

RESUME



Name : **Dr.E.K.T.SIVAKUMAR**

Designation : Visiting Professor
Department of Ceramic Technology,
Alagappa College of Technology,
Anna University,
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Former Visiting Professor,
Centre for Nanoscience and Technology,
Anna University,
Chennai- 600025.

Date of Birth : 01.06.1968

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Academic Qualification

Course	Educational Institution	Class	Year of Passing
Ph.D.	University of Madras	Highly commanded	2001
M.Sc.	University of Madras	Second	1991
B.Ed.	Annamalai University	First	1993
B.Sc.	University of Madras	Second	1988

Areas of Interest/Research

- Nanomaterials and its applications
- Polymer metal oxide nanocomposites
- Thin film solar cells
- Solid state batteries
- Drug delivery applications of polymer composites
- Polymer nanocomposites for biomedical applications
- Ceramic nanocomposites for energy storage devices

Academic Experience

S.No.	Designation	Institution / University	Duration
1.	Scientific Officer B	Amrutanjan Health Care Limited (R&D)	Jan 1994 to Jan 2010
2.	Visiting, Faculty & Visiting Professor,	Centre for Nanoscience and Nanotechnology, A.C.College of Technology, Anna University, Chennai – 600 025	15.02.2010 to 31.01.2019
	Visiting Professor	Department of Ceramic Technology, A.C.College of Technology, Anna University, Chennai – 600 025	07.02.2019 to Till now

Funded Research Projects

Funding Agency	Title of the Project	Amount	Ongoing/ Completed
CTDT (Student Innovative Project)	Synthesis of nano carbons from Agroindustrial waste	Rs. 25,000/-	Completed

LIST OF PUBLICATIONS

International / National Journals

1. **E.K.T. Sivakumar**, V.Manimozhi, R. Saravanathamizhan and V.Jaisankar, “Adsorption study of Heavy Metals Removal from wastewater using PVA-Nano ferrite composites”**International Journal Nanoscience and Nanotechnology**, Vol. 16, No. 3, Sep 2020, p. 189 – 200.

2. **E.K.T. Sivakumar**, R. Anusa, C. Ravichandran, T. V. Rajendran, M. V. Arularasu, "Comparative investigation of Cobalt ferrite (CoFe_2O_4) and Cadmium Ferrite (CdFe_2O_4) nanoparticles for the structural, optical properties and antibacterial activity" **Digest journal of nanomaterials and Biostructures**, Vol. 14, No. 2, April - June 2019, p. 367 – 374.
3. **E.K.T. Sivakumar**, "Nanomaterials as effective adsorbents for removal of heavy metals from aqueous solution" **Journal of Chemistry and applied chemical engineering**, Vol.3, No. 2, April – March 2019, ISBN -2576-3954.
4. **E.K.T.Sivakumar**, GovindasamySathiyar, Govindasamy Siva, Jai Prakash, Hendrik C. Swart, PachagounderSakthivel, "Synthesis and Studies of Carbazole- based donor polymer for organic solar cell applications", **Colloid and Polymer Science** 296, 2018, PP 1193–1203.
5. **E.K.T.Sivakumar**, Anusa R and Ravichandran C, "Removal of heavy metal ions from industrial waste water by nanoZnO in presence of electrogenerated Fenton's reagent" **International Journal of Chemtech Research**, 7, 501-508, 2017.
6. **E.K.T. Sivakumar**, V.Manimozhi, N. Partha, N.Jeeva and V.Jaisankar, "Preparation and characterization of ferrite nanoparticles for the treatment of industrial waste water" **Digest journal of nanomaterials and Biostructures**, 11(3), 1017-1027, 2016.
7. **E.K.T.Sivakumar**, Sathiyar G, Ganesamoorthy R, Thangamuthu R and Sakthivel P, "Review of carbazole based conjugated molecules for highly efficient organic solar cell applications" **Tetrahedron Letters**, Vol (57), 2016 pp 243-252.
8. **E.K.T.Sivakumar**, Manimozhi, Rajendran T V, Jaisankar, "A study of Electrical and Magnetic Properties of Ferrite Nano particles for Electrical Applications" **International Journal of Materials science** Vol(10),2015 pp1 – 10.
9. **E.K.T. Sivakumar**, V. Jaisankar and T.V Rajendran, " Ionic conductivity of Chain Extension Supramolecular polymer material based on Reactive Hydrogen bonding motif"- **Journal of Polymer and Composites** 3(1), 2014, 1-7.
10. **E.K.T .Sivakumar**, Rajendran T V, Jaisankar, A Study on Conductivity Behaviour of Supramolecular Polymer Functionalized Magnetic Nanoparticles (**IJIRSE**) **International Journal of Innovative Research in Science & Engineering** ISSN (2014), 2347-3207.
11. **E.K.T.Sivakumar**, Indira R, Hariharapriya G, Jaisankar, "Synthesis and characterization of Citric Acid based polyesterHydroxyapatiteNanocomposites", **GlobalJournal for Research Analysis**, Vol.3(7), 2014pp 20-26.

