

Curriculum Vitae
For
Prof. Dr. Khaled Abdelazim Abbas

List of Contents

General Information

Languages

Educational Qualifications (In Reverse Chronological Order)

Current Positions

Past Positions Held (In Reverse Chronological Order)

Areas of Expertise & Skills

- In Transport
- In Other Transport Related Areas
- In Transport Related Computer Software Packages
- In Other General Software Packages

Professional Experience

- Experience in Government and Consultancy
- Experience in Research
- Experience in Teaching
- Experience in Supervision
- Experience in Training

Committee Membership & Networking

Awards and Honorariums

Membership of National and International Professional Associations

Expert Witness & Chair Positions

Professional Affiliation

Professional Training

Professional Visits

Sports Activities

Detailed Consultancy Experience Record

- Experience Record with Snowy Mountains Engineering Corporation (SMEC) in Australia
- Experience Record with United Nations Organisations
- Experience Record in Kingdom of Saudi Arabia
- Experience Record in Egypt
- Experience Record in Other Middle East and African Countries

List of Publications

- International Journal Articles
- Regional Journal Articles
- Papers in Edited Books
- Papers in International Conferences
- Unpublished Material
- Consultancy & Research Reports
- Community Presentations

List of Attendance and Participation in Conferences and Seminars

Abstracts of Main Research Publications

- Journal Papers
- International Conference Papers

List of Some Web Links having Reference to Dr. Khaled Abbas Academic and Professional Work

CURRICULUM VITAE

GENERAL INFORMATION

Name: Khaled Abdelazim Abbas
Year of Birth: 1963
Marital Status: Married with two children
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Email: kaabbas13@yahoo.com



LANGUAGES

Arabic (mother tongue) English (Fluent & Used as Working Language) Some German

EDUCATIONAL QUALIFICATIONS (IN REVERSE CHRONOLOGICAL ORDER)

Name of University – City – Country	From	To	Degree Obtained	Major Field of Study
Transport Engineering Division, Department of Civil Engineering, Faculty of Engineering, University of Newcastle upon Tyne, UK	1987	1991	Ph.D.*	Transport Engineering and Operations
Transport Engineering Division, Department of Civil Engineering, Faculty of Engineering, University of Newcastle upon Tyne, UK	1986	1987	M.Sc. Courses**	Transport Engineering and Operations
Department of Civil Engineering, Faculty of Engineering, Ain Shams University, Cairo, Egypt.	1979	1984	B.Sc. with honours & Distinction for graduating project	Civil Engineering
University of London, British Council, Cairo, Egypt	1978	1979	GCE	British General Certificate of Education

(*) PhD Thesis entitled: Development of a Road Management System with Particular Reference to New Cities in Egypt: An Application of System Dynamics Methodology”. Supervisor was Prof. M. G. H. Bell & External Examiner was Dr. L. G. Willumsen.

(**) MSc included the following 8 courses:

(1) Travel Demand Forecasting - (2) Evaluation of Transport Schemes - (3) Transport and the Environment - (4) Traffic Safety (5) Management of Urban Transport in Developing Countries - (6) Design of Transport Infrastructure - (7) Construction Management I - (8) Construction Management II

CURRENT POSITIONS

Periods	Position	University/Organisation/Institution
August 2011 -	Director (Dean)	Egypt National Institute of Transport, Ministry of Transport, Cairo, Egypt.
2003 -	Professor of Transportation Planning & Traffic Engineering	Transportation Planning Department – Egypt National Institute of Transport, Ministry of Transport, Cairo, Egypt.
2009-	Transport Expert European Commission 7th Framework Programme	European Commission
2008 -	Technical Principal – Transport Planning, Logistics & Traffic Engineering (Part Time)	Snowy Mountains Engineering Cooperation - Transport Infrastructure Group – Australia

PAST POSITIONS HELD (IN REVERSE CHRONOLOGICAL ORDER)

Periods	Position	University/Organisation/Institution
2008-2011	Chief Specialist - Transport Policy, Planning and Legislation	Strategic Planning Department - Roads and Transport Authority – Dubai – United Arab Emirates
July 2011	Acting Manager - Transport Policy, Planning and Legislation	Strategic Planning Department - Roads and Transport Authority – Dubai – United Arab Emirates
2010-2011	Subject Matter Expert in Transportation Planning, Public Transport, Traffic Eng. Quality & PPP	Roads and Transport Authority – Dubai – United Arab Emirates
June 2010 – Sept. 2010	Acting Manager - Transport Policy, Planning and Legislation	Strategic Planning Department - Roads and Transport Authority – Dubai – United Arab Emirates
June 2009 – Sept. 2009	Acting Manager Transportation Studies & Planning	Strategic Planning Department - Roads and Transport Authority – Dubai – United Arab Emirates
2006- 2008	Manager - Transport Specialist & Principal Transport Planner	Snowy Mountains Engineering Cooperation – –Transport Infrastructure Group - Canberra Office – Australia
2005 – 2006	Principal Transport Planner	Snowy Mountains Engineering Cooperation – –Transport Infrastructure Group - Canberra Office – Australia
Aug. 2008- Dec. 2008	Professor of Transport Planning & Traffic Engineering	Civil Engineering Department – Faculty of Engineering – King AbdulAziz University – Jeddah – Saudi Arabia
2003 - 2010	Professor of Transportation Planning & Traffic Engineering	Transportation Planning Department - Egyptian National Institute of Transport, Ministry of Transport, Cairo, Egypt.
2003 -2005	Professor of Transportation Planning & Traffic Engineering	Department of Urban & Regional Planning - College of Architecture & Planning - King Faisal Univ. - Saudi Arabia
2002 - 2003	Associate Professor of Transportation Planning & Traffic Engineering	Department of Urban & Regional Planning - College of Architecture & Planning - King Faisal Univ. - Saudi Arabia
1997 - 2003	Associate Professor of Transportation Planning & Traffic Engineering	Transportation Planning Department - Egypt National Institute of Transport (ENIT), Ministry of Transport, Cairo, Egypt
2001	Professional Affiliation	United States Department of Transportation–Washington DC
2000 to 2001	Hubert H. Humphrey Senior Visiting Fellow	Cornell University, Ithaca, New York State - USA
April to May 2000	Associate Professor teaching Highway Eng. to Traffic Police Officers/Engineers	Part time secondment at Egyptian Traffic Police Department, Ministry of Interior – Cairo - Egypt
Sept. to Dec. 1999	Part time secondment as an Associate Professor to teach Highway & Traffic Engineering	Faculty of Engineering - Tanta University – Tanta - Egypt
1999	MSc Program leader, responsible for ensuring quality & standards & leading ENIT staff in restructuring & documentation for monitoring & accreditation by University of Westminster	Egyptian National Institute of Transport - Ministry of Transport, Cairo, Egypt.
Sept. to Dec. 1999	Part time secondment to teach Traffic Eng. & Safety to Traffic Police Officers & Engineers	Egyptian Traffic Police Department, Ministry of Interior – Cairo - Egypt
1997 to 1999	Senior Transport/Traffic Planner & Economist	Transportation Department of DAR AL-HANDASAH Consultants, Cairo Office.
1998	Advisor & Consultant on Environmental Impact Assessment	Egyptian Environmental Affairs Agency – Ministry of Environment – Cairo - Egypt
1991 -1997	Assistant Professor	Transportation Planning Department - Egyptian National Institute of Transport, Ministry of Transport, Cairo, Egypt.
1995	Visiting Fulbright Senior Scholar	Department of Civil Engineering (Transportation) - University of Texas at Austin - Austin - Texas - USA
1994-1995	Senior Transport/Traffic Planner and Economist (Part Time)	Transportation Department of DAR AL-HANDASAH Consultants, Cairo Office.
October to December 94	United Nations Consultant	United Nations Economic Commission for Africa (UNECA), Transport, Communications and Tourism Division (TCTD).
1992 to 1994	Part time secondment as an Assistant Professor to teach Operations Research.	Egyptian Military College, Ministry of Defence, Cairo, Egypt
1986 to 1991	Research Fellow (M.Sc. & Ph.D)	Transport Engineering Division, Civil Engineering Department, University of Newcastle upon Tyne, UK
1986 to 1991	Instructor	Transportation Planning Department, Egyptian National Institute of Transport, Ministry of Transport, Cairo, Egypt.
1985 to 1986	Instructor	Department of Civil Engineering, Faculty of Engineering, Menia University, Menia, Egypt
1984 to 1986	Civil Engineer	Bylander Misr Partnership Eng. Consultants, Cairo, Egypt.

AREAS OF EXPERTISE AND SKILLS

In Transport

MAIN AREAS	MAIN AREAS (CONTINUEDE)
Transportation Policy, Planning and Modeling	Public/Freight Transport Studies
Logistics Analysis and Management	Market Analysis/ Demand Prediction for Transport Organisations
Feasibility Studies of Transport Schemes	Planning of Transport Services and Marketing
Financing Transport Projects & Services	Fleet Procurement Planning
PPP & Privatisation of Transport Infrastructure and Services (Road / Rail / Air)	Fleet Operation Planning
Restructuring, Reform & Management of Transport Industry	Fleet Maintenance Planning
Air Transport Planning/Rail Transport Planning	Inventory Planning in Transport Organisations
Port Transport Planning/Container Handling Analysis	Transport Information and Decision Support Systems
Transport Legislations and Regulation	Environmental Policy
Budget Planning & Management of Transport Organisations	Land Use Management
Cost Modelling, Pricing Policies and Fare/fee Determination	Master Plan Reviewing
Performance Evaluation of Transport Activities	Road Hierarchy Studies
Traffic Studies (Surveys, Analysis & Forecasts)	Travel Surveys
Traffic Management and Control	Parking Studies
Congestion and Travel Demand Management	Capacity Analysis
Environmental Impact Assessment of Transport Schemes	Transport in Developing Countries
Traffic Impact Assessment Studies	Transport and the Environment
Infrastructure Capacity and Level of Service Analysis	Infrastructure Planning and Management
Traffic Accidents & Safety – Railway Safety	Prediction of Equivalent Single Axle Loads
Sustainable Development (Smart Growth)	Pavement Structural Design
Transport Education and Training	Road Geometric Design

In Other Transport Related Areas

System Analysis	Management of Organisations	Managerial Leadership
System Dynamics	Deregulation and Privatisation	Policy Design and Analysis
Developing Simulation Models	Environmental Impact Assessment (EIA)	Parametric/Nonparametric Statistics
Operations Research Techniques	Computer Programming and Simulation	

Familiarity with the following Transport Related Specialised Computer Software Packages

HCS2000 Highway Capacity Software developed by MacTrans
aaSIDRA (aaTraffic Signalised and Unsignalised Intersection Design and Research Aid) by Akcelik & Associates Pty Ltd - Australia
TransCad for planning, managing and analysing the characteristics of transportation systems and facilities.
PARAMICS modelling suite for micro simulation of traffic operation
FREQ - An Integrated System of Freeway Simulation Models by Institute of Transportation Studies University of California at Berkeley – USA
TRANSYT, PICADY, ARCADY, MAAP developed by the Transport and Road Research Laboratory, UK (Traffic Analysis/Intersection Design/Accident Analysis)
MINITRAMP/QVIEW developed by Wootton Jeffreys Consultants, UK (Transportation Planning)
SATURN developed in Leeds University, UK (Traffic Analysis)
HAS (Highway Safety Analysis)
ScreenTest based on World Bank paper No. 52 (Public Transport Policy Analysis)
ORACLE developed for Netherlands Ministry of Transport (National Transport Policy Analysis)

In Other General Software Packages

MS Word/Excel/ Powerpoint
Statistical Packages (Statistical Packages for Social Sciences SPSS/PC, Curvefit)
Graphical Packages (Visio, Canvas, Harvard Graphics, Grapher, Express Graph)
Computer languages (FORTRAN, DYNAMO and DYSMAP)
Web Authoring Languages and Packages (HTML, CourseInfo, Macromedia Dreamweaver)

PROFESSIONAL EXPERIENCE

1. Advising transport government organizations on strategic transport policy, planning, financing, operations and legal issues
2. Leading regional & international consultancy work in transport policy, planning, modelling & management, public transport & logistics analysis & management, economic feasibility studies, traffic & environmental impact assessments, traffic safety & traffic engineering, management & operations.
3. Leading teams, initiating, and conducting transport research, publication of papers in international journals and conferences.
4. Developing and delivering professional transport training and mentoring courses/programs.
5. Establishing international links & contacts with colleagues in other universities, institutes and organizations.
6. Lecturing transport planning and traffic engineering related courses for graduate & undergraduate students
7. Program leader responsible for ensuring quality and standards of postgraduate courses. In addition spearheading restructuring and documentation of courses and other necessary requirements for monitoring, review and accreditation panels of the University of Westminster UK.
8. Supervising undergraduate and graduate students in their projects, diploma & M.Sc. transport research dissertations.
9. Senior Management responsibilities in Australia, Saudi, Dubai and Egypt including department & section management, team leader, project management.
10. Representative delegate to official meetings & committees.
11. Member of several national and international scientific committees, institutions and organizations.
12. Editor/Reviewer for several international journals/conferences
13. Expert witness in Australia/Subject Matter Expert in Dubai

(1) Experience in Government and Consultancy

With Roads and Transport Authority (RTA) in Dubai (2008-2011)

Chief Specialist of Transportation Studies and Planning and at times as Acting Manager at the Roads and Transport Authority (RTA) in Dubai - Spearheading a team of transport industry think-tank professionals covering several roles including:

- Conduct, review and manage strategic transport planning studies & projects
- Draft transport related legislations and develop transport policies and procedures.
- Produce highly technical reports and memos on the transport system issues in Dubai
- Provide reliable expert knowledge opinion, highly technical & managerial consultations & advise to decision makers
- Participate in conducting and reviewing various strategic transportation and land use studies and activities
- Manage multi-disciplinary consultant teams and provide technical steering and feedback on their work towards the achievement of RTA objectives
- Initiate policies & systems to help integrating urban land use & transportation development to achieve sustainable growth
- Key Involvement in several RTA committees at various levels. These committees are meant to improve, upgrade RTA performance and hence contribute to the achievement of a sustainable and integrated transport system for Dubai. My role is mainly to provide expert advice as well as to conduct/review technical work complementing output of these committees.
- Spearheaded the technical aspects of the RTA committee on Public Private Partnership for Transport Infrastructure and Services. As a result I was the main author of both the RTA PPP Policy document for Transport Infrastructure (Arabic and English) as well as the RTA PPP Procedure Manual for Transport Infrastructure.
- Participate in identifying training gaps/needs and prepare and deliver mentoring/coaching programs and in house professional training courses in transportation planning and other transport related disciplines
- Direct and ensure proper orientation for junior staff including clarification of role and technical directions.

With Snowy Mountains Engineering Cooperation (SMEC) in Australia (2005-2008)

Manager, Transport Consultant & Principal Transport Planner – Transport Infrastructure Group – Snowy Mountains Engineering Cooperation – Canberra – Australia. Responsible for preparing proposals, managing & delivering the following projects in Australia:

Name	Client	Project
Gateway Upgrade Project: Assessment of Level of Service	Main Roads, Queensland Australia	Project
Lidcombe Town Centre Studies Project	Auburn Council – Sydney – Australia	Project
Review of Proposed DFO Shopping Centre Development Consistency with Preliminary Assessment & Traffic Impact Study by Irwin Consult	Canberra International Airport	Project
Traffic Feasibility Study: Airport Northern Access	Canberra International Airport	Project
Traffic Impacts on Newcastle Street Due to Local Developments	Canberra International Airport	Project
Crace Infrastructure Forward Design: Task concerned with Intersection Analysis using aaSidra	ACT Procurement Solutions	Project
ACT Drageway: Traffic Impact Assessment	ACT Procurement Solutions	Project
Review of Traffic Impact Assessment Section 48 Traffic Review Stage 1A - Ratio Report	Canberra International Airport	Project

Port Macquarie Outer Link Options – Traffic Assessment	Port Macquarie – Hastings Council	Project
Kings Highway Improvement Study	ACT Procurement Solutions	Project
Pialligo Avenue Pre-design Study – Feasibility Study	ACT Procurement Solutions	Project
National travel behaviour change for Australian Capital Territory (ACT) project: Phase C independent evaluation of phase B intervention program	Australian Capital Territory (ACT) Planning and Land Authority	Project
West Belconnen Regional School/Design Superintendent Consultancy: Access Study Component	Subcontracted to gmb Architects – Client Australian Capital Territory Procurement Solutions	Project
Traffic Study in Parliamentary Zone	Australian National Capital Authority	Project
West Belconnen Regional School Master Plan: Traffic Impact Assessment	Subcontracted to gmb Architects – Client Australian Capital Territory Procurement Solutions	Project
Area 13 & Sancrox Traffic Study	Port Macquarie – Hastings Council	Project
Traffic Impact Assessment for Southern Distribution Business Park (SDBP) south of the Goulburn along Hume Highway connecting Sydney to Melbourne.	BG & E Consulting Engineers - Sydney	Project
Institutional Development Study for Highway Department.	Government of Tamil Nadu, India	Project
Batemans Bay Bypass	Eurobodalla Shire Council	Project
Mass Rapid Transit System Traffic Study	Hyderabad - India	Project
Hobart Travel Demand Model	Department of Infrastructure, Energy and Resources (DIER) - Tasmania	Project
Traffic Study for Humanities and Science Campus, Canberra. Version 2 – Design Development Phase	Spackman & Mossop Architectures to National Capital Authority (main client)	Project
Traffic Impacts on Newcastle Street Due to Section 48 – Stage 1A Development	Mallesons Stephen Jaques	Project
Traffic Impacts on Pialligo Road Network Due to Section 48 – Stage 1A Development	Mallesons Stephen Jaques	Project
Intersection Analysis for Harbour Boulevard	Australand Holdings	Project
Parliamentary Zone Road Access Arrangements	National Capital Authority	Project
Road Access Arrangements – Albert Hall Precinct	National Capital Authority	Project
Wooden East Traffic Impact Assessment	Hindmarsh	Project
Traffic Impact Assessment for Callam Street Development	Hindmarsh	Project
Review of Master Plan for Wooden East Development: Traffic and Road Issues	Hindmarsh	Project
West Bonython Infrastructure (Athllon Dr Duplication)	ACT Procurement Solutions	Project
Gungahlin Drive/Well Station Drive Intersection Analysis	ACT Procurement Solutions	Project
Molonglo Road Feasibility Study	ACT Procurement Solutions	Project
Sunshine Airport Intersection Analysis	Queensland Department of Main Roads	Project
Impact of Athllon Dr Closure	ACT Procurement Solutions	Project
Park & Ride Strategy for Australian Capital Territory	ACT Procurement Solutions	Project
Development of Structural Plan for Cooma CBD	Cooma Council - NSW	Project
Modelling & Feasibility of North Weston Intersections	ACT Procurement Solutions	Project
Modelling Road Network Options Along Parkesway in Light of Russell Office Expansion	National Capital Authority	Project
Modelling and Analysis of Parkes Way – Constitution Avenue Road Network in Light Kings Avenue Intersection Options	National Capital Authority	Project
Traffic Modelling and Analysis for Parkes Way – Kings Avenue Intersection Options	National Capital Authority	Project
Eastern Broadacre Traffic Modelling Study	Macroplan for ACT Planning and Land Authority	Project
Modelling and Traffic Analysis of Proposed East-West Link	Port Macquarie – Hastings Council	Project
Traffic Demand Modelling for Goulburn Southern Distribution Business Park (SDBP) Development	Mariner (as sub consultant to BG&E Consulting Engineers - Sydney)	Project
Traffic Impacts on Newcastle Street Due to Section 48 – Stage 1A Development – Updated Study	Canberra Airport Group/Mallesons Stephen Jaques	Project
Traffic Impacts on Pialligo Road Network Due to Section 48 – Stage 1A Development – Updated Study	Canberra Airport Group/Mallesons Stephen Jaques	Project
Assist in NCA preparation and presentation at an inquiry held by the Federal Parliament’s Joint Standing Committee on Public Works for Options for Parkes way/Kings Avenue Intersection	National Capital Authority (NCA)	Project

