

Dr. A. ASLAM



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Curriculum Vitae

Educational qualification

- F.I.A.A.T - [Fellow of Indian Association for Angiosperm Taxonomy](#), Dec 2019, University of Calicut, Calicut.
- **Doctor of Philosophy** in Botany. November 2012, from Bharathidasan University. Title of the thesis "[Protoplast, cell suspension culture and genetic transformation studies on *Withania somnifera* \(L.\) Dunal.](#)"
- **Master of Philosophy** in Botany in Centre for Distance Education, Bharathidasan University, Tiruchirappalli; with **85% - First class with Distinction.**
- Qualified with **National level Eligibility Test for lectureship (NET)** conducted by Counsel of Scientific and Industrial Research & University Grants Commission. (Roll No. 325230)
- Master of Science in **Botany with specialization in Microbiology** (2002) in The American college, Madurai, India; with **70 % - First class.**
- **Bachelor of Science** in Botany (2000) in The Madura college, Madurai, India; with **74% - First class**
- Higher secondary schooling (1997) in M. L. W. A. Hr. Sec. School, Madurai, India; with **66% - First class**
- Secondary schooling (1995) in M. L. W. A. Hr. Sec. School, Madurai, India; with **82% - First class**

Research and teaching experience

Current position:

- **June 2005 to till date:** Working as Assistant Professor of Botany, Jamal Mohamed College, Tiruchirappalli, India. From **21st August 2007**, the position has given **Tenure Track / Permanency**. Teaching classical and applied fields of Plant Science for U.G, P.G classes. Currently involved in
 - Developing industrial solutions for commercial use of medicinal plants with tissue culture and molecular biology interventions. Looking for Industrial partners, Start-ups, for commercialization of medicinal and aromatic plants.
 - Forensic pollen atlas for air-borne pollen in Tiruchirappalli district.
 - Developed android app "JMC-Arboratics" for digitalization and smart labelling of Trees of JMC Campus.
- **September 2003 – 10th June 2005:** Worked as a Junior Research Fellow in Palynology laboratory, French Institute of Pondicherry. Worked on **Modern pollen rain and Plant Functional Types (PFTs) in Eastern Ghats**. The work revolved around collection of proxy data for studying past changes in vegetation and climate.
- **June 2002 – February 2003:** Worked as a Research Associate in Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore. Worked on **Quantification of forest dependency of periphery villages in kalakkad Mundanthurai Tiger Reserve.**

Patents:

Co-inventor of a granted patent National in turmeric plant by [No.750/CHE/2014, Dated: 18/02/2014(43) Date of publication: 28/02/2014]

