



Sri Srinivas Educational and Charitable Trust  
**SAPTHAGIRI COLLEGE OF ENGINEERING, BENGALURU-57**  
(Affiliated to Visvesvaraya Technological University, Belagavi & Approved by AICTE, New Delhi)  
An ISO 9001:2015 and 14001:2015 Certified Institution  
#14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru- 560 057  
Web: www.sapthagiri.edu.in, Email: principal@sapthagiri.edu.in  
Phone 080-28 372800/1/2 Fax: 080-28 372797

2020-2021  
ODD SEM

## DEPARTMENT OF BIOTECHNOLOGY

### Report of FDP Programme ON **"TRENDS IN COMPUTATIONAL BIOLOGY"**

The Department of Biotechnology, SCE organized the Faculty Development Program (FDP) programme on **"Trends in Computational Biology"** for a period of 5 days from 9<sup>th</sup> to 13<sup>th</sup> December 2020 by virtual mode.

As a Faculty and researcher, it is mandatory for everyone to upgrade the skills & knowledge in their fields to know the advances in research. Apart from imparting knowledge & skills to the stakeholders, engineering institutions have the responsibility of developing new & novel technologies useful for mankind. To bridge this gap Department of BT, SCE conducted the FDP to make the participants aware on recent trends in Computational Biology.

The objective of this Faculty Development Program was to introduce the participants to know the current & emerging research areas in the field of computational biology, drug discovery and give an insight into how and where it can be applied. This FDP programme provided an ideal opportunity to get familiar with bioinformatics and structure predications of proteins and its many faces.


The sessions were addressed by Professors and Industry personnel from reputed academia, Institutions and firms. The FDP was attended by 80 plus participants- faculty members from different departments such as Biotechnology, Computer Science, Chemistry, Agricultural Science and research scholars.

#### Session report (of different days):

##### Day 1: 9<sup>th</sup> Dec 2020 (Wednesday)

Sri.Anupam J Das, CEO and Co-founder, Molsys Private Limited, Bengaluru delivered inaugural address on **"Futuristic Trends in Genomics"**, where Mr.Das highlighted on the gut microbiome and proteomics.

FDP Convener

  
HOD  
Head of the Department  
Dept. of Bio-Technology  
Sapthagiri College of Engineering  
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Day 2: 10<sup>th</sup> Dec 2020 (Thursday)

Dr. Farhan Zameer, Assistant Professor, Dayananda Sagar University (DSU), Bangalore addressed the session by explaining the "Experimental Models to Decipher the Microbiome Code".

Day 3: 11<sup>th</sup> Dec 2020 (Friday)

Dr. Sushil Kumar Middha, Associate Professor, Dean (Research), Maharani Lakshmi Ammanni College For Women, Bangalore, discussed on "Molecular Docking- A Case Study".

Day 4: 12<sup>th</sup> Dec 2020 (Saturday)

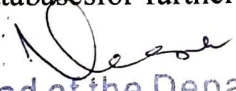
Dr. Sinosh Skariyachan, Assistant Professor, Department of Microbiology, St. Pius X College Rajapuram, Kasaragod, Kerala, shared his views on his recent research on "Computer Assisted Virtual Screening of Potential Therapeutic Targets of SARS CoV-2: Screening of Putative Lead Molecules Against COVID19".

Day 5: 13<sup>th</sup> Dec 2020 (Sunday)

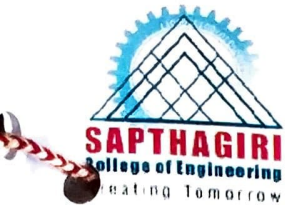
Dr. Naga Sridhar Betrapally, Senior Research Associate, George Washington University, USA, gave valedictory talk on "Challenges of Multidrug resistance – Perspectives and approaches using computational Methods".

During these five days of FDP programme on "Trends in Computational Biology", the speakers covered all basic aspects of biological sequence analysis, experimental lab animal models, microbiome gut environment, molecular modeling & dynamics. The Speakers delivered a talk on list of biological databases namely Genome database, Protein databases and sequence databases that are used to collect the available nucleotide and protein sequences required for computational biological research. They also highlighted on Next Generation Sequencing (NGS) approaches which helps to generate as many sequences that they can be stored in public databases for further research.

  
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By taking a case study, the speaker explained about the multidrug resistance concept in detail to the participants.

#### Valedictory Session

Receiving an overwhelming response from participants, the five-day FDP on 'Trends in Computational Biology' came to an end with the Valedictory Session on 13<sup>th</sup> Dec 2020, Sunday.

E-certificates were distributed to all the participants through their registered e-mail ID after submission of the feedback form. Vote of thanks was delivered by convener of the FDP Prof. Prashanth Kumar HP, Assistant Professor, Department of Biotechnology, SCE.