The following are proposals prepared by Dr. Khaled Abbas during work at SMEC Australia showing a success rate of 60% in winning proposals

Name	Client	Proposal
Land Transport Environment Committee (LTEC) Strategy Paper	National Transport Commission (NTC) - Australia	Proposal
Central Business Area (CBA) Traffic Management & Parking Strategy for City of Ballarat	City of Ballarat - Australia	Proposal
Annual Community Attitudes Survey to Road Safety	Department of Transport and Regional Services	Proposal
Vehicle and Traffic Management Plan for Lord Howe Island	Lord Howe Island - Australia	Proposal
National travel behaviour change for Australian Capital Territory: Phase C independent evaluation of phase B intervention program	Australian Capital Territory (ACT) Planning and Land Authority	Proposal (Won)
Traffic Feasibility Study: Airport Northern Access	Canberra International Airport - Canberra	Proposal (Won)
Developing a Framework for Sustainable Management of Traffic Safety in ACT	NRMA – ACT Road Safety Trust	Proposal
Provision of Expert Transport Sector Consultancy Services to Australian Competition and Consumer Commission	Australian Competition and Consumer Commission (ACCC)	Proposal
Wagga Wagga City Movement Plan Transportation & Traffic Study	Wagga Wagga City Council, NSW	Proposal
West Belconnen Regional School/Design Superintendent Consultancy: Access Study Component	Subcontracted to gmb Architects – Client Australian Capital Territory Procurement Solutions	Proposal (Won)
ACT Drageway: Traffic Impact Assessment	ACT Procurement Solutions	Proposal (Won)
Pialligo Avenue Pre-design Study	ACT Procurement Solutions	Proposal (Won)
Traffic Study in Parliamentary Zone	Australian National Capital Authority	Proposal (Won)
Lagos Transport Master Plan	Lagos Metropolitan Area Transport Authority - Nigeria	Proposal
Pedestrian Movement Study for ATO's New Headquarters Security Races	Australian Taxation Office & United Group Services	Proposal
Environmental Impact Statement for Warragoon Stage 2 Stormwater Escape Channel: Traffic Impact Study	Murray Irrigation Limited - Sydney	Proposal
Road Safety Market Research for 2006/07 to 2009/10	Department for Transport Energy and Infrastructure – South Australia	Proposal
West Belconnen Regional School Master Plan: Traffic Impact Assessment	Subcontracted to gmb Architects – Main client Australian Capital Territory Procurement Solutions	Proposal (Won)
Yass CBD Traffic Study	Yass Valley Council	Proposal
Area 13 & Sancrox Traffic Study	Port Macquarie – Hastings Council	Proposal (Won)
Hobart Travel Demand Model	Department of Infrastructure, Energy and Resources (DIER) - Tasmania	Proposal (Won)
Molonglo Roads Feasibility Study	ACT Procurement Solutions	Proposal (Won)
Traffic Study for Humanities and Science Campus, Canberra. Version 2 – Design Development Phase	Spackman & Mossop Architectures to National Capital Authority as main client	Proposal (Won)
Ocean Drive-North Haven Route Options Study	Port Macquarie Hastings Council	Proposal
Traffic Impacts on Newcastle Street Due to Section 48 – Stage 1A Development	Mallesons Stephen Jaques	Proposal (Won)
Traffic Impacts on Pialligo Road Network Due to Section 48 – Stage 1A Development	Mallesons Stephen Jaques	Proposal (Won)
East Lake Traffic Impact Assessment	ACT Procurement Solutions	Proposal
Intersection Analysis for Harbour Boulevard	Australand Holdings	Proposal (Won)
Parliamentary Zone Road Access Arrangements	National Capital Authority	Proposal (Won)
Road Access Arrangements – Albert Hall Precinct	National Capital Authority	Proposal (Won)
Wooden East Traffic Impact Assessment	Hindmarsh	Proposal (Won)
Traffic Impact Assessment for Callam Street Development	Hindmarsh	Proposal (Won)
Review of Master Plan for Wooden East Development: Traffic and Road Issues	Hindmarsh	Proposal (Won)
West Bonython Infrastructure (Athllon Dr Duplication)	ACT Procurement Solutions	Proposal (Won)

Gungahlin Drive/Well Station Drive Intersection Analysis	ACT Procurement Solutions	Proposal (Won)
Impact of Athllon Dr Closure	ACT Procurement Solutions	Proposal (Won)
Moonee Valley Integrated Transport Plan	Moonee Valley City Council (MVCC)	Proposal
Park & Ride Strategy for Australian Capital Territory	ACT Procurement Solutions	Proposal (Won)
Development of Comprehensive Transport & Traffic Plan for Makkah	Makkah Municipality (AMANAH)	Proposal
Modelling & Feasibility of North Weston Intersections	ACT Procurement Solutions	Proposal (Won)
Modelling Road Network Options Along Parkesway in Light of Russell Office Expansion	National Capital Authority	Proposal (Won)
Modelling and Analysis of Options for Parkes way/Kings Avenue Intersection	National Capital Authority	Proposal (Won)
Regional Road (MR545) Strategic Study – Pacific Highway (Ewingsdale) Interchange to the Byron/Ballina Shire Boundary (Broken Head)	Byron Shire Council	Proposal
Gungahlin Town Centre Planning Study Transport Consultancy	ACT Land and Authority	Proposal
Eastern Broadacre Traffic Modelling Study	Macroplan for ACT Planning and Land Authority	Proposal (Won)
Predicting Monorail Transit Ridership in Hanoi Vietnam	SMEC International	Proposal
Discovery Rise Transport Network Study	James Cook University	Proposal
Public Transport Strategic and Technical Services Panel	Department of Infrastructure – Public Transport Division – Victoria	Proposal
Traffic Impacts on Newcastle Street Due to Section 48 – Stage 1A Development – Updated Study	Canberra Airport Group/Mallesons Stephen Jaques	Proposal (Won)
Traffic Impacts on Pialligo Road Network Due to Section 48 – Stage 1A Development – Updated Study	Canberra Airport Group/Mallesons Stephen Jaques	Proposal (Won)
Modelling Road Network Options Along Parkesway in Light of Russell Office Expansion	National Capital Authority	Proposal (Won)
Modelling and Analysis of Parkes Way – Constitution Avenue Road Network in Light Kings Avenue Intersection Options	National Capital Authority	Proposal (Won)
Traffic Modelling and Analysis for Parkes Way – Kings Avenue Intersection Options	National Capital Authority	Proposal (Won)
Modelling and Traffic Analysis of Proposed East-West Link	Port Macquarie – Hastings Council	Proposal (Won)
Traffic Demand Modelling for Goulburn Southern Distribution Business Park (SDBP) Development	Mariner (as sub consultant to BG&E Consulting Engineers - Sydney)	Proposal (Won)
Traffic Impacts on Newcastle Street Due to Section 48 – Stage 1A Development – Updated Study	Canberra Airport Group/Mallesons Stephen Jaques	Proposal (Won)
Traffic Impacts on Pialligo Road Network Due to Section 48 – Stage 1A Development – Updated Study	Canberra Airport Group/Mallesons Stephen Jaques	Proposal (Won)

With DAR AL-HANDASAH Consultants (Shair and Partners) in the Middleeast (1994-1995 & 1997 to 1999)

Senior Transport/Traffic Planner and Economist at DAR AL-HANDASAH Consultants (Shair and Partners). During this period I conducted and/or participated in the following tasks/ projects and proposals in several countries as follows:

Country	Tasks/Projects/Proposals
Dubai	<ol style="list-style-type: none"> 1. Traffic Impact Assessment and Parking Study for Bur Juman Center Extension Project, Dubai (D9825) 2. Traffic Study for Dubai Airport Free Zone, Dubai (D9716) 3. Design for Operation of a Shuttle Bus Service between Parking Areas and Dubai World Trade Center, Dubai (D9427) 4. Estimation of Equivalent Single Axle Loads for Dubai World Trade Center, Dubai (D9427) 5. Design of Signalized 4-arm Intersection at Al-Mankhoul Roads, Dubai (D9418) 6. Improvement of Al Ittihad Road and Interchanges at Al Qiyadah, Flame Roundabout Port Saeed and Airport Road, Dubai (D9413) 7. Traffic & Parking Study & Estimation of Equivalent Single Axle for Community No. 128 in Dubai (D9413) 8. Proposed Traffic Study for New Deira Bus Station and Multi-Storey Car Park, Dubai (PD97357)

Egypt	<ol style="list-style-type: none"> 1. Estimation of Equivalent Single Axle Loads for Residential & Recreation Area - Pyramids Heights, Egypt (E9911) 2. Traffic and Toll Study for Investment Roads in Egypt (Upgrading of Kattamia-Ain El Sokhna Road and Construction of a new Helwan -Korimat Road), Egypt (E9908) 3. Traffic Impact Assessment and Parking Study for San Stefano Complex, Egypt (E9907) 4. Estimation of Equivalent Single Axle Loads for Office Park - Pyramids Heights, Egypt (E9870) 5. Estimation of Equivalent Single Axle Loads for New Amiryah Pharmaceutical Plant, Egypt (E9853). 6. Traffic Study & Estimation of Equivalent Single Axle Loads for Orouba (Abbassia-Airport) Road, Egypt (E9840) 7. Planning for a New Destination City, Egypt (E9835) 8. Estimation of Equivalent Single Axle Loads for Off-Site Area - Marsa Alam Resort, Egypt (E9787). 9. Transportation Study for the Northern Gulf of Suez Special Economic Zone, Egypt (E9778) 10. Traffic Study and Estimation of Equivalent Axle Loads for Taba Beach Resort, Egypt (E9738) 11. Traffic Study and Estimation of Equivalent Single Axle Loads for New Residential Area (Al-Ashgar District) in 6th of October City, Egypt (E9729) 12. Pre-Feasibility Study of Build, Own, Operate and Transfer (BOOT) of Road Projects in Egypt, (E9706) 13. Build, Own, Operate and Transfer (BOOT) Road Projects in Egypt: Technical Assistance for Contract Negotiation, Egypt (E9706/1) 14. Estimation of Equivalent Single Axle Loads for Al-Rehab City, Egypt (E9639) 15. Traffic Study and Estimation of Equivalent Single Axle Loads for New City Development serving Damietta New Port, Egypt (E9628) 16. Traffic and Parking Study and Estimation of Equivalent Single Axle Loads for Ain Al-Sokhna Touristic Village -Site C, Egypt (E9627) 17. Traffic and Parking Study for Moqbela Hotel - Taba , Egypt (E9613) 18. Proposed Study for Al-Tahrir Shopping Mall, Car Parking and Bus Terminal, (PE98525), Egypt. 19. Proposed Improvement Study for Orouba (Abbassia-Airport) Road (PE98335), Egypt. 20. Proposed Tunnel Construction to Relieve Traffic Congestion for Cornish El Nile Road, Egypt (PE97501)
Saudi Arabia	<ol style="list-style-type: none"> 1. Traffic Impact Assessment for Jabal Al Kabah Development Project, Saudi Arabia (S9745) 2. Traffic Study and Estimation of Equivalent Single Axle Loads for Yanbu-Rabigh-Thuwal Expressway, Saudi Arabia (S9730) 3. Traffic Study and Estimation of Equivalent Single Axle Loads for Qassim-Madinah Expressway, Saudi Arabia (S9657) 4. Proposed Traffic Study for Al-Buhairat City, Saudi Arabia (PS96730)
Qatar	<ol style="list-style-type: none"> 1. Traffic Study and Estimation of Equivalent Single Axle Loads for Al-Dukhan Residential Area, Qatar (Q9818) 2. Traffic Study for the Ras Laffan Housing Project, Qatar (Q9431)
Lebanon	<ol style="list-style-type: none"> 1. Economic Appraisal of Improvement of Ouzai Road and Construction of Khaldeh/Cocodi Road in Beirut, Lebanon (L9708) 2. Development of a Traffic Model for the City of Saida, Lebanon (L9414)
Algeria	<ol style="list-style-type: none"> 1. Economic Evaluation for Lakhdaria - Bouira Autoroute, Algeria (A9545) 2. Assessment of Tunnel Densities at Different Speeds for East-West Motorway - Section Lakhdaria - RN5 Connection, Algeria (A9545)
Morocco	<ol style="list-style-type: none"> 1. Traffic Study for Upgrading RP8 Casablanca/EL-Jadida Freeway & introduction of Toll, Morocco (MC9590) 2. Estimation of Traffic Turning Movements at Interchanges for the Rabat-Fes Motorway, Morocco (MC9316)
Jordan	<ol style="list-style-type: none"> 1. Estimation of Parking Requirement for Extension to Meridian Hotel in Amman, Jordan (J9847)
United Arab Emirates	<ol style="list-style-type: none"> 1. Estimation of Equivalent Single Axle Loads for Guard Administration Building, Abu Dhabi, United Arab Emirates (AD9736)
Yemen	<ol style="list-style-type: none"> 1. Estimation of Equivalent Single Axle Loads for Improvement of Taiz-Jabal Sabr Road, Yemen (Y9651)
Turkey	<ol style="list-style-type: none"> 1. Estimation of Equivalent Single Axle Loads for Glaxo/Wellcome Pharmaceutical Packing and Warehouse Facility , Turkey (TK9863) 2. Traffic Study for Bursa Ring Road, Turkey (TK9723) 3. Assessment of Tunnels Speed/Flow Relationship for Bursa Ring Road, Turkey (TK9723)
Angola	<ol style="list-style-type: none"> 1. Estimation of Equivalent Single Axle Loads for Zaire Region, Angola (AN9468). 2. Drafting an outline for a Transport Study in Luanda, Angola (PAN93738)
Mozambique	<ol style="list-style-type: none"> 1. Proposed Traffic Survey for Axle Load Estimation for Improvement of a Suspension Bridge across Zambeze River on EN103 in Tete Province, Mozambique(PMZ97342)

With United Nations (1994) and World Bank (2001)

Consultant	Improvement of Pedestrian and Child Safety in Urban Areas	Transport, Communications and Tourism Division (TCTD) of United Nations Economic Commission for Africa (UNECA), Addis Ababa, Ethiopia	<ul style="list-style-type: none"> ➤ Development of an Integrated Traffic Safety Management ➤ Assessing & comparing traffic safety for pedestrian & children in the cities of Cairo (Egypt) & Nairobi (Kenya) as case studies ➤ Improve understanding of pedestrians & children traffic safety problem in urban areas, its root, direct and post causes. ➤ Developing a comprehensive program of traffic safety in Africa meant to prevent & reduce potential of pedestrians and children accidents in urban areas. 	October to December 1994
Resource Member	Ad Hoc Expert Group Meeting on Development of Urban Transport in Africa	Transport, Communications and Tourism Division (TCTD) of United Nations Economic Commission for Africa (UNECA), Addis Ababa, Ethiopia	<ul style="list-style-type: none"> ➤ Present findings of the above-mentioned study ➤ Discuss the study document so as to come up with a road safety programme for UNECA to adopt within the framework of the United Nations Transport and Communications Decade in Africa (UNTACDA II). 	December 1994
Sub-Contracted Transport Consultant	Integrated Transport System in Arab Mashreq (ITSAM): An Integrated Information System (INFOSYS) – A Proposed Regional Road Transport Information System	On behalf of the main consultant for the Transport Committee – Economic and Social Commission for Western Asia (ESCWA) – UN.	<ul style="list-style-type: none"> ➤ Design a road transport information system in a way that allows the input of data and information required to utilise transportation planning packages such as International Freight Simultaneous Transportation Equilibrium Model (IFSTEM) and highway design and evaluation packages such as Highway Design and Management model HDM-4. ➤ Producing a set of data collection forms to be used by member countries in completing required data to operate IFSTEM and HDM-4 models as well as to conduct country based comparisons. 	September to December 2001
Traffic Consultant	Install, Test and Train on Traffic Engineering and Transportation Planning Software Models	Egypt National Institute of Transport in Association with Dowling Associates, Inc., USA on behalf of Cairo Traffic Engineering Bureau under a World Bank Grant No. TF 27279	<ul style="list-style-type: none"> ➤ Sharing in conducting for traffic police officers and engineers on applying traffic softwares ➤ Sharing in conducting a traffic study for Maadi district in Cairo. 	July to December 2001

With Consultant/Clients in Saudi Arabia (2004-2005)

Transport Consultant	Development of Local area Plans and Action area Plans for Dammam, Qatif and Ras Tanura in Saudi Arabia	Azmi Abdulhadi & Abdulla Al Moaibed Consulting Engineering Company with Parsons Brinckerhoff International UK for Dammam Municipality	<ul style="list-style-type: none"> ➤ Transportation & Traffic Analysis for Regional Road Network ➤ Transportation & Traffic Analysis for Urban Road Network ➤ Identifying Transportation Planning Issues ➤ Developing Regional & Urban Road Network, Traffic and Transportation Plan to Cater for Future Proposed Land Use Structural Plan 	2004-2005
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Traffic Consultant	Site & Traffic Investigation for Proposed Dammam Corniche Hypermarket in Saudi Arabia	Savola Development Company	Identifying & assessing options for entry, exit, parking , built up and service area locations	2005
Traffic Consultant	Traffic Impact Assessment for Proposed Dammam Corniche Hypermarket in Saudi Arabia	Savola Development Company	Conducting a full fledged Traffic Impact Assessment TIA for Savola Dammam Corniche Hypermarket in Saudi Arabia	2005

With Various Consultants/Clients in Egypt (1993-)

2009 Certified Transport & Traffic Engineering Consultant – Egyptian Syndicate of Engineers – Cairo – Egypt

Since 1993 up to date, I also conducted and/or participated in several other projects and studies in different capacities. These are listed as follows:

My Capacity	Name of Study/ Consultancy	Working with Research Center/Consultant/ Organisation	Tasks Included	Date
Traffic Consultant	Development of Traffic Stream Relationships for Rural Roads in Egypt	Transportation Program - Development Research & Technological Planning Center (DRTPC) - Cairo University on behalf of Egyptian Academy of Scientific Research & Technology - Transport Research Council.	➤ Conducting comparison of traffic data collection methods.	1993
Transport Expert	Egyptian National Institute of Transport Training Needs Assessment	Egyptian National Institute of Transport	<ul style="list-style-type: none"> ➤ Conducting organisational analysis of the transport sector in Egypt ➤ Conducting interviews with decision makers, academics and training consultants to assess training needs for the transport sector in Egypt 	1993
Highway Maintenance Expert	Highway Maintenance Code	Highway Maintenance Committee	➤ Sharing in laying down Highway Maintenance Code as part of Egyptian Highway Code of Practice.	1993 to 1999
Traffic Safety Expert	Investigation of Traffic Accidents on Intercity Roads in Egypt"	General Traffic Police Department on behalf of Egyptian Academy of Scientific Research and Technology - Transport Research Council	<ul style="list-style-type: none"> ➤ Sharing in design of accident data collection form for rural roads. ➤ Description of accident data management ➤ Analysis of accident causes ➤ Comparative analysis of accident indicators over the years ➤ Drafting recommendations of the study. 	1996 to 1999
Transport Expert	"Impact of Metro Systems on Efficiency of Urban Transport for the Poor",	Egyptian National Institute of Transport and Westminster University on behalf of UK Department for International Development (DFID).	<ul style="list-style-type: none"> ➤ Drafting proposal ➤ Designing a revealed preference questionnaire for metro passengers ➤ Sharing in supervision of questionnaire & travel time surveys 	1997 to 1999