12. **E.K.T.Sivakumar** et.al, "Synthesis and characterization of water soluble EDTA functionalized polystyres for environmental applications", **Applied chemistry Elixir Appln. Chem** **74,2014, 26906-26910.**
13. **E.K.T.Sivakumar**, G.B.Sukumaran and K.Elangovan " Applications of Geochemical Modeling for the Ground water environment around Chennai city ,Tamilnadu,India, **Journal of Industrials pollution control** **22(1), 2006, PP 191-209.**
14. **E.K.T.Sivakumar**, G.B.Sukumuran and R.K.Trivedy, "Pollution of Groundwater around Saint Thomas Mount Panchayath Union Chengalpattu MGR District", Tamilnadu, INDIA. **Journal of Industrial Pollution Control** **17(2),2001,PP 225-238.**
15. **E.K.T.Sivakumar**, Sathiyar G, Ganesamoorthy R, Thangamuthu R and Sakthivel P, "Synthesis and studies of carbazole based (A-D-A) polymers for organic solar cell applications" Published in Souvenir, "Application of Nanostructured Materials for energy and Environmental technology", **ISBN: 978-93-85436-91-8.**
16. **E.K.T.Sivakumar**, Sathiyar G, Thangamuthu R and Sakthivel P, "Synthesis of 1,7-Disubstituted N,N'-Bis (Hexyl) Perylene-3,4:9,10-Tetracarboxylic acid Diimide (PDI) small molecule for organic solar cell applications" Published in Souvenir, "Application of Nanostructured Materials for energy and Environmental technology", **ISBN: 978-93-85436-91-8.**

International / National Conference/Seminars/Symposium

1. **E.K.T.Sivakumar**, "Nanomaterials as effective Adsorbents for removal of heavy metals from aqueous solutions" Meetings International Council held at International Conference on Nanotechnology for Renewable Materials 2019, Singapore.
2. **E.K.T.Sivakumar**, "In recognition of valuable contribution as Session Chair in the International Conference on Energy, Environment and Industrial safety (ICEEIS) during 22 and 23, February 2018.
3. **E.K.T.Sivakumar**, "In recognition of valuable contribution as Session Chair in the National Seminar on Recent Advances in Nanoscience and Technology (NANOMEET 2017) held during 29 and 30, November 2017.
4. **E.K.T.Sivakumar**, "Novel applications and improved developments of nanoscience in various fields" ICRAT, 2017 – An International conference on recent trends in Applied science and Technology during 8 to 9 September 2017.
5. **E.K.T.Sivakumar**, "Application of Iron Nanoparticles in an adsorption studies" IWAN 4, 2017 – An International workshop on advanced functional nanomaterials during 22nd to 24th March 2017.

