#### DR.M.PALANIYANDI., M.Sc., M.Tech., Ph.D., F.S.A.S.S.,

**Associate Professor** 

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### **Professional Experience:**

**Dr.M.Palaniyandi,** *S/o* (*Late*) *Sri. Shanmugavadivel Masimalai Mooppar*, is a Health Geographer, Cartographer, Environmental Health and Spatial Epidemiologist, Remote Sensing and Geographic Information Science (GIS) professional. He has 25 years of research experience in environmental epidemiology of tropical infectious diseases, land use and land cover changes, and health, environmental transition and infectious diseases, urban sprawl, urban environment, urban migrations, socioeconomic inequality and human health, infectious disease aetiology, Applied GIS and Geovisualization in Epidemiology and Public Health. Apart from the research and he has been stand-in key role in HRD training, as well, he has served as the executive committee member of the Institutional Administrative Capacity Building.

#### Academic / Educational Qualifications:

Ph.D., (Geography)- Research Degree (2013-2016), Bharathidasan University, India M.Tech., First Class, (Remote Sensing), (1990-1992), Anna University, India M.Sc., First Class, (Geography), (1988-1990), Madurai Kamaraj University, India B.A., First Class, (Geography), (1984-1987), Bharathidasan University, India

Ph.D., Dissertation: "A Geo-spatial analysis of vector borne disease transmission and the environment, using Remote Sensing and GIS"

M.Tech., Dissertation: "Land use / land cover mapping and change detection, using Landsat TM and IRS multispectral satellite data"

## Research Score & Citation Index

- ☐ Google Scholar H-index:14, i-10 index:21
- ☐ Researchgate H-index-14, i-10 index:21
- ☐ Microsoft Academics- H-Index -12
- ☐ Semantic Scholar H-Index -12
- □ Scopus H-Index-4
- ☐ Web of Science- H-Index-3
- □ Vidwan Score: 8.7/10

# Professional Employment: (27 years-research experience)

18 <sup>th</sup> Jan, 2024 To till date	Associate Professor	Department of Geography & Disaster Management, Tripura University, Suryamaninagar, Agartala, Tripura (West)-799022
April, 2015 – 15 <sup>th</sup> January, 2024	Technical Officer-C (Research), 5 years Full Time (Regular)	ICMR-Vector Control Research Centre, Pondicherry-605006, India
1 <sup>st</sup> April, 2010- 31 <sup>st</sup> March, 2015	Technical Officer-B (Research), 5 years Full Time (Regular)	ICMR-Vector Control Research Centre, Pondicherry-605006, India
1 <sup>st</sup> April, 2003- 31 <sup>st</sup> March, 2010	Technical Officer-A (Research), 5 years Full Time (Regular)	ICMR-Vector Control Research Centre, Pondicherry-605006, India
19 <sup>th</sup> Jan, 1998- 31 <sup>st</sup> March, 2003	Technical Assistant (Research), 5years Full Time (Regular)	ICMR-Vector Control Research Centre, Pondicherry-605006, India
July, 1994- Dec., 1997	Research Fellow 3 years 6 months Full Time	Dept. of Environmental Remote Sensing & Cartography, M.K. University, Madurai, India

#### Merits of Awards and Honours:

- 2023- Award: Certificate for Excellence in Reviewing Journal of Geography, Environment, and Earth Science International
- 2023- Award: Certificate for Excellence in Reviewing Asian Journal of Immunology
- 2023- Award: Certificate for Excellence in Reviewing Journal of Applied Life Sciences International
- 2023- Award: Excellence in Reviewing Asian Journal of Research in Biochemistry
- 2023- Award: Certificate for Excellence in Reviewing Journal of Tropical Disease & Health
- 2022- Award -SASS Best Editor- 2022 (Scientific and Resrach Journals)
- 2022- Award: Certificate for Excellence in Reviewing Journal of Tropical Disease & Health
- 2022- Award : Certificate for Excellence in Reviewing Journal of Environment and Climate Change
- 2022- Award of Appreciation Certificate for Excellence in Reviewing Journal of Advances in Medicine and Medical Research
- 2022- Award : Certificate for Excellence in Reviewing Asian Journal of Agriculture Extension, Economics, and Sociology
- 2021- Fellow: Elected and Awarded as Fellow of Scholars Academic and Scientific Society (SASS)-2021
- 2021- Award: Certificate of Excellence in Reviewing Journal of Pharmaceuticals Research International
- 1994 Kalaki Cash award (Kalki Tamil magazine) for Remote Sensing and GIS Applications to Analysis of Land Use / Land Cover, and Environmental Changes
- 1990- Tamil Nadu State Government Merit Scholarship for for meritorious and outstanding performance in M.Sc., Degree (Madurai Kamaraj University)
- 1987- Tamil Nadu State Government Merit Scholarship for commendable and outstanding performance in B.A. Degree (Bharathidasan University)
- 1987 University Third Rank in B.A., degree (Bharathidasan University)

