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Title of the talk: **"Nature Inspired Computing: Algorithms, Performance & Applications?"**

Nature inspired algorithms have dominated the sphere of optimization research over the past three decades. Numerous algorithms are being proposed in the recent times, and these algorithms find application in almost every domain of research from business management to engineering, from medical science to others. An important question still holds is about the performance of these algorithms on specific problems. It has been found that, no algorithm is best fit for all optimization problems and modifications needs to be done to make the algorithm adaptive with respect to the problem. Apart from that, these algorithms suffer from various problems such as local optima stagnation, poor convergence problems, among others. So, it becomes evident to propose new algorithms and apply them to our prospective problem domains. In this seminar, I will highlight some of the recent algorithms I have proposed, their performance analysis and application to one engineering design case.