Publications

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1. Varutharaju, K., Thilip, C., Raja, P., Thiagu, G., **Aslam, A.**, & Shajahan, A. (2021). [An Improved liquid Culture System for Efficient Shoot Multiplication in *Aerva lanata* \(L.\) Juss. Ex Schult.](#) *Plant Tissue Culture and Biotechnology*, 31(1), 35-42.
2. Varutharaju, K., Soundar Raju, C., Thilip, C., **Aslam, A.**, Shajahan, A. (2014). [High efficiency direct shoot organogenesis from leaf segments of *Aerva lanata* \(L.\) by using thidiazuron.](#) *The Sci. World J.* Doi. 10.1155/2014/652919. **Impact Factor: 1.73, h-index: 45.**
3. Varutharaju K, Soundar Raju C, Thilip C, **Aslam A**, Shajahan A (2015) [Effect of Thidiazuron on rapid shoot multiplication in *Aerva lanata* \(L.\) Juss. ex Schult.](#) In Proceeding of Biodiversity Conservation : Aspects and Prospects edited by A. Rajendran and A. Veerasamy, Bharathiyar University, Coimbatore.
4. Thilip, C., Raja, P., Rafi, K. M., Faizal, K. P., Thiagu, G., **Aslam, A.**, & Shajahan, A. (2020). [Genetic Transformation using *Agrobacterium rhizogenes* for the Production of Valuable Anti-Cancer Compound, Withaferin-A from *Withania somnifera* \(L.\) Dunal.](#) *Jamal Academic Research Journal: An Interdisciplinary*, 1(1), 1-5.
5. Thilip, C., Mehaboob, V. M., Varutharaju, K., Faizal, K., Raja, P., **Aslam, A.**, & Shajahan, A. (2019). [Elicitation of withaferin-A in hairy root culture of *Withania somnifera* \(L.\) Dunal using natural polysaccharides.](#) *Biologia*, 74(8), 961-968.
6. Thilip, C. S., **Aslam, A.**, Mohamed Rafi, K., Varutharaju, K., & Kathiravan, K. (2017). [Efficient *Agrobacterium Rhizogenes* Mediated Hairy Root Culture System for Withanolide Production from *Withania Somnifera* \(L.\) Dunal.](#) *J Appl Biotechnol Bioeng*, 3(1), 00053.
7. Thilip C, Soundar Raju C, Varutharaju K, **Aslam A**, Shajahan A (2014) [Establishment of adventitious root culture from cell suspensions of *Withania somnifera* \(L.\) Dunal: an *in vitro* approach for production of withanolides.](#) *Int. J. Pharma Bio Sci*, 6(1):1030 – 1037. **Impact Factor: 0.288.**
8. Thilip C, Soundar Raju C, Varutharaju K, **Aslam A**, Shajahan A (2015) [Improved *Agrobacterium rhizogenes*-mediated hairy root culture system of *Withania somnifera* \(L.\) Dunal using sonication and heat treatment.](#) *3 Biotech*, 5(6): 949-956. **h-index : 18.**
9. Soundar Raju, C., Varutharaju, K., Thilip, C., **Aslam, A.**, Shajahan, A (2015) [Rhizogenesis in cell suspension culture from Mango ginger- a source of Isosorbide and n-Hexadecanoic acid.](#) *Advances in Botany.* DOI:10.1155/2015/942761. **h-index : 25.**
10. Soundar Raju, C., **Aslam, A.**, Thangadurai, D., Sangeetha, J., Kathiravan, K., & Shajahan, A. (2020). [Indole acetic acid \(IAA\) producing endophytic bacteria on direct somatic embryogenesis and plant regeneration of *Exacum travancoricum* Bedd.](#) *Vegetos*, 33(4), 690-702.
11. Soundar Raju C, Kathiravan K, **Aslam A**, Shajahan A (2012) [An efficient regeneration system via somatic embryogenesis in mango ginger \(*Curcuma amada* Rixb.\).](#) *Plant Cell Tiss. Org. Cult.* 112:387–393. **Impact Factor: 3.633, h-index : 55.**
12. Soundar Raju C, **Aslam A**, Shajahan A (2016) [Germination and storability of calcium alginate coated somatic embryos of mango ginger \(*Curcuma amada* Roxb.\).](#) *Hort. Envi and Biotech.*, (Springer) article in press. **Impact Factor : 0.725, h-index : 5.**
13. Soundar Raju C, **Aslam A**, Shajahan A (2015) [High-efficiency direct somatic embryogenesis and plant regeneration from leaf base explants of turmeric \(*Curcuma longa* L.\).](#) *Plant Cell Tiss Organ Cult.*122 (1):79-87. **Impact Factor: 2.61, h-index : 55.**
14. Soundar Raju C, **Aslam A**, Kathiravan K, Palani, P, Shajahan A (2014) [Direct somatic embryogenesis and plant regeneration from leaf sheath explants of mango ginger \(*Curcuma amada* Roxb.\).](#) *In Vitro Cell. Dev. Bio. Plant*, 50:752-759. **Impact Factor: 1.145, h-index : 51.**
15. Shajahan, A., Thilip, C., Mehaboob, V. M., Faizal, K., Raja, P., Thiagu, G., & **Aslam, A.** (2020). [Protocol for Enhanced Withaferin-A Production in Elicited *Withania somnifera* \(L.\) Dunal Hairy Root Cultures.](#) In *Hairy Root Cultures Based Applications* (pp. 87-98). *Springer, Singapore.*
16. Shajahan, A., Thilip, C., Faizal, K., Mehaboob, V. M., Raja, P., **Aslam, A.**, & Kathiravan, K. (2017). [An efficient hairy root system for withanolide production in *Withania somnifera* \(L.\) Dunal.](#) *Production of plant derived natural compounds through hairy root culture*, 133-143.