6. **E.K.T.Sivakumar**, N. Yalini Devi, Susyvarshese, M. Arivanandhan "Graphene oxide based strain sensor for motion monitoring" IWAN 4, 2017 – An International workshop on advanced functional nanomaterials during 22nd to 24th March 2017.
7. **E.K.T.Sivakumar**, Angelene Hannah Jebarani, Nibedita Dey "Synthesis and characterization of steam activated carbon from coconut shells" IWAN 4, 2017 – An International workshop on advanced functional nanomaterials during 22nd to 24th March 2017.
8. **E.K.T.Sivakumar**, N. Suganya, V. Jaisankar "A study of the effect of plasticizer and nanofillers on polymer gel electrolytes for natural dye sensitized solar cells" IWAN 4, 2017 – An International workshop on advanced functional nanomaterials during 22nd to 24th March 2017.
9. **E.K.T.Sivakumar**, V. Manimozhi, N. Partha, V. Jaisankar "An adsorption study of the removal of certain metal ions from waste using ferrite nanoparticles and their composites" IWAN 4, 2017 – An International workshop on advanced functional nanomaterials during 22nd to 24th March 2017.
10. **E.K.T.Sivakumar**, G. Geetha "Formulation of nanofertilizer encapsulated with zeolite for enhancement of plant growth" IWAN 4, 2017 – An International workshop on advanced functional nanomaterials during 22nd to 24th March 2017.
11. **E.K.T.Sivakumar**, K.E. Premalatha "Formulation of nanofertilizer encapsulated with wood for enhancement of plant growth Synthesis and characterization of steam activated carbon from coconut shells" IWAN 4, 2017 – An International workshop on advanced functional nanomaterials during 22nd to 24th March 2017.
12. **E.K.T.Sivakumar**, J. Lurdhumary "Development of thermal conductive, Electrical insulating and fire retardant epoxy nanocomposites for electronic industry application" IWAN 4, 2017 – An International workshop on advanced functional nanomaterials during 22nd to 24th March 2017.
13. **E.K.T.Sivakumar**, Pachagounder Sakthivel, Synthesis of Carbazole Substituted Phenylquinoline-Fullerene Derivatives for Organic Photovoltaic Cell Application. "National Symposium on Chemistry for Engineers" (NSCE 2016) on 9th April 2016. VIT University, Vellore.
14. **E.K.T. Sivakumar**, "Flood Management in Chennai" (2016). An one day seminar cum workshop, 25th Feb 2016, organized by the Loyola institute of Frontier Energy (LIFE), Loyola College, Chennai-34.
15. **E.K.T. Sivakumar**, "Nylon/TiO₂ Nanocomposites for automobile application" (2015). 2nd International Conference on Materials for Modern World (NCMMW), 28 and 29 Sep 2015, organized by the Department of Physics, Easwari Engineering College, Chennai-89.

16. **E.K.T. Sivakumar**, “Nanoscience” (2015). National symposium on Biodiversity (NSBIO), 18 to 20 Feb 2015, organized by the Department of Zoology, Thiruvalluvar University, Vellore-632115.
17. **E.K.T. Sivakumar**, B. Raghavendrababu, “Physico chemical and structural characterization of the N-Acyl chitosan Nanopowders” (2015). Third International Workshop on Advanced Functional Nanomaterials (16-18 Dec 2015).
18. **E.K.T. Sivakumar**, R. Muthuveerappan, “Synthesis and characterization of Nickel ferrite doped polymer nanocomposites (PVA-NiFe₂O₄) for electrochemical device applications” (2015). Third International Workshop on Advanced Functional Nanomaterials (16-18 Dec 2015).
19. **E.K.T. Sivakumar**, H. Yunussalim, “Synthesis and characterization of aluminium doped titanium dioxide polymer nanocomposites (PVP-PEG) for solar cell applications” (2015). Third International Workshop on Advanced Functional Nanomaterials (16-18 Dec 2015).
20. **E.K.T. Sivakumar**, S. Thirumalesh, “Polyvinylchloride/MgO nanocomposites for electrical insulation application” (2015). Third International Workshop on Advanced Functional Nanomaterials (16-18 Dec 2015).
21. **E.K.T. Sivakumar**, “PVC/MgO nanocomposites for electrical applications” (2014). International Conference on Materials for Modern World (NCMMW), 10 and 11 Sep 2014, organized by the Department of Physics, Easwari Engineering College, Chennai-89.
22. **E.K.T. Sivakumar**, Madhuree Dharpure, Bhuvaneshwari and B. Nagesh R. Iyer, “Hydration Studies On Nanoclay incorporated Complex Composites”(2013)- International Conference On Engineering Materials and process (ICEMAP-2013)-Tagore Eng.College, Chennai. 23RD and 24th MAY 2013.
23. **E.K.T. Sivakumar**, V. Jaisankar, R. Jayavel and V. Manimozhi, “Preparation and characterization of biomimetic Nano Hydroxyapatite” (2013). Second International Workshop on Advanced Functional Nanomaterials (28-30th JAN 2013).
24. **E.K.T. Sivakumar**, “Innovative use of nanotechnology and ultrasonic waves in paint” (2012). NANOMEET 2012, 27 to 28th Feb-2012, organized by Association of Nanoscience and Technology Aspirants (ANNA) Centre for nanoscience and Nanotechnology, Anna University, Chennai-25.
25. **E.K.T. Sivakumar**, “Understanding the principle and functions of nanoscale materials” (2012). Summer training programme on nanoscience and nanotechnology (STPNSNT) 25 May to 14th June 2012, organized by the National Centre for Nanoscience and nanotechnology, University of Madras, Chennai-25.