#### Outcome of the Event

At the end of the programme, participants were able to tackle some basic bioinformatic problems, how to obtain relevant information about a gene, where to get the required sequence data, manipulation of the sequences, and how basic software and algorithms function so they can fine-tune it in order to get the best out of their research analysis. The discussed areas were of great benefit to the participants as the topics were most advanced research topics and could plan for future activities & collaborations.

The following **Feedback** was received from the participants:

- 90% of the participants felt that the delivery and presentation of the Resource Persons were good.
- 95% of the participants opined that the FDP was conducted & coordinated very well.

  
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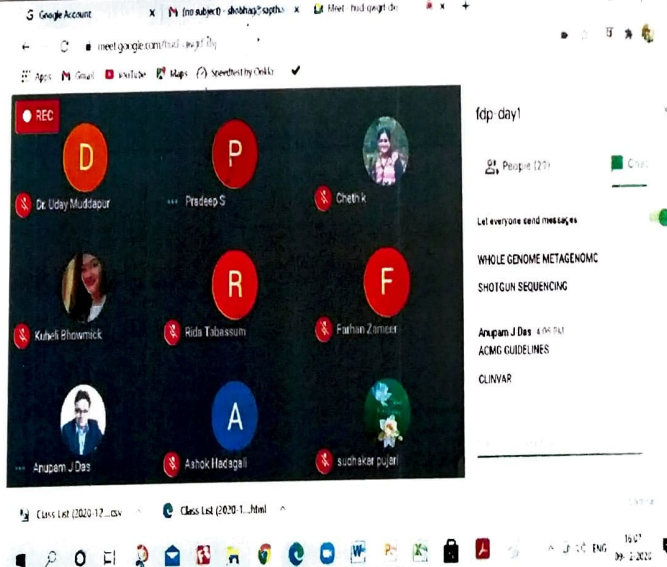
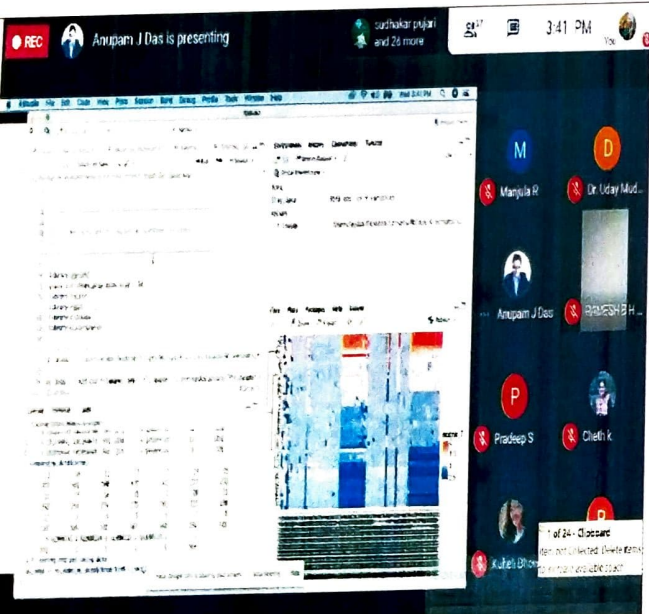
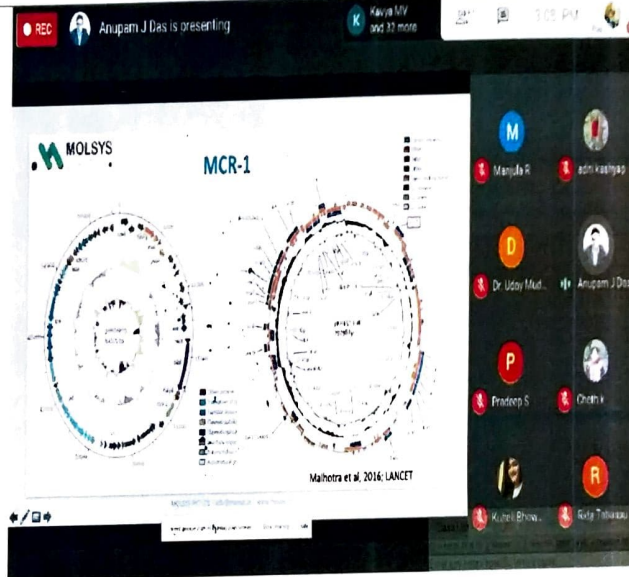
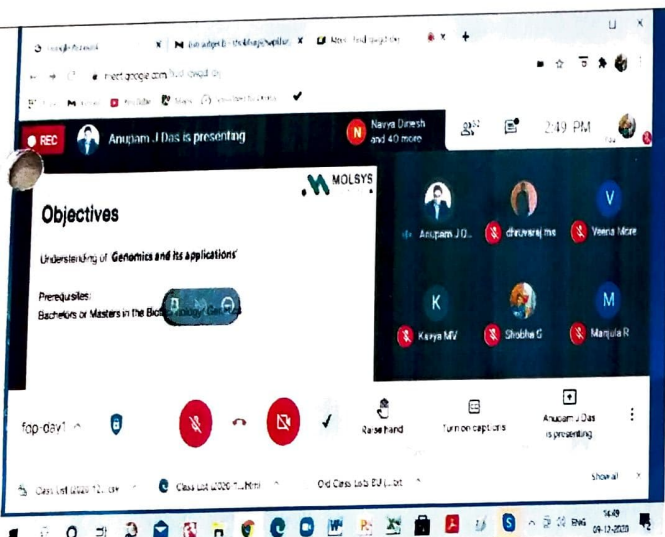
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 ON  
**"TRENDS IN COMPUTATIONAL BIOLOGY"**

