Dr. Tarangini Korumilli, Ph.D. (NIT Rourkela)
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Research Areas

Edible Coatings, Microbial Pigments, Novel Bio & Nanomaterials, Bioremediation, Waste Utilization & Value Addition and allied areas of Environmental biotechnology and Food Science & Technology

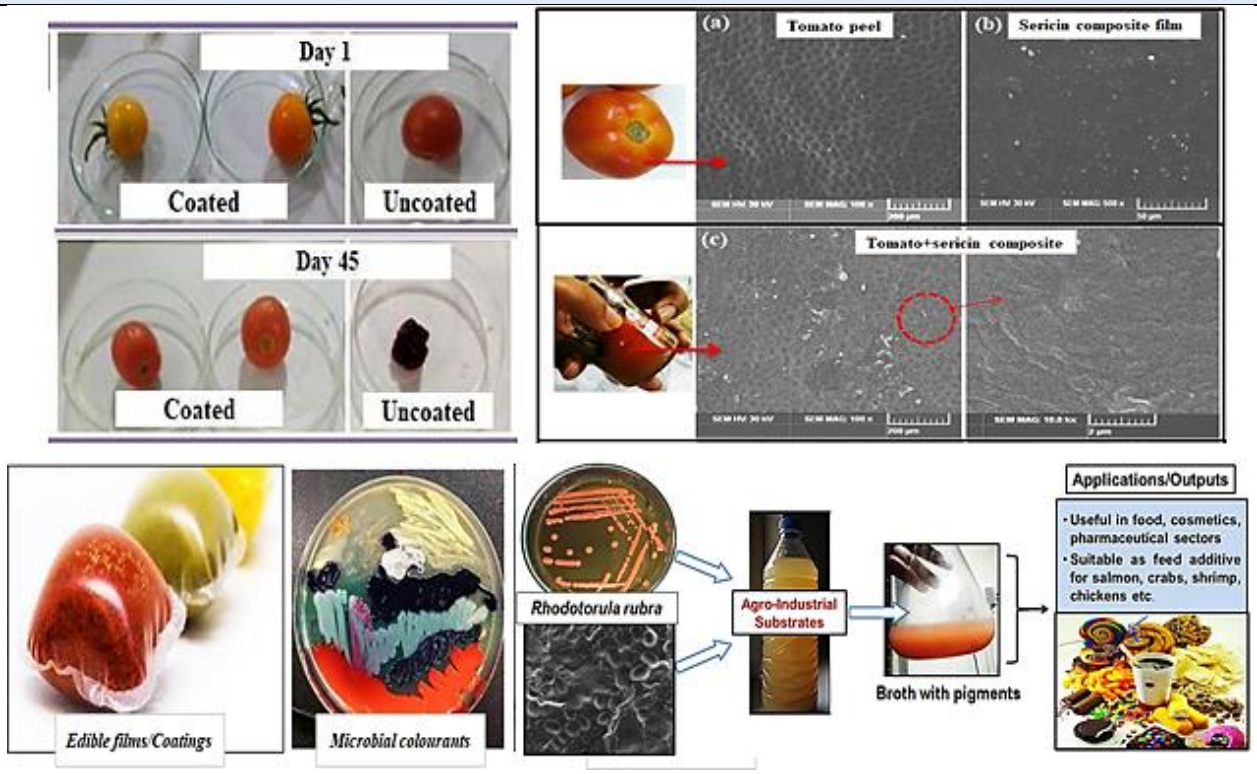
Projects & Publications Summary

Project		Publication Count		Citation Count			Impact Factor
Completed	00	SCI	07		Google	SCOPUS	
Ongoing	02	SCOPUS	07	Citations	304	106	30.294
Submitted	02	Books	01	h-index	8	7	
		Books chapters	01	i10index	7	--	

National/International Collaboration

- Central Silk Technological Research Institute (CSTRI), Bengaluru, India – -Edible coating based on silk protein, Smart fabric materials
- National Institute of Technology, Rourkela – Microbial pigments
- United Nations Industrial Development Organisations, UNIDO, New Delhi, India - Waste water treatment strategies
- Technical University of Liberec, Czech Republic – Biocomposites and packing materials
- National College, Trichy – Toxicity evaluation of edible biofilms

