ICTS Seminar

Title : Information theory for sequential decision-making

Speaker : Alankrita Bhatt (Granica Computing Inc., USA)

Date : Friday, 20 February 2026

Time : 11:00 AM (IST)

Abstract : This chalk talk introduces prediction and learning through the lens of the log-loss, a loss function that naturally arises in information theory and statistics. I will begin with Shannon's 1948 result identifying entropy as the fundamental limit of data compression when the data distribution is known. I will then consider the more realistic setting where the distribution is unknown, leading to the problem of universal compression and sequential prediction. This perspective highlights how assigning probabilities to future data is itself a learning problem. I will discuss why the log-loss is a natural and powerful criterion in this setting, and briefly point to its connections with modern learning theory and online prediction.

Venue : Emmy Noether Seminar Room
Zoom Link: https://icts-res-in.zoom.us/j/91822974112?pwd=sasFecm8hAk4On32ajTUFyIH0XNUMt.1
Meeting ID: 918 2297 4112
Passcode: 202130