

**National Institute of Technology, Tiruchirappalli:
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7. Employment Profile

Job Title	Employer	From	To
Assistant Professor	National Institute of Technology, Tiruchirappalli	22-05-2020	Till Date
Sr. Assistant Professor	Madanapalle Institute of Technology & Science, Madanapalle	27-03-2018	13-05-2020
Graduate Engineer Trainee (Civil)	Shapoorji Pallonji Engineering and Constructions	01-08-2011	04-07-2012

8. Academic Qualifications (From Highest Degree to High School):

Examination	Board / University	Year	Division/ Grade	Subjects
Ph.D. in Civil Engineering	Malaviya National Institute of Technology Jaipur	2014-18	-	Civil Engineering
M. Tech in Water Resources Engineering	Malaviya National Institute of Technology Jaipur	2012-14	Distinction (Gold Medal)	Water Resources Engineering
B. Tech in Civil Engineering	Govt. Rajiv Gandhi Institute of Technology, Kottayam	2007-11	Distinction	Civil Engineering
Higher Secondary Examination (HSE)	Board of Higher Secondary Examination, Kerala	2004-06	Distinction	Science
SSLC	Board of Public Examination, Kerala	2004	Distinction	All Subjects

9. Academic/Administrative Responsibilities within the University

Position	Faculty/Department/Centre/Institution	From	To
UG Admission Committee Member	NIT Tiruchirappalli	2021	Till Date

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Anti-Ragging Squad Officer	NIT Tiruchirappalli	2022	Till Date
NBA Coordinator (Civil)	NIT Tiruchirappalli	2020	Till Date
Data Coordinator	NIT Tiruchirappalli	2021	Till Date

10. Academic/Administrative Responsibilities outside the University

Position	Institution	From	To

11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization
2014	First rank in M. Tech in Water Resources Engineering	Malaviya National Institute of Technology Jaipur
2016	Outstanding reviewer recognition	Sustainable Cities and Society Journal (ELSEVIER)
2019	Gold Medal for the course Remote Sensing and Digital Image Processing of Satellite Data	NPTEL

12. Fellowships

Year of Award	Name of the Fellowship	Awarding Organization	From (Month/Year)	To (Month/Year)
2012	GATE	MHRD	2012	2014

13. Details of Academic Work

- (i) Curriculum Development
- (ii) Courses taught at Postgraduate and Undergraduate levels

Postgraduate level:

- CE706-Air Pollution and Control Engineering
- CE717-Environmental Impact Assessment

Undergraduate level

- CEPC29-Irrigation and Hydraulic Engineering
- CEPC22-Hydrology and Irrigation Engineering
- CEIR11-Basics of Civil Engineering

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- CEPE24-Environmental Management and Impact Assessment
- CELR19-Estimating, Costing and Valuation
- CELR15-Building Planning and Drawing

(iii) Projects guided at Postgraduate level

Sl. No.	Thesis Name	Students' Name	Roll Number	Year
1	Short Term Water Demand Forecast Modelling Using Artificial Intelligence for Smart Water Management	M Kavya	203520013	2022
2	Spatio and Temporal Analysis and Modelling of Urban Heat Island Effect Over Tiruchirappalli City Using using Geospatial Techniques	Ajay badugu	203420006	2022
3	Spatio-Temporal Air Quality Analysis and PM _{2.5} Modelling Using Machine Learning Techniques	Gokul P.R.	203420011	2022
4	Trend Analysis and Modeling of Vehicular Emissions Using International Vehicle Emission Model	Pratibha Baghel	203420016	2022
5	Impact of Covid-19 Lockdown Upon the Surface Water Quality, Air Quality and Surface Temperatures Over Indian Metropolitan Cities	Rajan kunal	203420019	2022
6	Spatio-Temporal Analysis between Urban Heat Island and Atmospheric Pollution Island Interaction over Delhi, India using Geospatial Techniques	Manish Kumar Mishra	203419017	2021
7	Temporal Variation Analysis and Forecasting of Air Pollutants and Modelling of Ground Level Ozone Formation over Cities of Bangalore and Delhi	Meda Bala Naga Manikanta	203419018	2021

