



PAAVAI ENGINEERING COLLEGE (Autonomous) Techfinix '26

DEPARTMENT OF Bio Technology

Event Description

1. Experiment Detection Challenge

Faculty coordinator : Ms. Pavithra (AP/BT) - 9003782181

Student coordinator : G. Priyadharshini (IV/BT) -9597221121

Description:

Experiment Detection is an engaging and knowledge-based Biotechnology event designed to test participants' ability to identify, understand and interpret laboratory experiments through clues, observations and experimental results.

The event will be conducted in 3 progressive rounds covering Biochemistry, Molecular Biology and Genetic Engineering laboratory concepts.

Round 1- Lab Detective: Participants will identify basic laboratory apparatus, reagents, experiments and their principles.

Round 2- Mystery Lab: Participants will solve experimental clues and identify the experiment based on observations, procedures and results.

Round 3- BioLab Escape: The final and most challenging round will involve analysing experimental results, identifying errors and solving complete experimental mystery using logical and scientific thinking.

The event combines scientific knowledge, observation, problem-solving, teamwork and time management with a fun detective-style approach. The entire event will be completed within 2 hours and is suitable for participants from Biotechnology, Biochemistry, Microbiology and other Life Science backgrounds.

2. Docking Challenge

Faculty Co-ordinator: Dr. P. Balaganesh - 9994737950

Student Co-ordinator: S. Krishnaram (IV/BT) - 9842717901

Description:

In this hands-on challenge, participants will receive only the target protein structure. Their task is to independently identify suitable ligand molecules, prepare the target and ligands, and perform molecular docking using PyRx–AutoDock Vina.

Team: 3 members per team

Total rounds: 2 (1hour per round)

Maximum Team: 15

Note: If more than one team is selected then they will move to 2nd round

What participants must do

- Analyze the given target protein
- Identify a suitable binding/active site
- Select an appropriate ligand from available **chemical** databases/resources
- Prepare the protein and ligand
- Perform docking using PyRx
- Compare docking scores and binding poses
- Identify the best ligand–protein interaction
- Submit their final docking result and brief interpretation

3.Biomolecule Puzzle

Faculty Co-ordinator: Mr.T. Aravind (AP/BT) - 9789907947

Student Co-ordinator: R. Hariharesh (IV/BT) - 8667275319

Description:

Biomolecule Puzzle is an exciting three-round scientific quiz designed to test participants' knowledge of biomolecules, food, and molecular structures. The event encourages quick thinking, teamwork, and application of basic biochemistry concepts.

Team: 2 members per team

Total Rounds: 3

Maximum Teams: 25

Round 1- Molecular Warmup:

Participants answer questions based on the four major biomolecules: carbohydrates, proteins, lipids, and nucleic acids. A hint-based question will also be included.

Round 2- Molecular Bingo:

This round focuses on food and biomolecules, where participants identify or connect clues related to food components and their biological importance.

Round 3- Structural Smackdown:

The final round challenges participants with molecular structures. Participants must identify the biomolecule or molecule from the given structural clues.

The event is designed to provide a fun and competitive platform for students to strengthen their understanding of biomolecules and biochemistry while developing teamwork and problem-solving skills.