

# Company Profile

NODEM Limited (former New Zealand Info Systems Ltd, or NIS), is a New Zealand based company, offering asset system development and implementation and consulting services in asset management in New Zealand and world wide.

## Services

Consulting services provided by NODEM Ltd include:

- ❑ **Data Collection and Management** - Collection of road inventory, condition, traffic and video data etc
- ❑ **System Development, Implementation and Training** -
  - Road and other assets information systems including interfacing with GIS
  - Road management systems i.e. pavement management system, routine maintenance management system, traffic information system, accident information system, bridge management systems etc.
- ❑ **Data Analysis and Planning** – Preparation of long-term and short-term road network development and maintenance plan using various analytical tools
- ❑ **Institutional Development Services** - for enhancing the planning and programming process for road infrastructure management and improvement
- ❑ **Specific Studies and Research** - related to asset management, predictive modelling and optimisation techniques
- ❑ **Training** - on asset management principles and systems

## Track Records

The above services have been provided on numerous projects including the following (either by NODEM LTD or by the key personnel working with NODEM LTD ):

- ❑ Consulting Services for Auckland City Council including Transport Asset Programming and Optimisation, Video Logging, Footpath Modeling, RAMM Data Review, and NLTP Programming preparation (2006 -2009)
- ❑ North Shore Asset Management Professional Services including Streetlight Programme, Footpath Management System, Kerb&Channel System, Forward Works Programme, Asset Management Plan, Video Logging, dTIMS Bench Marking Sites Studies etc (2005 – 2009)
- ❑ Consulting Services for Land Transport NZ including pilot testing of FWP auditing system, Programming & Scheduling system, iPond Data Warehouse etc (2007-2009)
- ❑ Consulting Services for Road Maintenance and Management Implementation in Wuhan City and Urumqi City (World Bank Project), China, 2007-2008
- ❑ Works Infrastructure NODEM Training (2007)
- ❑ Fulton Hogan Network Performance Measurement System Development (2006)
- ❑ Consulting Services for Bridge Management System Implementation (World Bank Project), Papua New Guinea, 2004.

- ❑ Gujarat State Highway Project - Institutional Strengthening Consultancy Services (World Bank Project), India, 2003-05.
- ❑ Location Referencing and Condition Survey of the National and Provincial Road Network (World Bank Project), Kingdom of Cambodia, 2003/04.
- ❑ Henan Road Network Management and Improvement, Zhengzhou (World Bank Project), Henan Province, China, 2003.
- ❑ ADB 6th Road Project. C07 Pavement Management System/Bridge Management System Component (ADB Project), Philippines, 2003.
- ❑ Implementation of Predictive Modelling for Road Management Phase I to V, RIMS Group, New Zealand, 1998-2003.
- ❑ Implementation of Pavement Deterioration Modelling, Various City Councils in New Zealand, 2000-2003.
- ❑ Infrastructure Asset Management Project - First Phase of the Asset Management Program (World Bank Funded), Samoa, 2001.
- ❑ Comparison of Outputs of the HDM-4 Models with HDM-III Models used in the NZ dTIMS System, Transfund, 2001.
- ❑ Implementing Pavement Management System in Local Councils, Various Councils, New Zealand, 1997-2003.

## Key Personnel

We have a team of dedicated staff with high level of technical and programming skills specifically focused on:

- ❑ Identifying client needs,
- ❑ Development of sustainable policies, systems and procedures based on the best practices, and,
- ❑ Implementation, monitoring and auditing of the asset management systems.

### **Mr. Zuwei Deng** Asset Management Consultant

MSc in Engineering Studies (Transportation)

BSc in Computer Systems

MSc in Materials Engineering

Bsc in Materials Science and Engineering

Mr. Zuwei Deng (Deng) has extensive experience in asset management system implementation in New Zealand and overseas, particularly related to road and bridge systems. His primary expertise is in asset data analysis and modeling, asset system development and implementation.

Deng is the advisor to NZTA's Long Term Performance Management Data Warehouse and was responsible for the pilot implementation, process requirement and testing and overall guidance.

Deng was responsible for the development of all the New Zealand dTIMS supporting software for the national implementation of the predictive modeling system in New Zealand

Deng is the principal developer of Network Optimised Decision Making (NODEM) System. NODEM was developed following NAMS ODM Guideline and is the only software endorsed by NAMS Group. NODEM has been used by various councils, contractors and NZTA for asset data processing and data quality auditing.

Deng is the principal developer of HIMS software – an asset

management system and platform which has been successfully implemented as road and bridge management system in China, Sri Lanka, India, PNG, Cambodia, Samoa and New Zealand.

Mr. Deng was also responsible for the development of ROMDAS Road Management System (RMS) which is the database processing and view module of ROMDAS data collection system. ROMDAS has been used in more than 50 countries worldwide

**Mr. Raj Mallela**  
Asset Management  
Consultant

MSc in Transportation Planning

Mr Raj Mallela (Raj) has extensive experience in data collection, data analysis and management in modern asset management systems in New Zealand and overseas. He has considerable experience in pavement deterioration modelling, pavement management systems, highway engineering and social and economic assessment of roading projects.

Raj's experience includes development of asset management systems both in-house and external, pavement deterioration modelling and NMM analysis for various road controlling authorities and Transit roading networks.

Raj is a key member of Implementation of Predictive modelling for Road Management (NZdTIMS) Project. He was responsible for developing and maintaining national predictive modelling and implementation of the dTIMS system in New Zealand. He has also been involved in training asset managers, consultants and local engineers on NZdTIMS. Raj was a member of [a national committee] the dTIMS CT (Concurrent Transformations) Technical Advisory Group (CTAG) which is providing technical advise to the RIMS (Road Information and Management Systems) Group.

Raj is one of the three developers of the Network Optimised Decision Making (NODEM) System and HIMS software – an asset management system and platform. These systems have been successfully implemented in both New Zealand and Overseas.

## Associate Company

NODEM Ltd has special arrangement with the Data Collection Limited, New Zealand (DCL). DCL is specialised in development of road data collection equipments and providing data collection services in New Zealand and overseas. ROMDAS system developed and marketed by DCL is used in more than 50 countries in the world.

### Contact Detail

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