

# Saeed Ishtiaq

## Transportation Planner

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### Profession

- Transportation Planning
- Traffic Modelling
- Application and Evaluation of Intelligent Transport Systems

### Academic Qualifications

- **PhD** (Transportation Planning)  
University of Southampton,  
UK, 1995
- **MSc** (Mathematical  
Computation)  
Queen Mary College,  
University of London, UK,  
1989
- **MSc** (Statistics)  
University of the Punjab,  
Pakistan, 1986
- **BSc** (Mathematics, Statistics)  
University of the Punjab,  
Pakistan, 1983

### Professional Membership

- MCIHT (Member of Chartered Institution of Highways & Transportation), UK

### Year of Birth

- 1962

### Nationality

- British

### Languages

- English (fluent)
- Urdu (fluent)

### Summary Profile

Saeed is a leading transportation planner with twenty six years' experience in multimodal traffic studies, traffic appraisal of road schemes and major new developments, traffic modelling, traffic impact studies, traffic engineering, land use planning and master planning. Saeed is also an expert traffic modeller, he has developed many traffic models ranging from large scale city wide strategic traffic models to micro simulation models for individual junctions. He is also an expert in design and analysis of road traffic surveys and public transport surveys.

Saeed has worked in the UK, Ireland, Europe and Middle East (Qatar, UAE, Bahrain) on a wide range of transportation planning projects for clients including government agencies, highways and local authorities, airport authorities, private developers and urban planning authorities. He has also participated and managed European Commission's transportation research projects.

Saeed has an outstanding knowledge of his profession and a proven track record in technical developments and management of complex transportation projects. He is well versed in transportation planning guidelines and standards including DMRB, WebTAG and Highway Capacity Manual (HCM).

### Key Skills

- Transportation Planning
- Traffic Modelling / Traffic Forecasting
- Application & Evaluation of Intelligent Transport Systems
- Traveller Information Systems
- Traffic Appraisal of Road Schemes & Major New Developments
- Land Use Planning / Master Planning
- Traffic Survey Design & Traffic Data Analysis
- Project Management, Team Management, Business Development
- Expert user of traffic modelling suites including VISUM, SATURN, CUBE, VISSIM, SYNCHRO, SIDRA, HCS, TUBA

### Employment History

- Apr 2017-Present **Egis International, Bahrain**  
Project Manager (Transportation Planning)
- 2015-2017 **Arcadis, UK**  
Principal Consultant (Transportation Planning)
- 2011-2015 **KEO International Consultants, Qatar**  
Senior Project Manager (Transportation Planning)
- 2006-2010 **Mouchel, UK**  
Associate (Transportation Planning)
- 1996-2006 **Atkins, UK**  
Managing Consultant (Transportation Planning)  
Senior Consultant (Transport Systems)
- 1990-1996 **Transportation Research Group,  
University of Southampton, UK**  
Research Fellow (Transportation Research)

## Experience in Current Employment, Apr 2017- Present

### Egis International, Bahrain

Project Manager (Transportation Planning)

- **Update of Bahrain Transportation Model and Preparation of Strategic Transportation Master Plan, 2017- Present**

Client: Ministry of Works, Municipalities Affairs & Urban Planning, Kingdom of Bahrain

Role: Project Manager

Saeed is working as a project manager for this project and leading a team of consultants for updating of Bahrain Transportation Model and development of Strategic Transportation Master Plan. Tasks include:

- Planning and execution of large scale traffic and transport surveys covering whole of Bahrain
- Development of strategic transportation model (using VISUM)
- Development and evaluation of traffic and transport polices
- Freight Study & Model
- Development and evaluation of future years scenarios for various combination of land use and relevant transport infrastructure
- Development of Strategic Transportation Master Plan for Bahrain
- Development of Transport Policies Framework
- Preparation of concept plans, cost estimates, phasing plans and economic evaluation

Responsibilities also includes, liaison with the client and design teams, presentation of the project progress and results to the client and to higher authorities, conducting various meetings and workshops, preparation and review of project reports and all tasks of project management.

## Experience in Previous Employment, 2015-2017

### Arcadis, UK

Principal Transport Planner

Team Leader (Transportation Planning & Traffic Modelling)

**Roles & Responsibilities:** Saeed was leading a team of transport planners and traffic modellers, working on various transportation projects for clients including Highways England and various local authorities. He was taking a leading role in the technical developments and management of transportation projects and traffic modelling tasks. He was also responsible for client liaison, coordination between the traffic team, highway design team and other disciplines. He was also dealing with team management, resource planning, preparation of bids and proposals.

