergencies programme on “**ePROTECT Respiratory Infections (EN)**” held on April 12th, 2020 organized by World Health Organization.
- Participated Health Emergencies programme on “**Infection Prevention and Control (IPC) for Novel Coronavirus (COVID-19)**” held on April 12th, 2020 organized by World Health Organization.

Online Workshops Attended: 03

- Participated in the International e-Lecture Workshop on “**Innovation in Biotechnology & Inauguration of Nano and Biomaterials Association (NBA)**” held on January 19th to 20th, 2022 organized by School of Life Sciences, B.S. Abdur Rahman Crescent Institute of Science and Technology, Chennai, India in association with the Biotech Research Society, India (BRSI).
- Participated in the Science Academics’ (Virtual) Lecture Workshop on “**Recent Trends in Microbiology and Biotechnology**” held on February 14th and February 15th 2021 organized by Department of Biotechnology, Srimad Andavan Arts and Science College (Autonomous), Tiruchirappalli.
- Participated in National level Workshop (Webinar) on “**Cyber Security During Covid-19**” held on May 3rd, 2020 organized by Smt. K. G. Mittal College (IQAC Committee) & IAA-TB.

Webinars Organized: 03

- ❖ Organized the Virtual Guest Lecture programme on “**Career in Life Science and Biotechnology**” at PG and Research Department of Microbiology, Jamal Mohamed College, Tiruchirappalli on 19.08.2021.
- ❖ Organized the 2nd International Webinar on “**Microbes and Neoteric Research (IWMNR-2020)**” at PG and Research Department of Microbiology, Jamal Mohamed College, Tiruchirappalli jointly with Microbiologists Society, India on 22.12.2020.

- ❖ Organized the State level webinar “Analysis of Food Borne Pathogens- An Introduction” at P.G. & Research Department of Microbiology, Jamal Mohamed College, Tiruchirappalli on 16.05.2020.

**Details of 16S rRNA, Phycocyanin Gene, 18S rRNA Gene and Internal Transcribed Spacer Gene Sequences Deposited in the Genbank (NCBI, EMBL & DDBJ)-
58 ACCESSIONS**

