Pedagogical initiatives

FDP on Pedagogy

Course coordinators are encouraged to attend Faculty Development Programs on different topics to enhance the knowledge and competency. Faculty undergo pedagogy training to get more insight into the latest teaching processes so that teaching–learning is more effective.

ICT enabled teaching

- Video conferencing tools like Microsoft Teams, ZOOM and Google Meet were used to conduct online classes/meetings/webinars/workshops with students during the pandemic.
- Cisco-Webex has been adopted by the College as a unified platform for online teaching, facilitating enriched teacher-student interactive interface.
- Google classrooms
- Teaching materials uploaded in Quiklrn and Google drives

Collaborative learning

- Group discussions
- Peer to peer learning
- Journal paper discussions
- Flipped Class
- Blended learning
- Design thinking
- Project/problem based learning
- Twin Think Share

Development of tools

- AR/VR tool
- Bioinformatic tools
- Workflows, and Implemented versions of workflow in shell

SL. NO.	NAME OF THE FACULTY	COURSES	TOOLS DEVELOPED/UTILIZED
1.	Dr. VIDYA NIRANJAN	SYSTEMS BIOLOGY, HPC	Tools designed and developed to facilitate research and teaching 1. **PICv:** Protein interaction clustering and visualization is an pioneer attempt in understanding protein-protein interaction at a residue level. **Link: https://pymolwiki.org/index.php/PICv** 2. **MutVis:** An integrated, automated, open-source and user-friendly framework to analyze mutational signatures from bacterial whole genome next generation sequencing data**. Link: https://www.sciencedirect.com/science/article/abs/pii/S1567134821001027?via%3Dihub** 3. **Clin-mNGS**: An integrated, open-source, scalable, reproducible, and user-friendly framework scripted using the Snakemake workflow management software. **Link:** https://github.com/AkshathaPrasanna/Clin-mNGS. 4. **Plant Database:** The Agricultural Information System is a working database of all known crops, minerals and nutrient information**.** 5. **MutaXome**: A Comprehensive knowledge base of identified mutational profiles for twenty different cancer exomes. **Link:** http://vidyalab.rf.gd/?i=1 6. **MutaCheck:** A pipeline is created for the analysis of a mitochondrial DNA genome to detect the presence of pathogenic mutations and predict clinical significance of these mutations. 7. **UAAPRD:** Comprehensive database for all modelled proteins in the proteome of *Aedes aegypti*. **Link:** https://uaaprd.herokuapp.com/user**.** 8. **DSS:** Web application: Decision Support System for Cancer exome datasets

			Link: https://sabhapathi0306-streamlit-dss-ts79g8.streamlit.app/ Teaching Materials: http://vidyaniranjan.co.in/teaching.html 1. Matlab 2. Systems Biology 3. Shell Scripting 4. Computational genomics 5. In Silico drug Design 6. Genomics, Proteomics and Bioinformatics 7. Essential Bioinformatics
2.	DR. SHIVANANDAPPA	BCA, PROGRAMMING IN C, BIOINFORMATICS, PROGRAMMING IN PIOTECHNOLOGY, COMPUTATIONAL GENOMICS AND PROTEOMICS	Workflows, and Implemented versions of workflow in shell. Basics of computer applications https://shell.cloud.google.com/?pli=1&show=ide%2Cterminal Programming in C https://scratch.mit.edu/projects/793239405/editor Bioinformatics https://usegalaxy.org/histories/view_multiple Programming in C https://meet.google.com/zwq-ydqv-foo Basics of computer applications https://meet.google.com/csf-dvnj-idq PROGRAMMING IN PIOTECHNOLOGY https://meet.google.com/lookup/dkimpbtory Computational genomics and proteomics https://usegalaxy.eu/history/view_multiple