### Dr. N.S. MAGESH

Date of birth: 25/02/1984

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Nochyil House Varandarapilly P.O. Thrissur, Kerala – India Pin: 680303 Project Scientist 'B'
Polar Environment Division
National Centre for Polar and Ocean Research (NCPOR)
ESSO, Ministry of Earth Sciences, Government of India
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## **Biography**

Dr. Magesh's research interests include the study of climate change and its impact on landuse and water resources. His research involves coupling the climate models with high-resolution field data to explore the physical, chemical, and ecological processes in complex river basin system. He worked on the influence of landuse and climate on regional hydrology and groundwater quality in Tamiraparani basin, Southern India using geospatial technology and downscaled climate models - IPCC. Currently, he works as a Project Scientist at NCPOR, Goa and monitors the potential pollutants around polar base stations of India.

## Area of expertise includes

- Groundwater modeling
- Water quality analysis
- Heavy metal assessment
- Soil assessment
- Terrain evaluation
- Remote sensing, GIS and GPS
- Environmental monitoring and assessment
- Coastal environments and Coastal modeling
- Watershed management
- Biodiversity modeling
- Spatial modeling

#### **Education**

CBSE-UGC-NET Qualified for Assistant Professor in Environmental Science (December 2015)

### Ph.D

Subject: Environmental Science – Geotechnology (Interdisciplinary)

Thesis title: A study on the spatial variability of water quality and landuse pattern in Tamirabarani sub-basin, Southern India

University: Centre for Geotechnology, Manonmaniam Sundaranar University, Tirunelveli

Year: 2009 to 2015

Ph.D Supervisor: Prof. Dr. N. Chandrasekar, FNESA, FIGU

## Master degree (M.Sc.)

**Subject: Environmental Sciences** 

Institution: Christ College, Irinjalakuda, affiliated to University of Calicut, Kozhikode

Year: 2006 to 2008

# University II<sup>nd</sup> Rank holder with 74.9%

Group project: Saline intrusion studies along the fresh water aquifers of coastal segment from Chettuva to Eriyad of Thrissur district, Kerala

Dissertation: Comparative analysis of Panchagavya and Power Flower® (Nitrobenzene 20% v/v) on the yield of Cow Pea (*Vigna unguiculata*)

## Bachelor's degree (B.Sc.)

Subject: **Botany** 

Institution: St. Thomas College, Thrissur, affiliated to University of Calicut, Kozhikode

Year: 2003 to 2006

## **Passed with Distinction 78.9%**

Course included: Taxonomy, Biochemistry, Microbiology, Biotechnology, Plant Physiology, Anatomy, Biometrics, Cell biology, Ecology, Cell Biology, Evolution, Genetics, Applied botany and Plant pathology.

### Research experience

### **International**

Worked as Visiting Scientist for Coastal Specialists Ltd. Mauritius (April-June 2015).
 Research work includes Hydrographic survey of reef environment, coastal modeling, GIS & RS and Real Time Kinematics (RTK) survey.

## National

- **Project Scientist 'B'** (2018 to present) Polar Environment Division, National Centre for Polar and Ocean Research (NCPOR), ESSO, Ministry of Earth Sciences, Government of India, Headland Sada, Vasco-da-Gama, Goa, 403 804, India
- **Dr. D.S. Kothari Post Doctoral Fellow** (2015-2018) in Department of Geology, Anna University, Chennai 600 025 funded by UGC, India. Project title: Effect of climate change on landuse/land cover and its impact on groundwater quality in the Tamiraparani basin, Southern India.
- **Junior Research Fellow** (2010-2013) in DST (NRDMS) sponsored Project on "An Operational Marine GIS Expert System for Mapping of Non Living Resources"

• **Technical Fellow** (2009-2010) in State Government sponsored project (SPC-TNSLUB) on "Evaluating Tamirabarani river water quality through landuse analysis in the two catchments (Papanasam and Manimuthar) impacts of wetlands on stream nitrogen concentration"

#### Awards/Honors

- 1. Member, 38<sup>th</sup> Indian Scientific Expedition to Antarctica "Maitri Research Base"
- 2. Environmental Geotechnologist of the Year Award 2017 by the Scientific and Environmental Research Institute in association with Confederation of Indian Universities (CIU), New Delhi and Indian Institute of Ecology and Environment, New Delhi.
- 3. Young Scientist of the Year Award 2016 by International Foundation for Environment and Ecology, Kolkata associated with Confederation of Indian Universities (CIU), New Delhi.
- 4. University II Rank, Environmental Science 2008 (University of Calicut)

### **Publications**

(International, Peer - reviewed)

