

## Dr. K. Geetha

Assistant Professor, Department of Biotechnology & HOD,  
Periyar Maniammai Institute of Science & Technology (Deemed to be University),  
Thanjavur – 613 403, India: Mobile: +91-90039 76706  
Emails: headbio@pmu.edu/rktgeetha@pmu.edu/rktgeetha@gmail.com



### EDUCATIONAL QUALIFICATIONS

- PhD**, Animal Science and Nanoscience, Gandhigram Rural Institute, Tamilnadu, India
- M. Tech**, Nanotechnology, SASTRA University, Tamilnadu, India
- B. V. Sc**, Madras Veterinary Colleges, TANUVAS, Tamilnadu, India

### Patent filed and published:

A process of preparation of nanomineral supplement oral dispersible film For augmenting productivity in cattle and product thereof, ,Ref: No. No.202241005194 A

Journal Link: <https://search.ipindia.gov.in/IPOJournal/Journal/ViewJournal> Journal No.: **06/2022** (download Part - 1 and refer page no. 142)

### SCHOLAR CITATIONS

**Sep/2020: 139 citations** as on 18<sup>th</sup> Sep 2022 with **h-index of 8 & i10 index 7**

<https://scholar.google.co.in/citations?hl=en&user=L3wgvZkAAAAJ>

<https://orcid.org/0000-0002-5690-7985>

### Publications

- 22 Electrospun nanofibrous ZnO/PVA/PVP composite films for efficient antimicrobial face masks, K. Geetha, D. Sivasangari, Hyun-Seok Kim, G. Murugadoss, A. Kathalingam, *Ceramics International*, 48 (19), B, 29197-29204, 2022.
- 21 Effect of Nano Zinc Supplementation on Production Performance, Immune Response and Carcass Characteristics in Japanese Quail Broiler, N. Arulnathan, M. Chellapandian, K. Geetha, D. Thirumeignanam, M.P. Vijayakumar, *Journal of Dairying, Foods & Home Sciences*, 2021.
- 20 Design and fabrication of wi-fi antenna using nano copper, S.Vijayapradeep , I.Suresh, A. Kathalingam and K.Geetha, *GIS SCIENCE JOURNAL*, 8(5) ,442 – 448 , 2021.
- 19 Photocatalytic degradation efficiency of ZnO, GO and PVA nanoadsorbents for crystal violet, methylene blue and trypan blue, Geetha Kathiresan, Kavithayeni Vijayakumar, Akash Prabhu Sundarrajan, Hyun-Seok Kim, Kathalingam Adaikalam, *Optik*, 238, 166671, 2021.
- 18 Electrospinning as a tool in fabricating hydrated porous cobalt phosphate fibrous network as high rate OER electrocatalysts in alkaline and neutral media, Selvasundarasekar Sam Sankar, Arumugam Rathishkumar, Kathiresan Geetha, Subrata Kundu, *International Journal of Hydrogen Energy*, 46 (17): 2021,10366-10376, 2020.
- 17 Image registration based QCT characterization of the lungs of biomass cooks, A. S. Kizhakke Puliyakote, E. M. Stapleton, M. Bilas, N. Metwali, M. Jeronimo, I.M. Thornell, R. B. Manges, S. Suresh,