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(iv) Other contribution(s)

UG Projects guided:

Sl. No.	Thesis Name	Students' Name	Year
1	Assessment of Groundwater Potential Zones Map Using Remote Sensing/GIS Techniques	Aparna P (103118010) Gayatri Meena (103118026) G Sanjay Kumar (103118029) Kalluri Namratha (103118038) Ulli Rana Pratap (103118100)	2022
2	Prototype Development and Design of Individual Household Wastewater Treatment Plant	Abhishek Kumar Jha (103117006) Ajay Kumar Meena (103117009) Satyam Kumar Yadav (103117087) Shushant Singh (103117089)	2021
3	Development of a Mathematical Model to Estimate Demolition Waste for Effective Waste Management	Aman Mishra (103117011) Praveen Shankar (103117071) Vikash Kumar (103117105) Samuel Murunga (103117067)	2021

14. Details of Major R&D Projects

Title of Project	Funding Agency	Duration		Status
		From	To	Ongoing/ Completed
Spatio-temporal Modeling and Analysis of Urban Heat Island Effect over Bangalore and Hyderabad Cities in India using Geospatial Techniques	SERB-DST	23-12-2021	22-12-2023	Ongoing
Spatial and Temporal Analysis of Urban Heat Island Effect over Tiruchirappalli City using Geospatial Techniques	NIT Tiruchirappalli	01-04-2021	31-03-2023	Ongoing

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15. Number of PhDs guided

Name of the PhD Scholar	Title of Ph.D. Thesis	Role (Supervisor/ Co-Supervisor)	Year of Award
Padala Raja Shekar	Rainfall-Runoff Modeling using Artificial Intelligence	Supervisor	Ongoing

16. Participation in Workshops/ Symposia/ Conferences/ Colloquia /Seminars/ Schools etc. (mentioning the role)

Date (s)	Title of Activity	Level of Event (International/ National/ Local)	Role (Participant/ Speaker/ Chairperson, Paper presenter, Any other)	Event Organized by	Venue
10 th -14 th August 2020	Quality Improvement Programme on E-content development	National	Participant	National Institute of Technical Teachers Training and Research (NITTTR) Chennai	Trichy
January 06, 2019	Engineering Education Research	National	Participant	Malla Reddy Engineering College, Hyderabad	Hyderabad
12 th July 2018 to 14 th July 2018	IUCEE IIEECP, international engineering educator precertification Batch-2 Phase1 workshop	National	Participant	VIT, Amaravati	Amaravati
25 th to 29 th June 2018	Quality Improvement Programme on Industrial Design and Delivery System	National	Participant	National Institute of Technical Teachers Training and Research	Madanapalle

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				(NITTTR) Chennai	
20 th January, 2018	AIR-O ₂ -THON International summit	Local	Participant	Malaviya National Institute of Technology Jaipur	Jaipur
16 th September, 2017	‘Sustainability of ODS Phase out, Kigali Amendment and India's way forward’	Local	Participant	Malaviya National Institute of Technology Jaipur	Jaipur
July 04 – 08, 2016	Global Initiative of Academic Networks (GIAN), International Summer Course – 2016 on Land Use/ Land Cover Change Modelling and Prediction	International	Participant	Malaviya National Institute of Technology Jaipur	Jaipur
April 12, 2016	‘ISRO’s Geo- portals for developmental planning and e- governance’	National	Participant	ISRO	Jaipur

**17. Workshops/ Symposia/ Conferences/ Colloquia/Seminars Organized (as Chairman/
Organizing Secretary/ Convenor / Co-Convenor)**

Title of Activity	Level of Event (International/ National/ Local)	Date (s)	Role	Venue

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18. Invited Talks delivered

Topic	Date	Inviting Organization
Urban Heat Island Phenomenon: Causes, Effects, Mitigation Measures and Current Status in India	10/09/2021	MES College of Engineering, Kuttippuram
Urban heat island effect in urban climate as a consequence of urbanization	28/09/2021	Institution of Engineers India, Tiruchirappalli Local Centre
Urban Heat Island Phenomenon and Influence of Surface Water Features on Heat Island: Study of Ahmedabad City in India	07/ 10/2021	REVA University, Bengaluru
Impact of Urban heat island on urban climatology as a consequence of urbanization	22/12/2021	Mepco Schlenk Engineering College, Sivakasi