- Gopal, V., Krishnamurthy, R.R., Chakraborty, P., Magesh, N.S., Jayaprakash., M., 2019.
   Trace element contamination in marine sediments along the southeast Indian shelf following Cyclone Gaja. Marine Pollution Bulletin (Elsevier) 149:110520, DOI 10.1016/j.marpolbul.2019.110520 (Impact factor 3.782 2018)
- 2. Nithya C. Nair., Srinivas, Y., **Magesh, N.S.**, Kaliraj, S., 2019. Assessment of groundwater potential zones in Chittar basin, Southern India using GIS based AHP technique. Remote Sensing Applications: Society and Environment. 15:100248 (Elsevier) DOI: 10.1016/j.rsase.2019.100248
- 3. **Magesh, N.S.,** Chandrasekar, N., Elango, L., 2018. Groundwater environment of a tropical east flowing river of Western Ghats, Southern India. Journal of Geological Society of India (Springer) 92, 634-644 (Impact factor 0.994 2018)
- Vidyasakar, A., Neelavannan, K., Krishnakumar, S., Prabaharan, G., Sathiyabama Alias Priyanka, T., Magesh, N.S., Prince S. Godson, Srinivasalu, S., 2018. Macrodebris and microplastic distribution in the beaches of Rameswaram Coral Island, Gulf of Mannar, Southeast coast of India: A first report. Marine Pollution Bulletin (Elsevier), 137, 610-616 (Impact factor 3.782 – 2018)
- 5. Kanagaraj, G., Suganthi, S., Elango, L., **Magesh N.S., 2018.** Assessment of groundwater potential zones in Vellore district, Southern India using geospatial techniques. Earth Science Informatics (Springer), 12 (2), 211-223 (Impact factor 1.525 2018)
- 6. Krishnakumar, S., Saravanan, P., Pradhap, D., Judith D. Silva, Vidyasakar, A., Merin Sackaria, Godson, P.S., Arumugam, K., **Magesh, N.S.**, 2018. A baseline study on trace element based sediment pollution and potential ecological risk of reef sediments of Musal, Manoli and Manoli putti Islands, Gulf of Mannar, India. Marine Pollution Bulletin (Elsevier), 133, 117-123 (Impact factor 3.782 2018)

- Saravanan, P., Krishnakumar, S., Pradhap, D., Judith D. Silva, Arumugam, K., Magesh, N.S., Srinivasalu, S., 2018. Elemental concentration based potential Ecological Risk status of the surface sediments, Pulicat lagoon, Southeast coast of India. Marine Pollution Bulletin (Elsevier), 133, 107-116 (Impact factor 3.782 2018)
- 8. Krishnakumar, S., Srinivasalu, S., Saravanan, P., Vidyasakar, A., **Magesh, N.S.**, 2018. A preliminary study on coastal debris in Nallathanni Island, Gulf of Mannar Biosphere Reserve, Southeast coast of India. Marine Pollution Bulletin (Elsevier), 131, 547-551 (Impact factor 3.782 2018)
- 9. Gopal, V., Shanmugasundaram, A., Nithya, B., **Magesh, N.S.,** Jayaprakash, M., 2018. Water quality of the Uppanar river estuary, Southern India: implications on the level of dissolved nutrients and trace elements. Marine Pollution Bulletin (Elsevier), 130, 279-286 (Impact factor 3.782 2018)
- 10. Gopal, V., Nithya, B., **Magesh, N.S.,** Jayaprakash, M., 2018. Seasonal variations and environmental risk assessment of trace elements in the sediments of Uppanar River estuary, southern India. Marine Pollution Bulletin (Elsevier), 129, 347-356 (Impact factor 3.782 2018)
- 11. Saravanan, P., Krishnakumar, S., Judith D. Silva, Pradhap, D., Vidyasakar, A., Radhakrishnan, K., Prince S. Godson, Arumugam, K., **Magesh, N.S.**, 2018. Elemental concentration and potential ecological risk assessment of reef associated surface sediments of Appa Island, Gulf of Mannar Biosphere Reserve, Southeast coast of India. Marine Pollution Bulletin (Elsevier), 128, 398-407 (Impact factor 3.782 2018)
- 12. Godson, P.S., **Magesh, N.S.**, Peter, T.S., Chandrasekar, N., Krishnakumar, S., Vincent, S.G.T., 2018. A baseline study on the concentration of trace elements in the surface sediments off Southwest coast of Tamil Nadu, India. Marine Pollution Bulletin (Elsevier), 126, 381-388 (Impact factor 3.782 2018)
- 13. Krishnakumar, S., Ramasamy, S., Simon Peter, T., Prince S. Godson, Chandrasekar, N., Magesh, N.S., 2017. Geospatial risk assessment and trace element concentration in reef associated sediments, northern part of Gulf of Mannar biosphere reserve, Southeast Coast of India. Marine Pollution Bulletin (Elsevier), 125, 522-529 (Impact factor 3.782 2018)
- 14. **Magesh, N.S.**, Chandrasekar, N., 2017. Driving forces behind land transformations in the Tamiraparani sub-basin, South India. Remote Sensing Applications: Society and Environment (Elsevier), 8, 12-19.
- 15. **Magesh, N.S.**, Chandrasekar, N., Elango, L., 2017. Trace element concentrations in the groundwater of the Tamiraparani river basin, South India: Insights from human health risk and multivariate statistical techniques. Chemosphere (Elsevier), 185, 468-479. DOI: 10.1016/j.chemosphere.2017.07.044 (Impact factor 5.108 2018)
- 16. **Magesh, N.S.**, Chandrasekar, N., Krishnakumar, S., 2017. Geospatial analysis of dissolved nutrients dataset in the surface water of Karayar Reservoir, Southern India. Data in Brief (Elsevier), 13, 575-581.
- 17. Selvakumar, S., Chandrasekar, N., Kaliraj, S., **Magesh, N.S.**, 2018. Salinization of shallow aquifer in the Karamaniyar river basin, Southern India. Environment, Development and Sustainability (Springer) 20, 1255-1273 (Impact factor 1.676 2018)

