

Bio data

Personal Information

Name: **Dr. A. Karthikeyan**

Present Position: Scientist F

Office Address: Institute of Forest Genetics and Tree Breeding, Coimbatore – 641
002, Tamil Nadu, India.

Born: 13th June, 1968

Residential address: 4/181 –A3, Sunrise Crystal Villa. Thadagam road (Somayampalayam),
Coimbatore – 641108

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Education

1985 – 1988 Bachelor of Science - Botany
(month and year of passing: April, 1988)
Institution: N.G.M. College, Pollachi, Tamilnadu, India

1989- 1991 Master of Science - Botany
(month and year of passing: May, 1991)
Institution: Government Arts College, Coimbatore, Tamilnadu,
India.

1991-1992 Master of Philosophy in Botany
(Specialization; Microbiology and Plant Pathology)
(month and year of passing: December, 1992)
Institution: Bharathiar University, Coimbatore, India

1993-1998 Doctor of Philosophy in Botany
(Specialization: Microbiology; Arbuscular mycorrhiza)
Institution: Bharathiar University, Coimbatore, India

Postings

S. I. NO.	Name of the organization	Post held	From	To
1	Himalayan Forest Research institute , Shimla 171009	Scientist B	1998	2001
2	Institute of Forest Genetics and Tree Breeding, Coimbatore - 641002	Scientist B	2001	2002
3	Institute of Forest Genetics and Tree Breeding, Coimbatore - 641002	Scientist C	2003	2008
4	Institute of Forest Genetics and Tree Breeding, Coimbatore - 641002	Scientist D	2009	2013
5	Institute of Forest Genetics and Tree Breeding, Coimbatore - 641002	Scientist E	2013	2017
6	Institute of Forest Genetics and Tree Breeding, Coimbatore - 641002	Scientist F	2018	Till date

Publications

International Journals

1. Udaiyan, K., **Karthikeyan, A.** and Muthukumar, T. (1996). Influence of edaphic and climatic factors on dynamics of root colonization and spore density of vesicular arbuscular mycorrhizal fungi in *Acacia farnesiana* willd. and *A. planifrons* W.et.A. ***Trees structure and function* (Springer verlag – Germany). 11: 65 –71.**
2. Muthukumar, T., Udaiyan, K, **Karthikeyan, A.** and Manian, S. (1997). Influence of native endomycorrhiza, soil flooding and nurse plant on mycorrhizal status and growth of purple nutsedge (*Cyperus rotundus* L.). ***Agriculture, Ecosystems and Environment* (Elsevier, U.K). 61: 51 – 58.**
3. Shanmughavel and **A. Karthikeyan** (2003). Influence of age on fibre and chemical characteristics of

plantation crop of Bamboo. *East African Agricultural and Forestry Journal (Kenya)*. 68(4): 165 – 168

4. **A. Karthikeyan**, T. Muthukumar and K. Udaiyan (2005). Response of tea (*Camellia sinensis* (L.) O. Kuntze) to arbuscular mycorrhizal fungi under plantation nursery conditions. *Biological Agriculture and Horticulture*. (AB press , U.K) 22 (4) :305-319

5. **A. Karthikeyan** and T. Muthukumar (2006). Growth response of *Acacia planifrons* W.et.A. to arbuscular mycorrhizal fungi and nitrogen fixing bacteria under nursery conditions. *Forests, Trees and Livelihoods*, (Academic publishers, U.K) **16** : 269-275.

6. **A. Karthikeyan** and M. Surya Prakash (2008). Effects of Arbuscular Mycorrhizal Fungi, Phosphobacterium and *Azospirillum* sp. on Successful Establishment of *Eucalyptus camaldulensis* Dehn. in Bauxite Mine Spoils. *Forests, Trees and Livelihoods* (Academic publishers U.K) 18 (2): 183-191

7. **A. Karthikeyan**, B. Deeparaj and P. Nepolean (2009). Reforestation in Bauxite mine spoils with *Casuarina equisetifolia* Frost. and beneficial microbes. *Forest, Trees and Livelihoods* (Academic publishers U.K) **19**: 153-165

8. **A. Karthikeyan**, T. Muthukumar and I. Sureka (2011). Etiology of *Trichosporium vesiculosum* Butl. causing blister bark disease in *Casuarina equisetifolia* Forst. *Plant Pathology Journal*. 10: 85-88.

