CURRICULUM VITAE

General – Education – Teaching – Research – Extension – Administration



Dr. N. AHAMED SHERIF M.Sc., Ph.D. Assistant Professor of Botany



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

GENERAL INFORMATION

| Name | : | Dr. N. AHAMED SHERIF |
|------------------------|---|--|
| Father Name | : | Mr. H. NASERUDDIN SHAREEF |
| Designation | : | Assistant Professor |
| Office Address | : | Department of Botany |
| | | Jamal Mohamed College (Autonomous) |
| | | Tiruchirappalli – 620020, Tamil Nadu, India |
| Email Id | : | nahamedsherif@gmail.com; nas@jmc.edu |
| Mobile Number | : | +919894637172 |
| Date of Birth | : | 22-08-1985 |
| Gender | : | Male |
| Marital Status | : | Married |
| Nationality | : | Indian |
| Religion & Category | : | Muslim & BC |
| Research Advisorship | : | Ref. No. 019323/Ph.D./K12/Botany/R.A/18.03.21 |
| Aadhar Number | : | 7660-8387-2800 |
| PAN Card Number | : | ATAPA3014F |
| Driving License Number | : | TN45-20040026227 |
| Passport Details | : | K1660522 & date of expiry 28/10/2022 |
| Permanent Address | : | Door No. 27; Plot No. 27, |
| | | Wireless Road, Kurinji Nagar, |
| | | K. K. Nagar (Post), Tiruchirappalli – 620 021, |
| | | Tamil Nadu, India. |

ACADEMIC CREDENTIALS

| Degree/School Education | Passing Year | Subject | Name of the School/College/University | | |
|----------------------------|-----------------|---------|--|--|--|
| Ph.D. | 2017 | Botany | Bharathidasan University, Tiruchirappalli, | | |
| | | | Tamil Nadu | | |
| M.Sc. | 2008 | Botany | Jamal Mohamed College (Autonomous), | | |
| | | | Affiliated to Bharathidasan University, | | |
| | | | Tiruchirappalli, Tamil Nadu | | |
| B.Sc. | 2006 | Botany | Jamal Mohamed College (Autonomous), | | |
| | | | Affiliated to Bharathidasan University, | | |
| | | | Tiruchirappalli, Tamil Nadu | | |
| HSC | 2003 | Pure | Govt. Syed Murthuza Higher Secondary School, | | |
| | | Science | Tiruchirappalli, Tamil Nadu | | |
| SSLC | 2001 | | R.C. Higher Secondary School, Tiruchirappalli, | | |
| | | | Tamil Nadu | | |

TITLE OF MY DOCTORAL THESIS

"Ex situ conservation and bioprospecting of *Anoectochilus elatus* Lindley, an endangered jewel orchid of Eastern and Western Ghats of Tamil Nadu, India" under the guidance of Professor Dr. M. V. RAO, Department of Botany, School of Life Sciences, Bharathidasan University, Tiruchirappalli – 620 024, Tamil Nadu.

TEACHING AND RESEARCH EXPERIENCE

| Position | Institution & Place | From (Date) | To (Date) | Experience |
|--|--|----------------|--------------|--------------------------|
| Assistant Professor (Govt. Aided Staff) | Department of Botany, Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamil Nadu | 27.01.2020 | Till Date | 1 Year & 11 Months |
| Assistant Professor (Management Staff) | Department of Botany, Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamil Nadu | 01.07.2017 | 24.01.2020 | 2 Years & 7 Months |
| Research Scholar | Department of Botany Bharathidasan University, Tiruchirappalli, Tamil Nadu | 02.01.2009 | 30.06.2017 | 8 Years & 5 Months |

ADDITIONAL RESPONSIBILITIES INSIDE THE COLLEGE

- 1. Core member of Internal Quality Assurance Cell (IQAC), Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamil Nadu (2021 to till date).
- 2. Department Member for DST-FIST programme, Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamil Nadu (2020 to till date).

- 3. Course Co-ordinator for Diploma in Horticulture, Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamil Nadu (2020 to till date).
- 4. Board of Studies Member for UG, PG and M. Phil., Botany Programme in Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamil Nadu (2020 to till date).
- 5. Mentor for B.Sc., Botany Students (2020 to 2023 Batch)
- 6. Botany Department, Electronic Resource Planning (ERP) in-charge, Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamil Nadu (2019 to till date).
- 7. Mentor for B.Sc., Botany Students (2018 to 2020 Batch).
- 8. Member in green campus organic care wing, Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamil Nadu (2018 to 2020).
- 9. Botany Association Vice-president (2018 to 2019).