19. Membership of Learned Societies

Type of Membership (Ordinary Member/ Honorary Member / Life Member)	Organization	Membership No. with date
Life membership	International Association of Academicians (IAASSE)	-
Life membership	American Society of Civil Engineers	-

20. Academic Foreign Visits

Country	Duration of Visit	Programme

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21. Publications

(A) Refereed Research Journals:

Author(s)	Title of Paper	Journal	Volume (No.)	Page numbers	Year	Impact Factor of the Journal (Optional)
Padala Raja Shekar, Aneesh Mathew	Morphometric analysis for prioritizing sub-watersheds of Murredu River basin, Telangana State, India, using a geographical information system	Journal of Engineering and Applied Science	69	1-30	2022	-
Padala Raja Shekar, Aneesh Mathew	Evaluation of Morphometric and Hypsometric analysis of the Bagh River basin using Remote Sensing and Geographic Information System techniques	Energy Nexus	7	100104	2022	-
Leenu Raju, R Gandhimathi, Aneesh Mathew , ST Ramesh	Spatio-temporal modelling of particulate matter concentrations using satellite derived aerosol optical depth over coastal region of Chennai in India	Ecological Informatics	69	101681	2022	4.49
Bala Naga Manikanta Meda, Aneesh Mathew	Temporal variation analysis, impact of COVID-19 on air pollutant concentrations, and forecasting of air pollutants over the cities of Bangalore and Delhi in India	Arabian Journal of Geosciences	15	1-20	2022	1.82
Aneesh Mathew , P Sarwesh, Sumit Khandelwal	Investigating the contrast diurnal relationship of land surface temperatures with various surface parameters represent vegetation, soil, water,	Energy Nexus	5	100044	2022	-

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	and urbanization over Ahmedabad city in India					
P Sarwesh, Aneesh Mathew	Cross layer design with weighted sum approach for extending device sustainability in smart cities	Sustainable Cities and Society	77	103478	2021	10.69
Neha Gupta, Aneesh Mathew , Sumit Khandelwal	Spatio-temporal impact assessment of land use/land cover (LU-LC) change on land surface temperatures over Jaipur city in India	International Journal of Urban Sustainable Development	12	283-299	2020	-
Aneesh Mathew , Sreenu Sreekumar, Sumit Khandelwal, Rajesh Kumar	Prediction of land surface temperatures for surface urban heat island assessment over Chandigarh city using support vector regression model	Solar Energy	186	404-415	2019	7.18
Neha Gupta, Aneesh Mathew , Sumit Khandelwal	Analysis of cooling effect of water bodies on land surface temperature in nearby region: A case study of Ahmedabad and Chandigarh cities in India	The Egyptian Journal of Remote Sensing and Space Science	22	81-93	2019	6.39
Aneesh Mathew , Sumit Khandelwal, Nivedita Kaul	Spatio-temporal variations of surface temperatures of Ahmedabad city and its relationship with vegetation and urbanization parameters as indicators of surface temperatures	Remote Sensing Applications: Society and Environment	11	119-139	2018	-
Aneesh Mathew , Sumit Khandelwal, Nivedita Kaul	Investigating spatio-temporal surface urban heat island growth over Jaipur city using geospatial techniques	Sustainable cities and society	40	484-500	2018	10.69