9. **A. Karthikeyan** and K.M. Sakthivel (2011). Efficacy of *Azotobacter chroococcum* in rooting and growth of *Eucalyptus camaldulensis* stem cuttings *Research Journal of . Microbiology* (U.S.A). DOI: 10.3923/rjm/2011, 6: 618-624.

10. T. Muthukumar, E. Uma, **A. Karthikeyan**, K. Sathiyadash, S. Jaison, P. Priyadharsini, I. Chongtham and V. Muniappan (2011). Morphology, anatomy and mycorrhizae in subterranean parts of *Zeuxine gracilis* (Orchidaceae). *Annales de Biologia (Spain)* 33: 127-134.

11. **A. Karthikeyan** and N. Krishnakumar (2012). Reforestation of bauxite mine spoils with *Eucalyptus tereticornis* Sm. seedlings inoculated with Arbuscular mycorrhizal fungi. *Ann. For. Res* (Romania) 55 (2): 207-216.

12. **A. Karthikeyan**, K. Chandrasekaran, M. Geetha and R. Kalaiselvi (2013). Growth response of *Casuarina equisetifolia* Forst. rooted stem cuttings to *Frankia* in nursery and Field conditions *J. Biosci.* 38; 741-747 – Springer India-

13. Diagne Nathalie, **Karthikeyan Arumugam**, Mariama Ngom, Mathish Nambiar-Veetil, Claudine Franche, Krishna Kumar Narayanan, and Laurent Laplaze (2013) Use of *Frankia* and actinorhizal plants for degraded lands reclamation. *Bio med Research. International*. Volume. 2013 ID. 948258. 9 pages.

14.A.C. Liju, **A. Karthikeyan**, N.B. Sivapriya and Sadia Siddiqui (2014) Control of Anthracnose disease in *Swietenia macrophylla* using *Trichoderma viride* as bio control agent. *Plant pathology*

Journal DOI: 10.3923/ppj2014, 13: 173-176.

15. **A. Karthikeyan** (2016). *Frankia* strains for improving growth, biomass and nitrogen fixation in *Casuarina equisetifolia* seedlings. *Journal of Tropical Forest Science* 28: 235-242
16. **A. Karthikeyan** (2017). Impact of elevated CO₂ in *Casuarina equisetifolia* rooted stem cuttings inoculated with *Frankia*. *Symbiosis*. 72: 89-94. Doi.10.1007/s13199-016-0445-4.
17. **A. Karthikeyan** and N. B. Sivapriya (2018). Responses of *Bruguiera sexangula* (Lour) Poir. propagules to beneficial microbes in the nursery. *Journal of Forestry Research* : 29 (4): 1093-1098 DOI. 10.1007/s11676-017-0502-8
18. **A. Karthikeyan** (2019). Effects of arbuscular mycorrhizal fungi and Rhizobium on photosynthetic activity and growth response in *Acacia auriculiformis* seedlings under elevated CO₂. *Journal of Tropical Forest Science* 31 (4) : 398-403 doi.10.26525/jtfs2019.31.4
19. **A. Karthikeyan** (2020) Afforestation in barren laterite lands with *Swietenia macrophylla* G. King and plant growth promoting microbes . *REFORESTA* 9: 54 to 65 Doi:<https://dx.doi.org/10.21750/REFOR.9.07.81>
20. **A. Karthikeyan** and T. Arunprasad (2021). Growth responses of *Pterocarpus santalinus* L.f., seedlings to native microbial symbionts (Arbuscular mycorrhizal fungi and *Rhizobium aegyptiacum*) under nursery conditions. *Journal of Forestry Research* (springer) Doi:10.1007/s11676-019-01072-y
21. **A. Karthikeyan** (2021) Establishment of *Ailanthus tryphysa* (Dennst.) Alston inoculated with beneficial microbes in barren laterite rocks. *Current research in Microbial Sciences* (Elsevier. B.V). Doi. 10.1016/j.crmier.2021.100061
22. **A. Karthikeyan** and K. Kanchnadevi (2022) Effect of Frankia and Micromonospora on growth and health improvement in Casuarina clones. *Journal of Forest Research* , Taylor & Francis publishers(accepted)
1. **A. Karthikeyan**, G.S. Goraya, Shailendra kumar and S. Kalia (2000). Studies on the mortality of *Cedrus deodara* (Roxb.) L. Don in Chail Forest (H.P) and its causative factors. *Indian Forester*. 126 (12) 1326-1332.
2. **A. Karthikeyan**, Shailendra kumar and Surinder kumar (2003). *Trichoderma viride* a mycoparasite for the control of *Phytophthora cinnamomi*. *Indian Forester* 129 (5) 631 - 634
3. **A. Karthikeyan** (2003). Reclamation of mine spoils using Arbuscular mycorrhizal fungi: A socio – environment friendly method. *South Asian Journal of Socio Political studies*. 12(1) : 110 –114.
4. **A. Karthikeyan** (2006). Arbuscular mycorrhizal fungi: A booster for plants. *South Asian Journal of*

