Brief Bio:



Anubha Gupta (anubha@iiitd.ac.in) received her PhD. from Indian Institute of Technology (IIT), Delhi, India in 2006 in Electrical Engineering. She did her second Master's as a full time student from the University of Maryland, College Park, USA from 2008-2010 in Education. She worked as Assistant Director with the Ministry of Information and Broadcasting, Govt. of India from 1993 to 1999 and, as faculty at NSUT-Delhi (2000-2008) and IIIT-Hyderabad (2011-2013), India. Currently, she is working as a Professor at IIIT-Delhi. Prof. Gupta has authored/co-authored more than 150 technical papers in scientific journals and conferences, has two US and two Indian patents. She is a technical committee member of BISP, IEEE Signal Processing Society (2025-2027). She is a recipient of SERB POWER Fellowship, 2021 and IETE PROF SVC AIYA MEMORIAL AWARD-2022. Her recent work on "Explainable AI Model for Cardiac Disorder Detection" won the 2023 "Lab2market" challenge of IndiaAl, Govt. of India. A lot of exciting work is being taken up in her lab: SBILab (Lab: http://sbilab.iiitd.edu.in/index.html). Her research interests include applications of machine learning in digital pathology, cardiovascular disease diagnosis, cancer genomics, cancer imaging, biomedical signal and image processing including fMRI, MRI, EEG, and ECG signal processing, and conversational AI.



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Biography

The overarching goal of Prof Gupta's lab is to identify novel signatures of disease initiation, progression, and drug resistance in hematological malignancies and to translate these discoveries into clinical practice for improving diagnosis, prognosis and treatment of cancer patients. Our lab is interested in understanding the composite interplay of genomic and epigenomic alterations and the tumor microenvironment that are requisite for initiating the growth of precancerous and leukemic stem cells, disease evolution from precancerous to overt cancerous stage, conferring drug resistance and to identify novel biomarkers for targeted therapy.

We have successfully integrated AI-ML algorithms for superior risk stratification in multiple myeloma and are working towards validating microscopic image processing software for clinical applications in hematology.