- Simon Peter, T., Chandrasekar, N., John Wilson, J.S., Selvakumar, S., Krishnakumar, S., Magesh, N.S., 2017. A baseline record of trace elements concentration along the beach placer mining areas of Kanyakumari coast, South India. Marine Pollution Bulletin (Elsevier), 119(1), 416-422 (Impact factor 3.782 2018)
- 19. Krishakumar, S., Ramasamy, S., Chandrasekar, N., Simon Peter, T., Gopal V., Prince S. Godson, **Magesh**, **N.S.**, 2017. Trace elements concentrations in reef associated sediments of Koswari Island, Gulf of Mannar Biosphere Reserve, Southeast coast of India. Marine Pollution Bulletin (Elsevier), 117(1-2), 515-522 (Impact factor 3.782 2018)
- 20. **Magesh, N.S.,** Chandrasekar, N., Krishakumar, S., Simon Peter, T., 2017. Trace element contamination in the nearshore sediments of the Tamiraparani estuary, Southeast coast of India. Marine Pollution Bulletin (Elsevier) 116, 508-516 (Impact factor 3.782 2018)
- 21. **Magesh, N.S.,** Chandrasekar, N., Elango, L., 2016. Occurrence and distribution of fluoride in the groundwater of the Tamiraparani river basin, South India: a geostatistical modelling approach. Environmental Earth Sciences (Springer) 75, 1483 (Impact factor 1.871 2018)
- 22. **Magesh**, **N.S.**, Chandrasekar, N., Krishakumar, S., 2016. A Fuzzy–GIS Model for the exploration of groundwater potential zones in Tamiraparani sub-basin, Tamil Nadu, India. Frontiers of Current Trends in Engineering and Technology, 1(2), 52-58.
- 23. Krishakumar, S., Chandrasekar, N., Simon Peter, T., Gopal, V., **Magesh, N.S.,** 2016. Appraisal of metal contamination in soil around industrial areas of Chennai, Tamil Nadu, India. Frontiers of Current Trends in Engineering and Technology, 1(2), 42-51.
- 24. Krishakumar, S., Ramasamy, S., Chandrasekar, N., Simon Peter, T., Godson, P.S., Gopal, V., Magesh, N.S., 2016. Spatial risk assessment and trace element concentration in reef associated sediments of Van Island, southern part of the Gulf of Mannar, India. Marine Pollution Bulletin (Elsevier) 115, 444-450 (Impact factor 3.782 2018)
- 25. Gopal, V., Krishakumar, S., Simon Peter, T., Nethaji, S., Suresh Kumar, K., Jayaprakash, M., **Magesh, N.S.**, 2017. Assessment of trace element accumulation in surface sediments off Chennai coast after a major flood event. Marine Pollution Bulletin (Elsevier) 114(2), 1063–1071. (Impact factor 3.782 2018)
- 26. **Magesh, N.S.**, Chandrasekar, N., 2016. Assessment of soil erosion and sediment yield in the Tamiraparani sub-basin, South India, using an automated RUSLE-SY model. Environmental Earth Sciences (Springer) (Impact factor 1.871 2018) 75:1208
- 27. Kasilingam, K., Suresh Gandhi, M., Krishnakumar, S., **Magesh N.S.**, 2016. Trace element concentration in surface sediments of Palk Strait, South East coast of Tamil Nadu, India. Marine Pollution Bulletin (Elsevier) 111(1-2), 500-508. (Impact factor 3.782 2018)
- 28. Bheeroo, R.A., Chandrasekar, N., Kaliraj, S., **Magesh, N.S.**, 2016. Shoreline change rate and erosion risk assessment along the Trou Aux Biches Mont Choisy beach on the North West Coast of Mauritius using GIS DSAS Technique. Environmental Earth Sciences (Springer) 75, 444. (Impact factor 1.871 2018)
- 29. Selvam, S., Dar, F.A., **Magesh, N.S.**, Singaraja, C., Venkatramanan, S., Chung, S.Y., 2016. Application of remote sensing and GIS for delineating groundwater recharge potential zones

