



## PhD Project

### Project Details

Project Title	Development of total Soil analyzer prototype device
Project Summary	We shall develop a benchtop device for complex analysis of soil components using capillary electrophoresis microchip detector, which would separate the analytes (insecticides, pesticides, urea, herbicides) prior to their electrochemical detection. Student shall have to design the microfluidic channel and fabricate microelectrodes; test the analytes using biosensing method and develop a reusable deployable prototype for field trial at IARI, PUSA.

### PhD Supervisors

Role	Faculty	Academic Unit in IITD	Email ID
Supervisor 1	Sandeep Kumar Jha	Biomedical Engineering (BME)	sandeepjha@cbme.iitd.ac.in
Supervisor 2	Suddhasatwa Basu	Chemical Engineering (ChE)	sbasu@chemical.iitd.ac.in

### Project requirements

- M.Sc or M.Tech students
- Having experience in microfabrication technology or biosensors are desirous