5. **A. Karthikeyan**, M. Maria Dominic Savio and B. Deeparaj (2007). Application of Bio – fertilizers for the quality seedling production of *Azadirachta indica* A. Juss *Indian Forester*: **188**: 1049 –1051
6. R. Anandalakshmi and **A. Karthikeyan** (2007). *Jatropha curcas* : The bio fuel crop for socio economic development. *South Asian Journal of Socio Political Studies* **8**: 90-91.
7. **A. Karthikeyan** and S. Vaishnavi (2008). Growth response of *Eucalyptus camaldulensis* seedlings to inoculation of *Azospirillum brasilense*. . *South Asian Journal of Socio Political Studies* **9**: 92-95
8. Ramapriya, R., Usha, K and **Karthikeyan A** (2009). A Preliminary study on the antioxidant potential of *Nyctanthes arbortristis* Linn. *Indian Journal of Botanical Research* **5**: 317-322.
9. R. Sivalingam, M. Smitha, M. Hegde, **A. Karthikeyan** and K. Palanisamy (2010). Effect of Bio fertilizers on growth of *Terminalia chebula* Retz. Seedlings in Nursery. *Indian Forester* **136**: 604-609
10. **A. Karthikeyan**, S.R.Sathishkumar and K.M.Sakthivel (2011).*Frankia* – As growth promoting source for Casuarina plants. *Agrobios*:10; 15-16.
11. **A. Karthikeyan**, S.R. Sathishkumar and K.M. Sakthivel (2011). Nodulation in *Casuarina equisetifolia* rooted stem cuttings by inoculation of *Frankia* *Indian Forester*: 1130-1131.
12. **A. Karthikeyan** and M. Nandhini (2011). Effect of Phosphobacterium on rooting and growth of *Eucalyptus camaldulensis* Dehn. Stem cuttings. *South Asian Journal of socio –political studies*: 12: 105-109.
13. **A. Karthikeyan**, M. Geetha and K. Chandrasekaran (2013). Nodulation of rooted stem cuttings in *Acacia auriculiformis* A. cunn and Ex. Benth. *Indian Forester*: 139 (11); 1046-47
14. **A. Karthikeyan** (2015). Assessment of *Casuarina equisetifolia* Frost. clones against blister bark disease resistance. *J.Mycol. Plant Pathol.* 45: 280-284.
15. Durai, M.V., Balu, A., Rajarishi, R and **Karthikeyan A.** (2017). First report of *Apatte manachus* (Coleoptera: Bostrychidae) in Big – leaf Mahogany (*Swietenia macrophylla* King) Plantations in India. *J. Entomol. Zoo. Stud* . 5 (6): 190-192.
16. **A.Karthikeyan**, R. Kalaiselvi and V. Sujithra (2021). Vegetative propagation technique for

Pterocarpus santalinus L.f. *Indian Forester*.147(3): 316-317.