## **Teaching Subjects Interest:**

- ✓ Geographical Information Systems
- ✔ Paradigm in Geographical Research
- ✓ Quantitatve Techniques in Geography
- ✓ Image interpretation and Map readings
- ✔ Fundamentals of Cartography and Digital Mapping
- ✓ Thematic Cartography, and Advanced Cartography
- ✔ Remote Sensing of the Earth and Environment
- ✓ Spatial Analysis, and Geo-Spatial Modeling
- ✓ Advanced Cartography, and Geospatial Applications
- ✓ Applied GIS, Cartography and Geo-Visualization
- ✔ Remote sensing and GIS to Environmental Studies
- ✓ Remote sensing and GIS to Urban Landscape Ecology
- ✔ Remote sensing and GIS to Land Use / Land Cover Analysis
- ✓ Remote sensing and GIS to Environmental Epidemiology
- ✔ Remote sensing and GIS to Environmental Health
- ✓ Remote sensing and GIS to Environmental Impact Assessment
- ✓ Remote sensing and GIS to Health Risk Assessment
- ✓ Natural Conservation and Sustainable Land Resource Development
- ✔ Urban Transition, Socio-Economic Inequality and Human Health Issues
- ✔ Remote Sensing and GIS effective methods in Geographical studies

#### Research Interests:

Remote Sensing and GIS Applications to Sustainable Development, Geo-Spatial Health, Urban Environment and Sustainable Cities Development, Public Health DeliveryServices, Disease Ecology, Tropical Infectious Diseases, Environmental health / spatial epidemiology, Geo-spatial modeling & geovisualization, Applied GIS in Epidemiology and Public Health, Land use / land cover changes and health hazards, urban migration, urban environmental transitions and health challenges, Socio-economic inequality and human health, Biogeography, vectors ecology, and Ecological Niche Modelling, Remote Sensing and GIS effective methods in Geographical Analysis, Environmental Epidemiology, Disease Surveillance, and Health Risk Assessments.

#### Publications in the indexed / Peer reviewed / UGC listed journals

- M.Palaniyandi, (2023), "Scoping review of vector borne disease ecology and environment: Remote Sensing and GIS for mapping disease prevalence, risk assessment, and planning for control and management", J Vector Borne Dis., 2023; ISSN 0972-9062
- M.Palaniyandi, (2021), "New, Emerging, Re-Emerging Tropical Infectious and Non-Communicable Diseases Persistent to the Climate, Landscape, and Environmental Changes on the Grounds of the Urbanizations, Industrializations, and Globalization," *International Journal of Environment and Climate Change*, 2021; 11(11): 32-46.
   (E-ISSN: 2581-8627) https://doi.org/10.9734/ijecc/2021/v11i1130514
- 3. **M.Palaniyandi**, T. Sharmila, P.Manivel, P Thirumalai, and PH Anand (2021), "Multispectral satellite data and GIS for mapping vector ecology, monitoring, risk assessment, and forecast of vector borne disease epidemics: a systematic review," *Applied Ecology and Environmental Sciences*, 2021; 9(8): 751-760. P-ISSN: 2328-3912 | e-ISSN: 2328-3920. <a href="https://doi.org/10.12691/aees-9-8-6">https://doi.org/10.12691/aees-9-8-6</a>
- M.Palaniyandi, (2021), "Spatial and temporal analysis of vector borne disease epidemics for mapping the hotspot region, risk assessment, and control," *Indian Journal Public Health* Research and Development, 2021; 12 (4): 151-161. P-ISSN: 0976-0245 | e-ISSN: 0976-5506 (e-Open access). <a href="https://doi.org/10.37506/ijphrd.v12i4.16537">https://doi.org/10.37506/ijphrd.v12i4.16537</a>
- 5. **M.Palaniyandi**, (2021), Applied GIS: Cartography and Geovisualization methods and techniques in public health entomology, spatial epidemiology, and arthropod vectors surveillance", *Indian J Public Health Research and Development*, 2021; 12(4): 191-196. P-ISSN: 0976-0245 | e-ISSN: 0976-5506. https://doi.org/10.37506/ijphrd.v12i4.16543
- 6. **M.Palaniyandi**, (2021), "The environmental risk factors significant to *Anopheles* species vector mosquito profusion, *Plasmodium falciparum*, *Plasmodium vivax* parasite development, and malaria transmission, using remote sensing and GIS", *Indian Journal of Public Health Research and Development*, 2021; 12(4):162-171. p-ISSN:0976-0245 | e-ISSN: 0976-5506 (e-Open access), <a href="https://doi.org/10.37506/ijphrd.v12i4.16539">https://doi.org/10.37506/ijphrd.v12i4.16539</a>