AWARDS (1 International; 3 National)

- Best paper presentation award under theme of Medicinal Orchids, paper entitled "Hepatoprotective activity of methanol extract of Anoectochilus elatus (Orchidacea) against CCl4 induced hepatic damage in rats" during the International symposium on Biodiversity of Medicinal Plants & Orchids: Emerging Trends and Challenges held at Department of Botany and Microbiology, Acharya Nagarjuna University, Guntur, Andhra Pradesh, India (2018).
- Best oral presentation award under theme 1: Plant tissue culture (PTC 1.4), paper entitled "Somatic embryogenesis and genetic homogeneity assessment of regenerated plants of *Anoectochilus elatus* Lindley, an endangered terrestrial jewel orchid" during the National Conference on Recent Advances in Plant Science held at Department of Plant Science, Bharathidasan University, Tiruchirappalli, Tamil Nadu, India (2017).
- 3. Best oral presentation award under theme 5: Plant Tissue Culture, Plant Transgenic Development, Plant Microbial Interaction and Molecular Biology, paper entitled "In vitro propagation and genetic stability assessment of an endangered terrestrial jewel orchid Anoectochilus elatus Lindl." during the National Conference on Emerging Trends in Plant Science held at Department of Plant Science, Bharathidasan University, Tiruchirappalli, Tamil Nadu, India (2016).
- 4. Best oral presentation award under theme II: Propagation & Genetic Improvement Conventional and Biotech means (PGB), paper entitled "*In vitro* regeneration of *Anoectochilus elatus* Lindley, an endangered Jewel Orchid found in South India" during the National Dialogue on Orchid Conservation & Sustainable Development for Community Livelihood (NDOCSDCL - 2013) held at Chintan Bhawan, Gangtok, Sikkim, India (2013).

PROGRAMMES ORGANIZED

Organized a State-level seminar entitled "Perspectives in Plant Systematics and Conservation Biology" under UGC autonomous grant, held at PG and Research Department of Botany, Jamal Mohamed College (Autonomous) on 22.02.2019. (25,000/-INR).

MEMBERSHIP IN PROFESSIONAL BODIES

- ✤ Life member of "Indian Botanical Society", Nagpur, Maharashtra, India.
- ✤ Life member of "The Orchid Society of India", Punjab University, Chandigarh, India.

RESEARCH PROFILE

| Name of the citation Database | | ID number | Website Link |
|----------------------------------|---|---------------------|--|
| Research | : | rid8261 | https://researchid.co/admin/login-home |
| Scopus | : | 57041405700 | https://www.scopus.com/authid/detail.uri ?authorId=57041405700 |
| Web of Science | : | AAY-1423-2020 | https://publons.com/researcher/3518198/ n-ahamed-sherif/ |
| Orcid | : | 0000-0003-3177-786X | https://orcid.org/0000-0003-3177-786X |
| Google Scholar | : | qP8kT0oAAAAJ | https://scholar.google.co.in/citations?user =qP8kT0oAAAAJ&hl=en |
| Research Gate | : | | https://www.researchgate.net/profile/N- Ahamed-Sherif |
| Vidwan | : | 248452 | https://vidwan.inflibnet.ac.in/myprofile |

AREA OF INTEREST

- Survey and documentation of medicinal plants
- Pollination and reproductive biology
- Plant tissue culture
- Plant molecular biology
- Mycorrhizal research
- Agrobacterium *Rhizogenesis* mediated secondary metabolite production and its medicinal applications

METHODS/TECHNICAL EXPERTISE

- Plant tissue culture (Adventitious root and shoot culture; Organogenesis)
- Phytochemical isolation and purification (Column chromatography, HPLC and HPTLC)
- Green synthesis of nano-particles (Characterization and Biological application)
- DNA isolation (CTAB-method)
- Polymerase chain reaction (PCR)
- DNA barcoding
- ✤ Agarose gel electrophoresis
- Animal model studies (Anti-diabetic, hepatoprotective and anti-asthmatic activities)
- Plant pathological studies (Fungal isolation and identification)
- ✤ Mycorrhizal isolation and identification

M.Sc., PROJECT WORK UNDER MY GUIDANCE

- MOHAMED YASER, S (19PBO016). Effect of amino acids in *in vitro* asymbiotic seed germination of *Gastrochilus acaulis* (Lindl.) Kuntze, An epiphytic orchid. (Awarded March 2021)
- MOHAMED SHAKE ABJAL, P.S (19PBO015). In vitro asymbiotic seed germination of Dendrobium herbaceum Lindl., a grassy epiphytic orchid. (Awarded March 2021).
- MOHAMED RAFIQ, A (19PBO014). Micropropagation of *Cheirostylis flabellate*, a rare jewel orchid of south India. (Awarded March 2021).
- SATHIS KUMAR, P (18PBO015). Checklist and survey of important ethnomedicinal plants of Avarampatti Village Panchayat located in Thanjavur District of Tamil Nadu, India. (Awarded September – 2020).
- MANIKANDAN, S (18PBO008). Survey of ethnomedicinal important plants of Thathagoundampatti Village, Manapparai, Tiruhcirappalli District, Tamil Nadu. (Awarded September – 2020).
- SARATH KUMAR, D (17PBO012). Survey of ethno-medicinal important plants of Chinnalampatti Village and Inamkulathur, Trichy District, Tamil Nadu, India. (Awarded April – 2019).
- SALMAN, M.B (17PBO011). Seed morphology analysis and light microscopic imaging of some South Indian orchid species. (Awarded April – 2019).
- SENATHIPATHI, M (16PBO007). Checklist and survey of important ethno-medicinal plants of Beleukurichi Village, Sendamangalam, Namakkal District, Tamil Nadu, India. (Awarded April – 2018).

