

**Name :** Peerzada Jeelani (B.Tech, M.Tech, PhD)

**Designation:** Assistant Professor Biotechnology

**Contact:** +91 7358416361

**Email :** [Jeelanibm@nct.ac.in](mailto:Jeelanibm@nct.ac.in)

**Area Of Specialization :** Nanobiotechnology

**No. Of. Publications :** 1 Patents / 12 Research Articles / 5 Book Chapters

Dr. Peerzada Jeelani, an Assistant Professor at National College Tiruchirappalli, is dedicated to creating a collaborative and inclusive learning environment. Dr. Jeelani emphasizes critical thinking, hands-on experimentation, and the integration of cutting-edge research into the curriculum. By encouraging students to engage with classical literature and groundbreaking innovations made using accessible technologies, Dr. Jeelani aims to inspire the next generation of scientists to innovate and excel.

My research pursuits converge at the intersection of biotechnology, materials science, chemistry, biology, and physics, where I explore the promising synergy between natural anticancer therapeutics and sustainable nanomaterials. As an Assistant Professor in the Department of Biotechnology, my dedication is centered on advancing knowledge in these pivotal domains. With a Ph.D. in Nano-Biotechnology from VIT University, my expertise spans the synthesis, fabrication, characterization, and multifaceted applications of Biogenic Silica Nanoparticles. Specifically, I concentrate on their potential for targeted delivery of natural compounds and plant-based extracts in cancer treatment, striving to develop more efficient, novel, patient-centric and environmentally friendly cancer therapies. Through my research, I aim to introduce innovative methodologies in cancer therapy, propelled by sustainable nanomaterials and interdisciplinary approaches.

As a collaborative researcher, I value diversity and teamwork, recognizing the collective effort required to drive meaningful progress. Guided by principles of inclusivity and kindness, I am dedicated to fostering supportive environments within academia and the broader scientific community, advocating for gender equality and empowering women in science.

## **2. External profile links**

Vidwan-ID : <https://vidwan.inflibnet.ac.in/profile/439395>

Scopus: 57210261615

ORCID: 0000-0001-6517-4536

Google Scholar

[https://scholar.google.com/citations?hl=en&user=2EWDtF4AAAAJ&view\\_op=list\\_works&ortby=pubdate](https://scholar.google.com/citations?hl=en&user=2EWDtF4AAAAJ&view_op=list_works&ortby=pubdate)

Research Gate: <https://www.researchgate.net/profile/Jeelani-Peerzada>

## **3. Selected Publications:**

- **Jeelani, P.G.**, Muly, P., Venkat, R. and Ramalingam, C., 2020. Multifaceted application of silica nanoparticles. A review. *Silicon*, 12(6), pp.1337-1354. **I.F 3.4**
- **Peerzada, J.G.** and Chidambaram, R., 2020. A Statistical Approach for Biogenic Synthesis of Nano-Silica from Different Agro-Wastes. *Silicon*, pp.1-13. **I.F 3.4**
- **Jeelani, P.G.** and Ramalingam, C., 2021. Statistical approach to synthesise biogenic silica nanoparticles from rice husk and conjugated with Justicia Adhathoda extract as green, slow- release biocide. *IET Nanobiotechnology*. **I.F 2.05**
- **P.G. Jeelani** et al. Biogenic systems of mesoporous silica and its potential application in agrochemical delivery system *Int. J. Nanotechnol.*, Vol. 18, Nos. 5/6/7/8, 2021 **I.F 1.023**
- **Jeelani, P. G.**, Munawar, S. M., Basha, S. K., Sinclair, B. J., Jenifer, A. D., Ojha, N., ... & Chidambaram, R. (2023). Exploring Possible Strategies for Treating SARS-CoV-2 in Sewage Wastewater: A Review of Current Research and Future Directions. *Hygiene and Environmental Health Advances*, 100056.
- **Peerzada Gh, J.**, Sinclair, B.J., Perinbarajan, G.K. et al. An overview on smart and active edible coatings: safety and regulations. *Eur Food Res Technol* (2023). **I.F 3.8**
- **Jeelani, P. G.**, Sinclair, B. J., Perinbarajan, G. K., Ganesan, H., Ojha, N., Ramalingam, C., ... & Mossa, A. T. (2023). The therapeutic potential of chia seeds as medicinal food: a review. *Nutrire*, 48(2), 39.
- **Peerzada, J. G.**, Ojha, N., Jaabir, M. M., Lakshmi, B., Hannah, S., Chidambaram, R., ... & Mossa, A. T. (2023). Advancements in eco-friendly food packaging through nanocomposites: a review. *Polymer Bulletin*, 1-40. **I.F 3.2** .
- Adarshan S, Sree VSS, Muthuramalingam P, Nambiar KS, Sevanan M, Satish L, Venkidasamy B, **Jeelani PG**, Shin H. Understanding Macroalgae: A Comprehensive Exploration of Nutraceutical, Pharmaceutical, and Omics Dimensions. *Plants*. 2024; 13(1):113. **I.F 4.5**
- Perinbarajan, G. K., Sinclair, B. J., Mossa, A. T., Ohja, N., & **Jeelani, P. G.\*** (2024). Silica/Annona muricata nano-hybrid: Synthesis and anticancer activity against breast cancer. *Heliyon*. **I.F 4.5**

#### 4. Patents

**Title of Invention :** Designing and fabrication of biogenic silica nanoparticles for targeting Breast Cancer Cells,

**Patent No:** 202341017667,

**Publication Date:** 31/03/2023 ,

**Organization :** Controller General of Patents, Designs, and Trade Marks (CGPDTM), Intellectual property of India.

#### 5. Conferences

- National conference on “Recent Trends In Applied Perspectives Of Plant Sciences (Ncaps - 2018) Organized by pachaiyappas college (**Poster Presentation**)
- ICNAN'192<sup>nd</sup> international conference on nanoscience and nanotechnology November 29, 2019 - December 1, 2019 organized by Centre for nanotechnology research, Vellore institute of technology, Vellore, India) (**Poster Presentation**) (**Paper Published**)
- International Virtual Conference on Advanced Nanomaterials and Applications (VCAN 2020) organized by center for nanotechnology research, Vellore institute of technology, Vellore, India) (**Paper Published**).
- Poster presentation at vit bio summit 2016. “**Fibrinolytic protease from marine Streptomyces rubiginosus VITPSSM**,” ICCB poster presentation at vit university 2016.

- Oral Presentation **“Optimization and Synthesis of Cellulose and Hemicellulose from Agrowastes for Sustainable Production”**, “Research Trend in Bio Tech” Conference organized under TEQIP-II by the IFTM University, June - 30th, 2014.
- Oral presentation at International Conference on Advanced Nanomaterials and Emerging Engineering Technologies (ICANMEET-2013) Sathyabama Institute of Science and Technology (Deemed to be University), India, during July 25th to 27th, 2013 in association with Defense Research & Development Organisation (DRDO), New Delhi. **“Optimization of Bioreactor Conditions for Maximum Lipase Production from Bacillus subtilis”**,
- Guest Lecture Third International Conference on Future prospects of Biological Sciences and Biotechnology (ICFBB) held By department of Biotechnology on September 22-23, 2022 in Sri Shakthi Institute of Engineering and Technology, Coimbatore, Tamil Nadu.