- of Kovilpatti Municipality, Tamil Nadu using IF technique. Earth Science Informatics, (Springer). 9(2), 137-150 (Impact factor 1.525 2018)
- 30. Krishnakumar, S., Ramasamy, S., **Magesh, N.S.,** Chandrasekar, N., Simon Peter, T., 2015. Metal concentrations in the growth bands of Porites sp.: A baseline record on the history of marine pollution in the Gulf of Mannar, India. Marine Pollution Bulletin (Elsevier), 101(1), 409-416. (Impact factor 3.782 2018)
- 31. Kaliraj, S., Chandrasekar, N., **Magesh, N.S.,** 2015. Evaluation of multiple environmental factors for site-specific groundwater recharge structures in the Vaigai River upper basin, Tamil Nadu, India using GIS based Weighted Overlay Analysis. Environmental Earth Sciences (Springer), 74(5), 4355-4380. (Impact factor 1.871 2018)
- 32. Selvakumar, S., Ramkumar, G., Chandrasekar, N., **Magesh, N.S.**, Kaliraj, S., 2017. Groundwater quality and its suitability for drinking and irrigational use in the Southern Tiruchirappalli district, Tamil Nadu, India. Applied Water Science (Springer), 7(1) 411-420.
- 33. Kaliraj, S., Chandrasekar, N., **Magesh, N.S.,** 2015. Morphometric analysis of the River Thamirabarani sub-basin in Kanyakumari district, South west coast of Tamil Nadu, India using Remote sensing and GIS. Environmental Earth Sciences (Springer), 73(11), 7375-7401. (Impact factor 1.871 2018)
- 34. Kaliraj, S., Chandrasekar, N., Selvakumar, S., Peter, T.S., **Magesh, N.S.,** 2015. Mapping of coastal aquifer vulnerable zone in the South West coast of Kanyakumari, South India using GIS-based DRASTIC model. Environmental Monitoring and Assessment 187, 4073 (Springer), (Impact factor 1.959 2018)
- 35. Selvam, S., **Magesh, N.S.**, Manimaran, D., Soundranayagam, J.P., Sivasubramaniam, P., 2014. Deciphering of Groundwater Potential Zones in Tuticorin, Tamilnadu, Using Remote Sensing and GIS Techniques. Journal of the Geological Society of India 84, 597-608. (Springer) (Impact factor 0.994 2018)
- 36. Selvam, S., **Magesh, N.S.**, Chidambaram, S., Rajamanickam, M., Sashikkumar, M.C., 2015. A GIS based identification of groundwater recharge potential zones using RS and IF technique: a case study in Ottapidaram taluk, Tuticorin district, Tamil Nadu. Environmental Earth Sciences (Springer), 73(7), 3785-3799. (Impact factor 1.871 2018)
- 37. Krishnakumar, S., Logeshkumaran, A., **Magesh, N. S.,** Godson, P.S., Chandrasekar, N., 2015. Hydro-geochemistry and application of water quality index (WQI) for groundwater quality assessment, Anna Nagar, part of Chennai City, Tamil Nadu, India. Applied Water Science (Springer), 5(4), 335–343.
- 38. Kaliraj, S., Chandrasekar, N., **Magesh, N.S.**, 2014. Multispectral image analysis of suspended sediment concentration along the Southern coast of Kanyakumari, Tamil Nadu, India. Journal of Coastal Sciences 1(1), 63-71.
- 39. Abin, A., Sibin, R., Aghil, T.B., **Magesh, N.S.,** Sridhar, S.G.D. 2014. Statistical evaluation of groundwater geochemistry: a case study between Chinnakuppam and Kulathur, South Chennai, Tamil Nadu, India. Journal of Coastal Sciences 1(1), 58-62.

- 40. Selvakumar, S., Chandrasekar, N., Srinivas, Y., Peter, T.S, **Magesh, N.S.**, 2014. Evaluation of the groundwater quality along coastal stretch between Vembar and Taruvaikulam, Tamil Nadu, India: a statistical approach. Journal of Coastal Sciences 1(1), 22-26.
- 41. **Magesh, N.S.**, Chandralekha, L.I., Chandrasekar, N., Kaliraj, S., 2014. Influence of tidal cycle on heavy minerals variation in the Kottilpadu beach, Kanyakumari coast, Tamil Nadu, India. Journal of Coastal Sciences 1(1), 15-21.
- 42. Peter, T.S., Chandrasekar, N., Selvakumar, S., Kaliraj, S., **Magesh, N.S.**, Srinivas, Y., 2014. Tidal effects on estuarine water quality through a sandy marine beach: a case study in Vembar estuary, southeast coast of Tamil Nadu, India. Journal of Coastal Sciences 1(1), 6-14.
- 43. **Magesh**, **N.S.**, Chandrasekar, N., Kaliraj, S., 2014. Mapping the coastal geomorphological landforms through Aster DEM and Landsat data a case study between Tuticorin-Vembar coastal stretch, southeast coast of India. Journal of Coastal Sciences 1(1), 1-5.
- 44. Krishna Kumar, S., Bharani, R., **Magesh**, **N.S.**, Godson, P.S., Chandrasekar, N., 2014. Hydrogeochemistry and groundwater quality appraisal of part of south Chennai coastal aquifers, Tamil Nadu, India using WQI and fuzzy logic method. Applied Water Science 4, 341-350. (Springer).
- 45. Kaliraj, S., Chandrasekar, N., **Magesh, N.S.,** 2015. Evaluation of coastal erosion and accretion processes along the south-west coast of Kanyakumari, Tamil Nadu, using geospatial techniques. Arabian Journal of Geosciences 8, 239-253. (Springer), (Impact factor 1.141 2018)
- 46. **Magesh**, **N.S.**, Chandrasekar, N., Kaliraj, S., 2015. Mapping of heavy mineral placers through Marine GIS expert system: a case study in Kalaignanapuram coastal stretch, South east coast of Tamil Nadu, India. Arabian Journal of Geosciences 8, 195-206. (Springer), (Impact factor 1.141 2018)
- 47. Chandrasekar, N., Selvakumar, S., Srinivas, Y., Wilson, J.S.J, Peter, T.S., **Magesh, N.S.,** 2014. Hydrogeochemical assessment of groundwater quality along the coastal aquifers of southern Tamil Nadu, India. Environmental Earth Sciences 71, 4739-4750. (Springer), (Impact factor 1.871 2018)
- 48. Kaliraj, S., Chandrasekar, N., **Magesh, N.S.,** 2014. Impacts of Wave energy and Littoral currents on Shoreline erosion/accretion along the South-West Coast of Kanyakumari, Tamil nadu using DSAS and Geospatial Technology. Environmental Earth Sciences 71, 4523-4542. (Springer), (Impact factor 1.871 2018)
- 49. **Magesh, N.S.,** Chandrasekar, N., Krishnakumar, S., Glory, M., 2013. Trace element contamination in the estuarine sediments along Tuticorin coast Gulf of Mannar, southeast coast of India. Marine Pollution Bulletin 73, 355-361. (Elsevier), (Impact factor 3.782 2018)
- 50. **Magesh, N.S.**, Jitheshlal, K.V., Chandrasekar, N., Jini, K.V., 2013. Geographical information system-based morphometric analysis of Bharathapuzha river basin, Kerala, India. Applied Water Science 3, 467-477. (Springer).