RESEARCH PROJECTS ONGOING/COMPLETED

| 1. | Scheme | : Seed Money Grant | | | |
|------------------|-------------|--|--|--|--|
| | | (Ref. No: F. No/2 (a)/Dean of Research & Consultancy/012) | | | |
| | Position | Principal Investigator | | | |
| | Funded by | Jamal Mohamed College (Autonomous) | | | |
| | Grant (Rs.) | : 10,000/- | | | |
| | Duration | 1 Year | | | |
| | Title | : Characterization of <i>Trichoderma asperellum</i> under various physiological conditions and its antagonistic activity against plant | | | |
| fungal pathogens | | | | | |
| | Status | : Ongoing | | | |

LIST OF PUBLICATIONS

Ahamed Sherif N, Senthil Kumar T and Rao MV (2020). DNA barcoding and genetic fidelity assessment of micropropagated *Aenhenrya rotundifolia* (Blatt.) C.S. Kumar and F.N. Rasm.: a critically endangered jewel orchid. Physiology and Molecular Biology of Plants, 26: 2391–2405. <u>https://doi.org/10.1007/s12298-020-00917-9</u> (eISSN: 0974-0430; Print ISSN: 0971-5894; JIF 2.39; Scopus; Web of Science).

- Ahamed Sherif N, Franklin Benjamn JH, Senthil Kumar T and Rao MV (2018). Somatic embryogenesis, acclimatization and genetic homogeneity assessment of regenerated plantlets of *Anoectochilus elatus* Lindl., an endangered terrestrial jewel orchid. Plant Cell Tissue and Organ Culture, 132: 303 316. <u>https://doi.org/10.1007/s11240-017-1330-4</u> (eISSN: 1573-5044; Print ISSN 0167-6857; JIF 2.71; Scopus; Web of Science).
- Ahamed Sherif N, Senthil Kumar T and Rao MV (2017). *In vitro* propagation and genetic stability assessment of an endangered terrestrial jewel orchid *Anoectochilus elatus* Lindl. Indian Journal of Experimental Biology, 55: 853 – 863. (ISSN: 0975-1009; JIF 0.81; Web of Science).
- Revathi Lakshmi S, Parthibhan S, Ahamed Sherif N, Senthil Kumar T and Rao MV (2017). Micropropagation, *in vitro* flowering, and tuberization in *Brachystelma glabrum* Hook.f., an endemic species. *In Vitro* Cellular & Developmental Biology Plant, 53: 64 72. <u>https://doi.org/10.1007/s11627-017-9803-z</u> (eISSN: 1475-2689; Print ISSN:1054-5476; JIF 2.25; Scopus; Web of Science).
- Ahamed Sherif N, Senthil Kumar T and Rao MV (2016). *In vitro* regeneration by callus culture of *Anoectochilus elatus* Lindley, an endangered terrestrial jewel orchid. In Vitro Cellular & Developmental Biology Plant, *In Vitro Cell. Dev. Biol.-Plant.*, 52: 72 80. https://doi.org/10.1007/s11627-015-9741-6 (eISSN: 1475-2689; Print ISSN:1054-5476; JIF 2.25; Scopus; Web of Science).
- Parthibhan S, Franklin Benjamin JH, Muthukumar M, Ahamed Sherif N, Senthil Kumar T and Rao MV (2012). Influence of nutritional media and photoperiods on *in vitro* asymbiotic seed germination and seedling development of *Dendrobium aqueum* Lindley. African Journal of Plant Science, 6 (14): 383 – 393. (ISSN: 1996-0824; JIF 0.00).
- Muthukrishnan S, Franklin Benjamin JH, Muthukumar M, Ahamed Sherif N, Senthil Kumar T and Rao MV (2012). *In vitro* propagation of *Ceropegia thwaitesii* Hook- an endemic species of Western Ghats of Tamil Nadu, India. African Journal of Biotechnology, 11 (59): 12277 – 12285. (ISSN: 1684-5315; JIF 0.00).
- Ahamed Sherif N, Franklin Benjamin JH, Muthukrishnan S, Senthil Kumar T and Rao MV (2012). Regeneration of plantlets from nodal and shoot tip explants of *Anoectochilus elatus* Lindley, an endangered terrestrial orchid. African Journal of Biotechnology, 11 (29): 7549 7553. (ISSN: 1684-5315; JIF 0.00).
- Ahamed Sherif N, Parthibhan S, Muthukumar M, Franklin Benjamin JH, Abubacker MN, Senthil Kumar T and Rao MV (2012). A preliminary report on the symbiotic seed germination of *Acanthephippium bicolor* Lindley - An endangered orchid. International Journal of Current Science, 2: 100 – 104. (ISSN: 2250-1770; JIF 0.00).
- Thiripura Sundari U, Ahamed Sherif N, Franklin Benjamin JH and Rao MV (2011). Rapid micropropagation *via.*, axillary bud proliferation of *Coccinia grandis* (L.) Voigt. from nodal segments. Plant Tissue Culture and Biotechnology, 21 (1): 75 – 82. (eISSN: 1818-8745; Print ISSN: 1817-3721; JIF 0.40; Web of Science).