Book Chapters

- 1. A. Karthikeyan** (2004) Inoculation of Arbuscular mycorrhizal fungi for improved root structure of *Acacia auriculiformis* A. cunn ex. Benth In : *Tree improvement and Bio technology*, P.Shanmughavel and S. J. Ignacimuthu (Eds) Pointer publishers, Jaipur, India pp-100-109.
- 2. A. Karthikeyan** (2005). Growth response of *Acacia farnesiana* Willd. to indigenous arbuscular mycorrhizal fungi and symbiotic nitrogen fixing bacteria under tropical nursery In: *Multipurpose trees in the tropics: Management and Improved strategies* V.P Tiwari and R.L. Srivastava (eds), Scientific publishers, India. pp-140 –147
- 3. A. Karthikeyan** (2005). Inoculation of Arbuscular mycorrhizal fungi to *Acacia auriculiformis* for reclaiming bauxite mine spoils In: *Special issue on Eco restoration*, Bulletin of National Institute of Ecology (eds). B. Gopal and P.S. Pathak. **National Institute of Ecology**, India. Vol. 16: Pp121-128.
- 4. A. Karthikeyan** and P. Nepolean (2011). Influence of edapho climatic factors on blister bark disease in *Casuarina equisetifolia* In: Proceedings of 4th National Forestry conference (9 to 11.11. 2009) F.R.I. Dehradun (eds). Ombir Singh and V.R.R. Singh pp 295-299.
- 5. A. Karthikeyan**, Maria Dominic Savio and P. Nepolean (2011). Growth response of *Casuarina junghuhniana* to indigenous *Frankia*, Arbuscular mycorrhizal fungi and Phosphobacterium under nursery conditions In: Improving smallholder livelihood through improved Casuarina productivity: Proceedings of the 4th International Casuarina workshop, Haikou, China 21-25 March 2010. Chonglu Zhong, Khongsak Pinyopusarek, Antone Kalinganire and Claudine Franchie (eds), China Forestry Publishing House pp. 131-136.
- 6. A. Karthikeyan** and N. Krishnakumar (2012). Rehabilitation of bauxite mine spoils with beneficial microbes and fast growing tree speices. In: Proceedings of the International Symposium on Reclamation, Rehabilitation and Restoration towards a greener asia, 3-5 July 2012, Kualalampur Malaysia. L.H. Ang, W.M. Ho, C.T. Lee, H.C. Sim (eds).Concept Press, Batu caves, Malaysia pp.72-82.
- 7. A. Karthikeyan**, S.R. Sathiskumar and K.M. Sakthivel (2012). Growth response of Casuarina

equisetifolia rooted stem cuttings to inoculation of Frankia under nursery conditions In: Advances in Casuarina research in India: Proceedings of 2nd National Seminar on Casuarinas (Eds). R.S.C. Jayaraj, Rekha R. Warriar, A. Nicodemus and N. Krishnakumar, ICFRE Publication. Pp 61-67

8.T. Muthukumar, **A. Karthikeyan** and K. Udaiyan (2012). Evaluation of the growth and nutrient uptake of Casuarina equisetifolia on Alfisol soil inoculated with different arbuscular mycorrhizal fungi In: Advances in Casuarina research in India: Proceedings of 2nd National Seminar on Casuarinas (Eds). R.S.C. Jayaraj, Rekha R. Warriar, A. Nicodemus and N. Krishnakumar, ICFRE Publication. Pp. 47-53

9. S. Murugesan, R. Sumathi, N. Senthilkumar, C. Rajeshkannan and **A. Karthikeyan** (2012). Bio transformation of some secondary metabolites of Frankia – Casuarina relationship. In: Advances in Casuarina research in India: Proceedings of 2nd National Seminar on Casuarinas (Eds). R.S.C. Jayaraj, Rekha R. Warriar, A. Nicodemus and N. Krishnakumar, ICFRE Publication. pp 271-276

10. **A. Karthikeyan** (2013). Nodulation and Nitrogen fixation in rooted stem cuttings of *Casuarina junghuhniana* Miq. by Frankia inoculation. In: Microbiological Research in Agro ecosystem management(ed.) R.K. Velu Springer India pp289-296.

11. **A. Karthikeyan**, P. Rajendran, K. Chandrasekaran and M. Geetha (2013). Identification of resistant clones of Casuarina blister bark disease. In: Forest Health Management (ed).A. Balu, R.S.C. Jayaraj, A. Regupathy. V. Mohan. Rekha R. Warriar. T.P. Raghunath and N. Krishna kumar. IFGTB publication pp.581-586.