Environmental Reviewer	International Northern Coastal Road Final Interim Report: Plausibility Study for Alternatives of Section 7	Egyptian Environmental Affairs Agency	Reviewing Final Interim Report on International Northern Coastal Road: Plausibility Study for Alternatives of Section 7 Submitted by Lahmeyer International GmbH in conjunction with Dr. Ahmed Abdel Warith Consulting Engineers.	1998
Transport Consultant and Project Co-manager	Effect of General Agreement for Trade in Services (GATS) on Inland Transport Sector in Egypt	Technical Consultations Bureau on behalf of Transportation Planning Authority, Ministry of Transport, Egypt.	<ul style="list-style-type: none"> ➤ Drafting proposal, ➤ Sharing in methodology development, Reviewing of performance indicators for inland transport sector, ➤ Analysis of performance indicators for intercity bus companies, ➤ Preparing a working paper on advanced technologies for inland transport sector 	1998 to 1999
Traffic Consultant	Relationship between Accidents and Traffic Volumes at Main Road Intersections as well as at Rail Crossings in Greater Cairo	Transportation Research Unit - Faculty of Engineering, Ain Shams University on behalf for the Egyptian Academy of Scientific Research & Technology - Transport Research Council.	<ul style="list-style-type: none"> ➤ Drafting proposal ➤ Sharing in laying down detailed study methodology ➤ Design of railroad grade crossing accident data collection forms and accompanying manual ➤ Classification of railroad grade crossings ➤ Supervision of collection of traffic and violations data at railroad grade crossing 	1999
Transport & Environmental Impact Assessment Consultant	Feasibility of relocating production and warehouse premises of the Eastern Company for Tobacco from Giza to 6th of October city	Energy & Environment Services & Systems (Enviro-nics) on behalf of Eastern Company for Tobacco (I express my strong reservation and disapproval of production of Tobacco and cigarettes)	➤ Assessing feasibility of relocating production and warehouse premises of the Eastern Company for Tobacco from Giza to 6th of October city with regards to environmental impacts caused by company related transport activities.	2000
Traffic & Environmental Impact Assessment Consultant	Environmental impact assessment of two road concessions (Kattamia-Ain El Sokhna Road and Helwan -Korimat Road)	Energy & Environment Services & Systems (Enviro-nics) on behalf of concessionaire United Group for Highways Development (UGHD)	Assessing environmental impacts resulting of alignment, construction and operation of two road concessions namely Kattamia-Ain El Sokhna Road and Helwan - Korimat Road.	2000
Transport and Traffic Expert	Impact Assessment of Reducing Weekly Working days on the Transport System in Egypt.	Egyptian National Institute of Transport on behalf of Ministry of Planning.	<ul style="list-style-type: none"> ➤ Drafting Proposal ➤ Sharing in conducting assessment of reducing weekly working days on the railroad in Egypt as well as on the metro system in Cairo. 	2000 to 2001
Transport Consultant	Household Survey conducted for the Cairo Regional Area Transportation Study (CREATS)	Transportation and Traffic Engineering Research Unit - Faculty of Engineering, Ain Shams University on behalf of Japan International Cooperation Agency (JICA) & the Egyptian Ministry of Transport	➤ Supervision of conducting household travel surveys in three districts in Greater Cairo as part of developing urban transportation plan for Greater Cairo.	August to November 2001

Transport Consultant	Economics of Transport in Light of Changes and New Policies in Egypt	Research Center for Civil Engineering Studies- Faculty of Engineering - Cairo University on behalf of the Transportation Planning Authority, Ministry of Transport	Review & preparation of manuals for: ➤ Non-traditional financing methods for transport projects, ➤ Procedure for conducting economic and financial appraisals of transport projects ➤ Life cycle stages and steps of privately financed transport projects)	October 2001 to June 2002
Transport Expert	New Directions for Road Freight Transport in Egypt	Egyptian National Institute of Transport on behalf of Ministry of Planning.	➤ Drafting Proposal	2001
Transport Expert	Transportation Planning for Sinai- Egypt	Egyptian National Institute of Transport on behalf of Transportation Planning Authority, Ministry of Transport, Egypt.	➤ Drafting Proposal	2002
Civil Engineer	Several Projects	Bylander Misr Partnership Engineering Consultants	➤ Structural design of the Royal Norwegian Embassy in Cairo ➤ Structural design of the SUMED headquarters building in Alexandria ➤ Site surveys for tourists' village in Neweiba (Sinai) ➤ Topographic survey for the British Embassy in Cairo ➤ Dilapidation works & surveys of buildings for Greater Cairo waste water project.	1984 to 1986

(2) Experience in Research

Research activities are concerned with:

- Applying System Dynamics to Develop Management Tools & Decision Support Systems for Various Transport-Related Issues.
- Assessing and Improving Container Handling Services
- Modelling Passenger Demand for Aviation Sector in Egypt
- Role of Government in Transport Industry
- Assessing Alternative Fuels for Transport Industry
- Environmental Impact Assessment of Road Alignments
- Environmental Impact Assessment of Industry Relocation.
- Applicability of Traffic Impact Assessment to Large projects
- Assessing Potentiality of Non Traditional Financing Mechanisms in Funding Transport Projects & Services.
- In Depth Statistical Investigation of Accident Characteristics & Causes on Rural Roads
- Accident Prediction Models for Rural Roads
- Modelling and Evaluating Safety at Railroad Grade Crossings.
- Developing Financial Efficiency Models for Transport Activity in the Wheat Mills and Bakeries Companies
- Developing Logistics Chains for Different Own Account and Service Companies.
- Developing a Screening Methodology for Assessing Geometric Improvements for Arterial Roads.
- Relieving Traffic Problems in Metropolitan Cities
- Developing Environmentally Sustainable Transport Strategies
- Assessment of Subsidies for Traffic on Toll Roads
- Developing Generic Framework for Conducting Traffic/Environmental & Economic Impact Assessments for Transport Projects
- Assessing Impact of Underground Metro on Relieving Traffic Congestion Problems.
- Developing a Generic Algorithm for Assessing the Feasibility of Private Finance of Roads.
- Efficient Planning of Budgets for Transport Organisations
- Estimation and Assessment of Alternative Cost Allocation Models for Urban Bus Transit Systems.
- Modelling and Estimation of Impact of Inefficiencies on Public Bus Operation.
- Developing a Generic Bus Transit Management System acting as a Planning & Decision Support System.
- Development of a Framework for Integrated Management of Traffic Safety.

- Assessment of Traffic Safety of Pedestrians in Urban Areas through Accident Analysis & Identification of Traffic Behavior of Pedestrians & Suggestion of Policies & Measures for Improvement of their Road safety.
- Assessment of Traffic Safety of School Children in Urban Areas through Accident Analysis & Identification of School Children Traffic Behavior & Suggestion of Policies & Measures for Improving their Road Safety.
- Analysis of Trip Characteristics and Identification of Transport & Pedestrian Environment Problems Encountered by Mobility Handicapped & Suggesting Policies & Measures to Relieve these Problems.
- Monitoring and Assessing Moves Towards Privatization & Effects of Deregulation on Transport Industry.
- Evaluation of Achievements of Passenger & Freight Transport Companies Using Performance Indicators to Suggest Policies to Improve Profitability in these Companies.
- Assessment of Training Needs in the Transport Industry.
- Reviewing the Applicability of Expert Systems Technology to Transportation.
- Development of Traffic Stream Models for Rural Roads.
- Examining Effects of Transport on the Development of New Cities.
- Examining the Potentiality of Applying Travel Demand Management Measures.
- Development of a Transportation Planning System Integrating the Transport System and its Environment.

Research Publications (See List of Publications)

- 14 International Journal articles (one invited and another selected and translated to Spanish)
- 3 Book Papers
- 11 Regional Journal articles
- 51 Conference papers (one originally in English and selected to be translated to Spanish and Chinese).
- 9 research project reports including 1 United Nations Document
- 3 unpublished papers/reports
- 14 Invited Seminars

Conferences (See List of Conferences/Meetings Attended)

15 conferences/seminars in the UK	1 conference in Italy	1 conference in Morocco
11 conferences/seminars in Egypt	1 conference in Austria	2 conferences in Turkey
3 conferences/seminars in the USA	1 conference in Kuwait	1 conference in France
1 conference in Germany	1 conference in Russia	1 United Nations Ad Hoc Expert Group Meeting in Ethiopia
1 Conference in UAE	4 seminars in Australia	1 conference in Republic of Kazakhstan

More than 200 web links reference to my professional & academic work – see some of these links towards end of CV

(3) Experience in Teaching

In Egypt

Modules' leader and principal participator in teaching graduate M.Sc./Diploma courses in Transport Policy, Planning and Management accredited by the University of Westminster, UK:

Courses Taught	Graduate Level (Master)
Transport Policy and Planning at a Strategic Level (1995, 96, 97, 98, 2000)	√
Transport Policy and Planning at an Organisation Level (1996, 97)	√
Information Systems for Transport (1992, 97, 98)	√
Road Transport Technology (1995, 98)	√
Research Methodologies (1995, 96, 97, 99, 2000)	√
Operations Research (1993)	√
Logistics and Freight Transport, Currently Logistics Business Management (1996, 2000)	√
Traffic Engineering (2000)	√
Transport Finance, Costing and Pricing (2000)	√

Teaching in graduate Diploma in Transport Planning at Egypt National Institute of Transport the following specific course modules

Courses Taught	Graduate Level (Diploma)
Transport Planning (1) (1992, 93, 94, 2011)	√
Transport Policy (2) (1992, 93, 94)	√
Research Methodologies (1994)	√
Road Transport Technology (1992, 93)	√

In Saudi Arabia

Teaching at the Department of Urban and Regional Planning – College of Architecture and Planning - King Faisal University – Saudi Arabia the following undergraduate and graduate courses:

Courses Taught	Undergraduate Level	Graduate Level (Master & PhD)
Urban Transportation Planning (2002, 2003, 2005)	√	
Traffic Engineering (2002, 2003, 2004)	√	
Roadway Geometric Design (2002)	√	
Traffic Surveys in Planning (2003)	√	
Statistics (2003)	√	
Applied Statistics (2004)	√	
Advisor in Planning Studio (2002)	√	
Instructor in Planning Studio (2003, 2004, 2005)	√	
Transportation Planning (2002, 2004, 2005)		√
Evaluation of Transport Systems (2003)		√

Teaching at the Department of Civil Engineering – Faculty of Engineering - King Abdulaziz University – Saudi Arabia the following undergraduate courses:

Courses Taught	Undergraduate Level
Transportation Engineering (2008)	√
Traffic Engineering (2008)	√

Experience in Education Development

1999	Leading ENIT staff in restructuring and documentation of MSc courses and other necessary requirements for monitoring, review and accreditation panels by university of Westminster, UK.
1999	Course leader responsible for ensuring quality and standards of postgraduate courses at ENIT.
2005	Member of scientific research committee at College of Architecture & Planning – King Faisal University
2002 to 2005	Member of academic committee at College of Architecture & Planning - King Faisal University
2002 to 2005	Member of graduating students committee at College of Architecture & Planning - King Faisal University
2002 to 2005	Member of Masters committee at Department of Urban and Regional Planning College of Architecture & Planning - King Faisal University
2004 to 2005	Member of PhD committee at Department of Urban and Regional Planning College of Architecture & Planning - King Faisal University
2004 to 2005	Coordinator of Professional Training Services at Department of Urban and Regional Planning - College of Architecture & Planning - King Faisal University
2004 to 2005	Member of review committee for Graduate & Undergraduate program offered by Department of Urban and Regional Planning - College of Architecture & Planning - King Faisal University
2004	Participating in structuring Ph.D. program offered by Department of Urban and Regional Planning - College of Architecture & Planning – King Faisal University
2008	Participated in ABET Accreditation of Civil Engineering Department - Faculty of Engineering - King Abdulaziz University – Saudi Arabia

(4) Experience in Supervision

PhD Supervision

2003 - 2005 Internal supervision for a PhD candidate during his data collection stage from Urban and Regional Planning Department – College of Architecture and Planning, King Faisal University – Saudi Arabia who was pursuing his PhD at Department of City and Regional Planning - Cardiff University - UK. His research was concerned with studying travel behaviour and trip chaining in Saudi Arabia: A case study on Dammam city.

2001 - 2002 Assistance & support for a PhD candidate pursuing her PhD at Centre for Transport Studies, University College London - UK. Her research was concerned with studying traffic safety for school children in London and Cairo.

MSc Supervision: Supervised and Co-supervised 6 MSc thesis as follows:

Titles of MSc Thesis	Supervision	Date
Assessing And Improving Operations of Signalised Traffic Intersections (MSc Thesis at Department of Civil Engineering, Faculty of Engineering, Tanta University, Egypt)	Co-Supervision	1999/ 2004
Trip Generation and Attraction Models for International Air Passenger Trips from/to Cairo Airport and Using Egypt Air (MSc Thesis at University of Westminster & Egypt National Institute of Transport)	Single Supervision	2001/ 2002

Development of a Bridge Inspection and Maintenance Management System (BIMMS) in Egypt. (MSc Thesis at University of Westminster & Egypt National Institute of Transport)	Single Supervision	2001/2002
Development of a Generic Approach for Utilisation of Statistical Methods to Conduct In Depth Investigation of Road Accident Characteristics & Causes: A Case Study of Main Rural Roads in Egypt (MSc Thesis at University of Westminster & Egypt National Institute of Transport)	Single Supervision	1999/2000
Development of a Systematic Approach for Building Financial Efficiency Models for the Transport of Wheat & Flour in Wheat Mills and Bakeries Companies in Egypt: A Case Study of Upper Egypt Wheat & Milling Company (MSc Thesis at University of Westminster & Egypt National Institute of Transport)	Single Supervision	1999/2000
Development of Traffic Stream Models for Elevated Urban Roads in Cairo (MSc Thesis at Department of Civil Engineering, Faculty of Engineering, University of Cairo, Egypt)	Co-Supervision	1993/1994

Graduate Diploma Supervision: Supervised & Co-supervised 28 Graduate Diploma dissertations at ENIT as follows:

Titles of Graduate Diploma Dissertation in Transportation Policy, Planning & Management at University of Westminster & Egypt National Institute of Transport	Supervision	Date
<ul style="list-style-type: none"> ➤ Possibilities for increased utilization of the underground metro in Cairo. ➤ Measures for reducing operating costs in the intercity bus companies in Egypt. ➤ Measures for reducing operating costs in the road freight companies in Egypt. ➤ Perception of the future of multi-modal transport in Egypt. ➤ Selection of appropriate performance indicators for the Egyptian railway. ➤ Feasibility study of connecting Egyptian ports with the internal waterway network. 	Co-Supervision	1991
<ul style="list-style-type: none"> ➤ Assessment of training needs in the Egyptian National Authority for Tunnels. ➤ Assessment of training needs in the Upper Egypt Intercity Bus Company in Egypt in light of deregulation. ➤ Assessment of training needs in the East Delta Intercity Bus Company in Egypt in light of deregulation. ➤ Assessment of training needs in the Road Freight Transport Company in Egypt in light of deregulation. ➤ Assessment of training needs in the Water Transport Company in Egypt in light of deregulation. ➤ Assessment of training needs in the River Transport Company in Egypt in light of deregulation. 	Co-Supervision	1992
<ul style="list-style-type: none"> ➤ Financial Performance in Water Transport Company in Egypt in light of management of invested capital. ➤ Financial Performance in the River Transport Company in Egypt in light of management of invested capital. ➤ Performance in East Delta Intercity Bus Company in Egypt in light of management of invested capital. ➤ Operating Surplus in the Nile Company for Freight Transport in Egypt before and after the introduction of deregulation in 1991 and future expectations. ➤ Operating Surplus in the Middle Delta Intercity Bus Company in Egypt before and after the introduction of deregulation in 1991 and future expectations. 	Co-Supervision	1993
<ul style="list-style-type: none"> ➤ Basis for demand estimation in East Delta Company for transport and Tourism in Egypt. ➤ Effect of Economic reform Program on Performance of Nile Company for Transport Business in Egypt. 	Co-Supervision	1994
<ul style="list-style-type: none"> ➤ Assessment of container transport in Egypt (a case study). ➤ Freight transport in Egypt in light of market economy ➤ Utilization of the economic advantages of river transport in Egypt ➤ Alternatives for marketing transport services offered by East Delta Company for Transport & Tourism in Egypt. 	Co-Supervision	1995
<ul style="list-style-type: none"> ➤ Determination of Operational Requirements for Greater Cairo Underground Metro (Second Line) ➤ An Information System to Support Logistics Management at the North Cairo Wheat Mills and Bakeries Company. ➤ Integrated planning of fleet maintenance and operation activities at the North Cairo Wheat Mills and Bakeries Company. ➤ Role of Transportation Planning Authority: Past Present and Future. 	Co-Supervision	1996
<ul style="list-style-type: none"> ➤ Assessment of Services Offered by Container Handling Terminals: A Case Study of Alexandria Handling Company 	Single Supervision	1999

Supervision of Graduating Projects: Instructor and advisor of the following 19 Final Year Graduating Projects at the Department of Urban & Regional Planning- College of Architecture & Planning – King Faisal University – Saudi Arabia

Titles of Final Year Projects in Urban & Regional Planning at King Faisal University – Saudi Arabia	Supervision	Date
<ul style="list-style-type: none"> ➤ Accommodating Pilgrims Transport Demand along Jeddah-Makkah Route: Railway a Strategic Option ➤ Impact assessment of Land use Activities on Traffic System Along King Faisal Coastal Road in Khobour City ➤ Improving Traffic System Along AlOulia-Batha Road in Riyadh Using Light Rail Transit and Land Use Management ➤ Impact of Petrol Satiations on Neighbouring Urban Environment in Dammam City ➤ Achieving Sustainable Urban Structure in Dammam Metropolitan Area ➤ Assessing and Improving site Features of Supermarkets in Khobour City ➤ Preparing Dammam Metropolitan Area to Host 1st Islamic Olympic Games ➤ Improving Civil Defense Centers in Khobour City ➤ Planning & Distribution of Automatic Teller Machines in Dammam Metropolitan Area 	Co-Supervision	2004/ 2005
<ul style="list-style-type: none"> ➤ Feasibility of Improving Riyadh- Dammam Freeway Through Tolling ➤ Assessment & Improvement of Parking in Al-Khobar Central Business District ➤ Enhancing Traffic Environment in Al Rawdah & Al Qadsyah Districts in Dammam ➤ Planning & Development of Seaports in Saudi Arabia: A Case Study of King Abdulaziz Port in Dammam ➤ Impact of Closed Mega Malls on Traffic Environment: A Case Study of Rashed Mall ➤ Assessment & Improvement of School Traffic Environment & Transport System in AlKhobar City ➤ Evaluation of the Redevelopment of Dahran Road in Al Khobar City ➤ Maximising Utilisation of Airports in Saudi Arabia: A Case Study of King Fahd Airport in Dammam 	Co-Supervision	2003/ 2004
<ul style="list-style-type: none"> ➤ Impact of Urban Activities on the Traffic System of Prince Turkey Street in Al Khobar 	Co-Supervision	2002/ 2003
<ul style="list-style-type: none"> ➤ Improvement of Transport Accessibility in Al-Qatif Governorate 	Co-Supervision	2001/ 2002

97, 99 Examiner of dissertations submitted for partial fulfillment of Transportation Policy, Planning and Management Diploma/MSc accredited by University of Westminster.