PARTIAL GENOME SEQUENCE DEPOSITE

| Partial Sequences | | Accession No. | Published Year | | |
|----------------------------|-----------------------------------|--|----------------------|--|--|
| Pla | int genome | | | | |
| 1 | Aenhenrya rotundifolia | <i>mat</i> K – MH744578 <i>rbc</i> L – MH777883 | | | |
| 2 | Cheirostylis flabellate | <i>mat</i> K – MH777887 <i>rbc</i> L – MH777884 | NCBI, | | |
| 3 | Zeuxine longilabris | <i>mat</i> K – MH777888 <i>rbc</i> L – MH777885 | USA 2018 | | |
| 4 | Conchidium braccatum | <i>mat</i> K – MH777889 <i>rbc</i> L – MH777886 | | | |
| 5 | Anoectochilus elatus | <i>mat</i> K – KU687093, KU687094, KU687095, KU687096, KU687097, KU687098 <i>rbc</i> L – KU687099, KU687100, KU687101, KU687102, KU687103, KU687104 | NCBI, USA 2016 | | |
| Fungal genome ITS sequence | | | | | |
| 1 | Colletotrichum kahawae | KY038418 | NCBI, | | |
| 2 | Colletotrichum boninense | KY038419 | USA | | |
| 3 | Colletotrichum gloeosporioides | KY038420 | 2017 | | |
| 4 | Fusarium oxysporum | KY038421 | | | |
| 5 | Rhizoctonia solani | KU687105 | NCBI, | | |
| 6 | Fusarium oxysporum | KU687106 | USA | | |
| 7 | Fusarium proliferatum | KU687107 | 2016 | | |
| 8. | Daldinia eschscholtzii | Submitted waiting for accession number | NCBI, USA 2021 | | |

<u>CERTIFICATE / ORIENTATION / REFRESHER / TRAINING / ONLINE COURSES</u> <u>ATTENDED</u>

- ♦ NPTEL online certification course on "Plant Cell Bioprocessing" (8 Weeks Course).
- Swayam online certification course on "Plant Biochemistry and Plant Biotechnology" offered by Manipur University, Imphal, India (12 Weeks Course)
- Completed MHRD-PMMMNMTT sponsored induction/orientation programme for Faculty in Universities/Colleges/Institutes of Higher Education organized by Teaching and Learning Centre, Ramanujan College, University of New Delhi (04 June to 01 July 2021, Online Mode).
- Completed the online course for Aspirants of CSIR-NET in Life Sciences organized by the PG and Research Department of Zoology, Jamal Mohamed College, Tiruchirappalli, Tamil Nadu, India on 05.11.2020 to 11.05.2020.
- Successfully completed the online course "How to become an Online Teacher" (April 2021, Online Mode)
- Certificate course on "Connect for Accountant" (July 2005 to July 2006).
- UGC Certificate Course on "Environmental Studies" (April 2003 to April 2004).