12. A. Nicodemus, K. Kannan, Y. Christi Sagariya, A. Pauldasan, **A. Karthikeyan** and B. Gurudev Singh (2013). Variation in blister bark disease incidence among *Casuarina equisetifolia*, *C. junghuhniana* and their interspecific hybrids and its implications for disease resistance breeding In: Forest Health Management (ed).A. Balu, R.S.C. Jayaraj, A. Regupathy. V. Mohan. Rekha R. Warriar. T.P. Raghunath and N. Krishna kumar. IFGTB publication pp.552-563

13. **A.Karthikeyan** (2013) Afforestation in mine spoils using bio fertilizers In: A compendium of Silvicultural Technologies (eds). C. Buvaneshwaran, R.S. Prasanth, T.P. Raghunath and N. Krishnakumar IFGTB publications pp.45-48

14. **A.Karthikeyan** (2014). Application of N fixer (an aqua product harbouring superior strains of *Frankia*) as plant growth promoter for Casuarinas In: Transfer of Tree cultivation Technologies (eds) C. Buvaneshwaran, V. Sivakumar R.S. Prasanth, T.P. Raghunath and N. Krishnakumar IFGTB publications

15.N.B. Siva priya and **A. Karthikeyan** (2014). Status and influence of beneficial microorganisms in mangrove forests In: Proceedings of international congress of the Malaysian society of microbiology 2013 -Dec 12- 15, 2013. Malaysia. pp.247-251.

16.**A. Karthikeyan** (2014) Blister Bark disease, Identification of Resistance clones of *Casuarina equisetifolia* to Blister bark disease, Frankia: The symbiotic Nitrogen fixing bacteria of Casuarinas, Growth responses of Casuarinas to Beneficial microbes In: Twenty five years of Research on Casuarinas at IFGTB. (eds). Kannan C.S. Warriar, B. Gurudev Singh and N. Krishna Kumar, IFGTB publications 144p.

17. **A. Karthikeyan** (2016) Afforestation in laterite lands at Kasargode Kerala with *Switenea macrophylla* and beneficial microbes. In: Compendium of selected papers of National seminar 2016 Emerging approaches in land use planning held at Thiruvananthapuram on 13 and 14.1.2016. Kerala State Land use board, Thiruvananthapuram pp.145-150.

18. **A. Karthikeyan** (2016). Response of *Casuarina equisetifolia* and *C. junghuhniana* to *Frankia* under field conditions. In: Nicodemus, A., Pinyopusarek, K., Zhong, C.L., Franche, C (Editors). Casuarina improvement for securing rural livelihoods. Proceeding of fifth International Casuarina workshop, Chennai, India from Feb 3 to Feb7 2014. Institute of Forest Genetics and Tree Breeding, India. pp-83-87.

19.**A. Karthikeyan** (2017). Reclamation of laterite waste lands with suitable tree species and beneficial microbes In: D. Cheruvat,P. Nilayangode, O.V. Ommen (Eds) Mainstreaming Bio diversity for sustainable development – 2017, Kerala state Bio diversity Board, Thiruvananthapuram. pp- 273-280

20.**A. Karthikeyan**, and A. Nicodemus (2020). Effect of Frankia inoculation on photosynthetic activity and growth of *Casuarina junghuhniana* under elevated CO₂. In: Proceedings of 6th International Casuarina workshop held at Krabi, Thailand from 21 to 25 October 2019 (Eds) M. Haruthaithanasan, K. Pinyopusarek, A. Nicodemus, D. Bush, and L. Thomson. Kasetsart University, Bangkok, Thailand pp.218-223.

21. **A. Karthikeyan**, K. Kanchanadevi and A. Nicodemus (2020). Micromonospora: A promising bio control agent for bacterial wilt disease of Casuarina In: : Proceedings of 6th International Casuarina

workshop held at Krabi, Thailand from 21 to 25 October 2019 (Eds) M. Haruthaithanasan, K. Pinyopusarek, A. Nicodemus, D. Bush, and L. Thomson. Kasetsart University, Bangkok, Thailand pp.246-251

Books

1. K. Surinderkumar, Ranjeet Singh, S. Chakraborti, **A. Karthikeyan**, Ashok kumar, Charan Sigh, Shailendrakumar, V.P. Pandey (2003). Identification and management of pests and diseases of important Himalayan Trees.HFRI/BR/012. HFRI., Shimla 78p.
2. V. Mohan and **A. Karthikeyan**. (2009). Manual on Biofertilizers and Biomanures (Techniques for Production, Maintenance and Application). Institute of Forest Genetics and Tree Breeding, Coimbatore-641 002. 54p.
3. **A. Karthikeyan** and N. Krishnakumar (2012). Principles and application of *Frankia*. Indian council of Forestry Research and Education, 26p.
4. **A. Karthikeyan** and N. Krishnakumar (2013). Eco friendly approaches for rehabilitation of mine spoils. Indian council of Forestry Research and Education, 59p.
5. V. Mohan, A. Karthikeyan and Anish V. Pachu (2021) Biofertilizers and Biomanures (in Malayalam) Indian council of Forestry Research and Education,58p.