2002 – 2005 Examiner of graduate and undergraduate projects at the Department of Urban & Regional Planning as well as the Architecture department - College of Architecture & Planning – King Faisal University – Saudi Arabia

(5) Experience in Training

In Dubai

Developed and delivered as part of capacity building for Commercial and Investment Department at Roads and Transport Authority in Dubai a training seminar on Public Private Partnership for Transport Infrastructure and Services (2010)

Developed and delivered 3 Knowledge Forum Seminars on Travel Demand Modelling - Attendance from Roads & Transport Authority – Dubai – (2010)

In Australia

Developed and delivered a training course on Transport Planning & Modelling for transport, traffic and highway engineers in Snowy Mountains Engineering Cooperation – Transport Infrastructure Group - Canberra Office – Australia (2008)

Exclusively developed and delivered an in house training program on Travel Demand Modelling for professionals from Department of Infrastructure, Energy and Resources (DIER) – Tasmania- Australia (2007)

In Egypt

Participated in training middle career transport managers at Egypt National Institute of Transport the following courses:

- Logistics Business Management (2001)
- Privatization and Deregulation: Reflections on the Transport Industry in Egypt (2001)
- Cost Accounting of Transport Services (2000)
- Construction & Operation of Transport Infrastructure Projects by Private Sector following BOT system (1997)
- New Technologies in Road Transport (1997, 1998)
- Planning Activities in Transport Companies (1994)
- Transport Demand Modeling (1993)
- Intercity Bus Operation (1991, 92)

In 1997 participated at Egypt National Institute of Transport in training transport infrastructure officials from Commonwealth countries (Ex-Soviet Union) and Recently Independent Islamic Countries in Europe in a specialised international training course entitled “Construction and Operation of Transport Infrastructure Projects by the Private Sector”.

Participated in the execution of the following training courses at ENIT (1991-1997):

- Management the Change
- Investment Appraisal in Transport Industry
- Introductory Course in Applied Transport Economics - Part 1 - Transport Economics Part 2: The Business of Transport & Transport Economics Part 3: Economic Appraisal
- Financing the Transport Industry
- Improving Capacity of Intercity Rural Highways

Participated in training middle career managers at the Egyptian Roads and Bridges Authority (ERBA) in a course entitled “Activities of Road Passenger Bus Transport” (1996, 98 & 2001)

Participated in training Traffic Police Officers and Engineers by providing courses in:

- Traffic and Highway Engineering within the 30th, 31st and 22nd Basic Programs and
- Traffic Safety within the specialised program entitled Investigation and Analysis of Traffic Accidents.

All programs were held at Egyptian Traffic Police Department, Ministry of Interior in 1999 and 2000.

Designed course outlines comprising the Transportation Management section of the Career Development and Consultations Academy a private Egyptian training academy that acquired the BS EN ISO 9001 in the design and delivery of training, and educational services.

Developed and delivered the following courses for Career Development and Consultations Academy:

- Evaluation of Transport Schemes (trainees from logistics department of the Kuwait Oil Company and from the logistics department of Nestle Company) (1994)
- Transportation Planning and Management at the Company Level (trainees from transportation department of the Saudi Oil Company, Kuwait Oil Company, Al Majdouie Transport in Saudi, Super-jet Bus Company in Egypt, Sugar and Integrated Industries in Egypt) (twice in 1996, once in 1999, twice in 2000, once in 2001)
- Transportation Planning (trainees from transportation department of Saudi Methanol Company, Kuwait Oil Company, Bahrain Telecommunications Company, Kuwait Ministry of Finance) (in 96, 3 times in 97, in 98)
- Maintenance of Transport Fleets (trainees from transportation department of Kuwait Oil Company) (1998)
- Management Leadership (trainees from Kuwait Oil Company) (in 2001)

In Kuwait

Exclusively developed and delivered an intensive in house training program entitled “Advanced System Planning and Management of Transport Organisations”. This program was tailor made for the “Organising Administration of Governmental Transport at Kuwait Ministry of Finance” (1998) (Officials at Kuwait Ministry of Finance nominated me personally for this course)

In Saudi Arabia

- Effective Communication Skills (An in house training program exclusively designed for Saudi Basic Industries Corporation SABIC, conducted in Riyadh, Saudi Arabia) (1995)
- Communication Skills in Management of Logistics Activities (An in house training program exclusively designed for Saudi Basic Industries Corporation SABIC and conducted in Riyadh, Saudi Arabia) (1995)

BOARD & COMMITTEE MEMBERSHIPS

2011-	Member of Board of Directors – Egypt National Institute of Transport - Ministry of Transport - Egypt
2011-	Member of Board of Directors – National Authority for Tunnels - Ministry of Transport - Egypt
2011-	Member of Committee for Leadership positions in Transport Planning Authority – Ministry of Transport - Egypt
2011-	Member of Committee for Leadership positions in Egypt National Institute of Transport – Ministry of Transport – Egypt
2011-	Member of Egyptian Ministry of Transport Steering Committee for European Aid Consultancy Project “Support the Reform of Egyptian Transport Sector”
2011-	Member of Egyptian Ministry of Transport Task Force on Institutional Reform as part of European Aid Consultancy Project “Support the Reform of Egyptian Transport Sector”
2011-	Member of Editorial Board for Traffic Safety Forum 2011: Reality, Experiences and Hope – Saudi Arabia
2011 up to date	Member of Editorial Board and Reviewer of Journal of Transportation Technologies – Scientific Research Publishing Inc. – USA
2008-2011	Member in more than 10 Main Committees and subcommittees at Roads and Transport Authority (Dubai). Including PPP committee, Enterprise Command Control Center, Intelligent Transport System Strategy Committee, Performance Reporting Committee, Inter-emirates Public Transport Committee, Outsourcing Bus Operations and Maintenance Committee Audit Committee, etc..
2010	Reviewer for Papers Presented to Eastern Asia Society for Transportation Studies Conference – Jeju - South Korea
January 2008	Member of Advisory Forum to Canberra Division Committee – Institute of Engineers Australia – Canberra Division
Dec. 2007	Elected to chair the Transport Branch – Institute of Engineers - Canberra Division - Australia.
2004 up to date	Member of Editorial Board and Reviewer of Advances in Transportation Studies: An International Journal
2004 to 2007	Member of Programme Committee for Traffic and Transport Safety Stream within the 2004, 2005, 2006 & 2007 European Transport Conferences – Strasbourg – France.
2005	Reviewer for International Journal of Logistics: Research & Applications “Taylor & Francis”
2004	Reviewer for Scientific Journal – King Faisal University – Saudi Arabia
2003	Reviewer of papers presented for publication in Proc. of Air Transport Research Society, Toulouse, France.
2002	Reviewer of technical papers presented for Transportation stream at Sixth Saudi Engineering Conference – King Fahd University of Petroleum and Minerals – Zahran – Saudi Arabia
1999 to 2000	Member in the Programme Committee for three Tracks on Surface Transportation, Safety & Intelligent Transportation System of the International Symposium on Automotive Technology and Automation (ISATA 2000), held in Dublin, Ireland 25th - 29th September 2000. Roles involve: reviewing of presented abstracts and papers, categorization of papers into appropriate streams, worldwide promotion of conference among professional colleagues.
1999 to 2000	Member of Egyptian Ministerial Committee for Preparing National & International Transport Conferences.
1997 to 1998	Member in Programme Committee for Dedicated Track on Logistics Management and Environmental Aspects and the Dedicated Track on Automotive Ergonomics and Safety of the 31st International Symposium on Automotive Technology and Automation (31st ISATA), held in Dusseldorf, Germany 2nd - 5th June 1998. Roles involve: reviewing of presented abstracts and papers, categorization of papers into appropriate streams, worldwide promotion of conference among professional colleagues.
1996	Middle East Editor for Transport Solutions - A transport policy newsletter) - Landor Publication – UK.
1995, 2010	Advisor to Fulbright Commission in Egypt (Commission for Educational and Cultural Exchange between the USA and Egypt) for the evaluation and selection of Egyptian Senior Scholars for Fulbright senior fellowship in the USA.
October 2001	Selected by Fulbright Commission in Egypt (Commission for Educational and Cultural Exchange between USA and Egypt) as a member of the Nomination Committee for evaluation, interviewing & nomination of Egyptian Candidates for the 2002/2003 Hubert H. Humphrey Fellowship in the USA.
2001	Member of Counterpart Committee for Cairo Regional Area Transportation Study (CREATS) funded by Japan International Cooperation Agency (JICA) for Egyptian Ministry of Transport.
1994 to 1995	Member of the Programme Committee for the Dedicated Conference on Advanced Transportation Systems of the 28th International Symposium on Automotive Technology and Automation (28th ISATA), promoted by Mercedes-Benz AG held in Stuttgart, Germany 11th - 15th September 1995. Roles involved: reviewing of presented abstracts and papers, categorization of papers into appropriate streams, worldwide promotion of conference among professional colleagues.
September 1993	Invited as panelist to contribute in Round Table Discussion on Training & Institution Building organized by 21st Planning and Transport Research and Computation (PTRC) Summer Annual Meeting held in Manchester, UK
January 1993	Reviewer for Institute of Transportation Engineers (ITE), USA, Committee 6A-57-State-Wide Programs to Assess Impacts of Land Use Decisions on Transportation.

AWARDS AND HONOURARIUMS

May 2011	Received “Thank You and Appreciation” Letter from Executive Director and Chairman of the Board – Roads & Transport Authority – Dubai for providing valuable ideas and suggestions
May 2011	Received “Thank You” Card from CEO, Corporate Technical Support Services – Roads & Transport Authority – Dubai for expert advice/support on various Intelligent Transport System & Operation Control Centers Issues
November 2010	2 Recognition & Appreciation Letters from Strategic Planning Department – Roads and Transport Authority - Dubai for efforts (preparation, coordination and interview) in the department audit in accordance with Dubai Government Excellence Program
November 2010	Appreciation Certificate from Commercial and Investment Department – Roads and Transport Authority - Dubai for Delivering a knowledge forum presentation on Public Private Partnership for Transport
November 2010	Thank you card from Strategic Planning Department – Roads & Transport Authority - Dubai for efforts (preparation & coordination) in department audit in accordance with Dubai Government Excellence Program
October 2010	Received an Award Certificate from Strategic Planning Department – Roads and Transport Authority - Dubai for delivering 3 presentations on “Generic Process to Assess Traffic Safety” within the Knowledge Forum program
2010 & 2011	Selected for nomination to represent Roads and Transport Authority - Dubai in Dubai Government Excellence Program as Excellent Employee in Specialised jobs
July 2010	Received an appreciation and “Thank You” Letter from Public Transport Agency – Roads and Transport Authority – Dubai for expert advice and support on various public transport issues.
March 2010	Received an Award Certificate from Strategic Planning Department – Roads and Transport Authority - Dubai for delivering 3 presentations on “Travel Demand Modelling” within the Knowledge Forum program
July 2009	Received an Award Certificate & Prize from Strategic Planning Department – Roads & Transport Authority - Dubai for winning “Challenge of the Month” on Encouraging Pedestrians & Cycling as Non Motorised Transport
July 2009	Received a “Proud of You” Award Certificate and Prize from Strategic Planning Department – Roads and Transport Authority – Dubai
2009	Received “Thank You” Card from Marine Agency – Roads and Transport Authority – Dubai for expert advice and support on various marine transport issues.
2009	Received “Thank You” Card from Commercial & Investment Department – Roads and Transport Authority – Dubai for expert advice and support on Public Private Partnership (PPP) issues in the transport sector.
2000 to 2008	Biographical data selected & included in 17 th to 25 th Editions of Who’s Who in the World (Millennium Editions)
2002 to 2004	Biographical data selected & included in the 32 nd , 33 rd & 34 th Editions of Who’s Who in Finance and Industry.
2002 to 2004	Biographical data selected & included in 6 th , 7 th & 8 th Editions of Who’s Who in Science & Engineering.
August 2000 to June 2001	Selected by the Higher Fulbright Commission in the USA as a Hubert H. Humphrey Fellow for a one year academic activities at Cornell University and professional affiliation at United States Department of Transportation, USA. This fellowship was funded by the United States Department of State.
November 1997	Invited by the Commission for Educational & Cultural Exchange between the U.S.A. and Egypt (Fulbright Commission) to participate in the Salzburg Seminar Revisited. The purpose of this seminar is to bring together prominent Egyptian intellectuals, distinguished policy makers, mid-career professionals to exchange ideas pertaining to issues on economies in transition & how to attract foreign investment.
September 1997	Selected to participate in a workshop entitled Environmental Impact Assessment (EIA) Train the Trainers. This workshop was organised by Egyptian Environmental Affairs Agency (EEAA) of the Cabinet of Ministers. The workshop was conducted by Director of the EIA Center of the University of Manchester under the “Support for Environmental Assessment and Management” (SEAM) project funded by the UK Department For International Development (DFID). Participants in this workshop are listed as EIA professional experts & trainers with EEAA.
July to August 1996	Selected by Commission for Educational & Cultural Exchange between U.S.A. & Egypt (Fulbright Commission) for an award to attend a program entitled “Global Reform and Privatization of Public Enterprises” held at the Harvard Institute for International Development, Harvard University, Cambridge, Massachusetts, U.S.A.
August 1996	Awarded the best group presentation award for a paper entitled “Deregulation of Intercity Bus Transport Industry in Egypt: A Myth or Reality” in the program on “Global Reform and Privatization of Public Enterprises” held at the Harvard Institute for International Development, Harvard University, Cambridge, Massachusetts, U.S.A.
December 1995	Selected to participate in a workshop entitled Environmental Impact Assessment (EIA): In Practice. This workshop was organised by the Egyptian Environmental Affairs Agency (EEAA) of the Cabinet of Ministers. The workshop was conducted under the “Support for Environmental Assessment and Management” (SEAM) project funded by the UK Overseas Development Administration (ODA). Participants in this workshop are listed as EIA experts with EEAA.

March to September 1995	Selected by the Commission for Educational & Cultural Exchange between the USA and Egypt (Fulbright Commission) acting on behalf of the United States Information Agency as a Visiting Fulbright Senior Scholar at the Department of Civil Engineering (Transportation), University of Texas at Austin, Austin, Texas, USA. Professor Hani S. Mahmassani of the University of Texas at Austin acted as host faculty associate.
1990	Awarded an Honourary Life Membership in the Union Society of the University of Newcastle upon Tyne for achievements in representing international students during my time as the first elected International Students' Officer at the University of Newcastle upon Tyne, Newcastle upon Tyne, UK.
1987	Awarded 2 nd Prize by the Institution of Highways and Transportation – North Eastern Branch – UK for technical papers competition for young professionals in the Highways and Transportation Field
October 86 to June 91	Awarded an Overseas Development Administration (ODA) Fellowship for M.Sc. & Ph.D. at the Civil Engineering Department, University of Newcastle upon Tyne, Newcastle upon Tyne, UK.

MEMBERSHIP OF NATIONAL AND INTERNATIONAL PROFESSIONAL ASSOCIATIONS

Throughout my career I became a member of several national and international scientific and professional bodies and committees in the USA, UK, Canada, Australia, Egypt, Saudi Arabia. These include:

- Fellow Institute of Engineers Australia (FIEAust)
- Member of the Institution of Highways and Transportation (MIHT), UK
- Member of the Chartered Institute of Transport (MCIT), UK
- Member of the Organization of Teachers of Transport Studies, UK
- Member of Association for European Transport (UK)
- Member of the Institute of Transportation Engineers (MITE), USA
- Member of the System Dynamics Society, USA
- Member of International Association for Impact Assessment, USA
- Member of Air Transport Research Society, Canada
- Member of the Egyptian Syndicate of Engineers, Egypt
- Member of the Arab Scientific Association for Transport, Egypt
- Member of the Arab Association for Roads, Egypt
- Member of the Egyptian Expert System Interest Group, Egypt

EXPERT WITNESS & CHAIR POSITIONS

Acted as an Expert Witness for the following projects in Australia:

Traffic Impacts on Newcastle Street Due to Section 48 – Stage 1A Development – Updated Study (2008)	Canberra Airport Group/Mallesons Stephen Jaques
Traffic Impacts on Pialligo Road Network Due to Section 48 – Stage 1A Development – Updated Study (2008)	Canberra Airport Group/Mallesons Stephen Jaques
Options for Parkes way/Kings Avenue Intersection	Inquiry held by the Federal Parliament's Joint Standing Committee on Public Works on 6 August 2008

December 2007 Elected to chair the Transport Branch – Institute of Engineers - Canberra Division - Australia.

Chaired the following Seminars for Transport Branch – Engineers Australia – Canberra Division (2008)

Speaker	Title
Gordon McAllister - Assistant Director (Travel Demand Management Department of the Environment, Water, Heritage and the Arts	Greenhouse impacts of road transport, and how we can be smarter about how we travel (March 2008)
Patrick Paynter - Principal Engineer, Infrastructure Planning Australian capital Territory Planning and Land Authority	Transport planning for the Molonglo Valley development (April 2008)
Neil Williams - General Manager - Commonwealth Dept. of Infrastructure, Transport, Regional Development & Local Government	Rail Freight in Australia (May 2008)
Dr Leo Dobes - Visiting Fellow Crawford School of Economics and Government National University	Adapting more cleverly to climate change (June 2008)
Chairing a session entitled: Railways and Public Transport	European Operational Research Societies/ Institute for Operations Research & Management Sciences, Istanbul, Turkey (July 2003).

Chaired the following Conference Sessions

Speaker	Title
Chairing a session entitled: Railways and Public Transport	European Operational Research Societies/ Institute for Operations Research & Management Sciences, Istanbul, Turkey (July 2003).

PROFESSIONAL AFFILIATION

May to June 2001	Professional affiliation with Administrations of the United States Department of Transportation - Federal Railroad Administration - Office of Research and Development - National Highway Traffic Safety Administration - Office of Secretary of Transportation - Federal Highway Administration - Federal Aviation Administration
October 1996	Work attachment with WS Atkins Planning Consultants (Transportation Planning Department- Transportation Modelling Division) involved in project no. AF5366 by assisting in developing “A Traffic Model for Stratford and the Surrounding Area” using SATURN package.
October 1996	Work attachment with Steer Davies Gleave Consultants (Transportation Modelling Group) getting familiar with their work with regards to toll roads projects and concepts of private finance in transport.