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Aneesh Mathew, Sumit Khandelwal, Nivedita Kaul, Shivam Chauhan	Analyzing the diurnal variations of land surface temperatures for surface urban heat island studies: Is time of observation of remote sensing data important?	Sustainable cities and society	40	194-213	2018	10.69
Sumit Khandelwal, Rohit Goyal, Nivedita Kaul, Aneesh Mathew	Assessment of land surface temperature variation due to change in elevation of area surrounding Jaipur, India	The Egyptian Journal of Remote Sensing and Space Science	21	87-94	2018	6.39
Aneesh Mathew, Sumit Khandelwal, Nivedita Kaul	Analysis of diurnal surface temperature variations for the assessment of surface urban heat island effect over Indian cities	Energy and Buildings	159	271-295	2018	7.20
Aneesh Mathew, Sumit Khandelwal, Nivedita Kaul	Investigating spatial and seasonal variations of urban heat island effect over Jaipur city and its relationship with vegetation, urbanization and elevation parameters	Sustainable cities and society	35	157-177	2017	10.69
Aneesh Mathew, Sumit Khandelwal, Nivedita Kaul	Spatial and temporal variations of urban heat island effect and the effect of percentage impervious surface area and elevation on land surface temperature: Study of Chandigarh city, India	Sustainable Cities and Society	26	264-277	2016	10.69
Aneesh Mathew, Sreenu Sreekumar, Sumit Khandelwal,	Prediction of surface temperatures for the assessment of urban heat island effect over	Energy and Buildings	128	605-616	2016	7.20

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Nivedita Kaul, Rajesh Kumar	Ahmedabad city using linear time series model					
Aneesh Mathew , Sreenu Sreekumar, Sumit Khandelwal, Nivedita Kaul, Rajesh Kumar	Prediction of land-surface temperatures of Jaipur city using linear time series model	IEEE journal of selected topics in applied earth observations and remote sensing	9	3546-3552	2016	4.71
Aneesh Mathew , Rishabh Chaudhary, Neha Gupta, Sumit Khandelwal, Nivedita Kaul	Study of Urban heat Island Effect on Ahmedabad City and Its Relationship with Urbanization and Vegetation Parameters	International Journal of Computer & Mathematica l Sciences	4	126-135	2015	-

(B) Conferences/Workshops/Symposia Proceedings

Author(s)	Title of Abstract/ Paper	Title of the Proceedings	Venue	Year
Padala Raja Shekar, Aneesh Mathew	Morphometric parameters and hypsometric curve of part of Lendi river basin using RS and GIS techniques	International Conference on Environmental Science and Engineering (ICESE - 2022)	IIT Bombay	2022
Padala Raja Shekar, Aneesh Mathew	Hypsometric analysis for prioritizing sub-watersheds using remote sensing and geographical information system techniques	Smart and sustainable development of urban green infrastructure in India and Canada (SSDUGI - 2022)	NIT Tiruchirappalli	2022
Padala Raja Shekar, Aneesh Mathew	Morphometric analysis for prioritizing sub-watersheds of Peddavagu river basin, using geospatial techniques	Smart and sustainable development of urban green infrastructure in India and Canada (SSDUGI - 2022)	NIT Tiruchirappalli	2022
Padala Raja Shekar,	Erosion Susceptibility Mapping based on Hypsometric Analysis	2 nd International Conference on River	IIT Guwahati	2022

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Aneesh Mathew	using Remote Sensing and Geographical Information System Techniques	Corridor Research and Management		
Aneesh Mathew, Manish Kumar Mishra	Spatio-Temporal Interaction between Surface Urban Heat Island and Atmospheric Pollution Island over Delhi in India	6 th Indian International Conference on Air Quality Management (IICAQM 2021)	IIT Madras	2021
Aneesh Mathew, Shivam Chauhan, Sumit Khandelwal, Nivedita Kaul	Assessment of surface urban heat island growth over Ahmedabad city using geospatial techniques	International Conference on Sustainable Technologies for Intelligent Water Management	IIT Roorkee	2018
Aneesh Mathew, Sumit Khandelwal, Nivedita Kaul, Neha Gupta	Seasonal and spatial variations of surface urban heat island effect over Ahmedabad city using geospatial techniques	International Conference on Hydraulics, Water Resources and Environmental Engineering (ISH-Hydro 2017 International)	L D Engineering college, Ahmedabad	2017
Asha Bohra, Aneesh Mathew, Sumit Khandelwal, Nivedita Kaul	Assessment of groundwater elevation in Dausa city, Rajasthan using MODFLOW".	International Conference on Hydraulics, Water Resources and Environmental Engineering (ISH-Hydro 2017 International)	L D Engineering college, Ahmedabad	2017
Neha Gupta, Aneesh Mathew	Study of the influence of urban water features on land surface temperature through directional analysis: a case study of Ahmedabad city	International Conference on Hydraulics, Water Resources and Environmental Engineering (ISH-Hydro 2017 International)	L D Engineering college, Ahmedabad	2017
Aneesh Mathew, Neha Gupta, Sumit Khandelwal, Nivedita Kaul	Assessment of Land Surface Temperature-Vegetation Relationship over Jaipur City Using Geospatial Techniques	International Conference on Recent Trends in Engineering and Material Sciences (ICEMS-2016)	JNU Jaipur	2016
Aneesh Mathew, Sumit Khandelwal, Shivam Chauhan, Nivedita Kaul	Variations of Surface Temperatures of Ahmedabad City and Its Relationship with Vegetation Abundance	National Conference on Advances in Civil Engineering (NCACE-2016)	Poornima University Jaipur	2016