- 51. Kaliraj, S., Chandrasekar, N., **Magesh, N.S.**, 2014. Identification of potential Groundwater recharge zones in Vaigai upper basin, Tamilnadu, using GIS based Analytical Hierarchical Process (AHP) technique. Arabian Journal of Geoscience 7, 1385-1401. (Springer), (Impact factor 1.141 2018)
- 52. **Magesh, N.S.,** Chandrasekar, N., 2013. Evaluation of spatial variations in groundwater quality by WQI and GIS technique: a case study of Virudunagar district, Tamil Nadu, India. Arabian Journal of Geoscience 6, 1883-1898. (Springer), (Impact factor 1.141 2018)
- 53. **Magesh**, **N.S.**, Chandrasekar, N., 2014. GIS model based morphometric evaluation of Tamiraparani sub-basin, Tirunelveli district, Tamil Nadu, India. Arabian Journal of Geoscience 7, 131-141. (Springer), (Impact factor 1.141 2018)
- 54. **Magesh, N.S.,** Krishnakumar, S., Chandrasekar, N., Soundranayagam, J.P., 2013. Groundwater quality assessment using WQI and GIS techniques, Dindigul district, Tamil Nadu, India. Arabian Journal of Geoscience 6, 4179-4189. (Springer), (Impact factor 1.141 2018)
- 55. Selvakumar, S., Chandrasekar, N., **Magesh, N.S.,** 2012. Preliminary Investigation of Groundwater Quality along the Coastal Aquifers of Southern Tamil Nadu Using GIS Techniques, Bonfring International Journal of Industrial Engineering and Management Science 2, 46-52.
- 56. Kaliraj, S., Chandrasekar, N., **Magesh, N.S.,** 2012. Stochastic Modelling of Spatial and Temporal Changes in Rainfall Pattern along the South West Coast of Tamilnadu, India. Bonfring International Journal of Industrial Engineering and Management Science 2, 16-19.
- 57. Wilson, J.S.J., Chandrasekar, N., **Magesh, N.S.**, 2012. Morphometric Analysis of Major Sub-Watersheds in Aiyar and Karai Pottanar Basin, Central Tamil Nadu, India Using Remote Sensing and GIS Techniques. Bonfring International Journal of Industrial Engineering and Management Science 2, 8-15.
- 58. **Magesh, N.S.**, Chandrasekar, N., Kaliraj, S., 2012. A GIS Based Automated Extraction Tool for the Analysis of Basin Morphometry. Bonfring International Journal of Industrial Engineering and Management Science 2, 32-35.
- 59. **Magesh**, **N.S.**, Jitheshlal, K.V., Chandrasekar, N., Jini, K.V., 2012. GIS based Morphometric Evaluation of Chimmini and Mupily Watersheds, Parts of Western Ghats, Thrissur District, Kerala, India. Earth Science Informatics 5, 111-121 (Springer), (Impact factor 1.525 2018)
- 60. Prasanth, S.V.S., **Magesh**, **N.S.**, Jitheshlal, K.V., Chandrasekar, N., Gangadhar, K., 2012. Evaluation of groundwater quality and its suitability for drinking and agricultural use in the coastal stretch of Alappuzha District, Kerala, India. Applied Water Science 2, 165-175 (Springer).
- 61. Krishna Kumar, S., Chandrasekar, N., Seralathan, P., Godson, P.S., **Magesh, N.S.**, 2012. Hydrogeochemical study of shallow carbonate aquifers, Rameswaram Island, India. Environmental Monitoring and Assessment 184, 4127-4138. (Springer), (Impact factor 1.959 2018)