- K. Durairaj, K. Karuppusamy, K. Geetha, A. Sirajunnisa, K. Shanmugam, P. S. Thorne, T. M. Peters, A. P. Comellas, Eric A. Hoffman, *European Respiratory Journal* 2020 56: 1306
- 16 A Simple Route for the Synthesis of Cobalt Phosphate Nanoparticles for Electrocatalytic Water Oxidation in Alkaline Medium, Selvasundarasekar Sam, Arumugam Rathishkumar, Kathiresan Geetha, and Subrata Kundu, 34(10): 12891–12899,2020.
  - 15 Lung function of primary cooks using LPG or biomass and the effect of particulate matter on airway epithelial barrier integrity, Emma M. Stapleton, Abhilash Kizhakke Puliyakote, Nervana Metwali, Matthew Jeronimo, Ian M. Thornell, Robert B. Manges, Monalisa Bilas, Mohamed Ali Kamal Batcha, Mangaleswari Seeniappan Kumaravel, Kumar Durairaj, Kesavan Karuppusamy, Geetha Kathiresan, Sirajunnisa Abdul Rahim, Kumaran Shanmugam, Peter S. Thorne, Thomas M. Peters, Eric A. Hoffman, Alejandro P. Comellas, *Environmental Research*, **189**, 2020,
  - 14 Graphene quantum dots synthesis and energy application: a review, Prabhu, S.A., Kavithayeni, V., Suganthy, R. et al, *Carbon Lett.* 31, 1–12 (2021).
  - 13 Raman Fingerprints in Detection of Breast Cancer, Geetha Kathiresan, Durairaj Kumar Sreenath Subrahmanyam, Kumaran Shanmugam. *J of Biosens Biomark Diagn* 1(1): 1-11
  - 12 Organic nanocomposite Band-Aid for chronic wound healing: a novel honey-based nanofibrous scaffold Kanimozhi, S., Kathiresan, G., Kathalingam, A. et al. *Appl Nanosci* **10**, 1639–1652 (2020)
  - 11 Novel nanofibrous honey as a wound dressing material– A Review, S. Kanimozhi, A. Aswini, P. Yogapriya, Geetha. K, *International Journal of Future Generation Communication and Networking*, 13(1), 1230-1238, 2020.
  - 10 Wound healing potential of Indian traditional tree– Ficus Religiosa. Suganthy R, Karunya sri PA, Sivashangari. D and Geetha.K, *International Journal of Future Generation Communication and Networking* , 13(1), 1221-1, 2020
  - 9 Nano zinc oxide – An alternate zinc supplement for livestock, K. Geetha, M. Chellapandian, N. Arulnathan and A. Ramanathan *Veterinary World*, 13(1): 121-126, 2020.
  - 8 Nano Titanium Dioxide -An Effective Photocatalyst for Emerging Applications. S Ragavi Priyadharshani Raja, Geetha Kathiresan, R. Ilavarasi, , *International Journal of Innovative Technology and Exploring Engineering*. 8(10), 2019.
  - 7 Synthesis of Nano Copper Shell for Conductive Ink in Wearable Electronics, Akash Prabhu S, Geetha Kathiresan, Suganthy R , *International Journal of Innovative Technology and Exploring Engineering*. 8(10), 2019.
  - 6 A Review on Dye Reduction Mechanism using Nano Absorbents in Waste Water, V. Kavithayeni, K.Geetha and S. Akash Prabhu, *International Journal of Recent Technology and Engineering* , 7 (6S2),2019.

- 5 [Advanced composites - organic nanoscaffolds for wound healing](#), S.KAnimozhi, R.Suganthy, M.Monika, S. Harini and K. Geetha, Indian J. Sci .Res. 14 (1): 241-243, 2017.
- 4 [In vitro Cytotoxicity Assessment of Nano Selenium in Mice for its Biocompatibility as Feed Supplement](#). N. Arulnathan, R.Karunakaran, V. Balakrishanan, M. Chellapandian, K. Geetha and A. Sabareeswaran. Indian Vet. J., 94 (03) : 28 – 30, 2017,
- 3 [Synthesis and characterization of nano selenium as feed supplement](#), N. Arulnathan, R. Karunakaran, V. Balakrishanan, M. Chellapandian and K. Geetha, International Journal of Science, Environment and Technology, 5(4): 2296-2300, 2016.
- 2 [Electrospun bioceramic composite scaffold for bone regeneration](#), Geetha Kathiresan and Uma Maheshwari Krishnan, Journal of Chemical and Pharmaceutical Research, 2015, 7(11): 574-580
- 1 [Sustained delivery of Non-Steroidal Anti-Inflammatory drug for Wound dressing](#), A. Farjana Begum, K. Geetha and D. Kumar, International Journal of PharmTech Research. 6 (7) , 1999-2007, 2014.