**Galleria of FDP (Day 1 Session)**



Day 1: 9<sup>th</sup> Dec 2020 (Wednesday)

Dr. Anupam J Das, CEO and Co-founder, Molsys Private Limited delivered a talk on Futuristic Trends in Genomics

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Head of ~~HOD~~ Department  
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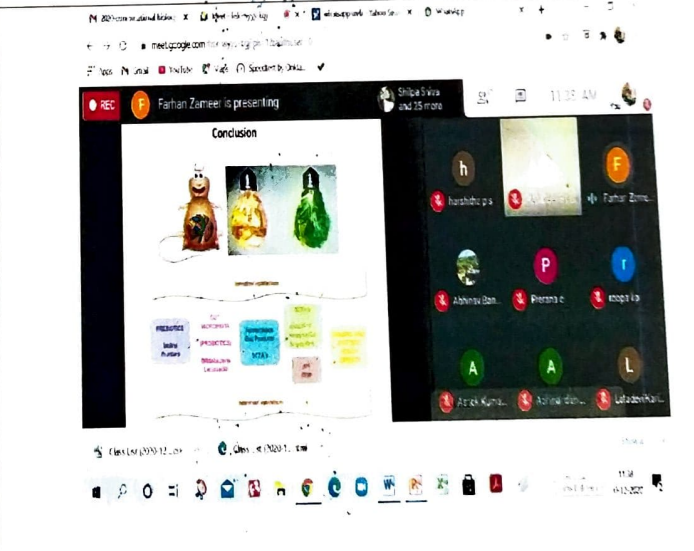
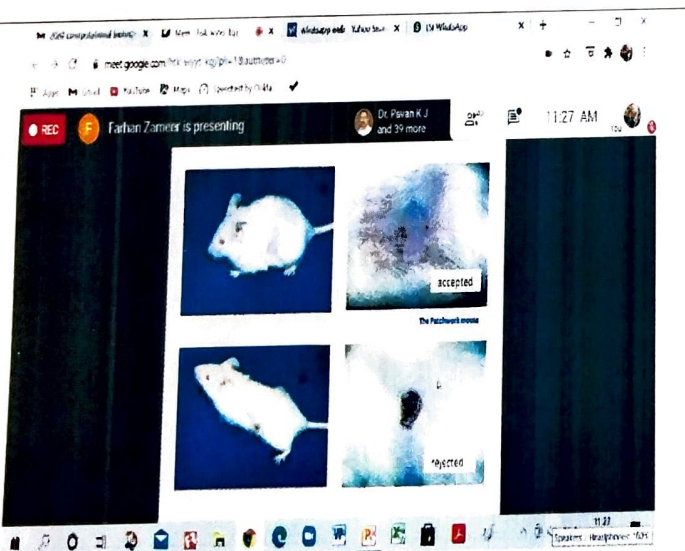
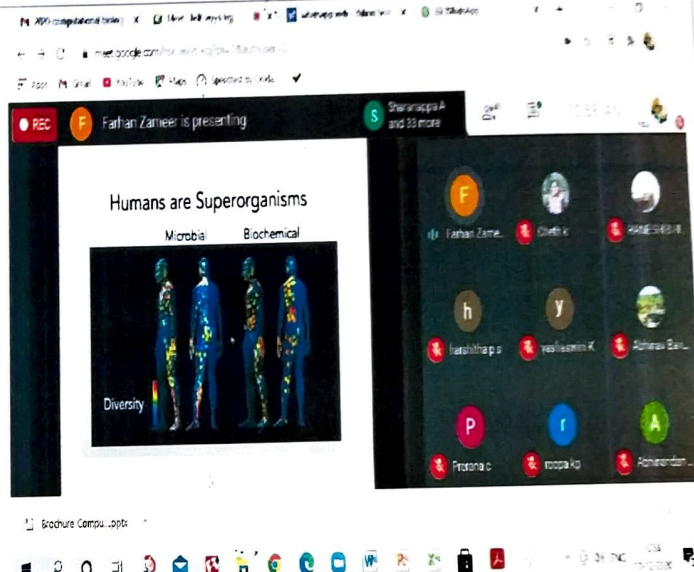
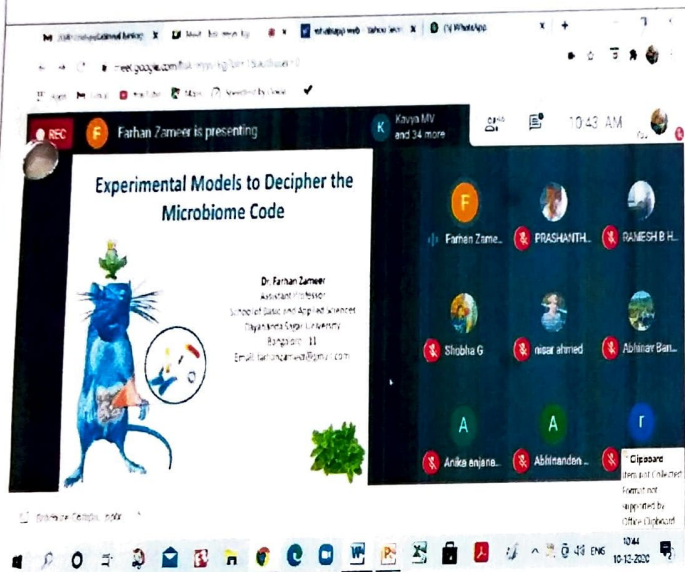