17. Shajahan, A., Raju, C. S., Thilip, C., Varutharaju, K., Faizal, K., Mehaboob, V. M., & **Aslam, A.** (2016). [Direct and indirect somatic embryogenesis in mango ginger \(*Curcuma amada* Roxb.\)](#). In Somatic embryogenesis: fundamental aspects and applications (pp. 367-379). *Springer, Cham*.
18. Shajahan, A., Raju, C. S., Mehaboob, V. M., & **Aslam, A.** (2019). [Somatic Embryogenesis and Synthetic Seed Technology of *Curcuma* spp.](#) In *Synthetic Seeds* (pp. 363-375). *Springer, Cham*.
19. Senthil Kumar M, Vinothkumar D, Saravanakumar A, **Aslam A**, Shajahan A (2011) The [Phytochemical Constituents of *Withania somnifera* and *Withania obtusifolia* by GCMS Analysis](#). *International Journal of Pharmacognosy and Phytochemical Research*, 3 (3): 31- 34. **Impact Factor: 1.341, h-index : 5.**
20. Saravanakumar A, **Aslam A**, Shajahan A (2012) [Development and optimization of hairy root culture systems in *Withania somnifera* \(L.\) Dunal of withaferin-A production](#). *African journal of Biotechnology*, 11 (98): 16412-16420, **Impact Factor 0.57**
21. Saravanakumar A, **Aslam A**, Shajahan A (2011) [Histochemical localization of cytokinin oxidase/ dehydrogenase during the developmental stages of *Withania somnifera* \(L.\) Dunal](#). *African Journal of Biotechnology*. 44: 8800-8804. **Impact Factor 0.57, h-index : 48.**
22. Rajalakshmi K, Kumar P, Saravanakumar A, **Aslam A**, Shajahan A, Ravikumar R (2010) [Arachis bioassay for soil contaminated with Hexavalent chromium](#). *Recent Research in Science and Tech*. 2(6): 110-115.
23. Raja, P., Thiagu, G., Thilip, C., Varutharaju, K., **Aslam, A.**, & Shajahan, A. (2021). [Biosynthesis of silver nanoparticle by *Withania somnifera* \(L.\) Dunal and evaluation of cytotoxic effect using MG-63 cells](#). *International Journal of Botany Studie*, 823-830.
24. Raja, P., Thiagu, G., Thilip, C., Varutharaju, K., **Aslam, A.**, & Shajahan, A. (2021). [Influence of salicylic acid derivatives on withaferin-a production in elicited hairy roots of *Withania somnifera* \(L.\) Dunal](#) *International Journal of Botany Studie*, 766-771
25. Rafi, K. M., **Aslam, A.**, Kohila, S., Tanweer, J., & Shajahan, A. (2010). [Direct rhizogenesis from in vitro leaves of *Withania somnifera* \(L.\) Dunal](#). *Indian Journal of Plant Physiology*, 15(2), 173-176.
26. Musfir Mehaboob, V., Faizal, K., Thilip, C., Raja, P., Thiagu, G., **Aslam, A.**, & Shajahan, A. (2019). [Indirect somatic embryogenesis and Agrobacterium-mediated transient transformation of ginger \(*Zingiber officinale* Rosc.\) using leaf sheath explants](#). *The Journal of Horticultural Science and Biotechnology*, 94(6), 753-760.
27. Mehaboob, V. M., Faizal, K., Raja, P., Thiagu, G., **Aslam, A.**, & Shajahan, A. (2019). [Effect of nitrogen sources and 2, 4-D treatment on indirect regeneration of ginger \(*Zingiber officinale* Rosc.\) using leaf base explants](#). *Journal of Plant Biotechnology*, 46(1), 17-21.
28. **Aslam A**, Mohamed Rafi K, Kathiravan K, Shajahan A (2010). [Class-based stratification matrix for physical leaf traits in phonetic relations of *Withania somnifera* \(L.\) Dunal accessions](#). *Plant Syst. Evol.* 288:99–111. **Impact Factor 1.422, h-index : 56.**