PAPER PRESENTATIONS IN CONFERENCE / SEMINARS

- 1. Presented a paper entitled "Direct *in vitro* organogenesis and reintroduction of *Anoectochilus elatus* an endangered orchid species of Western Ghats of Tamil Nadu, India" during 24th Annual Conference of Indian Association for Angiosperm Taxonomy (IAAT) and International Conference on Trends in Plant Systematics (TIPS) held at Department of Plant Science, Bharathidasan University, Tiruchirappalli, Tamil Nadu, India on 31.10.2014 to 02.11.2014.
- 2. Presented a paper entitled "*In vitro* organogenesis of *Anoectochilus elatus* Lindley, an endangered terrestrial orchid" during The Orchid Society of India organized National conference on Orchids: Conservation, Improvement and Sustainable Development & Orchid Show held at College of Horticulture, Kerala Agricultural University, Vellanikkara, Thrissur, Kerala, India on 13.03.2014 to 15.03.2014.
- 3. Presented a paper entitled "Direct plant regeneration from PLBs and leaf explants of Vanda testacea (Lindl.) Rchb. f. An epiphytic medicinal orchid" During XXXVI All India conference of The Indian Botanical Society under the theme of Plant Wealth and Human Welfare held at Department of Botany, DDU Gorakhpur University, Gorakhpur, Uttar Pradesh, India on 18.10.2013 to 20.10.2013.
- 4. Presented a paper entitled "Efficacy of biofertilizers on the growth performance of *Arachis hypogea* L. by pot culture method" during DBT and UGC sponsored National conference on Recent Trends in Plant Biotechnology held at Department of Plant Science, School of Life Sciences, Bharathidasan University, Tiruchirappalli, Tamil Nadu, India on 27.02.2013 to 28.03.2013.
- 5. Presented a paper entitled "Asymbiotic seed germination of Vanda testacea (Lindl.) Rchb. f. - A rare medicinal orchid by using peptone as a precursor" during XXXV All India Botanical conference and National symposium on Role of Plants and Microbes for The Betterment of Mankind in the Changing Climate held at The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat, India on 08.12.2012 to 10.12.2012.
- Presented a paper entitled "*Ex situ* conservation of *Anoectochilus elatus* Lindley, an endangered terrestrial orchid" during UGC- SAP sponsored National seminar on New Vistas in Plant Science held at Department of Botany, Goa University, Goa, India on 15.03.2012 to 16.03.2012.

PARTICIPATION IN ONLINE FACULTY DEVELOPMENT PROGRAMMES

- 1. Participated in an online Faculty Development Programme on "Effective Teaching Strategies in Higher Education" organized by St. Mary's College, Puthanangadi, Kerala, India held from 06.09.2021 to 12.09.2021.
- 2. Participated in the online "**Faculty Enrichment Programme**" organized by Internal Quality Assurance Cell, Jamal Mohamed College, Tiruchirappalli, Tamil Nadu, India held from 21.06.2021 to 25.06.2021.
- Participated in an online National Faculty Development Programme on "Innovations in Biotechnology as Life Saving Prospective" organized by Centre for Human Resource & Development and Department of Biotechnology, Karpagam Academy of Higher Education, Coimbatore, Tamil Nadu, India held from 03.08.2020 to 09.08.2020.

- Participated in the online National Level Faculty Development Programme on "Digital Transformation & Innovation in Biological Sciences – Redefining the Role of 2K Teachers" organized by Holy Cross College, Tiruchirappalli, Tamil Nadu, India held from 26.07.2021 to 30.07.2021.
- 5. Participated in an online Faculty Development Programme on "**E-content Development**" organized by Internal Quality Assurance Cell, Jamal Mohamed College, Tiruchirappalli, Tamil Nadu, India held from 30.06.2020 to 04.07.2020.
- 6. Participated in the International Virtual Faculty Development Programme on "**Mastering the Craft of Teaching**" jointly organized by Department of English, Manav Rachna, International Institute of Research and Studies, Faridabad, Haryana, Cape Comorin Trust, India and Lavender Literary Club, India held from 21.06.2020 to 27.06.2020.
- Participated in an online Faculty Development Programme on "Citation Styles and Reference Lists" organized by Department of Data Science, Siva Sivani Institute of Management Telangana, India held from 21.06.2021 to 23.06.2021.
- Participated in an online National Level Faculty Development Programme on "Hybrid Classroom – ICT Tools for Teaching and Learning" organized by Research Culture Society & Late M.C. Parmar B.Ed College, Vadodara, India held from 29.05.2020 to 31.05.2020.
- Participated in an online Faculty Development Programme in the DATA SCIENCE using "R and Geo Gebra" organized by PG and Research Department of Mathematics, Jamal Mohamed College, Tiruchirappalli, Tamil Nadu in association with Spoken Tutorial Project, IIT Bombay, MHRD, Govt. of India held from 11.05.2020 to 14.05.2020.
- Participated in an online National Level Faculty Development Programme on "Effective Usage of ICT Tools for Smart Teaching" organized by Jayaraj Annapackiam College for Women, Periyakulam, Tamil Nadu, India held from 09.05.2020 to 14.05.2020.
- Participated in an online National Level Faculty Development Programme on "Digital Tools for Smart Classrooms in Higher Education" organized by Jayaraj Annapackiam College for Women, Periyakulam, Tamil Nadu, India held from 06.05.2020 to 07.05.2020.
- Participated in the Faculty Development Programme on "Demonstration cum hands on Exposure in Moodle Learning Management System" organized by Spoken Tutorial Project, IIT Bombay, India held from 20.04.2020 to 26.04.2020.

