SEMINAR
SCHOOL OF MATHEMATICS AND STATISTICS

DATE: 12 FEBRUARY 2020

TITLE

Particle Swam Optimization (PSO): A Nature Inspired Computing

VENUE | TIME

Seminar Room I
04:30 – 05:30 PM

SPEAKER

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ABSTRACT

Particle swarm optimisation was developed in 1995 by the authors Kennedy (an American Social Psychologist) and Eberhart (an American Electrical Engineer), inspired by the behaviour of social organisms in groups, such as bird and fish schooling or ant colonies. Particle swarm optimisation has been applied to numerous areas in optimisation and in combination with other existing algorithms. This method performs the search of the optimal solution through agents, referred to as particles, whose trajectories are adjusted by a stochastic and a deterministic component. Each particle is influenced by its "best" achieved position and the group "best" position, but tends to move randomly. This talk demonstrate basic PSO and provides exposure to some its variants like varying Inertia, random inertia, neighbourhood, Darwinian, Fractional Order, Fractional Order Darwinian PSO.

ABOUT THE SPEAKER

Prof. C. Raghavendra Rao, Completed his B. Sc and M.Sc in Statistics from Andhra University and Osmania University respectively. Ph.D. in Statistics and M.Tech(CS & Engineering) from Osmania University. He started his carrier as a lecturer in Statistics at Osmania University in 1984. Since 1986, he is working in the School of Mathematics and Computer/Information Sciences, University of Hyderabad. Presently he is a Senior Professor in the School of Computer and Information Sciences, University of Hyderabad. His current research interests are Simulation & Modeling, Rough Sets and Knowledge Discovery.