- 62. **Magesh, N.S.**, Chandrasekar, N., Soundranayagam, J.P., 2012. Delineation of groundwater potential zones in Theni district, Tamil Nadu, using remote sensing, GIS and MIF techniques. Geoscience Frontiers 3, 189-196. (Elsevier), (Impact factor 4.160 2018)
- 63. Krishna Kumar, S., **Magesh, N.S.**, Chandrasekar, N., 2012. Trace Element Concentration in Groundwater, Tuticorin City, Tamil Nadu, India. Bulletin of Environmental Contamination and Toxicology 88, 876-879 (Springer), (Impact factor 1.650 2018)
- 64. **Magesh**, **N.S.**, Chandrasekar, N., VethaRoy, D., 2011. Spatial Analysis of Trace Element Contamination in Sediments of Tamiraparani Estuary, Southeast Coast of India. Estuarine Coastal and Shelf Science 92, 618-628. (Elsevier), (Impact factor 2.611 2018)
- 65. **Magesh, N.S.,** Chandrasekar, N., Soundranayagam, J.P., 2011. Morphometric Evaluation of Papanasam and Manimuthar Watersheds, Parts of Western Ghats, Tirunelveli District, Tamilnadu, India: A GIS approach. Environmental Earth Sciences 64, 373-381. (Springer), (Impact factor 1.871 2018)

#### **Books**

- 1. Simon Peter, T., Chandrasekar, N., **Magesh, N.S.**, 2017. Tidal effects on estuarine water quality: a case study in Vembar estuary, Southeast coast of Tamil Nadu, India. LAP LAMBERT Academic Publishing, OmniScriptum GmbH & Co. KG, Bahnhofstraβe 28, 66111 Saarbrücken, Deutschland / Germany ISBN: 978-3-330-05240-6.
- Magesh, N.S., Chandrasekar, N., 2016. Landuse and Water Quality: a case study in the upper catchments of Tamiraparani river basin. LAP LAMBERT Academic Publishing, OmniScriptum GmbH & Co. KG, Bahnhofstraβe 28, 66111 Saarbrücken, Deutschland / Germany ISBN: 978-3-330-00146-6.
- 3. **Magesh Sivan,** 2016. Comparative analysis of Panchagavya and Power Flower: Nitrobenzene 20%, a case study on the yield of Cowpea (*Vigna unguiculata*). LAP LAMBERT Academic Publishing, OmniScriptum GmbH & Co. KG, Bahnhofstraβe 28, 66111 Saarbrücken, Deutschland / Germany ISBN: 978-3-659-96425-1.

### **Edited books**

1. Geospatial Technology Development in Natural Resource and Disaster Management (2012), Eds. N. Chandrasekar, Y. Srinivas, **N.S. Magesh**. Bonfring publications, 1-159 pp, ISBN No. 978-1-4675-1870-3.

### **Book Chapter**

- 1. **Magesh N.S.**, Elango, L., 2019. Spatio-temporal variations in fluoride in the groundwater of Dindigul district, Tamil Nadu, India: a comparative assessment using two interpolation techniques. Eds. S. Venkatramanan, M.V. Prasanna & S.Y. Chung. In. GIS and Geostatistical Techniques for Groundwater Science. Elsevier, ISBN: 9780128154137
- 2. **Magesh, N.S.,** Krishnakumar, S., 2019. The Gulf of Mannar Marine Biosphere Reserve, Southern India. Eds. Charles Sheppard (2<sup>nd</sup> edition). In. World Seas, An environmental

evaluation, Vol II: The Indian Ocean to the Pacific. Academic Press (Elsevier), ISBN 978-0-08-100853-9

## **Conference Paper**

- 1. **Magesh, N.S.,** Elango, L., 2018. Spatio-temporal analysis of rainfall characteristics for a period of 34 years (1980-2013) in Tamiraparani river basin, Southern India. National seminar on Recent Trends in Geosciences (RTG 2018) held on 15-16 February, 2018 and organized by Centre for Geotechnology, Manonmaniam Sundaranar University, Tirunelveli, Tamil Nadu, India.
- 2. **Magesh, N.S.,** Chandrasekar, N., Elango, L., 2017. Hydrogeomorphology of the Tamiraparani river basin: implications on the management of groundwater resources under changing climatic conditions. 9th International Conference on Geomorphology, organized by Indian Institute of Geomorphologists (IGI), held on 6-11 November 2017, Vigyan Bhavan, New Delhi, India.
- 3. **Magesh, N.S.,** Chandrasekar, N., Elango, L., 2017. Trace elements in the groundwater of a tropical river basin, South India: implications on human exposure risk through oral and dermal pathways. 3rd International conference on environment and ecology (ICEE-2017) held on 27-29 March, 2017, organised by St. Xavier's College, Ranchi, Jharkhand.
- 4. **Magesh, N.S.,** Chandrasekar, N., Elango, L., 2016. Distribution of Fluoride in the groundwater of a tropical river basin, South India, International Conference on Environmental Sustainability for Food Security (ENFOSE -2016) held on 22-24 September 2016, organised by Sree Ayyappa College for Women, Chunkankadai, Kanyakumari District, Tamil Nadu.
- 5. Selvakumar, S., Chandrasekar, N., **Magesh, N.S.,** Srinivas, Y., Divya, C., 2016. Geospatial and geostatistical techniques to evaluate groundwater salinity and its sources in the coastal aquifer of Southern Tamil Nadu, India. International Conference on Environmental Sustainability for Food Security (ENFOSE -2016) held on 22-24 September 2016, organised by Sree Ayyappa College for Women, Chunkankadai, Kanyakumari District, Tamil Nadu.
- 6. **Magesh, N.S.,** Chandrasekar, N., Kaliraj, S., 2014. A GIS based automated extraction tool for the analysis of basin morphometry, presented in the national seminar on Geospatial technology developments in natural resource and disaster management at Manonmaniam Sundaranar University, 23 and 24 February, 2012.
- 7. **Magesh, N.S.,** Chandrasekar, N., 2011. Trace elements contamination in the estuarine sediments of Tuticorin coast, presented in the national conference on Urban Environmental pollution and public health, sponsored by CSIR and ICMR, November, 1-2, 2011.