PARTICIPATION IN WORKSHOPS

- 1. Participated in online Workshop on "NAAC Recent Updates and Best Practices" organized by National Education Empowerment Teachers Initiative, India on 06.10.2021.
- Participated in the 3rd JNU workshop for empowering teaching through online mode (JNU-WETWOM III) on theme "Online Assessment and Evaluation" organized by Jawaharlal Nehru University, New Delhi, India held from 13.06.2020 to 14.06.2020.
- 3. Participated in an online National Level Workshop on "**DNA Barcoding**" organized by Department of Biotechnology, Islamiah College, Vaniyambadi, Tamil Nadu, India held from 22.05.2020 to 24.05.2020.
- Participated in an online National Level Workshop on "SMART Research Phase 1" organized by Internal Quality Assurance Cell, Government First Grade College, Kanakapura, Karnataka, India held from 07.05.2020 to 09.05.2020.

- 5. Participated in the International Workshop on "**Content Copyright Mine the Work**" organized by Research Foundation of India on 15.05.2021.
- Participated in the special lecture programme on "Intellectual Property Rights and Prior Art Search for Research Development" organized by Intellectual Property Rights Cell of Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamil Nadu, India on 05.02.2020.
- 7. Participated in the workshop on "Edmodo ICT Tool" organized by Internal Quality Assurance Cell (IQAC) of Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamil Nadu, India on 04.02.2020.
- 8. Participated in the "**Orientation Programme on MOOC's and e-Learning**" organized by Department of Library, Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamil Nadu, India on 29.01.2020.
- 9. Participated in an Orientation Programme on "**Preparing Course Outcomes in the Curriculum Design**" organized by Curriculum Development Cell of Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamil Nadu, India on 03.01.2020.
- 10. Participated in the UGC sponsored hands on training programme on '**Histochemical Techniques**' organized by PG and Research Department of Botany, National College (Autonomous), Tiruchirappalli, Tamil Nadu, India on 05.03.2019.
- 11. Participated in UGC-CPE sponsored two-day lecture workshop on 'Professional Development for Academic Leadership in Curriculum Design' organized by Curriculum Development Cell, Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamil Nadu, India held from 18.01.2020 to 19.01.2019.
- Participated in the one-day workshop on 'Improving Teaching Practices A Strategic Approach' organized by the Internal Quality Assurance Cell, Jamal Mohamed College, Tiruchirappalli, Tamil Nadu, India on 23.06.2018.
- 13. Participated in the one-day Orientation Programme on '**Soft Skills Development**' organized by the Internal Quality Assurance Cell, Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamil Nadu, India held on 22.06.2018.
- 14. Participated in National conference cum workshop on current trends in conservation, sustainable development, biological and social benefits of medicinally and floriculturally significant orchids & orchid show" and presented a paper entitled "Evaluation of anti-asthmatic activity of methanolic extract of *Anoectochilus elatus*Lindl.in mice" held at Regional Agricultural Research Station (KAU), Ambalavayal, Wayanad, Kerala, India held from 16.03.2018 to 18.03.2018.
- 15. Participated in three day NLP-Based **Faculty Empowerment Programme** organized by the Internal Quality Assurance Cell, Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamil Nadu, India held from 17.06.2017 to 20.06.2017.
- 16. Participated in National Conference cum workshop on Recent Trends in Biology, Culture, Conservation, Commercialization, and Sustainable utilization of Medicinally and Floriculturally Important Orchids & Orchid Show and presented a paper entitled "Conservation and reintroduction of *Anoectochilus elatus* Lindl., an endangered terrestrial jewel orchid" held at Graphic Era University, Dehradun, India held from 24.03.2017 to 26.03.2017.

- 17. Participated in National level workshop on "**Resources and Technologies for Scholarly Information**" held at Department of Library and Information Science, Bharathidasan University, Tiruchirappalli, Tamil Nadu, India on 12.08.2014.
- 18. Participated in "**Modern Analytical Techniques**" organized by Department of Chemistry, National College, Tiruchirappalli, Tamil Nadu, India held from 18.02.2013 to 20.02.2013.
- 19. Participated in the hands on training in "**Fermenter Operations and Analysis**" organized by Department of Biotechnology, National College, Tiruchirappalli, Tamil Nadu, India held from 05.01.2012 to 06.01.2012.
- 20. Participated in "**Patent Information**" jointly organized by Patent cell, Bharathidasan University, National Institute of Technology, Tiruchirappalli and Tamil Nadu State Council for Science and Technology, Chennai, held at Bharathidasan University, Tiruchirappalli, Tamil Nadu, India on 29.04.2009.
- 21. Participated in "**Current Trends in Biology and Biotechnology**" Lecture workshop organized by Department of Biochemistry, Bharathidasan University and Science Academies in India, held at Bharathidasan University, Tiruchirappalli, Tamil Nadu, India on 19.09.2008 to 20.09.2008.