Awards and accomplishments

- **Summer Research Fellowship** award for the Year 2007 by Indian Academy of Sciences, Bangalore in collaboration with National Association for Science and Indian National Science Academy, New Delhi. Worked in Rajiv Gandhi Centre for Biotechnology, Trivandrum during summer vacation 2007.
- Award for **Proficiency in University examinations** - for the year 1999-2000 given by Management of The Madura College.
- Award for the **Best NSS volunteer** for the year 1998-1999 given by Madurai University Teachers Association, The Madura College.
- **Best presentation Award** in Students seminar on Biodiversity in October 2001 given by P.G and Research department of Zoology, Thiagarajar College, Madurai.
- Award for **Outstanding activity** in the “Kathambam – a flower show” in March 2001 given by Biotechnology division, Southern petrochemicals Limited, Coimbatore.
- **Grant for students’ project** for the year 2001-2002 by Tamil Nadu State Council for Science and Technology, Chennai.

Hobbies: Photography, Proportionate drawing of plants, Bird watching, Butterfly rearing, Trekking and Amateur wireless station operation (Authorized by Ministry of communication, Govt. of India to operate wireless / telegraph station in India – Call sign [VU2AXL](#)), also singing light music in [social media](#).

Oral / Poster presentations

- **Dr. R. M. Meenakshi endowment Lecture on “Innovations in Biology: Why and How?”.** Organized by P.G and Research Department of Botany, Holy Cross College, Tiruchirappalli, Tamilnadu. On 16-12-2021
- **Primer designing for PCR and sequencing.** Core internal faculty lecture at DBT, Government of India sponsored short term hands-on training course on basic techniques in plant molecular biology for college teachers, organized by Plant Molecular Biology lab, P.G and Research Department of Botany, Jamal Mohamed College (*Autonomous*), Tiruchirappalli, Tamil Nadu.
- **Global Warming.** Invited Lecture in the Citizenship Camp for B.Ed Students, held at K.N.G College of Education, Dindigul, Tamilnadu, India, on 04-03-2010.
- **From ‘Plant Growth Promotion’ to ‘Plant Growth Regulation’: Lesson from catalytic domain of CKX gene.** In XXXII All India Botanical Conference and International symposium on “Diversity of Plant and Microbes: Present Scenario” held at Dept of PG studies and Research in Applied Botany, Kuvempu University, Shankaraghatta, Shimoga, from 28-12-2009 to 30-12-2009.
- **Callus initiation from embryonal explants of Phoenix dactylifera L.** National conference on plant *in vitro* biology.
- **PFT trait measurements in two selected medicinal plants.** In Discussion workshop on Herbaceous taxa in South India: Ecology, Distribution and applications in palaeovegetation studies. French Institute of Pondicherry, from 30-11-2006 to 01-12-2006.
- **Coastal ecosystems and post-tsunami scenario.** In Winter Term 2006 – India, Pondicherry, International workshop for Wisconsin University students organized by The American College, Madurai from 05-01-2006 to 06-01-2006.
- **Ecophysiological traits of micropropagated Stevia rebaudiana as an intercrop in plantain farms.** In national level conference in Department of Environmental management, Bharathidasan University from 16-02-2006 to 17-02-2006 - co organized by UGC, Earth Watch Institute, UK.
- **GIS based community decision support system for Malaiyur village, Didigul district.** In national level conference in Department of Environmental management, Bharathidasan University from 16-02-2006 to 17-02-2006 - co organized by UGC, Earth Watch Institute, UK.
- **Poster on Reconstruction of late Holocene Northeast Monsoon from pollen analysis of sections in a rain-fed irrigation reservoir, Tamilnadu, India.** In PAGES Second Open Science Meeting, Beijing, China from 10-08-2005 to 12-08-2005. Poster was presented by Dr. Anupama Krishnamurthy, French Institute.
- **Patterns in Beta diversity of epiphytic orchids** in students’ seminar on Biodiversity on 16th October 2001 – Organized by Department of Zoology, Thiagarajar College, Madurai.
- **Recent trends in tropical ecosystem study** in Postgraduate colloquium on 15th November 2001 – Organized by P.G and Research Dept of Botany, the American college, Madurai.
- **Perspectives in conservation biology** in Rendezvous of Plant Scientists at Kadambavanam (ROPAK), on 25th February 2001 – Organized by Dept. of Botany, The American College, Madurai.
- **Poster on Community decision support system for sustainable use of Biodiversity at landscape level** in XII Annual conference of Indian Association for Angiosperm Taxonomy & National seminar on plant taxonomy in National development. 26&27th September 2002 – Organized by Department of Botany, Goa University, Goa.
- **Poster on Qualitative Beta diversity – an effective tool for rapid assessment of epiphytic orchid diversity** in XII Annual conference of Indian Association for Angiosperm Taxonomy & National seminar on plant taxonomy in National development. 26&27th September 2002 – Organized by Department of Botany, Goa University, Goa.
- **Guest lecture on amphibious life forms** in Young Student Scientist Programme 2003, The American College.