26. **E.K.T. Sivakumar**, “Applications of nanomaterials for micro electro mechanical systems (MEMS)” (2012). National symposium on Application of Nanotechnology in Human Welfare, 28 and 29 Sep 2012, organized by the Department of Biotechnology, V.M.K.V Engineering College, Salem.
27. **E.K.T. Sivakumar**, “E-waste management using Biological Tools: An Eco-Friendly Approach” (2012). National Conference on Eco-Friendly Approach, 8 and 9 Mar 2012, organized by the Loyola institute of Frontier Energy (LIFE), Loyola College, Chennai-34.
28. **E.K.T.Sivakumar** and R.MexalinMero, “Innovative use of Nanotechnology and ultrasonic waves in paint” Indigenousnanomaterials development for industrial applications(INDIA),27TH-28TH 2012 Centre for Nano Science and Technology, Anna university,Chennai.
29. **E.K.T. Sivakumar**, “NanomaterialsCharacterisation by spectroscopic techniques” (2011). Summer training programme on nanoscience and nanotechnology (STPNSNT) 10 to 30 may 2011, organized by the National Centre for Nanoscience and nanotechnology, University of madras, Chennai-25.
30. **E.K.T.Sivakumar**, D.Angelene, HannaJebarani and NibeditaDey, “Optimization of Condition for Synthesis and Characterization of Nano Carbons from Agro Industrial Wastes” (2011)- National Seminar on Recent Trends in Nanobiotechnology-Association of Nanoscience and Nanotechnology Aspirants(ANNA).07-08 MAR 2011.
31. **E.K.T.Sivakumar**, R.JayavelandV.Jaisankar, “Application of Iron Nanoparticles in Waste Water Treatment”(2011)- NanoMeet 2011 – A Technical Symposium on Materials of Applied Nanoscience and Nanotechnology Research (MANNAR).
32. **E.K.T. Sivakumar**, “NanomaterialsCharacterisation” (2010). Summer training programme on nanoscience and nanotechnology (STPNSNT) 18th Nov to 8th Dec 2010, organized by the National Centre for Nanoscience and nanotechnology, University of madras, Chennai-25.
33. **E.K.T.Sivakumar**, R.JayavelandV.Jaisankar, “Application of Iron Nanoparticles in Waste Water Treatment”(2010)- NanoMeet 2010 – A Technical Symposium on Materials of Applied Nanoscience and Nanotechnology Research (MANNAR)
34. **E.K.T.Sivakumar**,V.Balasubramanian and G.B.Sukumaran, “Conceptual Geochemical modeling of Groundwater” (2001)- National Symposium onMetallo - Organic chelates and recent advances in Chemistry. Research &P.G.Dept of Chemistry, Presidency College, Chennai 9th& 10th Feb 2001 P (IP-10).
35. **E.K.T.Sivakumar**, C.G.Chandrasekaran, B.Gowthaman and G.B.Sukumuran, “Groundwater Characterization of a part of the Chennai city, Tamil Nadu” (2000) - Proceedings of the State Conference on Groundwater Exploration Techniques, National College,Tiruchi-1, 30th-31st March 2000, PP:11-16.