PARTICIPATION IN CONFERENCES / SEMINARS

- 1. Participated in the National Webinar on "Environment, Biremediation and Scientific Mushroom Cultivation" organized by the College Environment and Climate Cell and Eco Club, Bijni College, Assam, India on 31.07.2021.
- Participated in the National Webinar on "From Ethnobotanicals to Phytopharmaceuticals and Innovative approaches towards High Value Farming" organized by Department of Botany, SVKM's Mithibai College of Arts, Chauhan Institute of Science & Amrutben Jivanlal College of Commerce & Economic, Mumbai, India on 08.07.2021.
- Participated in the International Webinar on "Advances in Biological Sciences ABS 2020" organized by the Department of Botany and Biotechnology, Bharathiar University, Coimbatore, Tamil Nadu, India held from 17.08.2020 to 19.08.2020.
- 4. Participated in the National Webinar on "**Trends in Green & Sustainable Environment**" organized by PG and Research Department of Botany, J. J. College of Arts and Science, Pudukkottai, Tamil Nadu, India on 02.07.2020.
- Participated in a Two Days International e-conference on "Recent Biological Perspectives" organized by the Department of Biochemistry, V. V. Vanniaperumal College for Women, Virudhunagar, Tamil Nadu, India held from 02.06.2020 to 03.06.2020.
- Participated in the National Level Skill Development Programme for Teaching Faculty on "Re-Energizing the Classroom with Innovative Teaching Techniques" organized by the PG & Research Department of Commerce, Rajapalayam Raju's College, Rajapalayam, Tamil Nadu, India on 12.06.2020.
- Participated in a National Level Webinar on "Professor 2030: Challenges and Opportunities for Future Faculty" organized by Department of General Engineering, JKK Munirajah College of Technology, Erode, Tamil Nadu, India on 12.06.2020.

- Participated in the National Webinar on "Nano Materials" organized by the Research Department of Chemistry, Sadakathullah Appa College, Tirunelveli, Tamil Nadu, India on 06.06.2020.
- Participated in the National Webinar on "Environment: Towards a Greener World" organized by Institutional Biotech-Hub in association with students Grievance Redressal Cell, IQAC, Bahona College, Jorhat, Assam, India on 05.06.2021.
- 10. Participated in the International Webinar on "Art of Writing Research Review/Articles for Publishing in Peer Reviewed Journals" organized by the IQAC, MES College Erumely, Kerala, India on 25.05.2020.
- Participated in Two Day National Level Webinar on "Recent Trends in Biological Sciences" organized by Department of Biochemistry, Sree Narayana Guru College, Coimbatore, Tamil Nadu, India held from 21.05.2020 to 22.05.2021.
- 12. Participated in the National Webinar on "**Taking Research Forward During the Pandemic**" organized by Loyola Institute of Frontier Energy (LIFE), Loyola College, Chennai, Tamil Nadu, India on 20.05.2020.
- 13. Participated in the online National Webinar on "Impact of COVID-19 in Building Relationships and Meeting Educational Needs of Students" organized by the Faculty Development Centre (FDC) of Tamil Nadu Teachers Education University, Tamil Nadu, India on 16.05.2020.
- 14. Participated in the National Seminar on "Frontiers in Biological Innovations for Resource Management, Patents and Entrepreneur Development" organized by Department of Botany, Jamal Mohamed College, Tiruchirappalli, Tamil Nadu, India held from 10.03.2020 to 11.03.2020.
- 15. Participated in the "**Staff Enrichment Programme on Ownership Culture**" organized by the IQAC of Jamal Mohamed College, Tiruchirappalli, Tamil Nadu, India on 14.06.2019.
- 16. Participated in International seminar on "Emerging trends in Biological Research (ETBR 2018)" at PG and Research Department of Biotechnology and Microbiology, Jamal Mohamed College, Tiruchirappalli, Tamil Nadu, India on 03.03.2018.
- 17. Participated in State level seminar on "Intellectual property rights and patenting in life sciences: problems and prospects" at Department of Botany, Jamal Mohamed College, Tiruchirappalli, Tamil Nadu, India on 01.03.2018.
- Participated in National conference on "Recent Trends in Bioprospecting of Plants" at Department of Plant Science, Bharathidasan University, Tiruchirappalli, Tamil Nadu, India on 28.03.2014 to 29.03.2014.
- 19. Participated in National conference on "**Trends in Plant Microbe Interactions**" held at Department of Plant Science, Bharathidasan University, Tiruchirappalli, Tamil Nadu, India on 21.01.2009 to 22.01.2009.
- 20. Participated in UGC, Bharathidasan University and Swamy Botanical Club sponsored National conference on "**Modern Trends in Plant** *In Vitro* **Biology**" held at Department of Plant Science, Bharathidasan University, Tamil Nadu, India on 05.01.2009 to 06.01.2009.
- 21. Participated in UGC sponsored Regional seminar on "**Recent Trends in Biotechnology** and Its Role in Utilization of Biodiversity" held at Jamal Mohamed College, Tiruchirappalli, Tamil Nadu, India on 05.03.2007 to 06.03.2007.