## **Publication quality**

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### Journal board member

- Editor Journal of Aquatic Pollution and Toxicology http://www.imedpub.com/aquatic-pollution-and-toxicology/editors.php
- Editorial Board Member Journal of Earth and Environmental Sciences http://gavinpublishers.com/journal-of-earth-and-environmental-sciences-editorial-board/

## Reviewer in reputed journals

- 1. Environmental Pollution (Elsevier)
- 2. Science of the Total Environment (Elsevier)
- 3. Chemosphere (Elsevier)
- 4. Journal of Environmental Management (Elsevier)
- 5. Marine Pollution Bulletin (Elsevier)
- 6. Catena (Elsevier)
- 7. Applied Geography (Elsevier)
- 8. Physics and Chemistry of the Earth (Elsevier)
- 9. Journal of African Earth Sciences (Elsevier)
- 10. Remote Sensing Applications: Society and Environment (Elsevier)
- 11. Groundwater for Sustainable Development (Elsevier)
- 12. International Journal of Sediment Research (Elsevier)
- 13. Regional Studies in Marine Science (Elsevier)
- 14. Water Resources Management (Springer)
- 15. Environmental Modeling and Assessment (Springer)
- 16. Environmental Monitoring and Assessment (Springer)
- 17. Environmental Earth Sciences (Springer)
- 18. Arabian Journal of Geosciences (Springer)
- 19. Central European Journal of Geosciences (Springer)
- 20. Applied Water Science (Springer)
- 21. International Journal of Digital Earth (Taylor & Francis)
- 22. Human and Ecological Risk Assessment: An International Journal (Taylor & Francis)
- 23. International Journal of Sustainable Energy (Taylor & Francis)
- 24. Local Environment (Taylor & Francis)
- 25. Hydrological Science Journal (Taylor & Francis)
- 26. Geospatial Information Science (Taylor & Francis)
- 27. Desalination and Water Treatment (Taylor & Francis)
- 28. ISH Journal of Hydraulic Engineering (Taylor & Francis)

- 29. Geomatics, Natural Hazards and Risk (Taylor & Francis)
- 30. Geografisk Tidsskrift-Danish Journal of Geography (Taylor & Francis)
- 31. Environmental Forensics (Taylor & Francis)
- 32. Geology, Ecology and Landscapes (Taylor & Francis)

## **Membership in Scientific Societies**

- 1. Member, International Association of Hydrological Sciences (IAHS) (No: 12353)
- 2. Member, International Society for Agro-meteorology (INSAM)
- 3. Member, American Society of Civil Engineers (ASCE member ID# 10249011)
- 4. Member, The International Society for Environmental Information Sciences, (ISEIS)
- 5. Senior member International Engineering and Technology Institute (No. 2015081070)
- 6. Life member International Society for Research and Development (No. SR4150900362)
- 7. Member International Economics Development Research Center, (IEDRC) (No. 30080354)

## Seminars and workshop attended

- 1. National Conference on Recent trends in Geosciences (RTGS-2018) organized by Centre for Geotechnology, Manonmaniam Sundaranar University, Tirunelveli, Tamil Nadu, 15-16 February, 2018.
- 2. 3<sup>rd</sup> International Conference on Environment and Ecology (ICEE-2017) organized by International foundation for environment and ecology, Kolkata, held at St. Xavier's College, Ranchi, Jharkhand, 27-28 March, 2017.
- 3. International Conference on Environmental Sustainability for Food Security (ENFOSE 2016) organised by Sree Ayyappa College for Women, Chunkankadai, Kanyakumari District, Tamil Nadu, 22-24 September 2016.
- 4. National Workshop on Geospatial Technologies for Coastal Resources Management, Organized by Department of Earth and Space Sciences, Indian Institute of Space Science and Technology, Trivandrum, 28-29 May 2012.
- 5. UGC Sponsored two day National seminar on Geospatial Technology Development in Natural Resource and Disaster Management (SGSDNDM 2012) Organized by Centre for Geotechnology, Manonmaniam Sundaranar University, Tirunelveli, 23- 24 February 2012.
- 6. International Workshop of Geomorphological Hazards organised by Centre for GeoTechnology, Manonmaniam Sundaranar University. 21<sup>st</sup> 23<sup>rd</sup> July 2010.
- 7. Seminar on "Sustainability and Conservation of Coastal Resources and Ecology" conducted by Centre for GeoTechnology, Manonmaniam Sundaranar University. 17<sup>th</sup> 18<sup>th</sup> July 2009.
- 8. One day Workshop on Geographical Information System and Remote sensing applications organised jointly by centre for geo Information Technology, Socio Economic unit foundations, and Dept. of Geology and Environmental Science, Christ College, Irinjalakuda in collaboration with Kerala State Council for Science Technology and Environment, Government of Kerala. 17<sup>th</sup> July 2008.
- 9. UGC Sponsored two day regional seminar on 'Eco-Folklore' (Nattuvettam) organised by the Dept. of Malayalam, St. Joseph's College, Irinjalakuda. 26<sup>th</sup> 27<sup>th</sup> July 2007.

