

Manuscript ID : 00000-47375

International Journal of Mechanical Engineering and Technology

Volume 1, Issue 1, January-December 2010, Pages 134-149, Page Count - 16



Source ID : 00000002

## A NEW APPROACH TO OPTIMIZE TRAFFIC FLOW USING MAXIMUM ENTROPY MODELING

Kasula Nagaraju <sup>(1)</sup> Shivarudraiah <sup>(2)</sup> Chandrasekhar, B <sup>(3)</sup>

<sup>(1)</sup> Department of Mechanical Engineering, University Visvesvaraya College of Engineering, Bangalore University, Bangalore, Karnataka, India.

<sup>(2)</sup> Department of Mechanical Engineering, University Visvesvaraya College of Engineering, Bangalore University, Bangalore, Karnataka, India.

<sup>(3)</sup> Professor, Sri Revana Siddeshwara Institute of Technology, Bangalore, Karnataka, India.

### Abstract

*In this work, maximum entropy model is used for the traffic assignment in Bangalore city for the busiest roads; where multi size vehicles like busses, cars, auto rickshaws and motor bikes use the road. The actual data is collected and the traffic flow is predicted for two different routes which connect two points. The data predicted using the maximum entropy model is compared with the user equilibrium method and found to have reasonable accuracy. The maximum entropy model is defined along with the constraints and mathematical model is solved using MATLAB.*

### Author Keywords

Traffic assignment, Equilibrium method, Mathematical models. MATLAB.

### Index Keywords

Maximum entropy, Busiest roads, Vehicles, Entropymaximizing, Equilibrium traffic assignment algorithm.

**ISSN Print:** 0976-6340

**Source Type:** Journals

**Publication Language:** English

**Abbreviated Journal Title:** IJMET

**Publisher Name:** IAEME Publication

**Major Subject:** Physical Sciences

**Subject area:** Mechanical Engineering

**ISSN Online:** 0976-6359

**Document Type:** Journal Article

**DOI:**

**Access Type:** Open Access

**Resource Licence:** CC BY-NC

**Subject Area classification:** Engineering and Technology

**Source:** SCOPE DATABASE