- 7. **M. Palaniyandi,** (2021). Effects of daily weather on Aedes genus (Culicidae: Diptera) arthropod mosquito vectors profusion and dengue epidemics transmission: A systematic review, *Int. Journal of Ecology and Environmental Sciences*, 2021; 3(2): 171-177. p-ISSN:2664-7125 | e-ISSN: 2664-7133 (e-Open access).
- 8. **M.Palaniyandi**, P Manivel, T Sharmila, and P Thirumalai, (2021), "The use of Multispectral (MSS) and Synthetic Aperture Radar (SAR) microwave remote sensing data to study environment variables, land use / land cover changes, and recurrent weather condition for forecast malaria: A review", *Applied Ecology and Environmental Sciences*, 2021; 9(4): 490-501. p- ISSN: 2328-3912 | e-ISSN: 2328-3920 https://doi.org/10.12691/aees-9-4-10
- 9. **M.Palaniyandi**, T.Sharmila, P.Manivel, P.Thirumalai, and PH Anand (2020), "Mapping the geographical distribution and seasonal variation of dengue and chikungunya vector mosquitoes (*Aedes aegypti and Aedes albopictus*) in the epidemic hotspot regions of India", *Journal of Applied Ecology and Environmental Sciences*, 2020; 8(6): 428-440. p-ISSN: 2328-3912 | e-ISSN: 2328-3920. <a href="https://doi.org/10.12691/aees-8-6-15">https://doi.org/10.12691/aees-8-6-15</a>
- M.Palaniyandi, (2019), "Socio-economic, and environmental determinants of dengue and chikungunya transmission: GIS for epidemic surveillance and control: A systematic review", Int. Journal of Scientific Research, 2019; 8(2): 4-9. ISSN: 2277-8179.https://www.doi.org/10.36106/ijsr
- 11. M.Palaniyandi, PH Anand, and T Pavendar, (2017), "Environmental risk factors in relation to occurrence of vector borne disease epidemics: Remote sensing and GIS for rapid assessment, picturesque, and monitoring towards sustainable health", *Int. J Mos. Res.*, 2017; 4(3): 09-20. p-ISSN: 2348-7941 | e-ISSN: 2348-5906 <a href="http://dx.doi.org/10.22271/23487941">http://dx.doi.org/10.22271/23487941</a>
- 12. **M.Palaniyandi**, PH Anand, R Maniyosai, T Marriappan, and PK Das, (2016), "The integrated remote sensing and GIS for mapping of potential vector breeding habitats, and the Internet GIS surveillance for epidemic transmission control, and management", *J Entomol Zool Stud*, 2016; 4(3): 310-318. p-ISSN: 2349-6800 | e-ISSN: 2320-7078

- 13. **M.Palaniyandi**, T Marriappan, and PK Das, (2016), "Mapping of land use / land cover and mosquitogenic condition, and linking with malaria epidemic transmission, using remote sensing and GIS", *J Entomol Zool Stud*, 2016; 4(2): 40-47. p-ISSN: 2349-6800 | e-ISSN: 2320-7078 <a href="http://dx.doi.org/10.22271/j.ento">http://dx.doi.org/10.22271/j.ento</a>
- 14. **M.Palaniyandi**, (2015), "GIS for rapid epidemiological mapping and health-care management with special reference to filariasis in India", *Int. J Med Sci Public Health*, 2015; 4(8): 1141-1146. e-ISSN 2277-338X (e-Open access) | ISSN 2320-4664 (Print) https://doi.org/10.5455/ijmsph.2015.21072014213
- 15. **M.Palaniyandi**, (2014), "Remote Sensing and GIS as the Applied Public Health & Environmental Epidemiology", *Int. J Med Sci & Public Health.*, 2014; 3(12): 1-9. e-ISSN 2277-338X | p-ISSN:2320-4664 https://doi.org/10.5455/ijmsph.2014.081020141
- 16. **M Palaniyandi**, (2014), "Need for GIS based dengue surveillance with Google internet real time mapping for epidemic control in India, *Int. Journal of Geomatics and Geosciences*, August 2014; 5(1): 132-145. ISSN 0976-4380
- 17. **M.Palaniyandi**, (2014), "GIS based site selection for fixing UV light adult mosquito trap and gravity adult mosquito trap for epidemic control in the urban settlements", *Int. J of Scientific & Technology Research*, (IJSTR), 2014; 3 (8): 156-160. ISSN: 2277-8616
- 18. **M Palaniyandi**, Anand PH and Maniyosai R, (2014), "Spatial cognition: a geospatial analysis of vector borne disease transmission and the environment, using remote sensing and GIS", *Int. J Mos. Res.*, 2014; 1(3): 39-54. p-ISSN: 2348-7941 | e-ISSN: 2348-5906 (e-Open access) http://dx.doi.org/10.22271/23487941
- 19. **M Palaniyandi**, (2014), "Web mapping GIS: GPS under the GIS umbrella for Aedes species dengue and chikungunya vector mosquito surveillance and control", *Int. J Mos. Res.*, 2014; 1(3):18-25. e-ISSN: 2348-5906 | p-ISSN Number: 2348-7941