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**ON**  
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**Galleria of FDP (Day 2 Session)**



**Day 2: 10<sup>th</sup> Dec 2020 (Thursday)**

**Dr. Farhan Zameer** Assistant Professor, Dayananda Sagar University (DSU), Bangalore addressed the session by explaining the Experimental Models to Decipher the Microbiome Code.

*[Signature]*  
 FDP Convener

*[Signature]*  
**HOD**  
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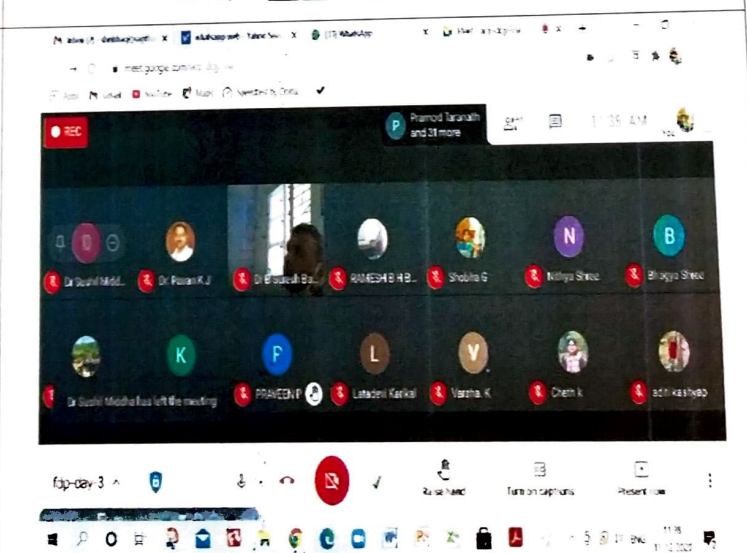
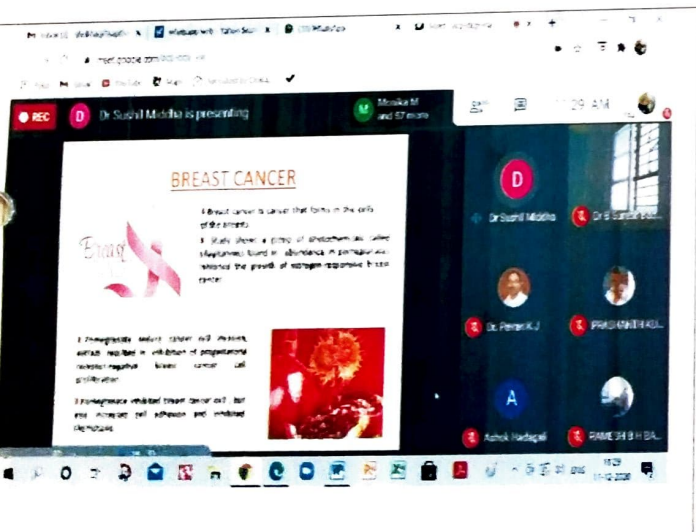
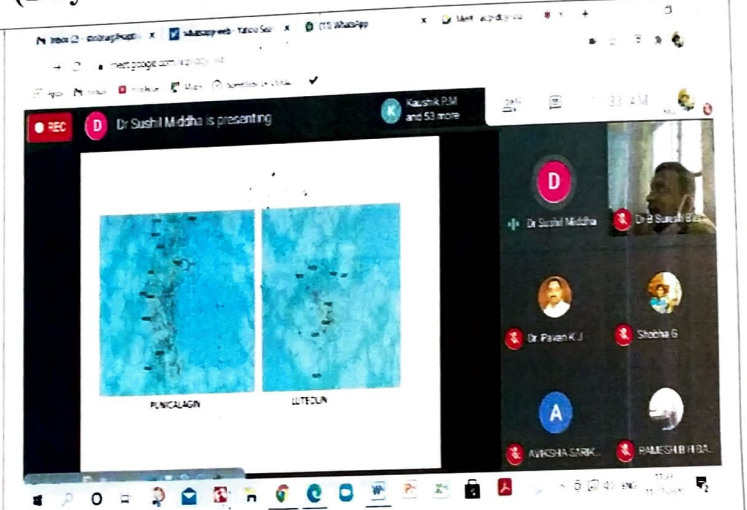
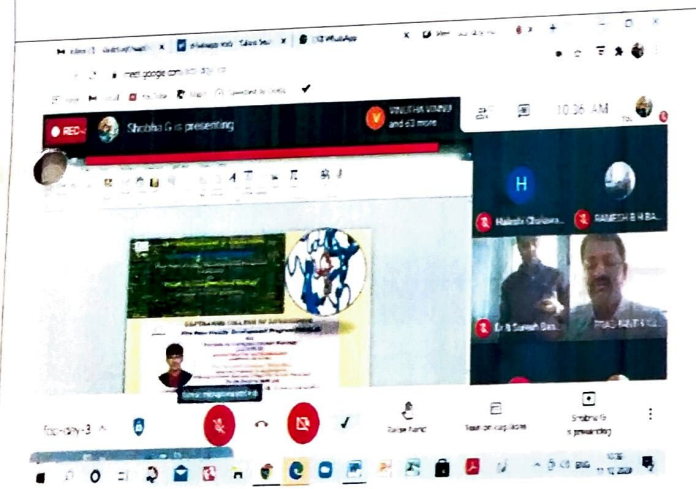