S.No	Culture name		Accession number
1.	<i>Chroococcus aphanocapsoides</i> NTRI07	Cyanobacteria-16S rRNA	KF752432
2.	<i>Chroococcidiopsis</i> sp. NTRI15	Cyanobacteria-16S rRNA	KF752441
3.	<i>Chroococcidiopsis</i> sp. NTRI16	Cyanobacteria-16S rRNA	KF752440
4.	<i>Pleurocapsa</i> sp. NTRI10	Cyanobacteria-16S rRNA	KF752435
5.	<i>Pleurocapsa</i> sp. NTRI11	Cyanobacteria-16S rRNA	KF752436
6.	<i>Spirulina subsalsa</i> NTRI14	Cyanobacteria-16S rRNA	KF752439
7.	<i>Oscillatoria</i> sp. NTRI03	Cyanobacteria-16S rRNA	KF536583
8.	<i>Oscillatoria</i> sp. NTRI04	Cyanobacteria-16S rRNA	KF536584
9.	<i>Oscillatoria tenuis</i> NTRI06	Cyanobacteria-16S rRNA	KF536586
10.	<i>Oscillatoria boryana</i> NTRI09	Cyanobacteria-16S rRNA	KF752434
11.	<i>Oscillatoria</i> sp. NTRI17	Cyanobacteria-16S rRNA	KF752442
12.	<i>Oscillatoria calcuttensis</i> NTRI19	Cyanobacteria-16S rRNA	KF985040
13.	<i>Oscillatoria tenuis</i> NTRI20	Cyanobacteria-16S rRNA	KP030747
14.	<i>Phormidium</i> sp. NTRI13	Cyanobacteria-16S rRNA	KF752438
15.	<i>Phormidium</i> sp. NTRI60	Cyanobacteria-16S rRNA	KP030749
16.	<i>Leptolyngbya boryana</i> NTRI02	Cyanobacteria-16S rRNA	KF536582
17.	<i>Leptolyngbya</i> sp. NTRI05	Cyanobacteria-16S rRNA	KF536585
18.	<i>Leptolyngbya</i> sp. NTRI37	Cyanobacteria-16S rRNA	KP030752
19.	<i>Leptolyngbya</i> sp. NTRI66	Cyanobacteria-16S rRNA	KP030750
20.	<i>Geitlerinema</i> sp. NTRI08	Cyanobacteria-16S rRNA	KF752433
21.	<i>Geitlerinema</i> sp. NTRI12	Cyanobacteria-16S rRNA	KF752437
22.	<i>Geitlerinema pseudacutissimum</i> NTRI18	Cyanobacteria-16S rRNA	KF985039
23.	<i>Geitlerinema</i> sp. NTRI68	Cyanobacteria-16S rRNA	KP030751
24.	<i>Nodosilinea</i> sp. NTRI45	Cyanobacteria-16S rRNA	KP030748
25.	<i>Oscillatoria nigroviridis</i> NTRI01	Phycocyanin gene	JX294543
26.	<i>Phormidium boryanum</i> NTRI09	Phycocyanin gene	KP120694
27.	<i>Lactobacillus casei</i> NTMI01	Bacteria-16S rRNA gene	KT696583
28.	<i>Enterococcus casseliflavus</i> NTMI04	Bacteria-16S rRNA gene	KT696584
29.	<i>Klebsiella pneumoniae</i> NTMIK1	Bacteria-16S rRNA gene	KT696585
30.	<i>Lactobacillus delbrueckii</i> NTMI12	Bacteria-16S rRNA gene	KT696586
31.	<i>Lactobacillus delbrueckii</i> NTMI13	Bacteria-16S rRNA gene	KT696587
32.	<i>Enterococcus</i> sp. NTMI17	Bacteria-16S rRNA gene	KT696588
33.	<i>Enterococcus casseliflavus</i> NTMI18	Bacteria-16S rRNA gene	KT696589
34.	<i>Enterococcus</i> sp. NTMI21	Bacteria-16S rRNA gene	KT696590
35.	<i>Enterococcus faecium</i> NTMI22	Bacteria-16S rRNA gene	KT696591
36.	<i>Enterococcus canintestini</i> NTMI30	Bacteria-16S rRNA gene	KT726154
37.	<i>Lactobacillus plantarum</i> NTMI05	Bacteria-16S rRNA gene	KP901272
38.	<i>Lactobacillus plantarum</i> NTMI20	Bacteria-16S rRNA gene	KP901273
39.	<i>Lactobacillus plantarum</i> TMDIM7	Bacteria-16S rRNA gene	KJ621680

40.	<i>Bacillus cereus</i> TMDIB1	Bacteria-16S rRNA gene	KJ621681
41.	<i>Enterobacter asburiae</i> strain B938	Bacteria-16S rRNA gene	KC759524
42.	<i>Stenotrophomonas maltophilia</i> B929	Bacteria-16S rRNA gene	KC759523
43.	<i>Stenotrophomonas maltophilia</i> B19	Bacteria-16S rRNA gene	KC759522
44.	<i>Klebsiella</i> sp. U759	Bacteria-16S rRNA gene	KC751005
45.	<i>Chromobacterium violaceum</i> NTAIR01	Bacteria-16S rRNA gene	ON195257
46.	<i>Paenibacillus dendritiformis</i> AS1	Bacteria-16S rRNA gene	OQ318243
47.	<i>Pediococcus acidilactici</i> NTDIR	Bacteria-16S rRNA gene	ON429037
48.	<i>Chromobacterium violaceum</i> NTAIR 01	Bacteria-16S rRNA gene	ON195257
49.	<i>Fusarium lichenicola</i> NTRIR01	Fungi- ITS	ON307228
50.	<i>Poterioochromonas</i> sp. NTNV05	Green algae-18S rRNA	JN402973
51.	<i>Poterioochromonas</i> sp. NTNV04	Green algae-18S rRNA	JN402972
52.	<i>Hartmannella vermiformis</i>	Green algae-18S rRNA	JN402971
53.	<i>Botryococcus</i> sp. NTNV08	Green algae-18S rRNA	JN402970
54.	<i>Poterioochromonas</i> sp. NTNV07	Green algae-18S rRNA	JN402969
55.	<i>Poterioochromonas</i> sp. NTNV06	Green algae-18S rRNA	JN402968
56.	<i>Poterioochromonas</i> sp. NTNV03	Green algae-18S rRNA	JN402967
57.	<i>Poterioochromonas</i> sp. NTNV02	Green algae-18S rRNA	JN402966
58.	<i>Poterioochromonas</i> sp. NTNV01	Green algae-18S rRNA	JN402965

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