- 20. **M.Palaniyandi**, (2014), "Red and Infrared remote sensing data for mapping and assessing the malaria and JE vectors", *J of Remote Sensing and GIS*, 2014; 3(3): 1-4. <a href="https://doi.org/10.4172/2169-0049.1000126">https://doi.org/10.4172/2169-0049.1000126</a> ISSN: 2469-4134 (e-Open access)
- 21. **M Palaniyandi**, Anand PH and Maniyosai R, (2014), "Climate, Landscape and the Environments of Visceral Leishmaniasis Transmission in India, Using Remote Sensing and GIS", *Journal of Remote Sensing and GIS*, 2014; 3(3): 6-19. ISSN: 2469-4134 (e-Open access) <a href="https://doi.org/10.4172/2169-0049.1000122">https://doi.org/10.4172/2169-0049.1000122</a>
- 22. **M Palaniyandi**, (2014), "The environmental aspects of dengue and chikungunya outbreaks in India: GIS for epidemic control", *Int. J of Mos.Res* 2014; 1(2):38-44. p-ISSN: 2348-7941 | e-ISSN: 2348-5906 http://dx.doi.org/10.22271/23487941
- 23. **M Palaniyandi**, (2014), "A geo-spatial modeling for mapping of filariasis transmission risk in India, using remote sensing and GIS", *Int. J Mos. Res.*, 2014; 1(1): 20-28. p-ISSN: 2348-7941 | e-ISSN: 2348-5906 http://dx.doi.org/10.22271/23487941
- 24. **M Palaniyandi**, Anand PH and Maniyosai R (2014), "GIS based community survey and systematic grid sampling for dengue epidemic surveillance, control, and management: a case study of Pondicherry Municipality", *Int. J Mos. Res.*, 2014; 1(4):72-80. p-ISSN: 2348-7941 | e-ISSN: 2348-5906 http://dx.doi.org/10.22271/23487941
- 25. **M. Palaniyandi**, (2013), "Remote Sensing and GIS for mapping the geographical distributions and the ecological aspects of vector borne diseases in India: review article", *Journal of GIS India*, January, 2013; 22(1): 4-7. ISSN: 1972-5776
- 26. **M. Palaniyandi**, (2013), "GIS for epidemic control in India", *Geospatial World*, 2013; 9(28): 1-4. ISSN: 2277-3134, UGC: 62420
- 27. **M. Palaniyandi**, (2013), "GIS for mapping updates of spatial spread and the ecological reasoning of JE transmission in India (1956 -2012)", *Journal of Geomatics*, 2013; 7(2): Oct, 126-133. ISSN: 0976-1330

- 28. **M.Palaniyandi**, (2013), "Containing the spread of filariasis in India", *Geospatial Today*, March 2013; 12(1): 36-39. ISSN 0972-6810
- 29. **M.Palaniyandi**, and T Mariappan, (2013), "Containing vector borne diseases", *Geospatial Today*, August 2013; 12(6): 28-30. ISSN 0972-6810
- 30. **M.Palaniyandi**, (2013), "Malaria transmission risk in India", *Coordinates* (GIS e-journal), February, 2013; 9(2): 42-46. ISSN: 0973-2136 (e-Open access)
- 31. **M.Palaniyandi**, (2012), "The role of Remote Sensing and GIS for Spatial Prediction of Vector Borne Disease Transmission A systematic review", *J Vector Borne Dis.*, 2012; 49 (4): 197-204. ISSN 0972-9062. PMID: 23428518
- 32. **M.Palaniyandi**, (2008), "GIS for lymphatic filariasis morbidity management and control", *Coordinates*, May 2008, 5(5): 24-28. ISSN: 0973-2136
- 33. Srividya, Edwin Michael, **M.Palaniyandi**, SP. Pani and PK Das, (2002), "A Geostatistical Analysis of Lymphatic Filariasis Prevalence in Southern India", *Am J Trop. Med & Hyg*, 2002; 67(5): 480-489. ISSN:0002-9637 <a href="http://dx.doi.org/10.4269/ajtmh.2002.67.480">http://dx.doi.org/10.4269/ajtmh.2002.67.480</a>
- 34. S.Sabesan, **M.Palaniyandi**, Edwin Michael and PK Das, (2000), "Mapping of Lymphatic Filariasis at the district level in India", *Ann Trop Med & Parasit*. 2000; 94(6): 591-606. ISSN: 0003-4983 http://dx.doi.org/10.1080/00034983.2000.11813582
- M.Palaniyandi, and V Nagarathinam (1997), "Land Use / Land Cover mapping and Change Detection using Space Borne Data', J Indian Society of Remote Sensing, 1997; 25(1): 27-33.
   ISSN: 9743-0064 <a href="https://doi.org/10.1007/BF02995415">https://doi.org/10.1007/BF02995415</a>

