



Dr. Neelamegam D
Professor and Head
CENTRE FOR BIO EDICAL
SPECTROSCOPY

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Dr. Neelamegam D is a leading expert in the development of affordable, non-destructive sensing systems utilizing UV/Vis/NIR spectroscopic techniques, hyperspectral imaging, and bioelectrical impedance spectroscopy. His research has led to 25 peer-reviewed publications and five granted and published patents, highlighting his significant scientific contributions in the field. He is currently involved in a major ongoing research project funded by the Department of Biotechnology, in collaboration with Jadavpur University, Kolkata, and the Institute of Bioresources and Sustainable Development (IBSD), Manipur. Additionally, Dr. Neelamegam D is spearheading a collaborative research initiative with Tamil Nadu Agricultural University, Coimbatore, and the Indian Institute of Spices Research, Kozhikode, further expanding the impact of his interdisciplinary work.

Looking for PhD students to work in the following areas

- 1. **Development of Affordable Non-Destructive Sensing Systems:** Utilizing UV/Vis/NIR Spectroscopy, Hyperspectral Imaging, and Bioelectrical Impedance Spectroscopy for real-world applications.
- 2. **Advanced Spectroscopic Techniques:** Application of novel spectroscopic methods for material analysis, biological systems, and agricultural monitoring.
- 3. **Precision Agriculture and Food Quality Assessment:** Integrating sensor technologies with AI for quality evaluation, crop monitoring, and sustainable agricultural practices.
- 4. **Collaborative Research Projects:** Involvement in ongoing national collaborations with Jadavpur University, IBSD-Manipur, Tamil Nadu Agricultural University, and the Indian Institute of Spices Research.

Facilities available

- 1. UV/Vis/NIR Spectrophotometers
- 2. Hyperspectral Imaging System
- 3. Bioelectrical Impedance Analyzer
- 4. Portable and Custom-Designed Spectroscopic Setups
- 5. Sensor Development and Calibration Tools
- 6. High-Performance Computing (HPC) Facilities
- 7. Collaborative Access to Shared Instrumentation

Benefits and opportunities

- 1. Monthly fellowship as per Institute Norms
- 2. Hands-on Experience with Advanced Technologies
- 3. Interdisciplinary Research Exposure
- 4. Publication & Patent Support
- 5. Conference Participation

Contact details

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