



Two Days Workshop  
on

# Recent Trends in Breath Analysis Techniques for Healthcare Applications

21 & 22 JANUARY 2022.

Organized by  
VIT Vellore in collaboration with University of Texas at Dallas  
Sponsored by  
Scheme for Promotion of Academic and Research Collaboration  
(SPARC)

## Coordinators

Dr. Zachariah C. Alex, PI, VIT.                      Dr. Shalini Prasad, PI, UTD.  
Dr. Elizabeth Rufus, Co-PI, VIT.                  Dr. Sriram Muthukumar, Co-PI, UTD.  
Dr. Samir Ranjan Meher, Co-PI, VIT.

## Topics to be Covered

Breath Volatomics  
Emission analysis and Diagnostics  
Nanomaterial based sensors for breath analysis  
Fiber optic techniques for breath analysis  
Acoustic sensors for breath analysis  
Key Challenges in breath research

Mode: Online  
Registration: Free

### About SPARC

Scheme for Promotion of Academic and Research Collaboration (SPARC) is an initiative from the Ministry of Education (formerly known as Ministry of Human Resource Development (MHRD), Government of India that is aimed at improving the research ecosystem in the higher education institutions in India. SPARC facilitates research collaborations with top institutions in 28 nations worldwide.

### Scope of the Workshop

The workshop is a two-day informative program about the development and importance of non-invasive breath sensors for the early detection of major physiological disorders in the human body. Breath analysis has attracted increasing interest among the scientific and clinical communities. Some of the VOCs in human breath act as biomarkers for specific diseases. The workshop's primary objective is to create general awareness about the different diagnostic techniques developed in recent times for breath analysis. This workshop emphasizes critical challenges in realizing breath sensors in real-time applications and strategies to overcome them. The workshop amalgamates science, engineering, and technology aiming at young researchers/students and faculty from different disciplines.

## List of Speakers

Dr. B. D. Gupta, IIT-Delhi, India.

Dr. Shalini Prasad, University of Texas, Dallas, USA.

Dr. Oomman K Vargheese, University of Houston, USA.

Dr. Mrinal Pal, CSIR-CCCRI, Kolkata, India.

Dr. Surya Kumar Dube, AIIMS-Delhi, India.

Dr. Ranjan Nanda, ICGEB-Delhi, India.

Dr. N. Ramkrishnan, Monash University, Malaysia.