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**Galleria of FDP (Day 3 Session)**



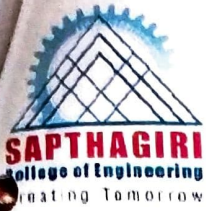
**Day 3: 11<sup>th</sup> Dec 2020 (Friday)**

*Dr. Sushil Kumar Middha, Associate Professor, Dean(Researc ,Maharani Lakshmi Ammanni College For Women, Bangalore. Molecular Docking a Case Study.*

  
**FDP Convener**

  
**Head of the Department**  
**Dept. of Biotechnology**  
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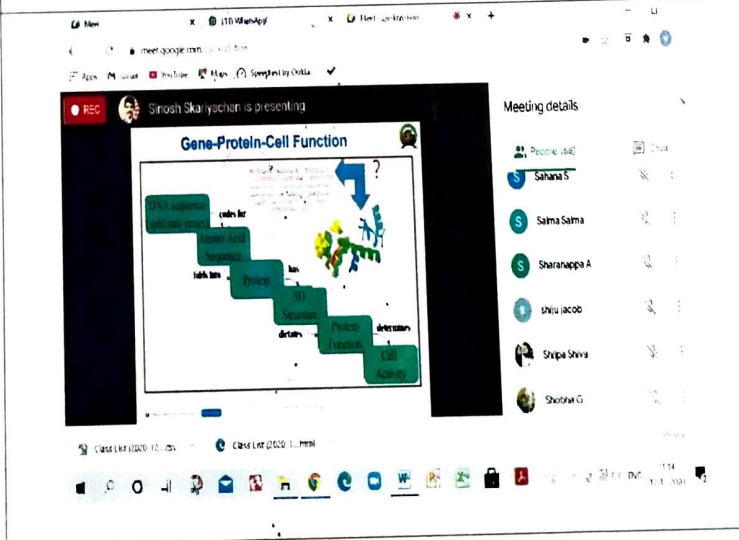
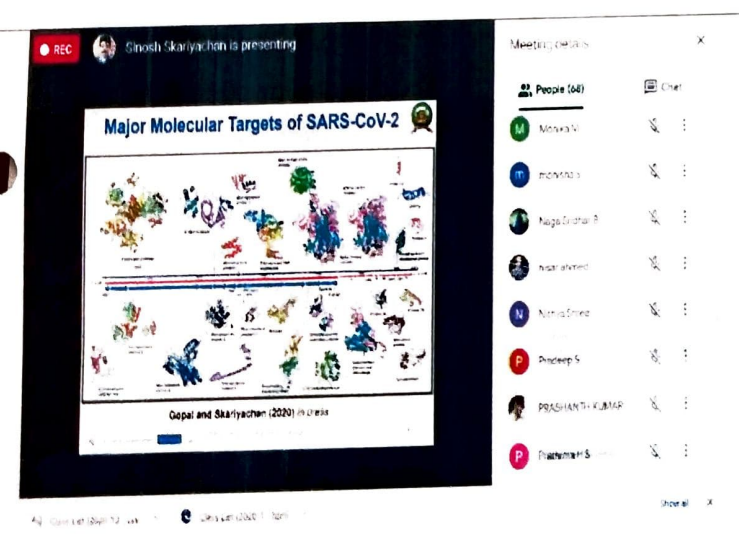
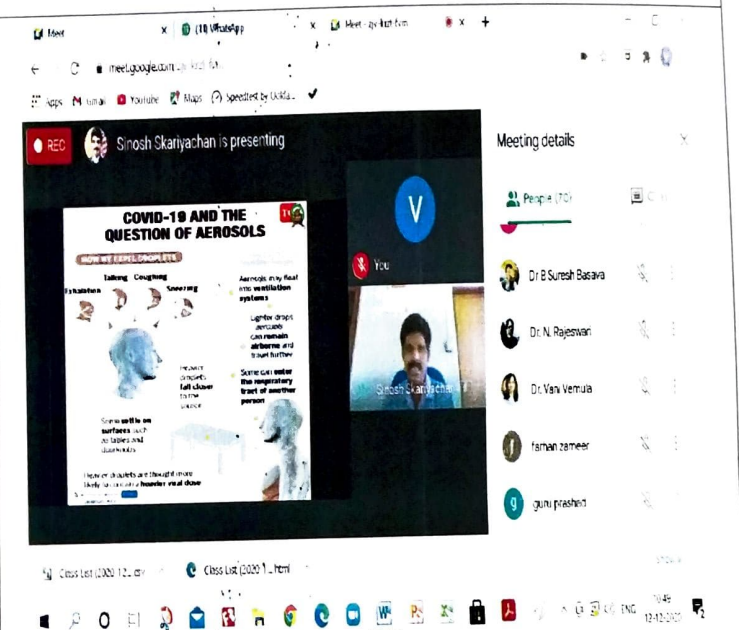