PROFESSIONAL TRAINING

May 2011	Completed a Training Course entitled “Coaching” by RTA - Dubai
March 2011	Completed a Training Course entitled “Train the Trainer” by Spearhead Training Company - Dubai
October 2009	Completed a Course on Safety and Environment Management System Awareness - Roads and Transport Authority - Dubai
June 2007	Completed an accredited Project Management Training Program - PSMJ Resources - Australia
2005 - 2008	Attended the following professional training courses during my course of work as a principal transport planner with Snowy Mountains Engineering Cooperation – Australia: ➤ Project Management ➤ Quality and Environment System ➤ Project Management Using SMEC Net ➤ Interchange Design
June 2003	Attended a workshop on Building Capacity for Environmental Impact Assessment in Africa, within the 23 rd Annual Meeting of the International Association for Impact Assessment: Impact Assessment and Capacity Building, Marrakech, Morocco.
February 2001	Participated in two Graduate Teaching Development Workshops (The Wired Course, and Course Web Sites: CourseInfo and Dreamweaver Comparison) Organised by Center for Learning and Teaching, Cornell University, USA
October 2000	Participated in the Hubert H. Humphrey Fellowship Annual Seminar: Building a Global Network of Democracy: Leadership Beyond Elections. Sponsored by United States Department of State - Administered by Institute of International Education. Washington DC. USA.
2000-2001	As Part of the Hubert H. Humphrey Fellow registered at the College of Regional Planning, and the Johnson School of Management at Cornell University, USA for the following graduate courses: ➤ Planning and Policy Analysis ➤ Project Planning in Developing Countries ➤ Planning Theory: Politics of Planning ➤ International Dimensions of Environmental Planning: Ideology, Politics and Policy ➤ Sustainable Development ➤ Managerial Leadership in the 21 st Century
September 1997	Participated in a workshop entitled Environmental Impact Assessment (EIA) Train the Trainers. This workshop was organised by the Egyptian Environmental Affairs Agency (EEAA) of the Cabinet of Ministers. The workshop was conducted by the Director of the EIA Centre of the University of Manchester under the “Support for Environmental Assessment and Management” (SEAM) project funded by the UK Department for International Development (DFID). Participants in this workshop are listed as EIA professional experts and trainers with EEAA.
October 1996	Participated in a program entitled “Value of Time” organised by the PTRC Education and Research Services Ltd. and held in Wokingham, Berkshire, UK (Course Supervisor: Ken Gwilliam, World Bank).
September 96	Participated in a program entitled “Transport Modelling: the good, the bad and the ugly” organised by the PTRC Education and Research Services Ltd. and held in London, UK (Course Supervisor: Dr. Luis Willumsen, Steer Davies Gleave Consultancy).
August 1996	Participated in a program entitled “Survey Methods for Transportation Planners” organised by the PTRC Education and Research Services Ltd. held in London, UK (Course Supervisor: Elizabeth S. Ampt, Steer Davies Gleave Consultancy).
July to August 1996	Participated in a program entitled “Global Reform and Privatization of Public Enterprises” held at the Harvard Institute for International Development, Harvard University, Cambridge, Massachusetts, U.S.A.

December 1995	Participated in a workshop entitled Environmental Impact Assessment (EIA): In Practice. This workshop was organised by the Technical Cooperation Office for the Environment (TCEO) of the Egyptian Environmental Affairs Agency (EEAA) of the Cabinet of Ministers. The workshop was conducted under the British Overseas Development Administration (ODA) project "Support for Environmental Assessment and Management". Participants in this workshop are listed as EIA experts with EEAA.
87/88/89/90	Helped in the organization of the Planning and Transport Research and Computation (PTRC) International Annual Meetings in the UK
Summer 1983	Student engineer at M25 Motorway-Slough-UK. Involved in structures & road works with Cementation Construction Ltd./Costain Engineering Ltd. Seconded to Resident Engineer's Staff (W S Atkins & Partners).

PROFESSIONAL VISITS

2000	<ul style="list-style-type: none"> ➤ Tompkins Consolidated Area Transit, Tompkins County, New York, USA ➤ Ithaca City, Planning Department, Tompkins County, New York, USA ➤ The World Bank, Transport, Water and Urban Development Department, Washington DC, USA ➤ Institute of Transportation Engineers, Washington DC, USA ➤ United States Department of Transportation (USDOT), Research & Special Programs Administration, Office of Innovation Research and Education, Washington DC, USA ➤ United States Environmental Protection Agency (USEPA), Transportation and Regional Programs Division, Office of Transportation and Air Quality, Washington DC, USA ➤ Ithaca-Tompkins County Transportation Council, New York, USA ➤ United States Department of Transportation (USDOT), Federal Railroad Administration, Office of Research and Development, Washington DC, USA ➤ United States Department of Transportation (USDOT), Federal Highways Administration, Office of International Programs, Washington DC, USA ➤ United States Department of Transportation (USDOT), National Highway Traffic Safety Administration, Office of International Policy and Harmonization, Washington DC, USA ➤ United States Department of Transportation (USDOT), Federal Transit Administration, Office of Program Oversight, Washington DC, USA ➤ United States Department of Transportation (USDOT), Federal Aviation Administration, Office of International Programs, Washington DC, USA ➤ USDOT, Maritime Administration, Washington DC, USA
Nov. 1996	A one day visit to London Transport to get an insight of the planning process of London Buses and London Underground.
Nov. 1996	A one-week professional visit to the Transport Studies Group - University of Westminster, London, UK.
June 1995	Professional visits in Washington DC, USA including the following places: <ul style="list-style-type: none"> ➤ Department of Transport (U.S.DOT) ➤ Federal Transit Administration (FTA) [Office of Technical Assistance & Safety - Transit Research Information Center] ➤ Research & Special Programs Administration (RSPA) [Technology Sharing Program] ➤ U.S.DOT Library ➤ National Academy of Sciences (NAS) - National Research Council (NRC) ➤ Transportation Research Board (TRB) [Transit Cooperative Research Programs (TCRP)] - TRB Library ➤ American Public Transit Association (APTA) ➤ Transit Research, Programs and Policy Analysis Offices ➤ APTA Library ➤ The World Bank ➤ Transport, Water and Urban Development Department - The World Bank Library
August 1993	Professional tour in Australia. This included visits to universities and transport research institutes in Victoria, New South Wales and South Australia. <ul style="list-style-type: none"> ➤ The Department of Civil and Geological Engineering at the Royal Melbourne Institute of Technology where a research seminar was presented ➤ The Transport Research Center at the University of Melbourne ➤ Monash Transport Group, Department of Civil Engineering, Monash University ➤ Transport Engineering Department, School of Civil Engineering, University of New South Wales ➤ Institute of Transport Studies, School of Business, The University of Sydney; ➤ Transport Systems Center, School of Civil Engineering, University of South Australia; ➤ Australian Road Research Board; ➤ The Chartered Institute of Transport in Australia.

Sept. 1992	Professional tour in Greater Manchester, UK included: a visit to Greater Manchester Passenger Transport Executive, a tour of Manchester Metrolink, a visit to Commission for the New Towns (Planning Department), a tour of North Warrington, Skelmersdale and Runcorn new towns, a visit to Manchester City Council (Planning Department), a visit to British Rail (North West Regional Railways), and a tour of the National Peak Park looking at visitor and cross-park traffic problems, tourist traffic scheme, and road proposals.
Sept. 1991	Professional tour in South of England included visits to: Stratford Freightliner Terminal, London Transport, Department of Transport, Docklands Light Railway Limited, Kent County Council, (Transportation & Highways Department), Eurotunnel Exhibition Center, Transport & Road Research Laboratory, Oxford City Council, & Tour of Milton Keynes New City.
August 1991	Professional visit to the Stichting Wetenschappelijk Onderzoek Verkeersveiligheid (SWOV) Institute for Road Safety Research, The Netherlands.
July 1990	A three-week professional visit to the Civil Engineering Department - Transport Division - University of Alberta, Edmonton, Canada.
June to July 1990	Professional visit to the Transport Engineering Division, Department of Civil Engineering, Faculty of Engineering, University of Alberta, Edmonton, Canada.

Visits involved meetings & discussions with transport academics & senior transport officials.

UNIVERSITY AND SCHOOL LEADERSHIP ACTIVITY

1976	Head Boy of As Salam College (English Mission Preparatory School)
1978	Vice Head Boy of As Salam College (English Mission Secondary School)
1989/ 1990	The First Elected International Students' Officer of the Union Society of the University of Newcastle upon Tyne, Newcastle upon Tyne, UK (Tasks included: leading international students' groups in organizing international cultural events, representing international students in the students' union council, campaigning and rallying for international affairs, promoting the integration of international students through orientation programmes, ..etc.)

SPORTS ACTIVITIES

1975-1981 Captain of football junior teams at Heliopolis Sporting Club in Cairo, Egypt.

1980-1981 Selected for the Egyptian National Junior Football Team.

Other sports include volleyball, tennis, table tennis, and swimming.

COMMUNITY ACTIVITIES

1995 Organised a Cultural Day on Egypt – University of Texas – Austin – Texas – USA

2000 Invited for a Presentation on Egypt at a State Children School - Ithaca – NY – USA

2006-2008 Elected as Chairman of Parents and Citizens Association of the Islamic School of Canberra - Australia

DETAILED CONSULTANCY EXPERIENCE RECORD BY COUNTRY

Experience Record with Snowy Mountains Engineering Corporation (SMEC) in Australia

Employer: Snowy Mountains Engineering Corporation (SMEC)

Dates: 2005 up to date

Position: Principal Transport Planner & Manager of Transport Planning & Traffic Engineering Group

Position Description: Technical & project management of the transport planning and traffic engineering group involving writing proposals, conducting projects, client networking and mentoring graduate engineers. Success rate in winning projects is ~ 60%. This culminated within two years into approximately two million Australian Dollars in consultancy fees.

Main Projects include:

Preparing NCA Case for Submission & Presentation at an Inquiry held by Australian Federal Parliament's Joint Standing Committee on Public Works on 6 August 2008 Regarding Bridging of Kings Avenue over Parkes Way at Russell Roundabout, Canberra, ACT
<i>Client: National Capital Authority</i>
In August 2008 SMEC experts (Dr Khaled Abbas & Lindsay Jacobsen) were called upon to participate as Expert witness in an inquiry held by the Federal Parliament's Joint Standing Committee on Public Works. This involved assisting National Capital Authority in preparing its case for submission and presentation. In August 6th 2008 Dr Khaled Abbas made a presentation at the morning site tour to Parliament members of the inquiry. This was followed by the inquiry at the Australian Parliament where Dr. Khaled Abbas and Lindsay Jacobsen demonstrated to the Committee the traffic operability of the various options and responded to posed technical questions. This effort as part of the whole SMEC efforts on this project was culminated with a great achievement of SMEC and others winning the 2011 Canberra Engineering Excellence Award.
Traffic Demand Modelling for Goulburn Southern Distribution Business Park (SDBP) Development
<i>Client: Mariner (as sub consultant to BG&E Consulting Engineers - Sydney)</i>
The Southern Distribution Business Park (SDBP) is planned to be built to the south of the Goulburn Bypass section of the Hume Highway that connects Sydney to Melbourne. This study is meant to develop a simple strategic model using TRACKS or Transcad to examine the distribution of the expected SDBP related employment traffic from/to Goulburn to/from the SDBP development. In addition the study aims to develop a micro simulation model using TRACKS or Paramics to examine the operability of the proposed network in light of any expected traffic diversions that may occur for trips entering/exiting Goulburn from the Hume highway.
Eastern Broadacre Traffic and Transport Modelling
<i>Client: Macroplan to ACT Procurement Solutions</i>
The purpose of this sub-consultancy is to undertake traffic and transport modeling and provide advice on the implications to the study area (including on new road requirements). This advice will assist Macroplan in its investigations into the potential of the Eastern Broadacre area for employment generating development.
Modelling and Traffic Analysis of Proposed East-West Link
<i>Client: Port Macquarie Hastings Council</i>
In 2006, SMEC was commissioned to investigate the options for an outer link road system for Port Macquarie. The outer link road system was to consist of a North-South link connecting the Oxley Highway near Area 13 to Hastings River Drive and an East-West link connecting the Oxley Highway to Ocean Drive. These links were intended to allow traffic to bypass the roads closer in to the CBD. The original SMEC study determined the option that provided the best traffic operability in relative terms. The SMEC study used the model of Port Macquarie that was generated as part of the Hastings Road Study in 2001. The model was not significantly updated but it was felt at that time that the model was sufficient to determine the best option in relative terms. As a result of this screening modeling exercise, the East-West link 3A/3/3D was recommended to be the option that provided better traffic operability. SMEC was recently commissioned to conduct a scoping modelling exercise for the East-West link option based on the work that had been carried out for the Area 13 and Sancrox Traffic Study. This required updating the strategic transport model. The changes to the model included network changes, refined zoning for Area 13 & Sancrox, land use changes, new growth factors and recalibration of the origin/destination matrix based on traffic counts conducted between 2001 and 2006. This work is intended to provide a better indication of the traffic that will be expected to use the E-W link 3A/3/3D. These results will also be used in the generation of an Environmental Impact Statement.

Modelling and Analysis of Parkes Way – Constitution Avenue Road Network in Light Kings Avenue Intersection Options
<i>Client: National Capital Authority</i>
<p>This study is concerned with calibrating a microsimulation Paramics based model for simulating 2007 AM network and traffic conditions. The study develops two future 2012 models as follows</p> <ol style="list-style-type: none"> 1. Paramics Microsimulation model simulating 2012 AM network, land use changes and traffic conditions (retaining the Parkes way/Kings Avenue intersection as roundabout). 2. Paramics Microsimulation model simulating 2012 AM network, land use changes and traffic conditions (upgrading the Parkes way/Kings Avenue intersection to become a grade separated intersection with Parkes way through traffic unimpeded and the at grade Parks way/Kings Avenue intersection as a Single point diamond with 2 right turns from Kings Avenue to Airport <p>The study reports on network performance, urban arterial and traffic signals performance for the two modelled scenarios in 2012. This is meant to examine the road network operability in the context of expected land use developments including Anzac Park, ASIO, RSL and Defence office developments. Currently 97% of the demand is met within the AM peak period. With the increase in travel demand in 2012, it is expected that the network capacity will not be able to accommodate all the demand within the peak period which will cause peak spreading and degradation in levels of service. The Released Vehicles statistic demonstrates that the network comes under considerable stress with the Anzac Park, ASIO, RSL and Defence office developments in place. The Single Point Urban Interchange offers some relief from the increased traffic load</p>
Traffic Modelling and Analysis for Parkes Way – Kings Avenue Intersection Options
<i>Client: National Capital Authority</i>
<p>This project is meant to test the operability of a number of grade separation options for the Parkes way/ Kings Avenue intersection and to compare these options with a do nothing option. The two considered options are a tight diamond and a single point diamond. SMEC has also explored an additional scenario of a grade separated roundabout. It has been shown that the Single Point Urban Interchange provides a significant performance improvement in both peaks compared to both the Do Nothing scenario and the Tight diamond Symmetrical design. The single point arrangement is also expected to operate at good levels of service if signalised pedestrian crossings were used during off-peak periods. While maintaining approximately the same area of road pavement, the addition of a second right turn lane on the Kings Avenue approach from Parliamentary Zone direction provides a measurable improvement to the average intersection delay. SMEC also notes that the design of the Parkes Way approach from city direction ought to take into consideration that the deceleration and storage lanes are of sufficient length so as to minimise the possibility of queues on this approach blocking the through Parkes way intended tunnel movement.</p>
Modelling & Feasibility of North Weston Intersections
<i>Client: ACT Procurement Solutions</i>
<p>This project is concerned with developing a microsimulation Paramics model for modeling and testing two options for the three main intersections in North Weston mainly Streeton Drive/Cotter road, Kirkpatrick Street/Cotter Road/New Road and Streeton Drive/Unwin Place/Dixon Drive intersections. In addition the Cotter road configuration is also investigated. The study will conclude by conducting an economic appraisal to examine the feasibility of the considered options. The study will conclude by recommending a preferred staged option.</p>
Modelling Road Network Options Along Parkesway in Light of Russell Office Expansion
<i>Client: National Capital Authority</i>
<p>This project is concerned with developing a microsimulation Paramics model for modeling and testing intersection options for the three main intersections along Parkesway mainly Parkes way/ Kings Avenue, intended Morshead Drive/Sellheim Avenue, intended Parkesway/Blamey Crescent intersections. The study will conclude by recommending a preferred option.</p>
Park and Ride Strategy for the Australian Capital Territory
<i>Client: ACT Procurement Solutions</i>
<p>The main objective of the project is to develop a Park and Ride Strategy for the Australian Capital. This will entail establishing a set of goals and objectives, as well as supporting policies, for park & ride and bike & ride facilities that will guide their development and will contribute to the overall Territory objectives of achieving a sustainable transport system. The study will also identify the demand and size for potential park & ride facilities by 2031 through examining relevant market areas, anticipated future public transport service and cycling plans, growth areas, and application of an appropriate demand forecasting methodology. It will also identify the preferred locations of future park & ride facilities through the development and application of a set of area-specific and site-specific selection criteria. Finally, the study is meant to recommend a strategy for implementation, timing and costs of providing park & ride facilities.</p>

Molonglo Roads Feasibility Study
<i>Client: ACT, Department of Urban Services</i>
This Study is conducted to determine the locations and details of roads, bridges and intersections throughout the proposed Molonglo Valley urban development area and identify upgrade requirements for existing roads and intersections that will service the new development considering engineering, environmental, urban design / planning and cost effectiveness requirements. The study reviewed existing road alignment options as well as proposed a new set of options in light of steep terrain that exist over much of the site. Several criteria were considered in the determination of the preferred alignment. SMEC was also involved in the calibration of a transport strategic model for Canberra that took into account the expected land use zoning of Molonglo development as well as the expected demography and urbanisation pattern. SMEC utilised this model to examine the regional accessibility of Molonglo to the Canberra road network and the expected traffic impacts. SMEC role also included identifying quality urban design requirements to guide future planning and design for the area (e.g. road crossings of Molonglo river within the Molonglo Valley area).
Development of a Structural Plan for Cooma CBD
<i>Client: Cooma Council – NSW</i>
In this project, the Cooma CBD is thoroughly examined. Issues and planning principles are identified including road hierarchy, traffic circulation, parking utilisation, pedestrian connectivity, and public transport. These are input into the process of developing a structural plan for Cooma CBD.
Callam Street Traffic Impact Assessment
<i>Client: Hindmarsh Property</i>
A commercial development is planned for the corner of Callam Street and Wilbow Street in Woden. This study was concerned with conducting a Traffic Impact Assessment for the expected development towards the ultimate year of development. The study area includes all intersections along Callam Street. These will be analysed for the 2009 AM peak period (0800-0900) both with and without the development to determine the impact.
Woden East Development Concept Review of Master Plan
<i>Client: Hindmarsh Property</i>
SMEC experts attended regular EDP meetings and provided key conceptual comments in these meetings such as the removal of the link between East Street and Mower Place to the neighbouring residential district. SMEC also conducted a conceptual review of the Master Plan for the proposed Woden East development Master plan. SMEC provided expert advice, in a general sense, on road cross-section and geometry, service vehicles turning templates and allowable slope of roads within blocks to collect garbage, street crossings from roads onto blocks, off street parking and traffic impacts on internal residential areas
Impact of Athllon Drive Closure
<i>Client: ACT Procurement Solutions</i>
SMEC investigated the impact of closing a section of Athllon Drive in Tuggeranong to assist in the construction of the duplication of this section. It was found that with the closure of Athllon Drive, there would be significant levels of congestion along the main roads and intersections in the study area operating at or above capacity.
Gungahlin Drive – Wells Station Drive Intersection
<i>Client: ACT Procurement Solutions (ACTPS)</i>
SMEC reviewed the recommended upgrading of the Gungahlin Drive and Wells Station Drive intersection in 2011. This recommendation was part of the South Gungahlin Traffic Study (2005) carried out by SMEC. ACTPS requested that SMEC review the analysis of this intersection using current traffic counts and traffic predictions based on the EMM2 strategic transport model maintained by Territory and Municipal Services (TAMS).
Parliamentary Zone Road Access Arrangements
<i>Client: National Capital Authority</i>
This study proposed two main options for new access arrangement for the Parliamentary Zone and Albert Hall Precinct along Commonwealth and Kings Avenues. These were modelled, analysed, compared and evaluated. Such process led to recommendation of preferred option based on through traffic analysis as well as a comparison of identified advantages and limitations of each option.
Road Access Arrangements – Albert Hall Precinct
<i>Client: National Capital Authority</i>
This study proposed several options for new access arrangement for the Albert Hall Precinct along Commonwealth Avenue. These were modelled, analysed, compared and evaluated. Such process led to the recommendation of a preferred option. This option includes the introduction of a new 4-leg intersection at Commonwealth Avenue/King Edward Terrace/ New Albert Hall Access road with 2-phase signal control. This is accompanied by introducing a new signalized 2-phase T intersection at Kaye Street/Commonwealth Avenue to provide a recognisable access to the Albert Hall Precinct from both north and southbound carriageways of Commonwealth Avenue.