36. **E.K.T.Siva Kumar**, C.G.Chandrasekaran and G.B.Sukumuran, "Study of Groundwater Quality Around Ambattur and Anna Nagar, Tiruvallur and Chennai District, TamilNadu"(2000) - XIIth Indian Geological Congress and National Seminar on Groundwater Resources. 8th-12th Feb2000.Udaipur-313002. PP:129-130.
37. **E.K.T.SivaKumar**, G.B.Sukumuran and P.Neelameham, "Comparative Geo-Physical Data Study of Different Geological formations, Kancheepuram&Tiruvallur Districts, Tamilnadu" (2000) - XIIth Indian Geological Congress and National Seminar on Groundwater Resources. 8th-12th Feb.2000.Udaipur-313002." PP:239-244.
38. **E.K.T.SivaKumar**, G.B.Sukumuran and C.G.Chandra-sekaran, "Quality of Groundwater and its improvement Around part of Chennai City – Tamilnadu" (2000)-XIIth Indian Geological Congress and National Seminar on Groundwater Resources.8th-12th Feb.2000. PP.130-132.
39. **E.K.T.SivaKumar** and G.B.Sukumuran, "Hydrogeochemistry of River Cooum - Tamilnadu South India." (1998)- International Seminar on Applied Hydrogeochemistry, Annamalai University, Chidambaram, India, Nov.1998, proc.vol. PP:238-249.
40. **E.K.T.SivaKumar**, G.B.Sukumaran and G.Bharathidasan, "Tannery Effluent and Garbage Pollution of Groundwater Around Saint Thomas Mount Panchayath Union, Chengalpattu MGR Dt. TamilNadu" (1997)- National Symposium on Sustainable Groundwater Development and Management and The Annual Convention of Geological Society of India. Nov.5th - 8th 1997, PP:46.

Publication Details: (Provide only the count)

Category	Conferences	Journals
National	39	04
International	01	10

Ph D / MS / M Tech / B. Tech Guidance

Ph. D Supervisor Registration Number: NA

M Tech / B. Tech Guidance

Category	Completed	Ongoing
M. Tech	18	-
B. Tech	05	-

Guest lecturers delivered (INCLUDED FEW ONLY)

Title	Duration	Programme	Venue
Latest Trends in Information Technology	1.30 Hrs	International Conference on Computing, Communication and Information Technology held on 30.07.2020 to 31.07.2020 organized by Chennai Institute of Technology, Chennai.	Chennai Institute of Technology, Chennai.
Intellectual property RIGHTS-2019(IPR)	ONE DAY	One day awareness work shop on IPR	CIPR ANNA UNIVERSITY CHENNAI
Introduction to Nanoscience and Nanotechnology	2 Hrs	AriviyalPalagai, TamilNadu Science and Technology Center held on 21.07.2020 organized by VigyanPrasar (An autonomous organization under the Dept. of Science & Technology, Govt.of India	AriviyalPalagai (Through Online)
Mems and its aplication	1.30 Hrs	SPECIAL GUEST LECTURER	MIT CAMPUS ANNA UNIVERSI
Introduction to Nanoscience and Nanotechnology	1.30 Hrs	National Science Day Celebrations-2021 held on 01.03.2021	A.V.C College (Autonomous), Mannampandal, Mayiladuthurai.
Introduction to Nanoscience and Nanotechnology	2 Hrs	One day National Level Webinar held on 28.08.2020 organized by Dr. M.G.R Educational and Research Institute	Dr. M.G.R Educational University (Through Online)

NOTE:Giving scientific lectures continuously in many institutions and schools for the benefit of students.