- 10. National Workshop on "Community based disaster preparedness" organised by Loyola College, Chennai.  $22^{nd} 23^{rd}$  June 2007.
- 11. One day Workshop on "Wetlands of Kerala" held at St. Thomas College, Thrissur. 2<sup>nd</sup> February, 2007.

### **Certificate courses**

- 1. Three month Off-Campus Outreach Certificate Program for satellite based training for Universities sponsored by NNRMS on the basic course on "Remote sensing, Geographical Information System and Global Navigation Satellite System" conducted by IIRS ISRO, Department of Space, Govt. of India. (5-08-2013 to 12-11-2013).
- 2. Two month Off-Campus Outreach Certificate Program for satellite based training for Universities sponsored by NNRMS on the advance course on "Microwave (SAR) Remote sensing for Natural Resources" conducted by IIRS ISRO, Department of Space, Govt. of India. (3-02-2014 to 29-03-2014).
- 3. Two month Off-Campus Outreach Certificate Program for satellite based training for Universities sponsored by NNRMS on the basic course on "Applications of Remote Sensing and GIS for Natural Resources" conducted by IIRS ISRO, Department of Space, Govt. of India. (27-01-2015 to 27-03-2015).

## Training programs attended

- 1. Three week training program on 'Satellite Remote Sensing for Earth Science Research' organized by Centre for Earth & Space science, University of Hyderabad, sponsored by NRDMS, Department of Science and Technology, Govt. of India, from September 11-October 1, 2014.
- 2. Short Term Training Workshop on 'ISOTOPE HYDROLOGY' organized by Karunya University, Coimbatore jointly with Centre for Water Resources Development and Management (CWRDM), Kozhikode and sponsored by DST-SERB, 09-12-2013 to 14-12-2013.
- 3. International Training Session on Remote Sensing and Geospatial Technologies for Land-Cover and Land Use Change Studies and Applications conducted by NASA Land-Cover/Land-Use Change Program, Centre for Water Resource Development and Management, International START Secretariat, Monsoon Asia Integrated Regional Study, and the University of Maryland, hosted by Karunya University, Coimbatore, 14<sup>th</sup> January 2013.
- 4. National Training cum Workshop on Analytical and Technical Advancement in AAS and GC (*WATA-AG*) organised by the Department of Marine Science, Bharathidasan University, Trichy. 24<sup>th</sup> 25<sup>th</sup> January 2012.

### Radio Talks

All India Radio, Geographic Information System (Program - Sastralokam), dt. 12/3/2015

## **Instrumentation techniques**

## Handling Experience in

- Air Mercury analyser (Tekran)
- Aerosol Spectrometer (Grimm)
- Aethalometer (Magee Scientific)
- High Volume Sampler, Low Volume Sampler (SKC)
- Stack monitor; Multi Stage Impactor (Thermo)
- UV-VIS Spectrophotometer; Colorimeter
- Petrographic and phase contrast microscope
- Current meter for river discharge measurements (OTT)
- Leica Sprinter
- Laboratory furnace and hot air oven
- Ro-Tap sieving machine
- Sediment corer, vibro corer, bunka drill
- Nephelometer; Flame Photometer
- Atomic Absorption Spectrophotometer (ELICO, SL-194; GBC Avanta 932 Plus; Thermo M-Series with GF and hydride generator)
- Microwave digestor (MARS 6)
- HANNA multi-probe water quality meter, USA
- HANNA ion selective electrode meter (F, pH, Temp), USA
- GPS handling, Garmin, Trimble
- CHC GNSS RTK
- OHMEX Single beam Ecosounder

## Computer technology skill (Advanced user)

**Softwares:** Microsoft Office 2013, Adobe Photoshop, ArcGIS 10.3, ERDAS Imagine 2014, ENVI 5.1, Global Mapper, IBM SPSS, Aquachem, Rockware, Sigmaplot, D Plot, Gradistat, Hydromagic, Aquaveo SMS.

**Platforms/OS:** Windows 95, 98, 2000, XP & Windows vista, Windows 7, Windows 8, Windows 10.

## **Extracurricular activities (NCC)**

- Represented Kerala & Lakshadweep Directorate in Republic Day Camp 2005
- Participated in Desert Camel Safari Camp with Singapore delegates, Rajasthan 2006

### **Declaration**

I, Dr. N.S. Magesh hereby declare that the above given details are true to best of my knowledge and if anything found untrue, then I will consider myself not suitable for the job.

(N.S. Magesh)