#### **Book Publications**

M.Palaniyandi, (2021), *Book Title:* "Geography, Environment and Vector Borne Diseases", Mahi Publication, 2021; First Edition:1-260. ISBN: 978-93-91556-37-2

### Peer Reviewer in the Indexed / Refereed / Peer Reviewed Journals

- **❖** PLOS ONE
- PLOS Digital Health
- **❖** BMC Medical Review:
- ❖ Biomedical Review: Editorial Board Member
- ❖ Asian Journal of Immunology
- **❖** Journal of Vector Borne Diseases
- International Journal Mosquito Research
- ❖ Journal of Pharmaceutical Research International
- ❖ International Journal of Tropical Disease & Health
- ❖ International Journal of Environment and Climate Change
- ❖ Asian Journal of Agriculture Extension, Economics, and Sociology
- ❖ Journal of Advances in Medicne and Medical Research
- ❖ Journal of Geoinformatics and Geosciences
- ❖ Journal of Basic and Applied Medical Sciences (JBAMS)
- ❖ Journal of Applied Life Sciences International
- ❖ Journal of Geography, Environment, and Earth Science International
- ❖ DST Research projects (ESTRB), Department of DST, Government of India

### **Special Invited Paper Presentations**

- Invited Paper presentation on "Effective Review Methods and Techniques in Research Methodology," ICMR-VCRC Journal Club, VCRC Field Station Madurai, Tamil Nadu, India. 12.02.2022
- ❖ Invited Paper presentation on "Urbanizations, Industrializations, and Globalizations changing landscape environment and its influence on tropical infectious diseases with special reference to VBDs and pandemic diseases Remote Sensing and GIS application methods, ICMR-VCRC Journal Club, VCRC Field Station Madurai, Tamil nadu, India. 06.08.2021
- ❖ Invited Paper presentation on "Earth Observation Satellite Data integrated with GIS for Spatial Prediction of Vector Borne Disease Epidemics and Risk Assessment", ICMR-VCRC Journal Club, VCRC Field Station Madurai, Tamil nadu, India. 24.07.2020
- ❖ Invited Special address, on "Remote sensing and GIS applications to vector Borne Disease Control and management", at the "National CME on vector Borne Diseases", Organized by the Department of Community Medicine & Epidemiology, Bharathi Vidyapeeth Deemed University Medical College, Pune, India, on 3<sup>rd</sup> August, 2014
- ❖ Invited Special Lecture on "Spatial Information Technology to Vector Borne Disease Surveillance and Control", under UGC Innovative program, at the Department of Geography, Government Arts College (Autonomous), Kumbakonam-612 001, Tamil Nadu, on 22<sup>nd</sup> April 2013, UGC, New Delhi, India
- ❖ Invited paper presentation "The Impact of National River Water Projects on Regional Climatic Changes and Vector Borne Disease Outbreaks in India", in the National Conference on Climate Change and its Impact on Water Resources in India, Dec- 15-17, 2004, Organized by the School of Earth and Atmospheric Sciences, Madurai Kamaraj University, Madurai 625 021, Tamil Nadu, India

- ❖ Invited Special Lecture on "The Role of Telecommunication in GIS applications to Health Monitoring and Management" at the ISTE Winter School Short-term course on "Telecommunication applicable to Bio-Medical Engineering"-15<sup>th</sup> to 27<sup>th</sup> March 1999. Organized by Department of Electronic and Communication Engineering. Pondicherry Engineering Collage, Pondicherry, India, 17.03.99.
- ❖ Invited Paper presentation on "Land Use/ Land Cover Classification and Change Detection through Remote Sensing" at the Second National Conference of the Deccan Geographical Society (Pune) and School of Earth Sciences, Bharathidasan University, Thiruchirappalli-23. India. 20.09. 95 to 22.09.95