- **A585 Windy Harbour to Skipool Improvement Scheme, 2015-16**

Client: Highways England

Role: Team Leader (Transport Planning & Traffic Modelling)

Highways England commission to develop a new SATURN traffic model which was used to test various routes options for the proposed 'A585 Windy Harbour to Skipool' improvement scheme and was also used to provide input for the economic assessment of various options of the scheme. Saeed has managed a team of transport planners and traffic modellers for all stages of the model development including design, development, calibration and validation of the traffic model, production of future year's traffic forecasts, traffic input to the design team. Full economic assessment of the proposed scheme was also carried out using TUBA. Further responsibilities included production of the project reports, liaison with the client and other design teams and presentation of the model's results at progress meetings.

- **M60 Junction 18 Improvement, 2015-16**

Client: Highways England

Role: Team Leader (Transport Planning & Traffic Modelling)

Highways England commission to test various capacity enhancement options for junction 18 of M60 using Greater Manchester SATURN traffic model. M60 J18, Simister Island, is located directly north of Manchester, it provides an interchange between three motorways: the M66 (N), the M62 (E) and the M60 (S & W). Saeed is managing a team of transport planners and traffic modellers for options

testing production of future year's traffic forecasts, traffic input to the design team. Full economic assessment of the proposed options will also be carried out.

## **Experience in Previous Employment, 2011-2015**

### **KEO International Consultants, Qatar**

Senior Project Manager (Transportation Planning)

Team Leader (Traffic Modelling)

**Roles & Responsibilities:** Saeed has lead a team of transport planners and traffic modellers, working on various transportation projects for clients including the Ministry of Municipality and Urban Planning and the Infrastructure Affairs Division of the Public Works Authority in Qatar. He was taking a leading role in the technical developments and management of transportation projects and traffic modelling tasks, prepare and review traffic studies and reports and presents the results at progress meetings and workshops. He was also responsible for client liaison, coordination between the traffic team, highway design team and other disciplines. He was also dealing with, team management, resource estimation and the preparation of bids and proposals.

#### ▪ **Major Roads Corridor Studies:**

1: Concept Design of Al Bustan Street South, (2013 – 2014)

2: Concept Design of E-Ring Road & Wholesale Market Street, (2011-2013)

3: Concept Design of Furousiya, Huwar and Khafji Streets (2011-2013)

4: Concept Design of Roads & Infrastructure North of Bani Hajer, (2011-2012)

5: Concept Design of Roads & Infrastructure South of Industrial Area, (2011-2012)

6: Concept Design of Roads & Infrastructure West of West Bay Area, (2011-2013)

Clients: Ministry of Municipality and Urban Planning (MMUP), Qatar  
Public Works Authority (Ashghal), Qatar

Role: Team Leader (Transport Planning & Traffic Modelling)

The scope of these six major projects was to provide traffic input and traffic assessment for the development of concept design options for a total of 143 km long corridors of roads and several junctions in and around various parts of Doha. Tasks included, processing of the land use data for 375 sq.km area; update of Qatar wide VISUM traffic model; production of traffic forecasts; scheme options testing and junction's assessment. Further responsibilities included traffic input for the highway design, preparation of projects reports, presentation and liaison with clients and stakeholders.

#### ▪ **Traffic Assessment of Sheikh Zayed Road, Dubai, UAE, (2014)**

Client: Roads and Transport Authority, Dubai, UAE

Role: Team Leader (Transport Planning & Traffic Modelling)

The scope of this work was to carry out a detailed traffic assessment for a 35-km section of Sheikh Zayed Road in Dubai. Tasks included testing of various design options including double decking of the major part of the highway and improved design of its intersections to increase capacity and improve traffic flows, using Dubai VISUM traffic model.

#### ▪ **Traffic Impact Study for the Proposed Al Rayyan Mall, (2012 – 2013)**

Client: Khayyat Contracting and Trading (KCT), UrbaCon Company (UCC)

Role: Team Leader (Transport Planning & Traffic Modelling)

The scope of this project was to carry out a Traffic Impact Study for the proposed Al Rayyan Mall development. The mall included amenities such as hyper market, retail shops, restaurants, leisure facilities, and cinemas. The Gross Leasable Area of the Mall was approximately 152,000 m<sup>2</sup>. Tasks included, to identify the potential traffic impacts of new development on the transportation system and to develop mitigation strategies to offset the traffic impact and reporting of results.