Popular Articles

1. **A. Karthikeyan (2006)**. Cost effective way to tackle mine spoils. Indian express, Dt. 16.12.2006.
2. R. Anandalakshmi and **A. Karthikeyan (2009)**. Use of *Calophyllum inophyllum* in Bio diesel (in Tamil) Thina Thanthi Dt. 18.7.2009
3. **A. Karthikeyan** and R. Anandalakshmi (2009). Use of *Pongamia pinnata* in Diesel engines, Thina Thanthi Dt. 27.8.2009
4. **A. Karthikeyan (2010)**. Disease management in nurseries (in Tamil) Thina Thanthi Dt. 18.3.2010

5. **A. Karthikeyan, S.R. Sathishkumar and K.M. Sakthivel** (2010). A New technique for Casuarina rooted stem cuttings. Science and Technology/Agriculture, The Hindu Dt. 19.8.2010.
6. **A. Karthikeyan** (2011). *Ceiba pentandara* (in Tamil) Thina Thanthi Dt. 14.7.2011.
7. **A. Karthikeyan** (2011). *Sapindus emarginatus* (in Tamil) Thina Thanthi. Dt. 31.7.2011.
8. **A. Karthikeyan** and N. Krishnakumar (2011). Bio fertilizers for tree cultivation. Science and Technology/Agriculture, The Hindu Dt. 1.9.2011.
- 9.**A. Karthikeyan** and N. Krishnakumar (2012). Management of soil pathogens in nursery. Science and Technology/Agriculture, The Hindu Dt. 17.5.2012.
10. **A. Karthikeyan** and N.B. Siva Priya (2013). Bio control agent to control tree infestations Science and Technology/Agriculture, The Hindu Dt. 1.8.2013.
11. **A. Karthikeyan** (2016). Scientists develop new bio fertilizer for Casuarina trees that is 7 times cheaper . Times of India. Dt. 22.1.2016
12. **A. Karthikeyan** (2019). Disease management in forest nurseries. The Hindu (Tamil) Dt. 27.3.2019.
- 13.**A. Karthikeyan** (2019) Bio fertilizers or improved planting stock production. The Hindu (Tamil) Dt. 29.5.2019

Radio talk

Dr. A. Karthikeyan, Scientist E has delivered a talk on ‘Bio fertilizers and bio control methods for management of diseases in tree crops’ (Tamil) which was broadcast in All India Radio Coimbatore on 22.9.2015. He explained the Institute’s activity on bio fertilizer research, bio fertilizer products such as N fixer for Casuarinas, K mobilizer, and Tricho K. He also explained the production of bio control agent (*Trichoderma viride*) and method of its application to control the diseases of tree crops in nurseries as well as plantations.

Dr. A. Karthikeyan Scientist E has delivered a talk on Disease management methods in tree crops (Tamil) which was broadcast in All India Radio Coimbatore on 27.6.2016. He explained the symptoms

of diseases, initial care on tree seedlings and control strategy of diseases in tree crops. He also told about the preparation of Bordeaux mixture and *Tricoderma viride* culture for controlling the pathogens in trees.

