

Module PMRF-ISSS015/III/2025

## Helly-Type Theorems and Applications

### Name of the PMRF student

Rachana Gusain

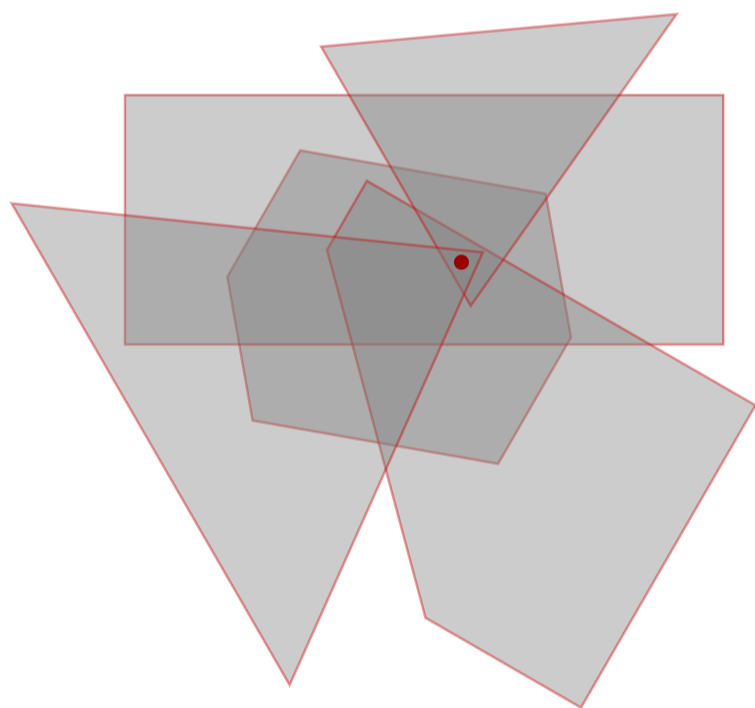
### Required background of the students taught

Computer Science.  
Prerequisite: Linear Algebra

### Details of the content of the module

Module 1. LP duality, Farkas lemma, Separator Theorem.

Module 2. Convex sets, Radon's Theorem, Helly's Theorem, Fractional Helly Theorem, Applications, Generalization to  $(p,q)$  theorem.



### Schedule of the module

Starts on 10 February 2025

Ends on 14 April 2025

Class Schedule: Monday, 08:00 to 09:30 am.

Total 10-12 lectures (1.5 hours per lecture)

Meeting link : Will be shared later

Contact email ID: [issf.forum@gmail.com](mailto:issf.forum@gmail.com)

Registration link:

<https://forms.gle/jhrXSHbB9Zvoh2S86>