#### ▪ **Master Plans and Transportation Master Plans Projects and Proposals (2011– 2015)**

Clients: Various

Role: Lead Role for Providing Transportation Planning Input

Saeed has prepared and provided input for 'Transportation Master Plans' proposals and have also provided major technical contributions for various 'Master Plans'. These include 'Masaieed Transportation Master Plan' proposal 'Luzail Zone C Transportation Master Plan' proposal, 'Qatar

Parking Master Plan' proposal, 'Doha Zoo Transportation Master Plan' project and 'Al Rayyan Mall Transportation Master Plan', 'Al Wakrah Stadium Transportation Master Plan' project.

## **Experience in Previous Employment, 2006-2010**

### **Mouchel, UK**

Associate (Transport Planning)

Team Leader (Traffic Modelling)

**Roles & Responsibilities:** During employment with Mouchel, Saeed was head of the traffic modelling team at company's Manchester office, where he was leading a team of transport planners / traffic modellers, working on variety of traffic modelling and transportation planning projects. His duties included, technical guidance to the traffic modelling and transport planning teams, managing projects, client liaison, resource planning, business development, proposals and bids preparation and staff appraisals.

- **Heysham-M6 Link Scheme Assessment, (2008-2010)**

Client: Lancashire County Council, UK

Role: Project Manager (Transport Planning)

Mouchel was commissioned by Lancashire County Council to develop a traffic model for the wider Lancaster area to support the Major Scheme Business Case and to complete the statutory procedures for the proposed Heysham-M6 Link Road Scheme. A new traffic model was developed using SATURN and was used to support the design and appraisal of the proposed Heysham-M6 Link Road scheme. Saeed has managed a team of transport planners and traffic modellers for all stages of the model development which included design and management of traffic surveys; design, development, calibration and validation of the traffic model, production of future year's traffic forecasts. Traffic input to the design team. Full economic assessment of the proposed scheme was also carried out using TUBA. Further responsibilities included production of the project reports, liaison with the client and Department for Transport (DfT), managing budget and programme of the project and presentation of the model's results.

- **Lancaster Area Multi-Modal Transport Model, (2009-2010)**

Client: Lancashire County Council, UK

Role: Project Manager (Transport Planning)

Mouchel was commissioned by Lancashire County Council to build a multi-modal transport model to assist in the assessment of policies and proposals emerging from the Lancaster & Morecambe Vision Study. Saeed has lead a team of transport planners for the design and analysis of traffic surveys, preparation of the trip matrices and development of the highways and public transport networks, development, calibration and validation of the multi-modal transport model. Further responsibilities included project management, liaison with the client, managing budget and programme, preparation of project reports and dissemination of model results.

- **A31 Magherafelt Bypass Scheme (2006-2009)**

Client: Roads Service, Northern Ireland

Role: Project Manager (Transport Planning)

In 2006, Mouchel was commissioned by Roads Service of Northern Ireland to assist in the completion of statutory procedures for the proposed A31 Magherafelt bypass scheme. Saeed has managed a team of transport planners for the design and development of the strategic traffic model which was built using CUBE. The model was then used to assess various routes options for the proposed bypass and carried out economic assessment of these options. The model was also used to provide traffic input to the Highway Design and for the Environmental Assessment for the scheme for the selection of the preferred route option. Saeed also participated in the public inquiry for the scheme and provided input for the traffic evidence during the public inquiry.

- **Halifax Traffic Model (2008-2009)**

Client: Calderdale Metropolitan Borough Council, UK

Role: Project Director

Mouchel was commissioned by Calderdale MBC to develop a traffic model for the area of Halifax. The 2008 base year model was developed using SATURN and was the basis for the development of the traffic forecasting model which was then used for the assessment of development schemes, management of the transport network and in the design and appraisal of highway and public transport schemes.

- **Project: Ajman Marina – Master Planning, (2007)**

Client: Mouchel Parkman, UAE

Role: Lead Consultant (Transport Planning)

Mouchel was commissioned by Ajman Municipality, UAE to provide concept, preliminary and detail design for the infrastructure elements of the Ajman Marina master plan proposals. Saeed led a team of consultants and developed a SATURN traffic model to assess the impact of the traffic generated by the proposed developments and reviewed the operation of junctions and internal road network. Traffic forecasts from the traffic model were then used for the improvements and detailed design of junctions and road layouts.

- **Cherrywood – Transport Assessment (2006–2007)**

Client: Dun Laoghaire and Rathdown County Council, Ireland

Role: Lead Consultant (Transport Planning)

Cherrywood was the proposed new development site of 300 hectare to the south of Dublin with developer aspirations for 18,000 residential units, 100,000m<sup>2</sup> of retail space, more than 400,000m<sup>2</sup> of employment and supporting services. Saeed led a team of transport planners & traffic modellers to update an existing SATURN model and tested the various infrastructure improvement proposals. Various future scenarios of road infrastructure development were also tested using the developed traffic forecasting model. The output of the study was a plan providing a sustainable transport framework for the site including transport hierarchy, traffic management, parking restraints and proposals for an integrated multi-modal transport network.