Abstracts in Conferences/ seminars

1. Udaiyan, K., Muthukumar, T., **Karthikeyan, A** and Rajesh Kannan, V (2001). Influence of edaphic factors on root colonization and sporulation of arbuscular mycorrhizal fungi associated with *Camellia sinensis* (L.) O. Kuntze. Proceedings of the 88th session of the Indian Science congress (New Delhi, India, January 3-7) p.36.
2. **A. Karthikeyan** (2003). Inoculation of Arbuscular mycorrhizal fungi to *Acacia auriculiformis* for reclaiming bauxite mine spoils. International Conference on Eco – restoration (Dehra Dun, India ;14-21, October, 2003) p.96.
3. **A. Karthikeyan** (2004). Growth response of *Acacia farnesiana* Willd. to indigenous arbuscular mycorrhizal fungi and symbiotic nitrogen fixing bacteria under tropical nursery conditions. International conference on Multipurpose trees: Management, Growth and Assessment (Jodhpur, India ; 22-25 November 2004) p.78
4. T. Gunasekaran, **A. Karthikeyan** and B. Gurudev Singh (2006). Strategies for sustainable utilization of medicinal plants. International conference on Globalization of Traditional, Complementary and Alternative systems of Medicine (Coimbatore, India; 16-18 March 2006) p.187.
5. **A. Karthikeyan** and B. Deeparaj (2008). Utilization of microbial inoculants with *Eucalyptus tereticornis* for successful afforestation in bauxite mine spoils. In: National symposium on Current scenario in microbial technology held at Bharathidasan University on Jan 2- 5, 2008. p.2
6. **A. Karthikeyan** (2009). Rehabilitation of bauxite mine spoils using beneficial microbes. In: National workshop on Rehabilitation of degraded lands Eco – rehabilitation held at Centre for social Forestry and Eco – restoration, Allahabad on 6 & 7 October 2009.p.49
7. **A. Karthikeyan** and P. Nepolean (2009). Influence of edaphic climatic factors on blister bark disease in *Casuarina equisetifolia* L In: National Forestry Conference held at Forest Research Institute Dehra Dun from 9 to 11 October 2009.

8. **A. Karthikeyan**, M. Maria Dominc Savio and P. Nepolean (2010). Growth response of *Casuarina junghuhniana* Miq. to indigenous *Frankia*, AM fungi and Phosphobacterium under nursery conditions In: 4th International Casuarina meeting held at Haikou, China from 22 -26 March 2010.

9. **A. Karthikeyan**, Sakthivel, K.M and Sureka, I (2010). Influence of Indole acetic acid producing *Pseudomonas fluorescens* on rooting in *Eucalyptus camaldulensis* Dehn. stem cuttings. In; International conference on bio resource technology held at Nirmala college for women, Coimbatore from 7 to 8 Oct 2010 p12.

10. T. Muthukumar, V. Muniappan and **A. Karthikeyan** (2010). Occurrence and diversity of Arbuscular mycorrhizal fungi in shoals of Nilgiri Biosphere, Western Ghats. In: National Seminar on Tropical Ecosystems: Structure, Function and Services held at Institute of Forest Genetics and Tree Breeding, Coimbatore on 28 & 29 December 2010.

11. Rati.R. Menon, Sureka I and **Karthikeyan, A** (2010). Diversity of Arbuscular mycorrhizal fungi associated with indigenous multipurpose tree species In: National Seminar on Tropical Ecosystems: Structure, Function and Services held at Institute of Forest Genetics and Tree Breeding, Coimbatore on 28 & 29 December 2010.

12. S. R. Sathishkumar, K.M. Sakthivel and **A. Karthikeyan** (2010). Plant regeneration from leaf & node explants of *Solanum trilobatum* and its antimicrobial activity. In: Science Day & Aqua-Terr 41st Annual conference on organismal & functional genomics held at Maduarai Kamarj University, Madurai on 6. March 2010 p.36.

13.S.R.Sathishkumar, K.M. Sakthivel, I. Sureka and **A. Karthikeyan** (2011). Micropropagation and antimicrobial activity of *Solanum triolobatum* Linn. In: 3rd Indo – Korean Joint seminar on Medicinal Plant Research held at Avinashilingam University for women, Coimbatore on 23rd February, 2010. p112.

14.**A. Karthikeyan**, S.R. Sathishkumar and K.M. Sakthivel (2011). Growth response of *Casuarina equisetifolia* L. rooted stem cuttings to inoculation of *Frankia* under nursery conditions. In: 2nd National Seminar on casuarinas Abstracts p. 17

15. S. Murugesan, R. Sumathi, **A. Karthikeyan**, N. Senthilkumar and C. Rajeshkannan (2011). Bio transformation of some secondary metabolites of *Frankia*- *Casuarina* relationship. In: In: 2nd National Seminar on casuarinas Abstracts p. 46

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beneficial microbes. 3rd National Biodiversity congress 2017 held at Thiruvananthapuram on 23rd and 24th February In: Book of abstracts p.73.

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39. Arun Prasad T and **Karthikeyan A** (2019). Growth improvement of *Pterocarpus santalinus* L seedlings using bio inoculants . In: Abstract of 4th National Conference on ; Frontiers in Eco biological Sciences and its applications held at Periyar University, Salem on 16 & 17 October 2019.