Workshops / Training programs / Conferences / Orientation / Refresher courses

- **5-days online Faculty Development Programme on “Inculcating Universal Human Values in Technical Education”,** organized by All India Council for Technical Education, New Delhi. From 22-11-2021 to 26-11-2021.
- **UGC Sponsored Refresher Course in Environmental Sciences,** organized by UGC HRDC, Pondicherry Central University, Pondicherry. From 10-07-2018 to 30-07-2018.
- **UGC Sponsored Refresher Course in Life Sciences,** organized by UGC HRDC, University of Madras, Chennai. From 12-11-2011 to 02-12-2011.

- **UGC sponsored Refresher Course in Botany**, organized by Centre for Advanced studies in Botany and UGC Academic Staff College, North Eastern Hill University, Shillong, Meghalaya. From 24-08-2011 to 13-09-2011.
- **UGC sponsored Orientation Course for College Teachers**, organized by UGC Academic Staff College, Bharathidasan University, Tiruchirappalli. From 03-11-2009 to 30-11-2009.
- **Molecular Methods in Bioresources Conservation for Sustainable Development**. A DBT, Govt of India sponsored short term training course conducted by The Rapinat Herbarium and Centre for Molecular Systematics, St Joseph's College, Tiruchirappalli. From 12-11-2008 to 25-11-2008.
- **RNAi mediated inhibition of cytokinin oxidase gene in Potato *Solanum tuberosum***. A summer training programme at Rajiv Gandhi Center for Biotechnology, under the auspices of INSA-IASc-NASI summer fellowship.
- **Recent Advances in HPLC techniques**. A technical workshop organized by Centre for Academic Excellence, Anna University, Tiruchirappalli. From 29-03-2006 to 30-03-2006.
- **Recent trends in Biotechnology and its Role in utilization of Biodiversity**. A two day UGC sponsored Regional Seminar, Organized by PG & Research Dept. Botany, Jamal Mohamed College, Trichy from 05-03-2006 to 06-03-2006.
- **Workshop on Curriculum development and evaluation**. A three day workshop in Jamal Mohamed College from 02-03-2006 to 04-03-2006 - Sponsored by UGC, Tamilnadu State Council for Higher Education and Academic Staff College, Bharathidasan University.
- **Winter term 2006 – India: Environmental Concerns and conflicts**. An international workshop in Pondicherry for students from Oberlin College, USA and The American College, Madurai, India from 05-01-2006 to 06-01-2006 – organized by The American College, Madurai. Delivered a lecture as resource person.
- **National conference on Environment and sustainable development**. A national level conference in Department of Environmental management, Bharathidasan University from 16-02-2006 to 17-02-2006 - co organized by UGC, Earthwatch Institute, UK. Orally presented two papers.
- **Indian monsoon and climate variability during Holocene**. An international PAGES workshop from 17-05-2004 to 18-05-2004 – Organized by Geological Society of India, Bangalore.
- **Mirrored views on Healing systems in India: Merging policies, politics and practices**. An International workshop from 19-04-2004 to 20-04-2004 – Organized by French Institute of Pondicherry, Pondicherry.
- **Late Quaternary Environmental change – Emerging issues**. An international PAGES workshop and training program on global change from 10-02-2003 to 15-02-2003 – Organized by French Institute of Pondicherry, Pondicherry.
- **XII Annual conference of Indian Association for Angiosperm Taxonomy & National seminar on plant taxonomy in National development**. 26&27th September 2002 – Organized by Department of Botany, Goa University, Goa.
- **International conference on Tropical ecosystems: Structure, Diversity and Human welfare** from 15th to 18th July 2001 - Organized by ATREE, Bangalore and Association for Tropical Biology (ATB), U.S.A.
- **Contact program in conservation biology**, from 02-01-2001 to 16-01-2001 – conducted by Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore – Sponsored by DST, Govt. of India.
- **Workshop on Biostatistics and Remote sensing**, from 04-05-2001 to 10-05-2001 – Organized by Center for Ecological Sciences, IISc, Bangalore and Dept. of Statistics, University of Pune.

