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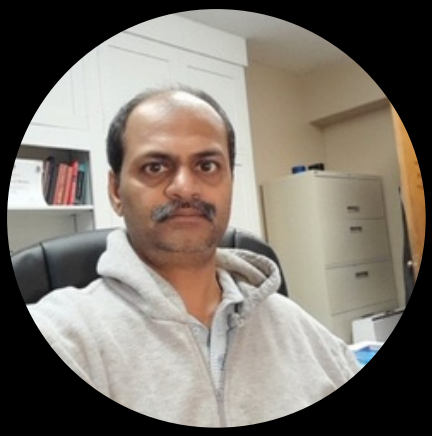

SPEAKER

Prof. Arni S. R. Srinivasa Rao

TOPIC

Exact Deep Learning Machines and AI

IN COLLOBORATION WITH

INDIAN SOCIETY FOR MATHEMATICAL MODELING AND COMPUTER SIMULATION (ISMMACS)

DETAILS

5 April 2025

6 p.m. to 7 p.m. IST

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TOPIC

Exact Deep Learning Machines and AI

ABSTRACT

Incorporating actual intelligence into the machines and making them think and perform like humans is impossible. In this talk, a current status of AI, general remarks, and new kind of machine called the EDLM (exact deep learning machine) will be described. Such EDLMs can achieve the target with probability one and could be the best alternative for originally designed artificial intelligence models of the mid-20th century by Alan Turing and others that have so far not seen reality. In the current context, achieving a target is defined as detecting a given object accurately.

SPEAKER

Prof. Arni S. R. Srinivasa Rao, Professor, Medical College of Georgia, USA

BIO

Arni S. R. Srinivasa Rao is a Professor and the Director of the Laboratory for Theory and Mathematical Modeling at the Medical College of Georgia in Augusta, USA. Until 2012, he held a permanent faculty position at the Indian Statistical Institute in Kolkata. His research has been featured in the media over 700 times, significantly influencing the fields of Artificial Intelligence, medicine, public health, mathematics, poultry farming, and civil and computer engineering. Dr. Rao has conducted research and taught at several prestigious institutions, including the Indian Statistical Institute, the Indian Institute of Science, Hiroshima University, and the University of Oxford. He has taught a variety of subjects, such as real analysis, complex analysis, differential equations, stochastic processes, demography, actuarial sciences, and mathematical epidemiology. His mathematical models played a crucial role in the national AIDS control planning in India. In February 2020, he proposed and developed the world's first AI-based model to identify COVID-19 cases using mobile apps. This groundbreaking work inspired the development of several similar apps worldwide during the COVID-19 pandemic, including the Arogya Setu app. Dr. Rao has been consulted by various agencies in India, the US, and Europe. In 2013, Dr. Rao proved a theorem on an open problem in population biology within 45 minutes that attracted news item in American Math Society's Math Digest and other places. He is currently a member of the AI-enabled Technologies & Systems Domain Expert Group, which was formed in 2021 by The Council of Scientific & Industrial Research (CSIR), Government of India. Additionally, he is an elected Fellow of the Indian Society for Mathematical Modeling and Computer Simulation as well as the Indian Society for Probability and Statistics.

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