About IIT Indore

IIT Indore is located in Indore which takes pride of being cleanest city in India. It was established in 2009 with motto of 'ज्ञानम् सर्वजनहिताय (Knowledge is for the well-being of everyone)'. It belongs to IIT family which is known to provide best education in Engineering and Technology across India. IITs are also declared as institute of national importance by the Government of India.

IIT Indore has shown relentless effort in providing best platform for education as well as research in several areas of science and technology. Within 10 years of its foundation, IIT Indore debuted into top 500 universities in Times Higher Education World University Rankings. Currently, it is ranked at 401-500 among global universities, 78th among Asian universities, and holds 3rd rank across India.

Indian Institute of Technology Indore
RANKED =78th
WORLD UNIVERSITY RANKINGS 2021 ASIA
www.thewur.com

Event Features

➢ Lecture by an international speaker
➢ Discussion with speaker

Schedule and Venue:
27 August 2021 (02:00 PM – 03:00 PM)
Department of Electrical Engineering, IIT Indore

Mode of the talk: Online (Google meet)

Speaker: Dr. Paresh Date

Dr. Paresh Date is Reader in the Department of Mathematics, College of Engineering, Design and Physical Sciences at Brunel University. He is currently the Head of Financial Mathematics, Operational Research (FOR) group and Director of Research in the Department. His main research interest is developing algorithms for latent state estimation or filtering in nonlinear time series and applications of filtering, especially in mathematical finance. Besides this key topic, He has a diverse research portfolio which includes efficient ways of computing tail distributions in financial portfolios of nonlinear instruments, scenario generation and system identification.

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INTERNATIONAL AFFAIRS AND OUTREACH OFFICE,
Indian Institute of Technology Indore

Expert Talk on
Forecasting Crude Oil Futures Prices Using the Kalman Filter and News

Abstract of the Talk

This talk looks at an empirical application of a mathematical tool familiar to engineers and mathematicians in a less familiar area. In particular, the speaker will be looking at forecasting the prices of certain financial derivative products called futures, using the Kalman filter. The annual trade volume in global futures markets is over 11 trillion USD (around three times India's GDP), so that accurate short-term forecasting of futures prices is an important practical problem. The speaker will also look at enhancing the results of Kalman filter-based forecasting using an exogenous source of information (news sentiment), which falls under the moniker 'explainable AI'. Moreover, he will demonstrate results of numerical experiments with real financial market data. This talk should provide a window to the fascinating world of financial mathematics for mathematicians and engineers.

Organized By:
Stochastic Control Research Laboratory
Department of Electrical Engineering
Coordinator: Dr. Abhinoy Kumar Singh