Informal Teaching experience

- Special programme: (April 2003 to May 2003):
Worked as programme committee member in **Young Student Scientists Programme 2003** in the American college, Madurai. The programme was sponsored by Tamil Nadu State council for Science and Technology, Govt. of Tamil Nadu and Ministry of Human Resource Development
- Weekend classes: From December 2000 to Till date:
Worked as a **Morse code Teacher** in the Weekend classes conducted by Chamber of Amateur Radio of Madurai (CHARM) – an association of Radio amateurs in Madurai involved in creating awareness about 'HAM Radio hobby' to general public.
- Summer classes: April 2001, April 2002 and April 2003:
Worked as a **HAM Radio - resource person** in the summer education programs for students conducted by Gandhi Memorial Museum, Madurai.
- Small programs:
Worked as a **Field ecology facilitator** in one-day field trips for students from **University of Wisconsin** in The American College, Madurai.

Worked as a **Field ecology facilitator** in one-day field trips for **students of National Service Scheme** in ten days special camp conducted by NSS unit of The American College, Madurai.

Social interaction

- Participated in the *workshop on Leadership Qualities* (on 2nd Oct 2000) conducted by Centre for Experiencing Socio Cultural Interaction, Kadavur, Madurai.
- Worked as *supporting member* to 'Vizhudugal' - a service organization 100% managed by students of Madurai-colleges.
- *Visiting volunteer* in 'AKAASH' – Residential school for mentally retarded children.
- National Service scheme (NSS):
Participated in National service scheme programmes in Madura College from 1997 to 2000 and served *as section Leader* for two years
- Participated in four ten days special camps (including one Inter collegiate camp for selected students) with the theme "youth for Integration and Harmony" conducted in villages in and around Madurai.
- Participated as a *student leader* for the team representing Tamil Nadu in national Integration camp (29 Jul to 31 Jul 1999) conducted by Maghadh University, Bodh Gaya, Bihar. The team was announced as the best in a mass tree plantation campaign.
- Participated in Anti -Tuberculosis health education campaign (18th Mar to 30th Mar 1999) in Palamedu cluster of villages in which, directed the street play- team of The Madura college NSS. The programme was sponsored by 'Kuringi vattara kalangium' (- a network of Self-Help Groups in the area) in association with Indian Council for Medical Research, Govt Hospital, Madurai.
- Participated in Three days Peer Educator workshop (2nd Feb to 4th Feb 1998) on HIV/AIDS and Health education. As a follow up, worked as a Peer Educator in successive years in the activities of NSS.
- Participated in competitions (like Oration, Literary writing, Drawing, Quiz etc.) for students and won a few prizes.
- Organized press meets in the American college.

Reference:

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Statement of interest

I wish to pursue my profession in education and research in order to serve this society. I believe in this because a society (or Nation) develops only when academia and its applications get prioritized.

Declaration

I hereby declare that all the information given above is true and factual.

Signature

(ASLAM. A)