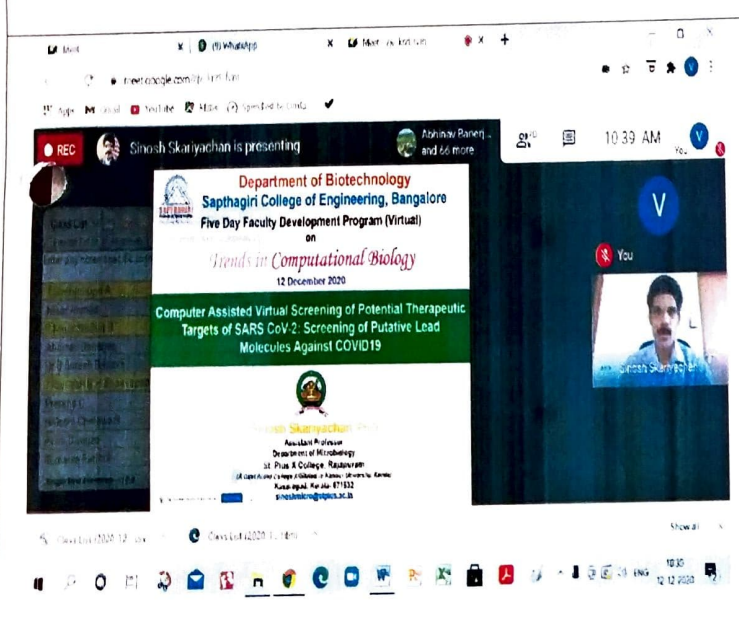
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Report of FDP Programme  
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"TRENDS IN COMPUTATIONAL BIOLOGY"

Galleria of FDP (Day 4 Session)



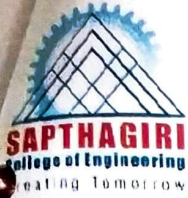
Day 4: 12<sup>th</sup> Dec 2020 (Saturday)

Dr. SinoshSkariyachan, Assistant Professor, Department of Microbiology, St. Pius X College Rajapuram, Kasaragod, Kerala, Computer Assisted Virtual Screening of Potential Therapeutic Targets of SARS CoV-2: Screening of Putative Lead Molecules Against COVID1