#### Papers presentation in the conferences

- M.Palaniyandi, (2014), "Remote Sensing and GIS as the applied public health & epidemiology", National Symposium on "Climate Change and Disease Dynamics" Organized by the PG & Research Department of Geography, Government Arts College (Autonomous), Kumbakonam-612 001, Tamil Nadu, India, 24.03.2014 to 26.03.2014
- ❖ M.Palaniyandi, (2014), "A geospatial analysis of Visceral Leishmaniasis Transmission and the environment, using remote sensing and GIS", National Symposium on "Climate Change and Disease Dynamics" Organized by the PG & Research Department of Geography, Government Arts College (Autonomous), Kumbakonam-612 001, Tamil Nadu, India, 24.03.2014 to 26.03.2014
- ❖ M.Palaniyandi, (2014), "The geo-climatic aspects of dengue and chikungunya epidemic transmission in India", National Symposium on "Climate Change and Disease Dynamics" Organized by the PG & Research Department of Geography, Government Arts College (Autonomous), Kumbakonam-612001, Tamil Nadu, India, 24.03.2014 to 26.03.2014
- M.Palaniyandi, (2014), "GIS for disease surveillance and health care management in India", National Symposium on "Climate Change and Disease Dynamics" Organized by Department of Geography, Government Arts College (Autonomous), 612 001, Kumbakonam-612 001, Tamil Nadu, India, 24.03.2014 to 26.03.2014

- ❖ M.Palaniyandi (2014), "Web mapping GIS: GPS under the GIS umbrella for Aedes species dengue vector mosquito surveillance and control", National Symposium on "Climate Change and Disease Dynamics, Organized by the PG & Research Department of Geography, Government Arts College (Autonomous), Kumbakonam-612 001, Tamil Nadu, India, 24.03.2014 to 26.03.2014.
- ❖ M.Palaniyandi, (2004),"The Impact of National River Water Projects on Regional Climatic Changes and Vector Borne Disease Outbreaks in India", in the National Conference on Climate Change and its Impact on Water Resources in India, Dec- 15-17, 2004, Organized by the School of Earth and Atmospheric Sciences, Madurai Kamaraj University, Madurai, Tamil nadu, India, Pin code- 625 021
- M.Palaniyandi (1995), "Land Use/ Land Cover Classification and Change Detection through Remote Sensing" at the Second National Conference of the Deccan Geographical Society (Pune) and School of Earth Sciences, Bharathidasan University, Thiruchirappalli-23. India. 20.09. 95 to 22.09.95

## Conferences / Seminar / Symposium / Workshop attended

- **Participated,** The National Training Programme on "Biosafety in Biomedical Research", organized by the ICMR-VCRC, Puducherry on 11<sup>th</sup> October, 2022
- Participated, National Conference on Community Medicine and Epidemiology (CME), held at BVDU Medical College, Pune, India, on 3<sup>rd</sup> August, 2014
- Participated and Co-chair Person: Session- Environmental Health, at the National Symposium on "Climate Change and Disease Dynamics" held at Government Arts College (Autonomous), 612 001, Tamil Nadu, India, 09.12.13 to 11.12.13.
- Participated, National Conference on Community Medicine and Epidemiology (CME), held at PIMS Medical College, Pondicherry, India, on 26<sup>th</sup> August 2011

- Participated and Co-chair Person: Session:- Climate change and Health, at the National Conference on Climate Change and its Impact on Water Resources in India, Dec- 15-17, 2004, Organized by the School of Earth and Atmospheric Sciences, Madurai Kamaraj University, Madurai – 625021, Tamil Nadu, India
- Participated, Indo-French Workshop on "Geographical Information Systems for Health Surveys" Workshop organized by IFP and Co-organized by VCRC, (ICMR), Pondicherry, India, 19-21 February 2004.
- **Participated,** Regional level Science Exhibition, held at Government Hr.Sec.School, (Emblem), Pondicherry, India, on 9<sup>th</sup> December, 2011
- Participated, Curriculum Development Workshop on "Modern Approaches to Epidemiology & Control of Vector Borne Diseases", Organized By Vector Control Research Centre (VCRC), ICMR, Pondicherry India, from 04.12.2000 to 06.12.2000
- Participated, Videoconference on "Information Technology in Medicine: March towards next Millennium" Organized by JIPMER, and Government Hospital, Pondicherry, Dept. of Science & Technology Govt. of Pondicherry and Computer Society of India- Venue: JIPMER, Pondicherry, India. JIPMER, Pondicherry, India. 10.12.99
- **Participated,** Training Workshop on "Basics of GIS and Image Processing" Conducted by GIS and Digital Mapping Laboratory, Department of Geography, University of Madras. Chennai, India, From 26.03.97 to 31.03.97
- Participated, National Symposium on "GIS Technology, Applications and Resource Management", Organized by Department of Geography, University of Madras and Department of Geography, University of Waterloo, Canada. Venue: University of Madras, Chennai, India, 22.02.95 to 24.02.95
- Participated, The Second National Conference of the Deccan Geographical Society (Pune) and School of Earth Sciences, Bharathidasan University, Thiruchirappalli-23. India. 20.09. 95 to 22.09.95

