## OPTIMIZATION OF TRAVELING SALESMAN PROBLEM FOR AN ENTERPRISE RESOURCE PLANNING SYSTEM

## CHIRAG JAIN<sup>1</sup>, RICHA SHAH<sup>2</sup>, ARUNA GAWADE<sup>3</sup> & KIRAN BHOWMICK<sup>4</sup>

<sup>1,2</sup>U.G. Student, Department of Computer Science and Engineering, D.J. Sanghvi College of Engineering, Vile-Parle West, Mumbai, Maharashtra, India

<sup>3,4</sup>Assistant Professor, Department of Computer Science and Engineering, D.J. Sanghvi College of Engineering, Vile-Parle West, Mumbai, Maharashtra, India

## ABSTRACT

Practical applications of the classical traveling salesman problem are rare because in most real world situations there are other constraints to be considered. To increase the range of useful applications, the classical structure must be modified. In this paper, we propose a hybrid approach that consists of an Adaptive Neuro Fuzzy Inference System and the Simulated Annealing algorithm, which determine the path based on distance and other factors.

KEYWORDS: Traveling Salesman Problem, ANFIS, ERP, Simulated Annealing, Fuzzy Inference