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HOD  
Dept. of Bio-Technology  
Sapthagiri College of Engineering  
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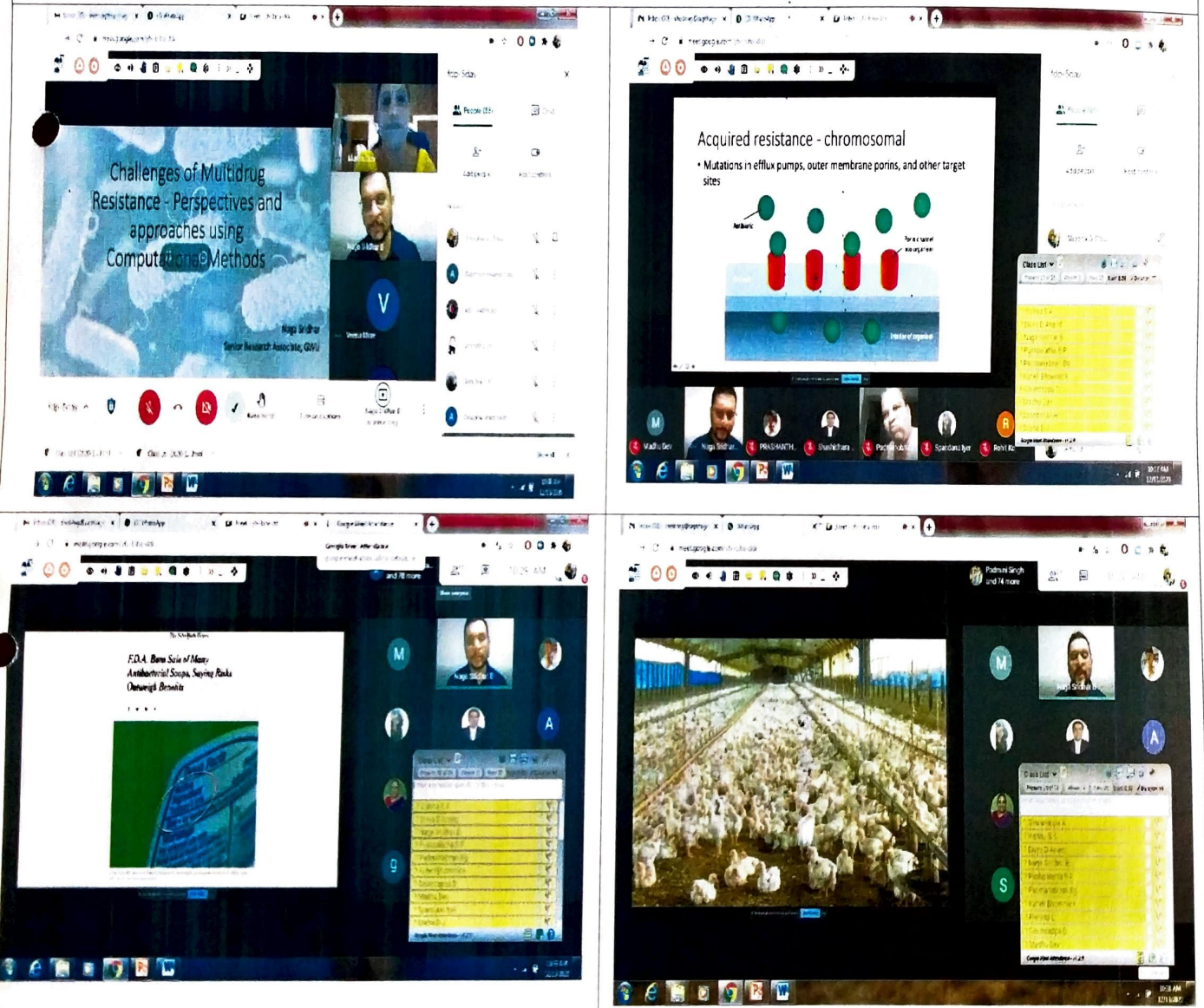
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**"TRENDS IN COMPUTATIONAL BIOLOGY"**

**Galleria of FDP (Day 5 Session)**



**Day 5: 13<sup>th</sup> Dec 2020 (Sunday)**

**Dr Naga Sridhar Betrapally, George Washington University, USA, Challenges of Multidrug resistance – Perspectives and approaches using computational Methods.**