Wooden East Traffic Impact Assessment
<i>Client: Land Development Agency</i>
The Wooden East Development was initially proposed to accommodate 653 residential dwelling units. In addition, the initial proposal suggested a road network to link the intended development to the surrounding road network. Currently, it is proposed that the development may accommodate 900 residential dwellings as well as an area of 26000 m ² of commercial use. In addition, some changes in the initially proposed road network are also envisaged. This study examines the potential traffic impact of these changes in comparison to the initial PA both on the external and internal road networks as well as on the residential area north to the proposed development. SMECs' TransCAD model was used to determine origins and destinations for traffic entering and leaving the study area. A manual traffic assignment was conducted through the internal network. This was followed by undertaking an intersection analysis for all internal intersections to determine required capacity as well as for nearby external intersections to determine impact of existing facilities.
Hobart Travel Demand Model
<i>Client: Department of Infrastructure, Energy and Resources (DIER) - Tasmania</i>
Travel Demand Modelling (TDM) is required as an aid in the strategic level decision making for infrastructure in Tasmania State. The TDM will enable forecasting of Hobart road network traffic volume and characteristics (e.g. travel speed, mode share) when applied against future scenario changes and forecasts. This study has two main linked components. The first component is meant to produce a generic conceptual architecture for a Travel Demand Model (TDM), while the second component is meant to apply such conceptual architecture to develop (calibrate, validate) a TDM for Hobart region. This document is mainly concerned with the first component.
West Bonython Infrastructure (Athllon Dr Duplication)
<i>Client: ACT Procurement Solutions</i>
Forecasting expected trips to be generated as a result of a new development (mix of residential and office commercial). This is followed by synthesising turning movements and examining future performance of intersections along the proposed duplication of Athllon Drive.
Pialligo Road Network in Light of Section 48 Stage 1A Future Development
<i>Client: Canberra Capital Airport Group as sub Consultant to Mallesons Stephen Jaques</i>
The development of Section 48 Stage 1A development is planned for construction on the Eastern corner of Canberra Avenue/Newcastle Street/Hindmarsh Drive intersection within the ACT suburb of Fyshwick. SMEC conducted this study of the Pialligo road network in light of Section 48 Stage 1A future development. SMEC has examined the future performance of the Pialligo road network for two scenarios, the first being the existing (or "base case") configuration and the second with Section 48 Stage 1A, both in a projected 2011 PM peak period. The examination of each scenario involved midblock flows as well as the performance of the intersection of Monaro Highway, Morshead Drive and Pialligo Avenue. This was achieved by updating and running the SMEC strategic transport model of Canberra for the two scenarios. In running the second scenario, the expected trips to be generated as a result of Section 48 Stage 1A were computed using the RTA NSW developed trip generation principles (RTA, 2002.) These trips were then distributed and assigned to the network using the SMEC Strategic Transport Model for Canberra.
Traffic Impacts on Newcastle Street Due to Section 48 – Stage 1A Development
<i>Client Canberra Capital Airport Group as sub Consultant to Mallesons Stephen Jaques</i>
The Section 48 – stage 1A development is planned to take place at the corner of Canberra Avenue/Newcastle Street/Hindmarsh Drive intersection within the suburb of Fyshwick. This study is meant to examine the potential impact of section 48 – stage 1A on Newcastle Street towards the development side as well as on Newcastle/Collie/Barrier Streets intersection. In this context, SMEC has examined the current and future performance of Newcastle Street in the vicinity of the Canberra Avenue/Hindmarsh Drive/Newcastle Street intersection as well as the performance of Newcastle/Collie/Barrier Streets intersection. The future examination was done for two scenarios the first is the without section 48 – stage 1A scenario and the second is with section 48 – stage 1A scenario.
Area 13 & Sancrox Traffic Study
<i>Client: Port Macquarie – Hastings Council</i>
This study is concerned with developing a strategic transport model to examine a number of road network scenarios and land use changes involving Area 13 and Sancrox towards the west of Port Macquarie Hastings. This involves traffic prediction and LOS analysis of road network links and major intersections in light of examined scenarios. The study is also concerned with developing a strategic action plan for the undertaking of improvements to the road network within the study area.

Humanities and Science Campus: Traffic Analysis of Master Plan Options
<i>Client: National Capital Authority as subconsultant to Spackman & Mossop Landscape Architects</i>
SMEC was requested by Spackman and Mossop Landscape Architects in Conjunction with Lahz Nimmo Architects (SMLN) and the National Capital Authority (NCA) to provide expert feedback on two master plan stages proposed for the Humanities and Science Campus adjacent to the National Library (NLA) and Questacon in Canberra, ACT. In this context, SMEC reviewed the two master plan stages as well as the current base situation. Different components of the master plan stages were examined in an effort to identify changes, advantages, limitations and recommendations. These were laid out in a table format. The recommendations were also drawn in a sketch format to show the difference between SMLN proposal and SMEC recommendation. SMEC was also requested by SMLN and the NCA to undertake a traffic study as part of Spackman & Mossop team to conduct a Design and Development Phase Study for the Humanities and Science Campus Square. The main objective of this study was to examine the traffic impacts of changes in the proposed Master Plan Stages 1 and 2 for the Humanities and Science Campus Square. This was meant to identify any traffic, circulation or safety issues that may arise out of the suggested Master Plan Stages and to recommend solutions.
Traffic Study of Parliamentary Zone
<i>Client: National Capital Authority</i>
This study involved three main components. The first is to review parking arrangements within the Parliamentary Zone as well as to assess the sufficiency of parking over the medium term in light of expected construction activities and conceptualising parking options. The second main component involved conducting a traffic study that involved strategic modelling and microsimulation modelling and analysis to assess the impacts of changes in the parliamentary Zone access arrangements. The third component is involves the preliminary design of the agreed access arrangements. The parking review involved identifying current and future parking issues. The traffic study involved calibrating a strategic transport model using TransCAD and utilising such model to examine the potential current and future impacts of road network modification options including entry point modifications, and establishing a legible road hierarchy in the Parliamentary Zone. The microsimulation traffic study involved calibrating a PARAMICS micro simulation traffic model and utilising such model to examine the potential current and future traffic operational impacts of road network modification and access point modifications on major roads of the study area. This also includes intersection capacity analysis using aaSIDRA.
Batemans Bay Bypass
<i>Client: Eurobodalla Shire Council</i>
This is a large project involving all aspects of building a highway bypass. It includes a traffic component concerned with estimating turning movement counts at key intersections for the intended bypass. This is followed by level of service analysis for different intersection configurations and reporting on the most appropriate configuration from a traffic operational point of view.
Traffic Impact Assessment for Goulburn Southern Distribution Business Park (SDBP)
<i>Client: Mariner (as sub consultant to BG&E Consulting Engineers - Sydney)</i>
The Southern Distribution Business Park (SDBP) is planned to be built to the south of the Goulburn Bypass section of the Hume Highway that connects Sydney to Melbourne. The gross floor area for this development is expected to be approximately 1,000,000m ² . This study is concerned with conducting a Traffic Impact Assessment for SDBP. In the traffic impact assessment, vehicle, land use and employment data was collected from the client and the RTA and future compiled into future projections. The study provides estimates of the expected normal and generated future traffic volumes and assesses the capability of the surrounding road network to accommodate this traffic. Future options with and without the proposed development were assessed using Highway Capacity Manual methods and SIDRA for intersection analysis. New works necessary to provide for access to the SDBP are identified
West Belconnen Regional School Master Plan: Traffic Impact Assessment
<i>Client: Subcontracted to gmb Architects – Main client Australian Capital Territory (ACT) Procurement Solutions</i>
The existing Ginninderra High School is marked for demolition and a new school is planned to be built on the site. SMEC was requested to provide traffic advice on the Master Plan prepared by gmb Architects Pty Ltd for West Belconnen Regional School, Holt (WBRS) as well as to conduct a Traffic Impact Assessment (TIA) of the proposed master plan to evaluate Master Plans with regard to traffic impact on existing facilities. This study involved identifying expected student, teacher and parents movement pattern, mode and directions, proposing the locations of the entrances and exits to the site, drop off sites, cycling racks, parking, bus lay-bys, pedestrian crossings as well as evaluating the options considered using a set of traffic related criteria. The study is also concerned with proposing any changes in the surrounding road network to ensure an efficient and safe access to the site.

National Travel Behaviour Change for Australian Capital Territory (ACT) Project: Phase C Independent Evaluation of Phase B Intervention Program
<i>Client: Australian Capital Territory (ACT) Planning and Land Authority</i>
This study is concerned with conducting an independent evaluation of the ACT household based travel behaviour change project - the TravelSmart ACT Households Project. This involved conducting a comprehensive, independent before and after evaluation of the effectiveness of the Travel Smart program undertaken by a different consultant where approximately 11,000 households in the Belconnen area of the ACT were targeted for intervention during the program. This independent evaluation is supported by comprehensive, 7-day before and after household travel and activity diaries for households in target and control groups and is executed during 2006 and 2007 by SMEC. The study required the development, administration and coding of complex self-administered household and travel activity surveys for over 2,500 households. The information gathered from the survey responses formed the basis of the database.
Kings Highway Improvement Study
<i>Client: ACT Procurement Solutions</i>
Conducting an economic feasibility study for the geometrical and structural improvements of three sections along Kings Highway. Net present values (NPV) and Benefit cost ratios (BCR) for each of the three sections were assessed. Based on such assessment, the viability of each individual section is determined. This is meant to assist in prioritizing improvement work in case of budget constraints i.e. to determine which section is more viable to start with.
Pialligo Avenue Pre-design Study
<i>Client: ACT Procurement Solutions</i>
This is a pre-design study of options to improve Pialligo Avenue and associated roads between Dairy Road and the Airport. The study involves a microsimulation traffic modelling and an economic appraisal of a range of road network improvement options prior to finalising the Preliminary Sketch Plan submission for the duplication of Pialligo Avenue
Port Macquarie Outer Link Options – Traffic Assessment
<i>Client: Port Macquarie – Hastings Council</i>
Use the developed Transcad strategic transport model to undertake a traffic assessment of several alternative routes. The routes include seven north-south options, four east-west options and one combined option
Review of Traffic Impact Assessment Section 48 Traffic Review Stage 1A – Ratio Report
<i>Client: Canberra Capital Airport Group</i>
This study reviewed and examined the Traffic Impact Report for the proposed DFO Shopping Centre and Bulky Goods Centre development on Section 48 Fyshwick, prepared by Ratio Consultants Pty Ltd for Austexx Developments Pty Ltd in April 2006. This review was meant to note whether the report complies with the appropriate standards and guidelines relating to traffic generating developments and parking. In particular, the review examined the impact of the proposed stage 1A development on the Canberra Avenue/Hindmarsh Drive/ Newcastle Street intersection.
Concept Design and Preliminary Assessment Consultancy for ACT Dragway
<i>Client: ACT Procurement Solutions</i>
Synthesising turning movements and examining future performance of a Giveaway T intersection proposed from ACT Drageway to Majura road.
Crace Infrastructure Forward Design
<i>Client: ACT Procurement Solutions</i>
Forecasting turning movements and examining future performance of optional layouts for a third T intersection from Crace devotement into Nudurr Drive
Traffic Impacts on Newcastle Street Due to Local Developments
<i>Client: Canberra Capital Airport Group</i>
Examine the future performance of Newcastle/Collie/Barrier Streets intersection based on traffic levels in 2011 reflecting a population in Canberra and Queanbeyan of 382,000. The assessment also includes the impact of proposed developments in Fyshwick not specifically included in the 2011 model forecast, namely Section 48 – stage 1 and a proposed extension of Bunnings store.
Canberra Airport Access Study
<i>Client: Canberra Capital Airport Group</i>
This project examined the impact of introducing a second access to the airport. It involved updating SMEC's Canberra TransCAD network to 2006, to include future works and land use to match the test years. Once this was done the network was calibrated around the Airport for a close fit to recent vehicle counts. The model was then used to examine the traffic impacts of adding an airport northern access on the surrounding road network and the intersection configuration resulting of that link.

Review of Proposed DFO Shopping Centre Development Consistency with Preliminary Assessment & Traffic Impact Study
<i>Client: Canberra Capital Airport Group</i>
This study examined the Scott Wilson Traffic Impact Study (January 2005) for the proposed Section 48 development at Fyshwick. The objectives of this review were to examine the consistency of the proposed DFO shopping centre development with the Preliminary assessment as well as to ensure the adequacy of the traffic impact assessment (TIA) with the preliminary assessment (PA) produced by Land Development Agency (LDA). The study reviewed the impact of the development on the surrounding road network and particularly the nearby-signalised intersection of Canberra Avenue/Hindmarsh Drive/Newcastle Street as well as on Newcastle Street.
Lidcombe Town Centre Studies
<i>Client: Auburn Council</i>
Undertaking the assessment of the Lidcombe Town Centre Studies to provide for the preparation of a Town Centre Development Control Plan (DCP). Assessments include traffic and transport assessment The project also involves consultation and identification of a preferred development scenario for the next 30 years.
Gateway Upgrade Project
<i>Client: Main Roads, Queensland</i>
Assessing level of service for Gateway bridge with entry and exit ramps both for the northbound and southbound directions. This was compared to the level of service computation for an alternative option for Gateway Bridge. This option involves a northbound bypass lane.

Experience Record with Snowy Mountains Engineering Corporation (SMEC) in India

Mass Rapid Transit System in India: Traffic Study
<i>Client: Private Entrepreneur</i>
Reviewing a travel demand modelling using TransCad as modelling software for estimation of future traffic expected to shift to Mass Rapid Transit System
Institutional Development Study for Highway Department: Congestion Management and Parking Strategy
<i>Client: Government of Tamil Nadu, India</i>
This component of the study is concerned with preparing a report on Congestion Management and Parking Strategy. The main objectives of this report were to present objectives, components and interactions of the transport and traffic systems as well as to identify generic traffic problems. The report presents a classification of main causes of traffic problems as well as identifies, categorises and compares the main strategies adopted for relieving the generic traffic problems of congestion, accidents and environmental degradation. In addition, the report presents the various network supply based polices and measures directed towards relieving traffic problems identifying and categorising the various Travel Demand Management policies and measures, Parking Management policies and measures. The report concludes with reviewing the applicability of the various traffic relief measures.

Experience Record with United Nations Organisations

Employer: Transport, Communications and Tourism Division (TCTD) of United Nations Economic Commission for Africa (UNECA), Addis Ababa, Ethiopia

Dates: October 1994 to December 1994

Position: Traffic Safety Consultant

Position Description: Technical responsibility for the traffic safety and accident analysis components

Main project include:

Improvement of Pedestrian and Child Safety in Urban Areas
<i>Client: Transport, Communications and Tourism Division (TCTD) of United Nations Economic Commission for Africa (UNECA), Addis Ababa, Ethiopia</i>
Development of an Integrated Traffic Safety Management. Assessing & comparing traffic safety for pedestrian & children in the cities of Cairo (Egypt) and Nairobi (Kenya) as case studies. Improve understanding of pedestrians and children traffic safety problem in urban areas, its root, direct and post causes. Developing a comprehensive program of traffic safety in Africa meant to prevent & reduce potential of pedestrians and children in accidents in urban areas.
Ad Hoc Expert Group meeting on Development of Urban Transport in Africa
<i>Client: Transport Communications and Tourism Division (TCTD) of United Nations Economic Commission for Africa (UNECA), Addis Ababa, Ethiopia</i>
Present findings of the above mentioned study. Discuss the study document so as to come up with a road safety programme for UNECA to adopt within the framework of the United Nations Transport and Communications Decade in Africa (UNTACDA II)

Employer: Transport Committee – Economic and Social Commission for Western Asia (ESCWA) – UN

Dates: September 2001 to December 2001

Position: Road Transport Management Consultant

Position Description: Technical responsibility for the traffic safety and accident analysis components

Main project include:

Integrated Transport System in Arab Mashreq (ITSAM): An Integrated Information System (INFOSYS) – Road Transport Information System

Client: On behalf of the main consultant

Design a road transport information system in a way that allows the input of data and information required to utilise transportation planning packages such as IFSTEM and highway design and evaluation packages such as Highway Design and Management model HDM-4. Producing a set of data collection forms to be used by member countries in completing required data to operate IFSTEM and HDM-4 models as well as to conduct country based comparisons.

Experience Record in Kingdom of Saudi Arabia

Employer: Azmi Abdulhadi & Abdulla Al Moaibed Consulting Engineering Company in Saudi Arabia with Parsons Brinckerhoff International UK

Dates: 2004-2005

Position Description: Transport Planning & Traffic Engineering Consultant

Position: Technical responsibility for transport planning, road and traffic engineering components

Main Projects include:

Development of Local Area Plans and Action area Plans for Dammam Qatif & Ras Tanura in Saudi Arabia for Dammam Municipality

Client: Dammam Metropolitan Authority Saudi Arabia

Transportation & Traffic Analysis for Regional Road Network. Transportation & Traffic Analysis for Urban Road Network. Identifying Transportation Planning Issues. Developing Regional & Urban Road Network. Traffic and Transportation Plan to Cater for Future Proposed Land Use Structural Plan.

Employer: Savola Development Company in Saudi Arabia

Dates: 2005

Position: Transport Planning & Traffic Engineering Consultant

Position Description: Technical responsibility for the transport planning and traffic engineering components

Main Projects include:

Site & Traffic Investigation for Proposed Dammam Corniche Hypermarket in Saudi Arabia

Client: Savola Development Company in Saudi Arabia

Identifying & assessing options for entry, exit, parking, built up and service area locations

Traffic Impact Assessment for Proposed Dammam Hypermarkets

Client: Savola Development Company in Saudi Arabia

Conducting a Traffic Impact Assessment for Savola Dammam Corniche Hypermarket in Saudi Arabia.

Employer: DAR AL-HANDASAH Consultants (Shair and Partners)

Dates: From 1994 to 1995 and from 1997 to 1999.

Position: Senior Transport/Traffic Planner and Economist

Position Description: Technical responsibility for the transport planning and traffic engineering components

Main Projects include:

1. **Traffic Impact Assessment for Jabal Al Kabah Development Project, Saudi Arabia (S9745)**
2. **Traffic Study and Estimation of Equivalent Single Axle Loads for Yanbu-Rabigh-Thuwal Expressway, Saudi Arabia (S9730)**
3. **Traffic Study and Estimation of Equivalent Single Axle Loads for Qassim-Madinah Expressway, Saudi Arabia (S9657)**
4. **Proposed Traffic Study for Al-Buhairat City, Saudi Arabia (PS96730)**

Experience Record in Egypt

Employer: Research Centre for Civil Engineering Studies- Faculty of Engineering - Cairo University - Egypt

Dates: 2001 to 2002

Position: Transport Planning and Policy Consultant

Position Description: Technical responsibility for the transport planning and policy components

Main Project(s) include:

Economics of Transport in Light of Changes and New Policies in Egypt
<i>Client: Transportation Planning Authority, Ministry of Transport, Egypt</i>
Review & preparation of manuals for Non-traditional financing methods for transport projects, Procedure for conducting economic & financial appraisals of transport projects and Life cycle stages & steps of privately financed transport projects.