- 22. Participated in UGC sponsored State level seminar on "**Plant Medicine Present Scenario**" held at Department of Plant Biology and Plant Biotechnology, St. Mary's College, Thoothukudi, Tamil Nadu, India on 23.02.2007 to 24.02.2007.
- 23. Participated in "Jawaharlal Nehru 29th State level Science Exhibition for Children" sponsored by The Directorate of School Education, Tamil Nadu and National Council of Educational Research and Training, New Delhi, held at St. Johns Vestry Anglo Indian Higher Secondary School, Tiruchirappalli, Tamil Nadu, India on 08.01.2003 to 12.01.2003.

PARTICIPATION IN ONLINE WEBINARS

- 1. Participated in a webinar on "**Role of Patent in the Development of Indian Pharmaceutical Industry**" organized by PG and Research Department of Commerce, St. Peters College, Kolenchery, Kerala, India on 19.08.2020.
- 2. Participated in a webinar on "**Best Practices in Acquiring Scholarly Knowledge**" organized by the Department of Library and Internal Quality Assurance Cell, Jamal Mohamed College, Tiruchirappalli on 16.08.2020.
- Participated in a webinar on "National Education Policy 2020" organized by Internal Quality Assurance Cell, Jamal Mohamed College, Tiruchirappalli, Tamil Nadu, India on 08.08.2020.
- 4. Participated in a webinar on "**Relevance of Ayurveda in the Pandemic Situation**" organized by the YOGA Learning Programme Club, Government Arts College for Men, Nandanam, Chennai, Tamil Nadu, India on 23.07.2020.
- 5. Participated in a webinar on "**Organic Foods and Healthy Life Style**" organized by Bachelor of Vocation in Beauty Wellness and Health Care of Jayaraj Annapackiam College for Women, Periyakulam, Tamil Nadu, India on 10.06.2020.
- Participated in a webinar on "Biodiversity Urgent and Existential Concerns" organized by Department of Botany, St. Mary's College, Thoothukudi, Tamil Nadu, India on 10.06.2020.
- 7. Participated in a webinar on "**One Day Webinar on Trends in Microbiology**" organized by the Department of Microbiology, Alagappa University, Karaikudi, Tamil Nadu, India on 28.05.2020.
- 8. Participated in a webinar on "**Biopolymers: Renewable Resources for Human Utilization**" Organized by Biopolymers Research Group, Alagappa University, Karaikudi, Tamil Nadu, India on 27.05.2020.
- 9. Participated in a webinar on "Ecosystem Services and Management" organized by Department of Botany, Alagappa University, Karaikudi, Tamil Nadu, India held from 24.05.2020 to 26.05.2020.
- 10. Participated in a webinar on "**Quality Metrics in Higher Education**" organized by The Internal Quality Assurance Cell. Sadakathullah Appa College, Tirunelveli, Tamil Nadu, India on 21.05.2020.
- 11. Participated in a webinar on "**Principle for Communicate and Effectual Manuscript**" organized by SKC LNCT Group of Colleges, Indore, India on 18.05.2020.
- 12. Participated in a webinar on "Selection of Appropriate Statistical Tools: A Critical Way for Successful Research" organized by St. Mary's College, Thoothukudi, Tamil Nadu, India on 12.05.2020.

- Participated in a webinar on "Research to Publication An Expert View" organized by Centre for Molecular and Nano-medical Sciences, Sathiyabama Institute of Science and Technology, Chennai, Tamil Nadu, India on 09.05.2020.
- 14. Participated in a webinar on "Essential Guidelines for Writing a Research Paper" organized by Data Teach Lab, India on 30.04.2020.
- 15. Participated in a webinar on "**An Effective Research Paper Writing Skills**" organized by Bhagwan Mahavir College of Commerce and Management Studies, Bhagwan Mahavir University, Gujarat, India held from 13.04.2020 to 16.04.2020.
- 16. Participated in the '**R**' training offered by the Spoken Tutorial Project, IIT Bombay, funded by the National Mission on Education through ICT, MHRD, Govt. of India.
- 17. Participated in the 'Moodle Learning Management System' training offered by the Spoken Tutorial Project, IIT Bombay, funded by the National Mission on Education through ICT, MHRD, Govt. of India.

EXTRA DISCIPLINARY ACTIVITES

- Actively participated in "Red Ribbon Club Awareness Programme" organized by Bharathidasan University and Red Ribbon Club held at Bharathidasan University, Tiruchirappalli, Tamil Nadu, India on 2009.
- Actively participated in "Personality Development Programme" organized by National Service Scheme Unit held at Bharathidasan University, Tiruchirappalli, Tamil Nadu, India held from 20.09.2008 to 21.09.2008.