- Participated, IGU- International Conference on "Health, Environment & Development", Organized by the International Geographical Union Commission on HED, School of Earth and Atmospheric Sciences, Madurai Kamaraj University, and Indian Society of Environmental Health. M K University, Madurai, India, 27.01.94 to 30.01.1994
- Participated, National Symposium on Remote sensing National Symposium on Remote Sensing of Environment' held at Institute of Remote Sensing (IRS), Anna University, Madras, 10<sup>th</sup> to 12<sup>th</sup> December, 1991

Resource Faculty			
	National CME on "Vector Borne Diseases" held at the BVDU Medical College, Pune, India, on 3 <sup>rd</sup> August, 2014		
	1 <sup>st</sup> International Training Course on "Comprehensive Vector Control and Management", Special section on "Remote Sensing and GIS application to mapping vector borne disease transmission risk, vector control and management, Conducted by Vector Control Research Centre (ICMR), Sponsored by WHO/TDR Geneva, 1999-2002		
	2 <sup>nd</sup> International Training Course on "Comprehensive Vector Control and Management", Special section on "Remote Sensing and GIS application to mapping vector borne disease transmission risk, vector control and management, Conducted by Vector Control Research Centre (ICMR), Sponsored by WHO/TDR Geneva, 2000-2001		
	2 <sup>nd</sup> International Training Course on "Comprehensive Vector Control and Management", Special section on "Remote Sensing and GIS application to mapping vector borne disease transmission risk, vector control and management, Conducted by Vector Control Research Centre (ICMR), Sponsored by WHO/TDR Geneva, 2001-2002		
	3rd International Training Course on "Comprehensive Vector Control and Management", Special section on "Remote Sensing and GIS application to mapping vector borne disease transmission risk, vector control and management, Conducted by Vector Control Research Centre (ICMR), Sponsored by WHO/TDR Geneva, 2002-2003		

	4th International Training Course on "Comprehensive Vector Control and Management", Special section on "Remote Sensing and GIS application to mapping vector borne disease transmission risk, vector control and management, Conducted by Vector Control Research Centre (ICMR), Sponsored by WHO/TDR Geneva, 2003-2004				
	University Research Fellow (Resource faculty for the graduate students M.Sc., course in Environmental Remote sensing and Cartography), School of Earth & Atmospheric Sciences, MK University, Madurai-625 021, Tamil nadu, India, during 1994-1997				
	□ Resource person and facilitator for Training courses on "Remote sensing, GPS and GIS applications to spatial prediction of vector borne disease epidemic transmission, mapping of VBD hotspot regions, surveillance, risk assessment, control and management", ICMR-Vector Control Research Centre, Puducherry, India (1998-2020)				
Paper Publications from the projects					
	☐ M Palaniyandi, (2014), "A geo-spatial modeling for mapping of filariasis transmission risk in India, using remote sensing and GIS", Int. Journal of Mosquito Research, 2014; 1(1): 20-28. E-ISSN: 2348-5906, P-ISSN: 2348-7941				
	Srividya, Edwin Michael, M.Palaniyandi, SP. Pani and PK Das, (2002), "A Geostatistical Analysis of Lymphatic Filariasis Prevalence in Southern India", American J of Trop. Medicine & Hygiene, 2002; 67(5): 480-489. ISSN:0002-9637,				
	M.Palaniyandi, PH Anand, R Maniyosai, T Marriappan, and PK Das (2016), "The integrated remote sensing and GIS for mapping of potential vector breeding habitats, and the Internet GIS surveillance for epidemic transmission control, and management", Journal of Entomology and Zoology Studies, 2016; 4(3): 310-318. ISSN 2320-7078				
	M.Palaniyandi (2008), "GIS for lymphatic filariasis morbidity management and control", Coordinates, May 2008, 5(5): 24-28. ISSN: 0973-2136				