Employer: Transportation and Traffic Engineering Research Unit - Ain Shams University - Egypt

Dates: 1999 & August 2001 to November 2001

Position: Traffic Safety Consultant / Transport Planning Consultant

Position Description: Technical responsibility for traffic safety and accident analysis components / Technical responsibility for transport planning components

Main Project(s) include:

Relationship between Accidents and Traffic Volumes at Main Road Intersections as well as at Rail Crossings in Greater Cairo
<i>Client: Academy of Scientific Research & Technology - Transport Research Council., Egypt</i>
Drafting proposal, sharing in laying down detailed study methodology, design of railroad grade crossing accident data collection forms and accompanying manual, classification of railroad grade crossings, supervision of collection of traffic and violations data.
Household Survey conducted for the Cairo Regional Area Transportation Study (CREATS)
<i>Client: Japan International Cooperation Agency (JICA) & the Ministry of Transport. Egypt</i>
Supervision of conducting household surveys in three districts in Greater Cairo.

Employer: Egypt National Institute of Transport in Association with Dowling Associates, Inc. USA

Dates: 1992 to 2001

Position: Transport Policy Consultant / Transport Planning Consultant

Position Description: Technical responsibility for transport policy & planning components

Main Projects include:

Egyptian National Institute of Transport Training Needs Assessment
<i>Client: National Institute of Transport, Egypt</i>
Conducting organisational analysis of the transport sector in Egypt, and conducting interviews with decision makers, academics and training consultants to assess training needs for the transport sector in Egypt.
Impact Assessment of Reducing Weekly Working days on the Transport System in Egypt.
<i>Client: Ministry of Planning, Egypt</i>
Drafting proposal and sharing in conducting assessment of reducing weekly working days on the railroad in Egypt as well as on the metro system in Cairo.
New Directions for Road Freight Transport in Egypt
<i>Client: Egypt Ministry of Planning</i>
Drafting Proposal
Transportation Planning for Sinai-Egypt
<i>Client: Transportation Planning Authority, Ministry of Transport, Egypt</i>
Drafting Proposal

Employer: Egypt National Institute of Transport in Association with Dowling Associates, Inc. USA

Dates: 2001

Position: Traffic Engineering Consultant

Position Description: Technical responsibility for the traffic engineering components

Main Project(s) include:

Install, Test and Train on Traffic Engineering and Transportation Planning Software Models
<i>Client: Cairo Traffic Engineering Bureau under a World Bank Grant No. TF 27279Egypt</i>
Sharing in conducting office & practical training in traffic software as well as in conducting a traffic study for Maadi district in Cairo.

Employer: Egypt National Institute of Transport in Association with University of Westminster UK

Dates: 1997-1999

Position: Traffic Engineering Consultant

Position Description: Technical responsibility for transport planning components

Main Projects include:

Impact of Metro Systems on Efficiency of Urban Transport for the Poor
<i>Client: Department for International Development (DFID), UK</i>
Drafting proposal, designing a revealed preference questionnaire for metro passengers, sharing in supervision of questionnaire & travel time surveys.

Employer: Energy & Environment Services & Systems (Enviro-nics) Consultant

Dates: 2000-2001

Position: Transport Planning & Environment Impact Consultant

Position Description: Technical responsibility for the transport planning and environment impact assessment components

Main Projects include:

Environmental impact assessment of two road concessions (Kattamia-Ain El Sokhna Road and Helwan -Korimat Road)
<i>Client: United Group for Highways Development (UGHD), Egypt</i>
Assessing environmental impacts resulting of alignment, construction and operation of two road concessions namely Kattamia-Ain El Sokhna Road and Helwan -Korimat Road.
Feasibility of relocating production and warehouse premises of the Eastern Company for Tobacco from Giza to 6th of October city. 2000. United Group for Highways Development (UGHD), Egypt
<i>Client: Group for Highways Development (UGHD), Egypt</i>
Assessing feasibility of relocating production and warehouse premises of the Eastern Company for Tobacco from Giza to 6th of October city with regards to environmental impacts caused by company related transport activities.

Employer: Technical Consultations Bureau

Dates: 1998-1999

Position: Transport Policy Consultant

Position Description: Technical responsibility for the transport policy analysis components

Main projects include:

Effect of General Agreement for Trade in Services on Inland Transport Sector
<i>Client: Transportation Planning Authority, Ministry of Transport, Egypt</i>
Sharing in methodology development. Reviewing of performance indicators for inland transport sector. Analysis of performance indicators for intercity bus companies. Preparing a working paper on advanced technologies for inland transport sector

Employer: General Traffic Police Department - Cairo, Egypt

Dates: 1996 -1999

Position: Traffic Safety Consultant

Position Description: Technical responsibility for the traffic safety and accident analysis components

Main Project(s) include:

Investigation of Traffic Accidents on Intercity Roads in Egypt
<i>Client: Academy of Scientific Research and Technology - Transport Research Council, Egypt</i>
Sharing in design of accident data collection form for rural roads. Description of accident data management. Analysis of accident causes. Comparative analysis of accident indicators over the years. Drafting recommendations of the study.

Employer: Egyptian Environmental Affairs Agency

Dates: 1998

Position: Environmental Reviewer

Position Description: Technical responsibility for reviewing traffic impact statements

Main project include:

International Northern Coastal Road Final Interim Report: Plausibility Study for Alternatives of Section 7
<i>Client: Egyptian Environmental Affairs Agency</i>
Reviewing Final Interim Report on International Northern Coastal Road: Plausibility Study for Alternatives of Section 7 Submitted by Lahmeyer International GmbH in conjunction with Dr. Ahmed Abdel Warith Consulting Engineers.

Employer: Highway Maintenance Committee – Ministry of Reconstruction & New Communities - Egypt

Dates: 1993-1999

Position: Highway Maintenance Consultant

Position Description: Technical responsibility for the highway maintenance components

Main project include:

Developing National Highway Maintenance Code
<i>Client: Ministry of Reconstruction and New Communities, Egypt</i>
Sharing in laying down Highway Maintenance Code.

Employer: Transportation Program -Development Research & Technological Planning Center (DRTPC) - Cairo University

Date: 1993

Position: Traffic Engineering Consultant

Position Description: Technical responsibility for the traffic engineering components

Main Project(s) include:

Development of Traffic Stream Relationships for Rural Roads in Egypt
<i>Client: Egyptian Academy of Scientific Research & Technology - Transport Research Council</i>
Conducting comparison of traffic data collection methods.

Employer: DAR AL-HANDASAH Consultants (Shair and Partners)

Dates: From 1994 to 1995 and from 1997 to 1999.

Position: Senior Transport/Traffic Planner and Economist

Position Description: Technical responsibility for the transport planning and traffic engineering components

Main Projects include:

1. Estimation of Equivalent Single Axle Loads for Residential & Recreation Area - Pyramids Heights, Egypt (E9911)
2. Traffic and Toll Study for Investment Roads in Egypt (Upgrading of Kattamia-Ain El Sokhna Road and Construction of a new Helwan -Korimat Road), Egypt (E9908)
3. Traffic Impact Assessment and Parking Study for San Stefano Complex, Egypt (E9907)
4. Estimation of Equivalent Single Axle Loads for Office Park - Pyramids Heights, Egypt (E9870)
5. Estimation of Equivalent Single Axle Loads for New Amiryah Pharmaceutical Plant, Egypt (E9853).
6. Traffic Study & Estimation of Equivalent Single Axle Loads for Orouba (Abbassia-Airport) Road, Egypt (E9840)
7. Planning for a New Destination City, Egypt (E9835)
8. Estimation of Equivalent Single Axle Loads for Off-Site Area - Marsa Alam Resort, Egypt (E9787).
9. Transportation Study for the Northern Gulf of Suez Special Economic Zone, Egypt (E9778)
10. Traffic Study and Estimation of Equivalent Axle Loads for Taba Beach Resort, Egypt (E9738)
11. Traffic Study and Estimation of Equivalent Single Axle Loads for New Residential Area (Al-Ashgar District) in 6th of October City, Egypt (E9729)
12. Pre-Feasibility Study of Build, Own, Operate and Transfer (BOOT) of Road Projects in Egypt, (E9706)
13. Build, Own, Operate and Transfer (BOOT) Road Projects in Egypt: Technical Assistance for Contract Negotiation
14. Estimation of Equivalent Single Axle Loads for Al-Rehab City, Egypt (E9639)
15. Traffic Study and Estimation of Equivalent Single Axle Loads for New City Development serving Damietta New Port, Egypt (E9628)
16. Traffic and Parking Study & Estimation of Equivalent Single Axle Loads for Ain Al-Sokhna Touristic Village -Site C, Egypt (E9627)
17. Traffic and Parking Study for Moqbela Hotel - Taba , Egypt (E9613)
18. Proposed Study for Al-Tahrir Shopping Mall, Car Parking and Bus Terminal, (PE98525), Egypt.
19. Proposed Improvement Study for Orouba (Abbassia-Airport) Road (PE98335), Egypt.
20. Proposed Tunnel Construction to Relieve Traffic Congestion for Cornish El Nile Road, Egypt (PE97501)

Employer: Bylander Misr Partnership Engineering Consultants

Dates: From 1984 to 1986.

Position: Civil Engineer

Position Description: Civil Engineering Design works and surveys

Main Projects include:

1. Structural design of the Royal Norwegian Embassy in Cairo
2. Structural design of the SUMED headquarters building in Alexandria
3. Site surveys for tourists' village in Neweiba (Sinai)
4. Topographic survey for the British Embassy in Cairo
5. Dilapidation works & surveys of buildings for Greater Cairo waste water project.

Experience Record in Other Middle East and African Countries

Prof. Dr. Khaled A. Abbas

35

email: kaabbas13@yahoo.com

Employer: DAR AL-HANDASAH Consultants (Shair and Partners)

Dates: From 1994 to 1995 and from 1997 to 1999.

Position: Senior Transport/Traffic Planner and Economist

Position Description: Technical responsibility for the transport planning and traffic engineering components

Main Projects include:

Country	Projects
Dubai	<ol style="list-style-type: none"> 1. Traffic Impact Assessment and Parking Study for Bur Juman Center Extension Project, Dubai (D9825) 2. Traffic Study for Dubai Airport Free Zone, Dubai (D9716) 3. Design for Operation of a Shuttle Bus Service between Parking Areas and Dubai World Trade Center, Dubai (D9427) 4. Estimation of Equivalent Single Axle Loads for Dubai World Trade Center, Dubai (D9427) 5. Design of Signalized 4-arm Intersection at Al-Mankhoul Roads, Dubai (D9418) 6. Improvement of Al Ittihad Road and Interchanges at Al Qiyadah, Flame Roundabout Port Saeed and Airport Road, Dubai (D9413) 7. Traffic & Parking Study & Estimation of Equivalent Single Axle for Community No. 128 in Dubai (D9413) 8. Proposed Traffic Study for New Deira Bus Station and Multi-Storey Car Park, Dubai (PD97357)
Qatar	<ol style="list-style-type: none"> 1. Traffic Study and Estimation of Equivalent Single Axle Loads for Al-Dukhan Residential Area, Qatar (Q9818) 2. Traffic Study for the Ras Laffan Housing Project, Qatar (Q9431)
Lebanon	<ol style="list-style-type: none"> 1. Economic Appraisal of Improvement of Ouzai Road and Construction of Khaldeh/Cocodi Road in Beirut, Lebanon (L9708) 2. Development of a Traffic Model for the City of Saida, Lebanon (L9414)
Algeria	<ol style="list-style-type: none"> 1. Economic Evaluation for Lakhdaria - Bouira Autoroute, Algeria (A9545) 2. Assessment of Tunnel Densities at Different Speeds for East-West Motorway - Section Lakhdaria - RN5 Connection, Algeria (A9545)
Morocco	<ol style="list-style-type: none"> 1. Traffic Study for Upgrading RP8 Casablanca/EL-Jadida Freeway & introduction of Toll, Morocco (MC9590) 2. Estimation of Traffic Turning Movements at Interchanges for the Rabat-Fes Motorway, Morocco (MC9316)
Jordan	<ol style="list-style-type: none"> 1. Estimation of Parking Requirement for Extension to Meridian Hotel in Amman, Jordan (J9847)
United Arab Emirates	<ol style="list-style-type: none"> 1. Estimation of Equivalent Single Axle Loads for Guard Administration Building, Abu Dhabi, United Arab Emirates (AD9736)
Yemen	<ol style="list-style-type: none"> 1. Estimation of Equivalent Single Axle Loads for Improvement of Taiz-Jabal Sabr Road, Yemen (Y9651)
Turkey	<ol style="list-style-type: none"> 1. Estimation of Equivalent Single Axle Loads for Glaxo/Wellcome Pharmaceutical Packing and Warehouse Facility , Turkey (TK9863) 2. Traffic Study for Bursa Ring Road, Turkey (TK9723) 3. Assessment of Tunnels Speed/Flow Relationship for Bursa Ring Road, Turkey (TK9723)
Angola	<ol style="list-style-type: none"> 1. Estimation of Equivalent Single Axle Loads for Zaire Region, Angola (AN9468). 2. Drafting an outline for a Transport Study in Luanda, Angola (PAN93738)
Mozambique	<ol style="list-style-type: none"> 1. Proposed Traffic Survey for Axle Load Estimation for Improvement of a Suspension Bridge across Zambeze River on EN103 in Tete Province, Mozambique(PMZ97342)

LIST OF PUBLICATIONS

INTERNATIONAL JOURNAL ARTICLES

1. Abbas K. A., and M. G. H. Bell (1994) **System Dynamics Applicability to Transportation Modelling**. Transportation Research, Vol. 28A, No. 5. Pergamon Press, UK pp. 373-400.
2. Abbas K. A., Mabrouk I., and Al-Araby A. K. (1996) **School Children as Pedestrians in Cairo: Proxies for Improving Road Safety**. Journal of Transportation Engineering, Vol. 122, No. 4, American Society of Civil Engineers (ASCE), U.S.A. pp. 291-299.
3. Bahgat A. and Abbas K. A.. (1997) **Effect of Accessibility on the Development of New Cities in Egypt: A System Framework**. Urbanismo, Revista Del Colegio Oficial De Arquitectos De Madrid No. 31, Madrid, Spain. pp. 50-57. (In Spanish)
4. Abbas K. A. and Abd-Allah H. Mona (1999) **Estimation and Assessment of Cost Models for Main Transit Systems Operating in Cairo**. Transport Reviews, Vol. 19, No. 4, pp. 353-375. Francis & Taylor, UK
5. Abbas K. A. (2003) **Environmental Assessment of Road Alignments Based On Multicriteria Scoping: A Case Study of Cairo-Ain Sukhna Freeway**. Journal of Impact Assessment and Project Appraisal, Vol. 21, No. (4), pp. 323-330. Beech Tree Publishing, UK.
6. Abbas K. A. (2004) **Traffic Safety Assessment and Development of Predictive Models for Accidents on Rural Roads in Egypt**. Accident Analysis and Prevention, Vol. 36(2), pp. 149-163. Pergamon Press, UK.
7. Abbas K. A. & Aly M. G. (2004) **Logistics Chain Analysis of Upper Egypt Wheat Milling Company: A Basis for Developing Efficiency Models for Transport Activities**. International Journal of Logistics: Research and Applications, Vol. 7(2), pp. 85-107. Taylor & Francis, UK.
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2. Abbas K. A. (1990) **Simulation of the Effects of Transport Investment Policies on the Development of Road Infrastructure.** Proceedings of the 22nd Annual Conference of Universities Transport Studies Group (UTSG), Session E2: Developing Countries. Hatfield, UK
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3. Abbas K. A. (2002) **Role of Government in National Transport.** A State of the Art Review Report Submitted for the Scientific Committee of the Egyptian National Institute of Transport.

RESEARCH/CONTRACT/PROJECT REPORTS

IN EGYPT

Co-authored the following reports with various consultants in Egypt

1. Transport Economics under New Variables & Policies in Egypt. (2000-2002) with Research Center for Civil Engineering Studies- Faculty of Engineering - Cairo University for Transportation Planning Authority, Ministry of Transport, Egypt.
2. Impact Assessment of Reducing Weekly Working days on the Transport System in Egypt. (2000-2001) with Egypt National Institute of Transport for Ministry of Planning, Egypt
3. Environmental impact assessment of two road concessions (Kattamia-Ain El Sokhna Road and Helwan -Korimat Road) (2000) with Energy & Environment Services & Systems (Environics) for United Group for Highways Development (UGHD), Egypt
4. Feasibility of relocating production and warehouse premises of the Eastern Company for Tobacco from Giza to 6th of October city (2000) with Energy & Environment Services & Systems (Environics) for United Group for Highways Development (UGHD), Egypt
5. Relationship between Accidents and Traffic Volumes at Main Road Intersections as well as at Rail Crossings in Greater Cairo (1999) with Transportation Research Unit - Faculty of Engineering, Ain Shams University for the Egyptian Academy of Scientific Research & Technology - Transport Research Council, Egypt
6. Bahgat A. G., El-Tony F., El-Mahdi R., Boshra E., Abbas K., Fattah A., Al-Keelany O., and White P. R. (1999) A Study of the Cairo Metro With Particular Reference to the Impact on the Urban Poor: Including Comparisons with Santiago and Rio de Janeiro. Final Report. A Study undertaken by the Egyptian Institute of Transport (ENIT) and the University of Westminster (UoW) as sub-contractors to PTRC Ltd. The study was funded by the Department for International Development (DFID) of the Government of Great Britain (contract no. KAR6853).
7. Effect of General Agreement for Trade in Services on Inland Transport Sector. (1999) with Technical Consultations Bureau for Transportation Planning Authority, Ministry of Transport, Egypt.
8. Investigation of Traffic Accidents on Intercity Roads in Egypt. (1999) with Egyptian Traffic Police Department for Egyptian Academy of Scientific Research and Technology - Transport Research Council, Egypt.
9. Developing National Highway Maintenance Code (1993-1999) for Ministry of Reconstruction and New Communities, Egypt
10. Review of International Northern Coastal Road Final Interim Report: Plausibility Study for Alternatives of Section 7 (1998) for Egyptian Environmental Affairs Agency, Egypt.
11. Development of Traffic Stream Relationships for Rural Roads in Egypt (1998) with Transportation Program -Development Research & Technological Planning Center (DRTPC) - Cairo University for Egyptian Academy of Scientific Research & Technology - Transport Research Council.
12. United Nations Economic Commission for Africa (UNECA) / Regional Cooperation & Integration Division (Transport Programme) (1997) Study on the Improvement of Pedestrian and Child Safety in Urban Areas (in English & French). The initial study was carried out by Dr. Khaled A. Abbas, Transportation Consultant & presented to an Ad-Hoc Group of Experts in 1994.
13. Egyptian National Institute of Transport Training Needs Assessment (1993) with Egyptian National Institute of Transport for Planning Transport Research and Computation PTRC, UK

Co-authored the following reports during my work as Senior Transport/Traffic Planner & Economist with DAR AL-HANDASAH Consultants (Shair & Partners) (1994 to 1995 & 1997 to 1999)

14. Estimation of Equivalent Single Axle Loads for Residential & Recreation Area - Pyramids Heights, Egypt (E9911)
15. Traffic and Toll Study for Investment Roads in Egypt (Upgrading of Kattamia-Ain El Sokhna Road and Construction of a new Helwan -Korimat Road), Egypt (E9908)
16. Traffic Impact Assessment and Parking Study for San Stefano Complex, Egypt (E9907)
17. Estimation of Equivalent Single Axle Loads for Office Park - Pyramids Heights, Egypt (E9870)
18. Estimation of Equivalent Single Axle Loads for New Amiryah Pharmaceutical Plant, Egypt (E9853).
19. Traffic Study & Estimation of Equivalent Single Axle Loads for Orouba (Abbassia-Airport) Road, Egypt (E9840)
20. Planning for a New Destination City, Egypt (E9835)
21. Estimation of Equivalent Single Axle Loads for Off-Site Area - Marsa Alam Resort, Egypt (E9787).
22. Transportation Study for the Northern Gulf of Suez Special Economic Zone, Egypt (E9778)
23. Traffic Study and Estimation of Equivalent Axle Loads for Taba Beach Resort, Egypt (E9738)
24. Traffic Study and Estimation of Equivalent Single Axle Loads for New Residential Area (Al-Ashgar District) in 6th of October City, Egypt (E9729)
25. Pre-Feasibility Study of Build, Own, Operate and Transfer (BOOT) of Road Projects in Egypt, (E9706)
26. Build, Own, Operate and Transfer (BOOT) Road Projects in Egypt: Technical Assistance for Contract Negotiation, Egypt (E9706/1)
27. Estimation of Equivalent Single Axle Loads for Al-Rehab City, Egypt (E9639)
28. Traffic Study and Estimation of Equivalent Single Axle Loads for New City Development serving Damietta New Port, Egypt (E9628)
29. Traffic and Parking Study and Estimation of Equivalent Single Axle Loads for Ain Al-Sokhna Touristic Village -Site C, Egypt (E9627)
30. Traffic and Parking Study for Moqbela Hotel - Taba , Egypt (E9613)

FOR UNITED NATIONS

Conducted studies & authored the following reports for United Nations Organisations

1. United Nations Economic Commission for Africa (UNECA) / Regional Cooperation & Integration Division (Transport Programme) (1997) Study on the Improvement of Pedestrian and Child Safety in Urban Areas (in English & French). The initial study was carried out by Dr. Khaled A. Abbas, Transportation Consultant & presented to an Ad-Hoc Group of Experts in 1994.
2. Integrated Transport System in Arab Mashreq (ITSAM): An Integrated Information System (INFOSYS) – A Proposed Regional Road Transport Information System (2001) Subcontracted for Transport Committee – Economic and Social Commission for Western Asia (ESCWA) – UN.