*(Signature)*  
**FDP Convener**

*(Signature)*  
**HOD**  
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 Dept. of Bio-Technology  
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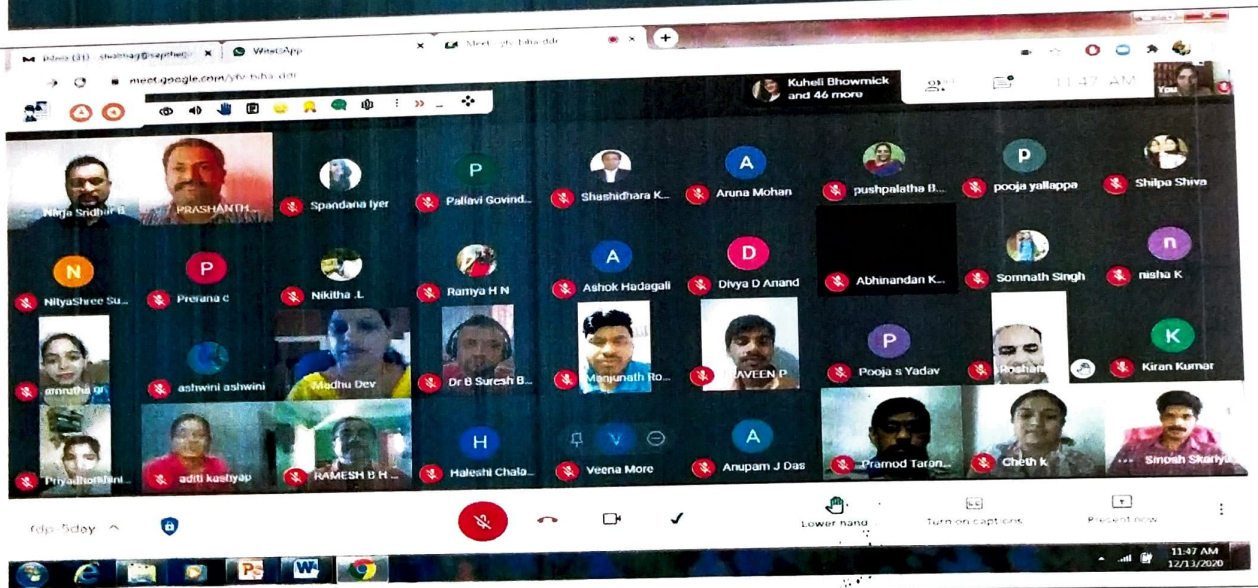
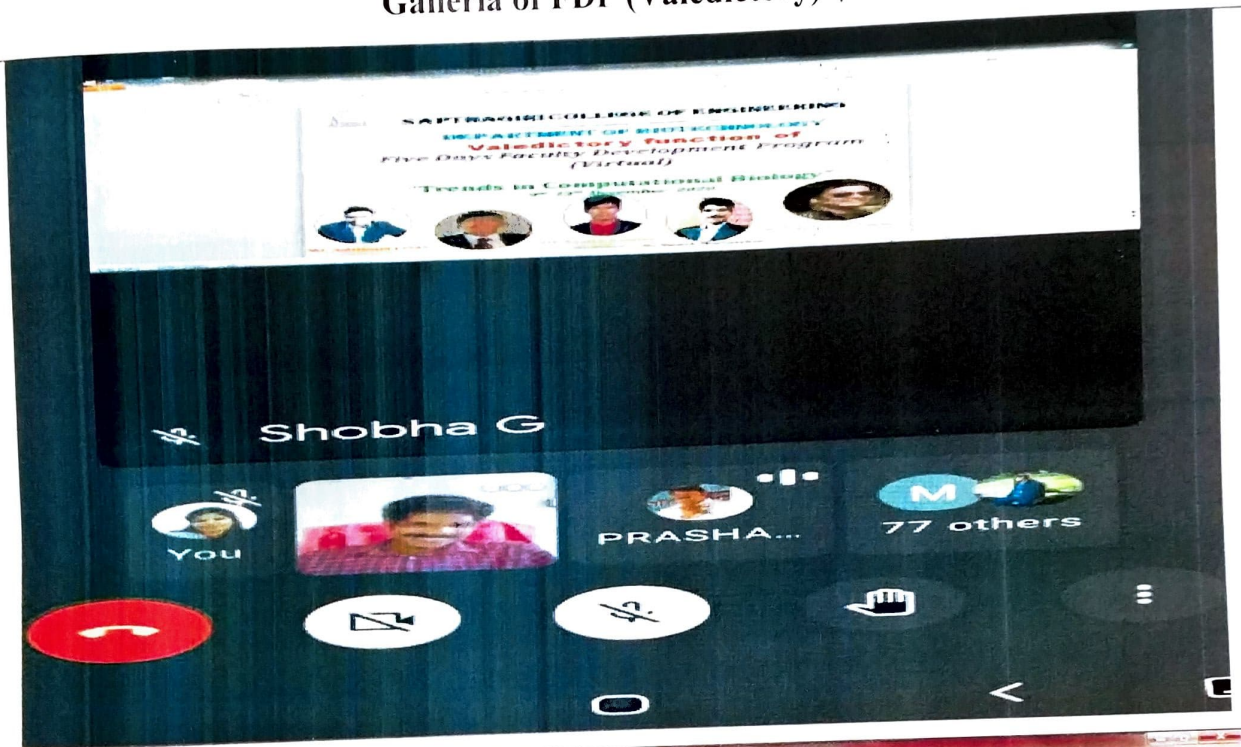


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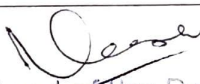
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Report of FDP Programme  
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"TRENDS IN COMPUTATIONAL BIOLOGY"

Galleria of FDP (Valedictory)



  
FDP Convener

  
Head of HOD Department  
Dept. of Bio-Technology  
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