# Research Projects (completed): Role in the projects: Co-investigator

S1.	Title of the Project	Amount	Name of the Funding Agency		Period of
No.		Sanctioned			Projects
			National	International	
1	Application of Remote Sensing and	Rs27 lakhs	ICMR/Taskforce		April, 2000-
	Geographical Information Systems		EM9902 / AFR		March 2003
	(GIS) for Epidemiology and Control of				
	Lymphatic Filariasis				
2	Rapid Epidemiological Mapping of	US\$ 24,000		EM9701 AFR	April, 1988
	Lymphatic Filariasis in Southern India			WHO/ TDR	-March 2000
				(970679)	
3	Master plan for mosquitoes control in	INR.5 lakhs	EM /AFR		April 2002-
	the urban settlements, Vizag city, India		Corporation of		March 2005
			Vizag City		
4	GIS for Lymphatic filariasis morbidity				
	management and control	Rs. 1.0 lakh	ICMR-VCRC/		April, 2004
			/Intramural		

**Project 1:** Developed a geo-environmental risk model (GERM) for predicting the filariasis transmission risk, which regional level and it is accepted and adopted by the ICMR, New Delhi for applying the model at the national level.

**Project 2:** GIS based rapid grid sampling procedure, the results of the project outcome is submitted to the WHO/TD accepted for the rapid epidemiological mapping of lymphatic filariasis in india.

**Project 3:** Developed a methodology for master plan for mosquitoes control in the urban environment—using the indisensing and GIS techniques

**Project 4:** GIS for optimum health service coverage for lymphatic filariasis morbidity management and control in the settlements:- a case study pondicherry urban areas.

# **Projects Outcome**

# **Administrative Capacity Building**

Executive Committee Member
2022 -Official Language Implementation Committee Executive Committee Member
2021- Official Language Implementation Committee Executive Committee Member
2010-2012: Documentation, Scientific Exhibition, Publicity & Communication Executive Committee Member
2006-2009: Documentation, Scientific Exhibition, Publicity & Communication Executive Committee Member
2005-Documentation, Scientific Exhibition, Publicity & Communication Executive Committee Member
1999-2002: Administrative Capacity Building and Institutional Development Committee- Executive Committee Member
1998-Institution Staff & Student Canteen Committee Executive Committee Member

# Life Membership in the Professional Bodies

- ❖ Life Member-Indian Society of Remote Sensing (ISRS), 1991
- ❖ Life Member-Indian Society of Environmental Health (ISEH), 1993
- ♦ Life Member-The Deccan Geographical Society (DGS), 1995
- ❖ Life Member-The Indian Society of Geomatics (ISG), 2013
- Life Member- The Indian Geographical Society (IGS), Chennai, 2020
- ❖ Life Member- The Institute of Indian Geographers (IIG), Pune, 2020
- ❖ Life Member- National Association of Geographers, India (NAGI), 2020
- ❖ Life Member (NAGI)- The Asian Geographical Association (AGA), 2020
- Life Member- Indian National Cartographic Association (INCA), 2021
- ❖ Life Member-(IGU-GIS)-The International Geographical Union-2021
- Life Member -Society for Environmental Sustainability, India, 2021
- Fellow-Scholars Academic and Scientific Society (SASS)-2021

Achivements Summary

He has gained research experience for more than 25 years in the Tropical Infectious

Diseases and Spatial/Environmental Epidemiolgy, at his present capacity as a Senior

Researcher at the ICMR-Vector Control Research Centre (VCRC) a permanent research unit

of Indian Council of Medical Research, and has 52 research publications which include 36

papers in the indexed / refereed / peer reviewed journals, and 16 papers presented in the

conference. Research scholar citation H-Index-14, i-10 citation index-21. He has attended the

various national and international conferences, and has completed 7 training courses and several

workshops on Remote Sensing and GIS applications to Tropical Infectious Diseases, Spatial

Epidemiology, Environmental Health, Earth and Environmental Studies.

He has gained research capability and knowledge in the research areas of remote sensing and

GIS applications to tropical infectious diseases, environmental epidemiology, spatial

modeling, and health geography. He has developed a geo-spatial model for predicting the

vector borne disease epidemics, and has developed the rapid epidemiological mapping and

vector surveillance methods, and web mapping GIS for epidemic surveillance and VBD disease

control. He is the expert team member of the vector borne disease epidemic investigation group

of the institution.

He has received the Tamil Nadu Government Merit Scholarship for the meritorious

performance and passed all the subjects by first attempt in the UG degree and PG degree,

and has earned rank in the both degrees at the University. He has received 16 Awards

for Excellence in Reviewing Indexed/Peer Reviewed Journals, and includes SASS Best

Editor Award-2022, and nominee for the Best Researcher Award-2022.

Decleration

I certify that the information provided in the proforma are true and correct.

Place: Suryamaninagar, Agartala

**Date:** 15.02.2024

(Dr.Msaimalai Palaniyandi)