## CONSULTANCY SERVICE

**2010— 2020:** Generated INR 12, 00, 000/- through my group expert services for SEM analysis of various research samples across Tamil Nadu, India.

## Chapters in Books

- 3 [Carbon Nanotubes in Regenerative Medicine](#). Krishnaveni, R., Roobadoss, M.N., Kumaran, S., Kumar, A.A., Geetha, K. (2022). In: Abraham, J., Thomas, S., Kalarikkal, N. (eds) Handbook of Carbon Nanotubes. Springer, Cham. [https://doi.org/10.1007/978-3-319-70614-6\\_41-1](https://doi.org/10.1007/978-3-319-70614-6_41-1)
- 2 [3 - Biobased \(nanochitin, nanochitosan\) polymer nanocomposite membranes and their pervaporation applications](#), Geetha Kathiresan, Naveen Rooba Doss M., Editor(s): Sabu Thomas, Soney C. George, Thomasukutty Jose, In Micro and Nano Technologies, Polymer Nanocomposite Membranes for Pervaporation, Elsevier, 2020, Pages 35-79, ISBN 9780128167854, <https://doi.org/10.1016/B978-0-12-816785-4.00003-3>.(<https://www.sciencedirect.com/science/article/pii/B9780128167854000033>)
- 1 [Steady and Transient Flow CFD Simulations in an Aorta Model of Normal and Aortic Aneurysm Subjects](#), R. Vinoth, D. Kumar, Raviraja Adhikari, S. Vijayapradeep, K. Geetha, R. Ilavarasi, and Saravanakumar Mahalingam, Springer International Publishing AG, part of Springer Nature 2019M. Jiang et al. (eds.), The Proceedings of the International Conference on Sensing and Imaging, Lecture Notes in Electrical Engineering 506, [https://doi.org/10.1007/978-3-319-91659-0\\_329](https://doi.org/10.1007/978-3-319-91659-0_329).

## Research Funding/Grants Received

**Title:** Correlation of Pulmonary Structural and Functional Alterations in a population exposed to Indoor Cooking with Solid Biofuel: A Pilot Study

**Role:** Basic Scientist-Member & Secretary for carrying human research subject-Institutional Ethical Committee Meeting in India

**Grant:** University of Iowa will give grant to PMU to cover the cost of CT scan of 30 subjects and analysis of blood and air.

**Funding agency:** University of Iowa

**Period:** (21/08/2015 — 21/08/2016)

**Project website:** <http://www.i-clic.org/projects.html>

**Title:** Activated nano carbon reinforced in textile for indoor air purification

**Scheme:** Student's Research Project

**Role:** Supervisor

**Grant:** Rs. 7500/- Funding agency: Tamil Nadu State Council for Science and Technology (TNSCST)

**Period:** 6 Months (Nov, 2019 – April, 2020)  
**Project Number:** VS-002  
**Reference:** <https://www.tanscst.nic.in/pdf/SPSRS1920.pdf>

**Title:** Fabrication and analysis of nano copper coated Wi-Fi antenna  
**Scheme:** Student's Research Project  
**Role:** Supervisor  
**Grant:** Rs. 7500/- Funding agency: Tamil Nadu State Council for Science and Technology (TNSCST)

**Period:** 6 Months (Nov, 2019 – April, 2020)  
**Project Number:** VS-002  
**Reference:** <https://www.tanscst.nic.in/pdf/SPSRS1920.pdf>

**Title:** Nanocomposite organic band-aid for chronic wound healing  
**Scheme:** Student's Research Project  
**Role:** Supervisor  
**Grant:** Rs. 7500/- Funding agency: Tamil Nadu State Council for Science and Technology (TNSCST)

**Period:** 6 Months (Nov, 2019 – April, 2020)  
**Project Number:** VS-002  
**Reference:** <https://www.tanscst.nic.in/pdf/SPSRS1920.pdf>