Awards and Recognitions

- **Eminent Scientist 2020** by the Society for Science of Climate Change and Sustainable Environment (SSCE), New Delhi.
- The **Best Humanitarian 2020** by ELS Edification Plus, London, UK
- **Honorary Fellowship Award 2020** for his outstanding contribution in the field of Chemistry by Society of Biological Sciences and Rural Development, Allahabad, U.P.
- **International Millennium award**, 2019
- Educational Service Award,UAE,
- ParamaparaAward,Silicon city group, Bangalore 2016
- **AbdulkalamAward**, Puduchery 2015
- **Scientists of the year award (2008)** , National Environmental Science Academy, New Delhi
- **DR APJ Abdul kalamAward** Dr APJ Abdul kalam International Foundation Rameshwaram 2017
- **Payaneyuthu padaippali award**
- Tamilnadu journalist Award for Best Social Services Award.
- Life time achievement Award by Nakkerear Tamil sangam.
- Best Service Award Indo Russian Club Madras Film Society Chennai 2016
- Mullaicharam Gold Life Time Achievement Award 2016
- Chennai AIMS 5th year Celebration Award 2015
- Best Children Science Writer Award Bapasi 2015
- TamilyagaraMandramAward, Chennai 2015
- Best Personalities of India, Friendship Forum 2015
- ThiruvalluvarAward 2015
- Ilakkia Golden JubileeJustice Mohan Award Chennai 2015
- Educational service Award ZemaCabaus, Salem 2015
- Wellness Doctors Forum Life Time Service Award Chennai 2014
- Lions Clubs Zone chairman AwardBest Writer (1999) award was given by Tamilnadu Reporters Association.
- **Media guild award for 2010-2011**: Honored by Counsel General of Japan

- **Life time achievement Award** from: The Tamilnadu Dr.M.G.R. Medical University, (2012) Govt. of. Tamil Nadu, Chennai
- **Best personalities of India 2015 By Friends forum**
- Best Service for the physically challenged award for the year 2012, from Tamilnadu Social welfare minister.
- Social Activities: Doing Social Service to the poor, needy and physically challenged people. Education aid to the poor and meritorious students.

Academic Responsibilities:

Workshops / Seminar / Short term Courses / FDP Organized

Role	Name of the Programme	Duration
Session Chair	International Conference on Energy, Environment and Industrial Safety (ICEEIS)	22.02.2018 - 23.02.2018
Session Chair	National Seminar on Recent Advances in Nanoscience and Nanotechnology (NANOMEET)	29.11.2017 - 30.11.2017
Coordinator	69 th Indian Chemical Engineering Congress	27.12.2016 - 30.12.2016

Workshops / Seminar / Short term Courses / FDP Attended

S. No	Name of the Event	Duration	Organized by
1	Inculcating Universal Human values in Technical Education 5 day online FDP Programme from May 17 th to May 21 st .2021	5 DAYS	All India council for technical Education New Delhi.
2	International Workshop on Advanced Materials and Device Technology (IWAMDT 2017)	22.11.2017 - 24.11.2017	Anna University
3	National Workshop and Hands on Training Program on “ Thin Film Solar Cells”	22.09.2017 - 23.09.2017	Anna University

4	International workshop on Advanced functional Nanomaterials	22.03.2017 - 24.03.2017	Anna University
5	69 th Indian Chemical Engineering Congress	27.12.2016 - 30.12.2016	Anna University
6	Rapid prototyping Workshop	29.03.2016	Anna University

Countries visited: -

Membership, Committees, Boards etc

- Life Member, Society for Science of Climate Change and Environmental Sustainability (SSCE), New Delhi.
- Life Member, National Environmental Science Academy, New Delhi – 110 019.
- Life Member, Indian Chemical Society (Life Member), Kolkatta (F.I.C.S.)
- Member, Indian Science Congress, New Delhi (I.S.C.)
- Founder and Hon. Advisor - Educational and Social Research Organization,(ESRO) and ESR Charitable Foundation Chennai.
- Editor:ValarumAriviyal(Science magazine)
- Member - World Tamil Writer's Association

Other Interest

- Writing Scientific Books and articles.
- Motivate the students by giving scientific lectures.
- Social service activities.
- Placement for rural students.