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41. **A. Karthikeyan**, K. Kanchanadevi and A. Nicodemus (2019). Micromonospora: A promising bio control agent for bacterial wilt disease of Casuarina In: Abstract of 6th International Casuarina workshop held at Krabi, Thailand from 21 to 25 October 2019. p10

42. **Karthikeyan A** and Kanchana devi K. (2021). Effect of Frankia and Micromonospora on growth and health improvement in Casuarina clones In: Abstracts of 20th International meeting on Frankia and Actinorhizal plants organized by Kagoshima University, Takashi Yamanaka (Forestry and Forest products Research Institute) and Shunsuke Utsumi (Hokkaido University) from 29 to 31.5.2021. p.O16

43. Nicodemus, A, Mayavel, A, Buvaneswaran, C, **Karthikeyan, A** and Sivakumar V (2021) Development of High yielding clones of Casuarina and their mass development in diverse planting environments. In : Abstracts of national conference on clonal forestry in eco restoration held at 10-11 November 2021, FRCECR, Prayagraj p.57.

Webinars:

Sl. No.	Title	Organized by	Date
1	All the microbes are not harmful	IFGTB, Coimbatore	5.6.2020
2	Microbial Diversity	Biodiversity Conservation Foundation of India	12.7.2020
3.	Bio control of bacterial wilt disease in casuarinas clones with <i>Micromonospora maritima</i>	Forest Research Institute, Dehra Dun	18.8.2020
4	Effect of Frankia and Micromonospora on growth and health improvement in Casuarina clones	20 th International meeting on Frankia and Actinorhizal plants organized by Kagoshima University, Takashi Yamanaka (Forestry and Forest products Research Institute) and Shunsuke Utsumi (Hokkaido University) , JAPAN	31.5.2021
5	Rehabilitation works carried out in mind out degraded lands using microbes by IFGTB	Group Discussion meeting on Eco restoration and Rehabilitation of degraded lands chaired by the D.G.	28.6.2021

		ICFRE	
6	Beneficial microbes	Urban biodiversity and education	14.8.2021
7	Utilization of beneficial microbes on creation of manmade forest under stressed eco system	IFGTB, Coimbatore	27.8.2021
8	Reclamation of mined out lands using beneficial microbes	ICFRE- FRI on Restoration of degraded lands	29.10.2021
9	Possible bio control agents for bacterial wilt disease in Casuarina	Iron wood (Casuarina equisetifolia) decline conference University of Guam, USA	5.1.2022

Completed Ph.Ds as recognized Ph.D. Guide of Bharathiar University, Coimbatore

K. Chandrasekaran (2016) Characterization and Evaluation of Frankia Strains for growth and biomass improvement of Casuarinas

N.B. Sivapriya (2017) Responses of *Bruguiera sexangula*(Lour) Poir and *B. cylindrica* (Lnn) Blume to indigenous beneficial microbes and their antimicrobial activity against pathogens.

Undergoing Ph.D students: 3

Services

Editorial member of Journals:

Biological Agriculture and Horticulture (U.K)
Journal of King Saudi University - Science
Agriculture, Ecosystems and Environment (Elsevier)
Crop Protection (Elsevier)
Research Journal of Microbiology
Plant Pathology (USA)
Microbiology Journal
Asian Journal of Plant Pathology
International Journal of Plant Pathology
Canadian journal of Microbiology (Canada)
African journal of agricultural research
Journal of Tropical forest science (Malaysia)
Journal of Basic Microbiology
Forest Pathology
Scientific Reports- Nature
Journal of King Saudi University Science
Indian Forester

Collaboration:

1.A collaborative project with Bharathiar University on ‘Diversity of Mycorrhizal fungi in medicinal *Bulbophyllum* species (orchidaceae) of the Nilgiri Biosphere reserve, Western ghats and their role in Orchid Conservation’ was got approved from Tamilnadu State council for Higher Education, Govt of Tamilnadu.

2.TNPL –IFGTB Collaborative project on ‘Sustainable pulpwood production through high yielding varieties of nitrogen fixing and drought tolerant trees’ (Component: Improving growth and health in *Casuarina* clones through bioinoculants

Resource person: GSDP Training Programme, TNFA and Bharathiar University.

Others: Nodal officer for Bharathiar University and FRI Deemed to be University.