

# Seminar Invitation: Directed Pythagorean Fuzzy Incidence Graphs

Speaker: **Ayesha Shareef** from Department of Mathematics, University of the Punjab, Lahore

## Speakers' Brief Introduction

Ms. Ayesha Shareef is an MPhil Scholar working under the supervision of Dr. Uzma Ahmad. The field of research of a student is Pure Mathematics, specializing in Fuzzy Graphs.



## Abstract

In this talk, I will present the concept of directed Pythagorean fuzzy incidence graphs. I will discuss the connectivity of directed Pythagorean fuzzy incidence graphs differently by focusing on legal and illegal network flows. Furthermore, I will illustrate the concept of legal and illegal flow reduction vertices, edges and pairs in directed Pythagorean fuzzy incidence graphs. I will also introduce the idea of legal Pythagorean fuzzy incidence cycles and trees, which are based on legal incidence strength and incidence connectivity. I will discuss the types of legal edges in directed Pythagorean fuzzy incidence graphs, with some important results on legal strong edges. Moreover, I will discuss the application of legal fuzzy incidence trees in decision-making and provide an algorithm to understand the methods we use in our application.

## Departmental Seminar Series

The Seminar Series serves as a platform to showcase and celebrate the remarkable work carried out by our researchers, scholars, and experts. It provides an avenue for knowledge dissemination and collaboration, creating an environment that nurtures innovative ideas and drives groundbreaking research. We proudly acknowledge and celebrate the remarkable contribution of Prof. Dr. Muhammad Sharif in introducing this seminar series back in 2005. The Seminar Series encompasses a wide range of topics, spanning various disciplines, ensuring that it caters to the diverse interests and expertise of our institute's community. Through these seminars, we aim to cultivate an environment of intellectual curiosity, stimulating meaningful discussions, and fostering interdisciplinary collaborations.



## Please join us for this Presentation

**When:** Thursday 6th July 2023; 02:15PM- 02:30PM

**Where:** Computer Lab, Department of Mathematics, University of the Punjab, Lahore

**Note:** All the faculty members and research scholars (MPhil/PhD) are invited to the seminar.

## Chairman Message



It is my honor to witness the passion and dedication that our faculty and students bring to the study of this beautiful discipline. I encourage our faculty members to create a supportive environment that nurtures and promotes mathematical research. I urge each and every one of you, regardless of your level of experience, to actively participate in mathematical research and contribute to the growth of our research community. It is our collective responsibility to create an ecosystem that encourages and facilitates research pursuits.

## Coordinator Departmental Seminar Series

**Dr. Zeeshan Yousaf**

Associate Professor

Department of Mathematics, University of the Punjab, Lahore