Research snippets



Research facilities

Outline of Research Works

- Using agro-industrial wastes to produce microbial pigments
- Edible coating materials for shelf-life extensions of perishable foods
- Development of hydrophobic coatings for cellulose products like paper cups
- Development of Bioplastic materials using sustainable sources
- Novel organic-inorganic composites/fibres

Details of Funded Projects

S.No	Project Title	Funding agency	Amount (Rs.)	Duration	Collaboration
1.	Developing novel applications from silk fibers and silk proteins	DBT, India	89,99,000/-	2020-23 (On-going)	Central Silk Technological Research Institute (CSTRI), Bengaluru

Recent Best 5 SCI Publications

- **Tarangini, K**. and Mishra, S., 2014. Production of melanin by soil microbial isolate on fruit waste extract: two step optimization of key parameters. *Biotechnology Reports*, 4, pp.139-146.- IF: 4.982
- **Tarangini, K**., Kumar, A., Satpathy, G.R. and Sangal, V.K., 2009. Statistical optimization of process parameters for Cr (VI) biosorption onto mixed cultures of *Pseudomonas aeruginosa* and *Bacillus subtilis*. *Clean–Soil, Air, Water*, 37(4-5), pp.319-327..– IF: 1.770
- Rao, K.J. and **Tarangini, K**., 2020. Instant synthesis of silver particles on silk fibres: Characterization and antimicrobial study. *Composites Communications*, *18*, pp.32-36.- IF:6.617
- Rao, K.J., **Tarangini, K**., Kp, A., Wacławek, S., Černík, M. and Padil, V.V., 2020. Development of ZnO Nanoflake Type Structures Using Silk Fibres as Template for Water Pollutants Remediation. *Polymers*, *12*(5), p.1151.– IF: 4.329
- Rao, K.J., **Tarangini, K**., Jakkala, S. and Singh, K., 2021. Optimization of the One-Step Green Synthesis of Silver and Gold Nanoparticles Using Aqueous Athyrium filix femina Extract Using the Taguchi Method. *BioNanoScience*, 11(4), pp.915-922. - IF: 2.31.

Books/book chapters

- **Tarangini Korumilli** and Susmita Mishra, Pigments by microbes using raw materials of Agro-Industrial origin, LAP LAMBERT Academic Publishing, 2016. ISBN: 978-3-659-76785-2.

Fellowships/Awards/Recognitions

- Selected for "Youth and Sustainable Development: Interaction with Prof. M. S. Swaminathan" during International Consultation on Achieving Sustainable Development Goals and Strengthening Science for Climate Resilience, 7 – 9, Aug 2019 at M.S. Swaminathan Research Foundation., Chennai, India
- Selected as Advisor - Veltech TBI Research Faculty (Biotech), Dept. of Biotechnology, Vel Tech Rangarajan Dr.Sagunthala R&D Institute of Science and Technology, Chennai, India
- Secured second place in National Level Paper Presentation on Solar Photo catalyzed Oxidation Reactions using TiO2 for killing bacteria at S.N.E.T 2003.
- Secured second place in State Level Paper Presentation on Bio Hydrogen Production from Rice Bra Oil Mill waste at Srujana 2005.

PhD Thesis Guidance

Scholar Name	Thesis Title	University	Status	Year
1. Ms.Kavi Palepu	"Studies on Developing Cost effective and Ecofriendly Edible coating and Packaging materials for Fruits and Vegetables"	Vel Tech Rangarajan Dr.Sagunthala R&D Institute of Science and Technology, Chennai, India	Ongoing	2021
2. Ms.Shilo Nesa Sherlin	"Studies on Augmentation of Textile materials using Green route synthesized Nanomaterials and their Applications"	Vel Tech Rangarajan Dr.Sagunthala R&D Institute of Science and Technology, Chennai, India	Ongoing	2021

Editorial/Review Activities

- Editorial Board member, Journal of Biochemical Technology, India
- Reviewer, Food Biotechnology, Taylor & Francis (SCI)
- Reviewer, Cogent Biology, Taylor & Francis (SCI)
- Reviewer, Dyes and Pigments, Elsevier. (SCI)
- Reviewer , International Microbiology, Springer (SCI)