## **Experience in Previous Employment, 1996-2006**

### **Atkins, UK**

Managing Consultant (Transportation Planning), (2000–2006)

Senior Consultant (Transport Systems), (1996-2000)

- **Development of SATURN Traffic Model for North Somerset Area (2004–2006)**

Client: North Somerset Council and Highways Agency, UK

Role: Project Leader

North Somerset Council and Highways Agency commissioned Atkins to assess the impact on area-wide traffic for the proposed land-use and network developments in and around North Somerset area and for the motorway M5. For this purpose, a new SATURN traffic model for the North Somerset area was developed. Saeed led the technical team for all stages of the model development which included design and management of traffic counts and traffic surveys, development, calibration and validation of the traffic model, testing of various infrastructure options, writing up of model validation, forecasting and options testing reports, liaison with clients and presentation of the model's results.

- **Traffic Calming at Parliament Square, London, (2003-2005)**

Client: Transport for London, UK

Role: Managing Consultant

Transport for London (TfL) commissioned Atkins to assess various traffic calming options around Parliament Square. The existing SATURN model was used to test various traffic calming options around Parliament Square in London. Specific responsibilities included proposing various traffic calming options taking into consideration impact on the wider traffic network, testing of the options using the SATURN model, reporting and recommendations. Traffic calming was introduced on various sections of the roads as a result of the recommendations made in the project report.

- **World Squares for All – Re-modelling of Trafalgar Square in London (2001-2002)**

Client: Westminster City Council, London, UK

Role: Managing Consultant

Westminster City Council commissioned Atkins to assess various traffic calming options around Trafalgar Square. The project has designed and implemented a scheme for traffic calming and to improve the environment around Trafalgar Square in London. Specific responsibilities included traffic appraisal activities focussing on detailed evaluation of the proposals using SATURN traffic model and signalised junction designs using TRANSYT. Traffic calming was introduced on various sections of the roads as a result of the recommendations made in the project report.

- **Heathrow Airport Terminal 5 - Airside Roads Traffic Model, (2000-2001)**

Client: British Airports Authority (BAA), UK

Role: Senior Consultant

BAA commissioned Atkins to develop a new traffic model for the airside roads network of the proposed terminal 5 at Heathrow airport. A new traffic model was developed using CONTRAM for the airside roads network of the proposed terminal 5 at Heathrow airport. Specific responsibilities included coding of the network in CONTRAM, development of trip matrices of various mix of airside road traffic (including staff and passenger buses, baggage trolleys, service vehicles, testing of the network layout of new roads, junction designs and variety of future traffic growth scenarios. Results of the proposed network layout tests were then submitted to BAA in a report.

- **MobiService Centres, Europe, (1999-2000)**

Client: DG XIII, European Commission

Role: Project Manager

European Commission's funded project to carry out state of the art review of the best practices of leading mobility management and service centres in Europe. The project has developed guidelines and recommendations for transferability of best practices from one centre to another. Duties included project proposal writing, building and co-ordination of a consortium involving partners from four European countries, negotiation of the contract with the European Commission and day to day management of the project. Results and recommendations from the review were presented in a series of deliverables submitted to the European Commission.

- **Managing Integration, (1999-2000)**

Client: Highways Agency, UK

Role: Deputy Project Manager

HA project to develop and co-ordinate a transport R&D programme that would be used to support the governments integrated transport policy objectives. The project has considered number of issues including multi-modal system architecture, data management, integrating information systems, urban / inter-urban interaction management, the value of global positioning systems and the impact of mobile communications. Duties included project management, co-ordination between sub project leaders and development of the project assessment framework. Results of the research were presented to the HA in a series of deliverables.

- **EuroSPIN (European Seamless Passenger Information Network), (1998-2000)**

Client: European Commission

Role: Deputy Project Manager

European Commission's funded research and demonstration project to develop a seamless passenger information system. The project has designed and developed a multi-modal public transport information and journey planning system over the Internet. Duties included day to day management of the project, participation in technical developments, liaison with European Commission and other partners, preparation of progress reports, cost statements, dissemination of results, development and maintenance of the project web site. A system was developed which could be accessed through internet to provide Europe wide multi-modal public transport information and journey planning.

- **Year 2000 Continuity and Contingency Planning (1999-2000)**

Role: Senior Consultant

Client: Highways Agency, UK.

The project was tasked to assess the Year 2000 compliance status for a sub-set of transport infrastructure systems and preparation of contingency plans. Duties included survey of telematics systems on UK motorways and trunk roads, discussions and meeting with concerned authorities and preparation of contingency plans.

