

PRADEEP K. PATEL

Project Manager

PROFESSIONAL HISTORY:

- 12/87 - **ZETA-TECH Associates, Inc., Cherry Hill, New Jersey**
Present Project Manager
Responsible for the analysis and programming in the area of costing methodology development, operations analysis of train movement with bulk traffic and containerized traffic, quantification of the benefits of advanced train control system and real time work order reporting system, development of computerized track maintenance planning and forecasting systems. Also responsible for statistical analysis, modeling and programming.
- 1/86 - **University of Houston**
5/87 Teaching Assistant
Sole responsibility of teaching graphics packages of AutoCAD and DI- 3000 for Computer Aided Design Course. Tutoring and grading of various courses including Project management, Engineering Economy, Human Factors Engineering, Probability and Statistics.
- 11/83 - **SLM-Maneklal, Ahemedabad, India**
6/84 Subcontracting Engineer
Responsible for all subcontracting jobs for various products of the company, including high capacity blowers, injection and blow-molding machines.
- 8/83 - **SLM-Maneklal, Ahemedabad, India**
10/83 Trainee Engineer
Underwent supervised training in Quality Control and Production Planning.

EDUCATION:

- 1987 M.S. in Industrial Engineering
University of Houston, Houston, Texas
- 1983 B.S. In Mechanical Engineering
Gujarat University, Ahemedabad, India

PROFESSIONAL AFFILIATIONS:

American Railroad Engineering Association

Institute for Operations Research and the Management Sciences

HONORS AND AWARDS:

ALPHA PI MU (Industrial Engineer Honor Society)

Vice President, Institute of Industrial Engineers, University of Houston

Awarded Sam E. Scharff Scholarship by the Department of Industrial Engineering, University of Houston

QUALIFICATIONS:

- Analysis and programming of maintenance of way cost allocations methodology using multiple regression models.
- Programming and development of Monte-Carlo simulation for container distribution in the double stack cars for Class I railroads of North America.
- Determination of frequency distribution of effective adhesion coefficient using various statistical tests for a major transit system.
- Statistical analysis of the derailment data of a major U.S. railroad to determine correlation between failed bearing and various bearing related factors (i.e., manufacturer, size, age, maintenance shop, etc.).
- Statistical analysis of wayside load data at Cajon Pass for the 125 Ton double stack derailments.
- Analyzed and determined optimum matrix of car weights, train size and motive power for bulk commodity move using computerized train simulation and costing models.
- Economic analysis of several alternative car type for movement of containers, coal and grain.
- Economic analysis of grain branch line operation.
- Train simulations and economic analysis to determine operating savings from grade reduction and line changes.
- Evaluation of the benefits of advanced train control systems using computerized train dispatching and train simulation models.
- Evaluation of the benefits of automatic equipment, identification for rail freight operations.
- Evaluation of the benefits of a real-time work order reporting system for rail transportation.
- Computerized engineering analysis of a curve and superelevation maintenance for a common track between passenger and freight trains.
- Programming and analysis of cost allocation methodology for a common track between passenger and freight trains.
- Designed and developed an expert system in LISP and IBM PC to assist in metal milling operation.

- Built a Multiple Regression Model for score prediction in an NFL game.
- Built a statistical Decision Model for the recreation facility at the University of Houston.
- Designed and developed various Database management systems for use on the IBM PC and NAS9000 (VSM/CMS) using dBASE III and ORACLE.
- Modified an existing L.P. Software in BASIC to solve L.P. problem with bounded variables.
- Wrote a two pass assembler in MACRO (VAX Assembly).
- Designed and developed various graphics packages in FORTRAN using DI-3000 on VAX/VMS.
- Designed and developed various simulation models in BASIC and GPSS-PC.

COMPUTER SKILLS:

Operating Systems: Windows 95/98/NT, DOS

Software Packages: Microsoft Office, Databases, Lotus, Corel, Photoshop

Programming:

Languages Visual Basic 5.0, Visual Basic for Applications, FORTRAN, Borland C++

PUBLISHED PAPERS:

Michael E. Smith, Randolph R. Resor, Pradeep K. Patel, and Sunil Kondapalli, "*Quantification of Expected Benefits: Meet/Pass Planning and Energy Management Subsystems of the Advanced Railroad Electronics system (ARES)*", Journal of the Transportation Research Forum, vol. XXX, no. 2, 1990

Michael E. Smith, Randolph R. Resor, Pradeep K. Patel, "*Dispatching Effectiveness With Advanced Train Control Systems: Quantification of the Relationship*", Journal of the Transportation Research Forum, vol. XXXII, no. 2, 1992

Michael E. Smith, Randolph R. Resor, and Pradeep K. Patel, "*A Real-Time Work Order Reporting System for Rail Transportation: Benefits and System Requirements*", presented at Sixth World Conference on Transportation Research, Lyon, France, June 1992