

PROFESSOR BUD MISHRA is a professor of *computer science* and *mathematics* at NYU's **Courant** Institute of Mathematical Sciences, professor of *engineering* at NYU's **Tandon** School of engineering, professor of *human genetics* at **MSSM** Mt. Sinai School of Medicine, visiting scholar in *quantitative biology* at **CSHL** Cold Spring Harbor Laboratory and a professor of *cell biology* at **NYU SoM** School of Medicine.

Prof. Mishra founded the NYU/Courant Bioinformatics Group, a multi-disciplinary group working on research at the interface of computer science, applied mathematics, biology, biomedicine and bio/nano-technologies as well as Tandon-Online program on Bioinformatics Engineering.

Prof. Mishra has industrial experience in Computer and Data Science (aiNexusLab, ATTAP, behold.ai, brainiad, Genesis Media, Pypestream, and Tartan Laboratories), Finance (Instadat, Pattern Recognition Fund and Tudor Investment), Robotics and Bio- and Nanotechnologies (Abraxis, Bioarrays, InSilico, MRTech, OpGen and Seqster). He is the author of a textbook on algorithmic algebra and more than two hundred archived publications. He has advised and mentored more than 35 graduate students and post-docs in the areas of computer science, robotics and control engineering, applied mathematics, finance, biology and medicine. He holds 21 issued and 23 pending patents in areas ranging over *robotics, model checking, intrusion detection, cyber security, emergency response, disaster management, data analysis, biotechnology, nanotechnology, genome mapping and sequencing, mutation calling, cancer biology, fintech, adtech, internet architecture and linguistics*.

Prof. Mishra's pioneering work includes: first application of model checking to hardware verification; first robotics technologies for grasping, reactive grippers and work holding; first single molecule genotype/haplotype mapping technology (Optical Mapping); first analysis of copy number variants with a segmentation algorithm, first whole-genome haplotype assembly technology (SUTTA), first clinical-genomic variant/base calling technology (TotalRecaller), first single molecule single cell nanomapping technology, etc.

Prof. Mishra's current work in progress continues in the areas of single-molecule nano-mapping (with Gimzewski, Reed et al.), clinical genomics (with Burzycki, Cantor, Narzisi, Reed et al.), liquid biopsies (with Jee, Nudler et al.), cancer data (with Antoniotti, Bannon, Cantor, Grossman, Korsunsky, Rabadan, Ramazzotti, Zhavoronkov et al.), cyber security (with Casey, Morales, Moore, Novak et al.), cryptography (with Gvili, Janwa, Kahrobaei et al.), linguistics (with Chakraborty, Rinberg, Tamaskar, Young et al.) financial engineering (with Deboneuill, Qi, Subramaniam, et al.) and internet of the future (with Rudolph, Savas, Weill et al.).

Prof. Mishra has a degree in Science from Utkal University, in Electronics and Communication Engineering from IIT, Kharagpur, and MS and PhD degrees in Computer Science from Carnegie-Mellon University. He is a fellow of IEEE, ACM and AAAS, a Distinguished Alumnus of IIT (Kharagpur), and a NYSTAR Distinguished Professor.