- **Road Management System for Europe (ROMANSE) (1998-1999)**  
Role: Senior Consultant  
Client: Hampshire County Council, UK.  
Analysis and reporting of survey results which was carried out for a public transport information system named 'TRIPlanner'.
- **Evaluation of Variable Message Signs (VMS) (1997)**  
Client: Roads Authority of Portugal  
Role: Senior Consultant  
A feasibility study carried out for the deployment of Variable Message Signs (VMS) at strategic locations for a network of motorways and urban roads in Portugal. Traffic flows and routing analysis were carried out to pinpoint the suitable locations for VMS.
- **Bus Priority At Traffic Signals (1996)**  
Role: Senior Consultant  
Client: Cambridgeshire County Council, UK.  
A feasibility study was carried out to look into the requirements of bus priority at traffic signals for Cambridgeshire County Council.
- **Evaluation of Above Ground Vehicle Detectors, 1996**  
Client: Department of Transport (DoT), UK  
Role: Consultant  
DoT commissioned Atkins to investigate the potential for extending the use of Above Ground Vehicle Detectors (AGDs) as an alternative to induction loop technology. Large set of traffic data was collected from both types of vehicle detectors at various locations under different working and weather conditions. Specific duties included site surveys, data collection, data analysis and reporting of the results. Results of the study were presented in a report to DoT.

### **Experience in Previous Employment, 1990-1996**

#### **Transportation Research Group (TRG), University of Southampton, UK**

Research Fellow (Transportation Research)

- **Journey Time Forecasting for Bus Priority and Passenger Information Systems, (1995-1996)**  
Client: Engineering and Physical Sciences Research Council (EPSRC), UK  
Role: Research Fellow  
EPSRC funded research project to improve bus journey time prediction method by studying its relationship with other factors such as the prevailing traffic conditions, signal control data, bus detection location and site characteristics. A large set of bus journey times and associated traffic and signal control data was collected on three bus corridors in London and Southampton. Detailed statistical analysis was then carried out to quantify the variability in bus journey times and proposals were made for improved methods of bus journey time prediction. These improved methods have their application for bus priority and for passenger information systems. Results of the project were submitted in a report to EPSRC and also presented in a research paper titled "Journey Time Prediction for Bus Priority at Traffic Signals" at 24th PTRC European Transport Forum, London, 1996.
- **Evaluation of Vehicle Detectors for SCOOT System (1992-1993)**  
Role: Research Assistant  
Client: Traffic Control Systems Unit of London. UK.  
A study undertaken for Traffic Control Systems Unit (TCSU), to statistically analyse the effectiveness of two different methods of vehicle detection (infra-red and loop detectors) on roads for SCOOT UTC systems.

- **Modelling the Effects of Incidents in Urban Networks, (1993-1995)**

Client: DRIVE II - European Commission

Role: Research Fellow

European commission's funded research project which was tasked to develop forecasting models to predict effects of traffic incidents in urban networks. A large database was created for variety of incident scenarios by using the traffic simulation model CONTRAMI. Detailed analysis of the incident related data was then carried out to study the effects of incidents on traffic conditions and route choices. Generalised statistical models were then developed to predict increased journey time and locations of incident affected links in an urban network environment.

- **Congestion Forecasting and Control in Urban Networks, (1990-1992)**

Client: Science and Engineering Research Council (SERC), UK

Role: Research Assistant

SERC funded research project to develop congestion forecasting and control methods. This two-year research study was centred on statistical analysis of large traffic data, collected from SCOOT UTC systems in Southampton & London. Statistical forecasting models were then developed (by using ARIMA modelling and other time-series forecasting techniques). Forecasting models were then used to predict the peak hour traffic conditions and suggestions were made for congestion control methods.

## **Publications and Research Papers**

1. "Journey Time Forecasting for Dynamic Route Guidance Systems in Incident Conditions", International Journal of Forecasting, Vol 13(1), March 1997.
2. "Journey Time Prediction for Bus Priority at Traffic Signals", 24th PTRC European Transport Forum, London, 1996.
3. "Journey Time Forecasting in Urban Networks", PhD Thesis, University of Southampton, 1995.
4. "Journey Time Forecasting Under Incident Conditions", Universities Transport Study Group Conference, University of Leeds, 1994.
5. "Forecasting and Control of Traffic in Urban Networks", Universities Transport Study Group Conference, University of Southampton, 1993.
6. "Short Term Forecasting of Urban Traffic Congestion", 6th World Conference on Transport Research, Lyon, France, 1992.