ICTS Colloquium

Title : Information theory for sequential decision-making

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

Date : Thursday, 19 February 2026

Time : 11:00 AM (IST)

Abstract : In this talk, I will discuss my research program, which takes an information-theoretic approach to modern problems arising in sequential decision-making.

In doing so, I will first revisit and expand upon the information-theoretic concept of universal probability. This approach gives us general principles and guidelines for assigning sequential probabilities to data (based on which a decision can then be made), and can be used to address concrete engineering applications in compression, prediction and estimation among others. I will then discuss our new results on the construction of such "universal" probability assignments that can incorporate side information/contexts/hints and illustrate examples in data compression and finance. Finally, I will conclude the talk with open problems and new directions I plan to address in future work.

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