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Aneesh Mathew, Sumit Khandelwal, Nivedita Kaul	Assessment of Land Surface Temperature Relationship with Vegetation, Water and Built-up Parameters of Chandigarh City in India	International Conference on Hydraulics, Water Resources and Environmental Engineering (ISH-Hydro 2016 International)	CPWRDM Pune	2016
Aneesh Mathew, Rishabh Chaudhary, Neha Gupta, Sumit Khandelwal, Nivedita Kaul	Study of Urban heat Island Effect on Ahmedabad City and Its Relationship with Urbanization and Vegetation Parameters	International Conference on Emerging Trends of Engineering, Science, Management and Its Applications	JNU New Delhi	2015
Aneesh Mathew, Rishabh Chaudhary, Neha Gupta, Sumit Khandelwal, Nivedita Kaul	Study on Effect of Vegetation over Urban Heat Island Effect Using MODIS Data: A Case Study of Jaipur City	National Seminar on recent advancements in protection of environment and its management issues	Kota	2015
Rishabh Chaudhary, Aneesh Mathew, Neha Gupta, Sumit Khandelwal, Nivedita Kaul	Comparative Analysis of Urban Heat Island Effect during Night and Day Time Using MODIS Data for Jaipur City	National Seminar recent advancements in protection of environment and its management issues	Kota	2015
Aneesh Mathew, Shivam Chauhan, Tanu Sharma, Sumit Khandelwal, Nivedita Kaul	Retrieval of remotely sensed vertical profile of atmospheric temperature and other parameters to assess UHI	National Conference on Geomatics for Natural Resources and Climate Change with Special Reference to Rain-fed Agriculture and Water Resources	MDS University, Ajmer	2015
Aneesh Mathew, Sumit Khandelwal, Nivedita Kaul	Analysis of Spatial and Temporal Variations of Urban Heat Island Effect on Ahmedabad city and Its Relationship with Impervious Surfaces	International Conference on Hydraulics, Water Resources and River Engineering (Hydro 2015 International)	IIT Roorkee	2015

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(C) Books & Monographs

Author(s)	Title of Book/Monograph	Name of Publishers	Year of Publication	ISSN/ISBN Number

Reviewer of the Journals:

- Journal of Applied Remote Sensing (SPIE)
- Sustainable Cities and Society (ELSEVIER)
- International Journal of Sustainable Built Environment (ELSEVIER)
- Environmental Fluid Mechanics (SPRINGER)
- International Journal of Urban Sustainable Development (Taylor & Francis)
- International Journal of Environmental Health Research (Taylor & Francis)
- International Journal of Remote Sensing (Taylor & Francis)
- Remote Sensing Letters (Taylor & Francis)
- ISPRS Journal of Photogrammetry and Remote Sensing (ELSEVIER)
- Advances in Space Research (ELSEVIER)
- Science of the Total Environment (ELSEVIER)
- Singapore Journal of Tropical Geography
- Applied Geomatics (SPRINGER)
- Urban Climate (ELSEVIER)
- Environment, Development and Sustainability (SPRINGER)
- Environmental Modeling & Assessment (SPRINGER)
- GeoJournal (SPRINGER)
- Journal of Cleaner Production (ELSEVIER)
- Journal of Environmental Management (ELSEVIER)