ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP)
ON
COMPUTATIONAL BIOLOGY (Interdisciplinary)
(13th July – 22nd July 2022)

Organized by
E & ICT Academy, National Institute of Technology, Warangal.
in association with
University College of Engineering BIT Campus
Tiruchirappalli – 620 024

Date/Period	03.30 PM to 04.30 PM	04.40 PM to 05.40 PM	05.50 PM to 06.50 PM	07.00 PM to 08.00 PM
13.07.2022	*Introduction to Bioinformatics (1)* **Dr. Perugu Shyam, NITW**	*Introduction to Bioinformatics (2)* **Dr. Perugu Shyam, NITW**	Artificial Intelligence for Bioinformatics **Dr. U. Srinivasulu Reddy, NITT**	*Biological Databases and Datamining* **Dr. Perugu Shyam, NITW**
14.07.2022	*Computer Aided Drug Design: Docking* **Michael Gromiha, IITM**	*Introduction to Computational Systems Biology (1)* **Anbumathi P, NITW**	Research Opportunities and Challenges in Bioinformatics using Artificial Intelligence **Dr. U. Srinivasulu Reddy, NITT**	*Artificial Intelligence and its role in Bioinformatics* **Dr. Perugu Shyam,** NIT Warangal
15.07.2022	*Artificial Intelligence and its role in Bioinformatics* **Dr. Perugu Shyam, NITW**	*Introduction to Computational Systems Biology (2)* **Anbumathi P, NITW**	Machine Learning Techniques for Bioinformatics - Part -1 **Dr. U. Srinivasulu Reddy, NITT**	*Biological Databases and Bioinformatics tools and software's* **Dr.M.Balakrishnan, Principal Scientist, ICM Division, ICAR-NAARAM, Hyderabad**
16.07.2022	*Basics of molecular interactions in medicinal chemistry and Drug design* **Devandra, NIPER**	*Case studies in Computational Systems Biology* **Anbumathi P, NITW**	*Molecular Docking and its applications (1)* **Dr. Perugu Shyam, NITW**	*Molecular Docking and its applications (2)* **Dr. Perugu Shyam, NITW**
17.07.2022	*NCS and Data Analysis (1)* **Dr. Perugu Shyam, NITW**	*NCS and Data Analysis (2)* **Dr. Perugu Shyam, NITW**	Machine Learning Techniques for Bioinformatics - Part - 2 **Dr. U. Srinivasulu Reddy, NITT**	*Bioinformatics in Agriculture – Challenges and Opportunities* **Dr.M.Balakrishnan, Principal Scientist, ICM Division, ICAR-NAARAM, Hyderabad**
18.07.2022	*Computer Aided Drug Design: Screening* **Michael Gromiha, IITM**	*Computational Systems Biology Model: Hands on* **Anbumathi P, NITW**	Applications for AI & ML for Motif Discovery **Dr. U. Srinivasulu Reddy, NITT**	*Sequence Alignment and Phylogenetic study with hands on session* **Dr.M.Balakrishnan, Principal Scientist, ICM Division, ICAR-NAARAM, Hyderabad**
19.07.2022	*Computer Aided Drug Design: QSAR* **Michael Gromiha, IITM**	*Basics of QSAR and its applications in Pharmaceutical Science research* **Devandra, NIPER**	*Hands on sessions on studying gene expression, pathways and protein interaction networks with R/Bioconductor studies – S1* **Dr.Srivatsan, IBAB**	*Hands on sessions on studying gene expression, pathways and protein interaction networks with R/Bioconductor studies – S2* **Dr.Srivatsan, IBAB**
20.07.2022	*Gene Ontology, Pathways and Gene set enrichment analysis(1)* **Onkara Perumal. P, NITW**	*Gene Ontology, Pathways and Gene set enrichment analysis(2)* **Onkara Perumal. P, NITW**	*Hands on sessions on studying gene expression, pathways and protein interaction networks with R/Bioconductor studies – S3* **Dr.Srivatsan, IBAB**	*Hands on sessions on studying gene expression, pathways and protein interaction networks with R/Bioconductor studies – S4* **Dr.Srivatsan, IBAB**
21.07.2022	*Network analysis tools (1)* **Dr. A.Jenefa, UCE, BIT Campus, Anna University, Tiruchirappalli**	*Network analysis tools (2)* **Dr. A.Jenefa, UCE, BIT Campus, Anna University, Tiruchirappalli**	*Hands on sessions on studying gene expression, pathways and protein interaction networks with R/Bioconductor studies – S5* **Dr.Srivatsan, IBAB**	*Hands on sessions on studying gene expression, pathways and protein interaction networks with R/Bioconductor studies – S6* **Dr.Srivatsan, IBAB**
22.07.2022	*Learning in Computational Biology with PyWeka (1)* **Dr. D. Asir Antony Gnana Singh, UCE, BIT Campus, Anna University, Tiruchirappalli**	*Learning in Computational Biology with PyWeka (2)* **Dr. D. Asir Antony Gnana Singh, UCE, BIT Campus, Anna University, Tiruchirappalli**	*Hands on sessions on studying gene expression, pathways and protein interaction networks with R/Bioconductor studies – S7* **Dr.Srivatsan, IBAB**	*Hands on sessions on studying gene expression, pathways and protein interaction networks with R/Bioconductor studies – S8* **Dr.Srivatsan, IBAB**