

Computing Optimized Curves With NURBS Using Evolutionary Intelligence

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Summary

In curve fitting problems, the selection of knots in order to get an optimized curve for a shape design is well-known. For large data, this problem needs to be dealt with optimization algorithms avoiding possible local optima and at the same time getting to the desired solution in an iterative fashion. Many evolutionary optimization techniques like genetic algorithm, simulated annealing have already been successfully applied to the problem. This paper presents an application of another evolutionary heuristic technique known as 'Simulated Evolution' (SimE) to the curve fitting problem using NURBS. The paper describes the mapping scheme of the problem to SimE followed by the proposed algorithm's outline with the results obtained.

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