IN USA

1. Abbas K. A. (1995) BTMS: A Generic Bus Transit Management System. Transportation Research Report. Center for Transportation Research, Bureau of Engineering Research, The University of Texas at Austin, Austin, Texas, USA.

IN SAUDI ARABIA

Conducted studies & co-authored the following reports

1. Development of Local Area Plans and Action area Plans for Dammam, Qatif & Ras Tanura in Saudi Arabia (2004-2005) with Azmi Abdulhadi & Abdulla Al Moaibed Consulting Engineering Company & Parsons Brinckerhoff International UK for Dammam Metropolitan Authority, Saudi Arabia
2. Traffic Impact Assessment for Proposed Dammam Hypermarkets (2005)for Savola Development Company

Co-authored the following reports during my work as Senior Transport/Traffic Planner & Economist with DAR AL-HANDASAH Consultants (Shair & Partners) (1994 to 1995 & 1997 to 1999)

3. Traffic Impact Assessment for Jabal Al Kabah Development Project, Saudi Arabia (S9745)
4. Traffic Study and Estimation of Equivalent Single Axle Loads for Yanbu-Rabigh-Thuwal Expressway, Saudi Arabia (S9730)
5. Traffic Study and Estimation of Equivalent Single Axle Loads for Qassim-Madinah Expressway, Saudi Arabia (S9657)

IN DUBAI

Conducted studies & authored the following reports for Roads and Transport Authority (RTA) – Dubai – UAE

1. Effect of Transport on Dubai Economy (2008-2009)
2. Pickup Transport in Dubai (2009)
3. RTA Policy on Public Private Partnerships for Transport Infrastructure & Services (English & Arabic Versions) (2010)
4. RTA Procedures Manual on Public Private Partnerships for Transport Infrastructure (2010)
5. Financial Government Implications Resulting from Subsidising Fuel for Taxis in Dubai (2010)

Team Leader of studies and co-author of the following reports for Roads and Transport Authority – Dubai – UAE

6. Cost Benefit Analysis of Roads and Transport Projects in Dubai (2009-2010)
7. Audit of Serco Team Performance in Accordance with Bus Operations Management Office (2009-2010)
8. Draft for a Public Private Partnership (PPP) Law for Dubai (2010)
9. Public Private Partnership (PPP) Projects Prioritisation Process (2010)
10. Clean Transport System in Dubai: Achieving RTA Strategic Goals (2011)

Co-authored the following reports during my work as Senior Transport/Traffic Planner & Economist with DAR AL-HANDASAH Consultants (Shair & Partners) (1994 to 1995 & 1997 to 1999)

11. Traffic Impact Assessment and Parking Study for Bur Juman Center Extension Project, Dubai (D9825)
12. Traffic Study for Dubai Airport Free Zone, Dubai (D9716)
13. Design for Operation of a Shuttle Bus Service between Parking Areas and Dubai World Trade Center, Dubai (D9427)
14. Estimation of Equivalent Single Axle Loads for Dubai World Trade Center, Dubai (D9427)
15. Design of Signalized 4-arm Intersection at Al-Mankhoul Roads, Dubai (D9418)
16. Improvement of Al Ittihad Road and Interchanges at Al Qiyadah, Flame Roundabout Port Saeed and Airport Road, Dubai (D9413)
17. Traffic & Parking Study & Estimation of Equivalent Single Axle for Community No. 128 in Dubai (D9413)

IN AUSTRALIA

Team Leader of studies and co-author of the following reports at Snowy Mountains Engineering Corporation (SMEC) – Canberra – Australia

1. Eastern Broadacre Traffic and Transport Modelling (2008) for Macroplan/ACT Planning and Land Authority
2. Traffic Modelling and Analysis for Parkes Way – Kings Avenue Intersection Options (2008) for National Capital Authority
3. Modelling and Analysis of Parkes Way – Constitution Avenue Road Network in Light Kings Avenue Intersection Options (2008) for National Capital Authority
4. Modelling and Traffic Analysis of Proposed East-West Link (2008) for Port Macquarie Hastings Council
5. Modelling & Feasibility of North Weston Intersections (2008) for ACT Procurement Solutions
6. Modelling Road Network Options Along Parkesway in Light of Russell Office Expansion (2008) for National Capital Authority
7. Park and Ride Strategy for the Australian Capital Territory (2007-2008) for ACT Procurement Solutions
8. Parliamentary Triangle Study (2006-2008) for National Capital Authority
9. Area 13 & Sancrox Traffic Study (2006-2008) for Port Macquarie-Hastings Council
10. Athllon Drive Closure (2007) for Client: ACT Procurement Solutions
11. Woden East Development Concept Review of Master Plan (2007) for Hindmarsh Property
12. Intersection Analysis for North-West Link (2007) for Austrlands Holdings
13. Callam Street Traffic Impact Assessment (2007) for Hindmarsh Property
14. Gungahlin Drive – Wells Station Drive Intersection (2007) for ACT Procurement Solutions (ACTPS)
15. Humanities and Science Campus: Traffic Analysis of Master Plan Options (2007) for National Capital Authority as subconsultant to Spackman & Mossop Landscape Architects
16. Road Access Arrangements – Albert Hall Precinct (2007) for National Capital Authority
17. Wooden East Traffic Impact Assessment (2007) for Land Development Agency
18. Pialligo Road Network in Light of Section 48 Stage 1A Future Development (2006-2007) for Canberra Capital Airport Group as sub Consultant to Mallesons Stephen Jaques
19. Review of Traffic Impact Assessment Section 48 Traffic Review Stage 1A - Ratio Report (2006) for Canberra Capital Airport Group
20. Review of Proposed DFO Shopping Centre Development Consistency with Preliminary Assessment & Traffic Impact Study (2006) for Canberra Capital Airport Group
21. Traffic Impacts on Newcastle Street Due to Local Developments (2006) for Canberra Capital Airport Group
22. West Belconnen Regional School TIA (2006) for ACT Procurement Solutions (Department of Education and Training)
23. Canberra Airport Access Study (2006) for Canberra Capital Airport Group

24. Lidcombe Town Centre Studies (2006) for Auburn Council – Sydney - Australia
25. Gateway Upgrade Project (2006)for Main Roads, Queensland
26. Pialligo Avenue Upgrade – Airport Access (2005-2006) for Procurement Solutions
27. Hastings Roads & Traffic Study (2000- 2006) for Port Macquarie-Hastings Council

Authored the following reports at Snowy Mountains Engineering Corporation (SMEC) – Canberra – Australia

28. Hobart Travel Demand Model (2006-2007) for Department of Infrastructure, Energy and Resources (DIER)
29. Institutional Development Study for Highway Department: Congestion Management and Parking Strategy (2006) for Government of Tamil Nadu, India

Co-authored the following reports at Snowy Mountains Engineering Corporation (SMEC) – Canberra – Australia

30. Southern Distribution Business Park Road Access Study (2008) for Mariner (as sub consultant to BG&E Consulting Engineers - Sydney)
31. Molonglo Roads Feasibility Study (2007-2008) for ACT, Department of Urban Services
32. Majura Parkway / Pialligo Avenue Options Review (2007) for ACT Procurement Solutions
33. Development of a Structural Plan for Cooma CBD (2007) for Subcontracted to CBRE to Cooma Council – NSW s
34. Crace Infrastructure Forward Design (2007) for ACT Procurement Solutions
35. National Travel Behaviour Change Project –Phase C Evaluation, ACTPLA (2006-2007) for ACT Planning and Land Management as sub consultant to IMIS
36. Batemans Bay Bypass (2006) for Eurobodalla Shire Council
37. Kings Highway (2006) for Department of Urban Services, Roads ACT
38. Concept Design and Preliminary Assessment Consultancy for ACT Dragway (2006) for ACT Procurement Solution
39. Traffic Impact Assessment of Goulburn Southern Distribution Business Park (2006) for Mariner (as sub consultant to BG&E Consulting Engineers - Sydney)

IN OTHER MIDDLE EAST COUNTRIES

Co-authored the following reports during my work as Senior Transport/Traffic Planner & Economist with DAR AL-HANDASAH Consultants (Shair & Partners) (1994 to 1995 & 1997 to 1999)

Country	Reports
Lebanon	<ol style="list-style-type: none"> 3. Economic Appraisal of Improvement of Ouzai Road and Construction of Khaldeh/Cocodi Road in Beirut, Lebanon (L9708) 4. Development of a Traffic Model for the City of Saida, Lebanon (L9414)
Algeria	<ol style="list-style-type: none"> 3. Economic Evaluation for Lakhdaria - Bouira Autoroute, Algeria (A9545) 4. Assessment of Tunnel Densities at Different Speeds for East-West Motorway - Section Lakhdaria - RN5 Connection, Algeria (A9545)
Morocco	<ol style="list-style-type: none"> 3. Traffic Study for Upgrading RP8 Casablanca/EL-Jadida Freeway & introduction of Toll, Morocco (MC9590) 4. Estimation of Traffic Turning Movements at Interchanges for the Rabat-Fes Motorway, Morocco (MC9316)
Jordan	<ol style="list-style-type: none"> 2. Estimation of Parking Requirement for Extension to Meridian Hotel in Amman, Jordan (J9847)
UAE (Abu Dhabi)	<ol style="list-style-type: none"> 2. Estimation of Equivalent Single Axle Loads for Guard Administration Building, Abu Dhabi, United Arab Emirates (AD9736)
Yemen	<ol style="list-style-type: none"> 2. Estimation of Equivalent Single Axle Loads for Improvement of Taiz-Jabal Sabr Road, Yemen (Y9651)
Turkey	<ol style="list-style-type: none"> 4. Estimation of Equivalent Single Axle Loads for Glaxo/Wellcome Pharmaceutical Packing and Warehouse Facility , Turkey (TK9863) 5. Traffic Study for Bursa Ring Road, Turkey (TK9723) 6. Assessment of Tunnels Speed/Flow Relationship for Bursa Ring Road, Turkey (TK9723)
Qatar	<ol style="list-style-type: none"> 3. Traffic Study and Estimation of Equivalent Single Axle Loads for Al-Dukhan Residential Area, Qatar (Q9818) 4. Traffic Study for the Ras Laffan Housing Project, Qatar (Q9431)
Angola	<ol style="list-style-type: none"> Estimation of Equivalent Single Axle Loads for Zaire Region, Angola (AN9468).

COMMUNITY PRESENTATIONS

In EGYPT

1. Abbas K. A. (1998) **Role of Underground Metro on Traffic Congestion Problems in Cairo.** Presented at a Seminar entitled Traffic Problems: Causes and Solutions. Organised by the Arab Association for Roads, Cairo, Egypt
2. Abbas K. A. (1998) **Applications of New Technologies in Traffic Management, Operation and Control.** Presented at the Annual Conference for Traffic Police Officials entitled New Technologies to Improve Traffic Performance, Cairo, Egypt..
3. Abbas K. A. (1999) **An Integrated Approach for Management of Traffic Safety.** Presented at the Annual Conference for Traffic Police Officials entitled New Technologies to Improve Traffic Performance to Relieve Traffic Accidents, Cairo, Egypt.

In Saudi Arabia

1. Abbas K. A. (2002) An Integrated System for Sustainable Management of Traffic Safety. Seminar Organised by Public Lecture Committee, College of Architecture and Planning, King Faisal University – Saudi Arabia.
2. Abbas K. A. (2004) Sustainable Development: Transport and the Environment. Public Scientific Lecture within the First Campaign for Environment Awareness in Eastern Province – Saudi Arabia. Organised by Dammam City Municipality and Saudi Association for Engineers.

In USA

1. Abbas K. A. (1995) Improvement of Pedestrian and Child Safety in Urban Areas. Advanced Institute for Transportation Infrastructure Engineering and Management Lecture Series, Department of Civil Engineering, The University of Texas Austin, Texas, USA
2. Abbas K. A. (1995) Introduction to Transportation Planning. Advanced Institute for Transportation Infrastructure Engineering and Management Summer Symposium Series, Department of Civil Engineering, The University of Texas Austin, Texas, USA
3. Abbas K. A. (1995) BTMS: A Generic Bus Transit Management System. Institute of Transportation Engineers Local Series, Department of Civil Engineering, The University of Texas Austin, Texas, USA.
4. Abbas K. A. (2001) Effect of Transport on the Development of New Cities in Egypt. Globalization, Governance and Planning Seminar. Organised by City and Regional Planning Department, Cornell University, USA.

In Australia

1. Abbas K. A. (1993) The Development of a Road Management System: An Application of System Dynamics Methodology. Research Seminar, Civil & Geological Engineering Department, Royal Melbourne Institute of Technology, Melbourne, Australia.

In Canada

1. Abbas K. A. (1990) System Dynamics and its Potential Applicability to Modelling Transportation Problems. Research Seminar, Civil Engineering Department, University of Alberta, Edmonton, Canada.
2. Abbas K. A. (1990) A Computer Based Support for Management of Investments in Road Infrastructure. Research Seminar, Civil Engineering Department, University of Alberta, Edmonton, Canada.
3. Abbas K. A. (1990) The Role of Transport in the Development of Industrial Enterprises in New Cities. Research Seminar, Civil Engineering Department, University of Alberta, Edmonton, Canada
4. Abbas K. A. (1990) Research at the Transport Operations Research Group of the University of Newcastle Upon Tyne. Research Seminar, Civil Engineering Department, University of Alberta, Edmonton, Canada.

LIST OF ATTENDANCE AND PARTICIPATION IN CONFERENCES AND SEMINARS

1. The 16th Planning and Transport Research and Computation (PTRC) Summer Annual Meeting, Bath, U.K. 12-16 September 1988.
2. The 21st Annual Conference of the Universities Transport Studies Group (UTSG), Edinburgh, U.K. 4-6 January 1989.
3. The 1989 International Conference of the System Dynamics Society, Stuttgart, West Germany. 10-14 July 1989.
4. The 17th Planning and Transport Research and Computation (PTRC) Summer Annual Meeting, Sussex, U.K. 11-15 September 1989.
5. The 22nd Annual Conference of the Universities Transport Studies Group (UTSG), Hatfield, U.K. 3-5 January 1990.
6. The 1990 International System Dynamics Conference, Boston Massachusetts, U.S.A. 10-13 July 1990.
7. Operations Research 1990: International Conference on Operations Research, Vienna, Austria. 28-31 August 1990.
8. The 18th Planning and Transport Research and Computation (PTRC) Summer Annual Meeting, Sussex, U.K. 10-14 September 1990.
9. The 1990 European Conference of System Dynamics, Milan, Italy. 1-3 October 1990.
10. The 23rd Annual Conference of the Universities Transport Studies Group (UTSG), Nottingham, U.K. 2-4 January 1991.
11. The 19th Planning & Transport Research & Computation (PTRC) Summer Annual Meeting, Sussex, U.K. 9-13 September 1991.
12. The International Symposium on Current Experiences in Tunnelling, Cairo, Egypt. 27-28 January 1992.
13. The First International Conference, Towards Better Environment, Alexandria, Egypt. 14-16 April 1992.
14. The First International Conference on Expert Systems and Development, Cairo, Egypt. 19-23 April 1992.
15. The 20th Planning and Transport Research and Computation (PTRC) Summer Annual Meeting, Manchester, U.K. 14-18 September 1992.
16. The 21st Planning and Transport Research and Computation (PTRC) Summer Annual Meeting, Manchester, U.K. 13-17 September 1993.
17. The International Conference on Training for the Future, Kuwait. 24-27 October 1993.
18. Seminar on Traffic Management in Large Cities, Organised by the Arab Studies and Training Center in Cooperation with Police Research Center, Egyptian Police Academy, Cairo, Egypt. 6-9 December 1993.
19. The Al-Azhar Engineering 3rd International Conference: Faculty of Engineering, Al-Azhar University, Cairo, Egypt. 18-21 December 1993.
20. The 22nd European Transport Forum (ETF) Organised by the Planning and Transport Research and Computation (PTRC), Warwick, U.K. 12-16 September 1994.
21. Participated as a resource member in an Ad Hoc Expert Group Meeting on the Development of Urban Transport in Africa, organised by Transport, Communications and Tourism Division of the United Nations Economic Commission for Africa (UNECA), Addis Ababa, Ethiopia. 5-7 December 1994.
22. The Al-Azhar Engineering 4th International Conference: Faculty of Engineering, Al-Azhar University, Cairo, Egypt. 16-19 December 1995.
23. The 24th European Transport Forum (ETF) Organised by the Planning and Transport Research and Computation (PTRC), London, U.K. 2-6 September 1996.
24. SATURN User Group Annual Meeting. Organised by WS Atkins Consultants, Weetwood Hall, Leeds, U.K., 18 September 1996.
25. Transport, Land Use and Air Quality Conference. Organised by ARUP Consultants in conjunction with PTRC, Victoria and Albert Museum, London, U.K. 24 September 1996.
26. Value of Time Seminar. Organised by PTRC Education and Research Services, Easthampstead Park Conference Center, Wokingham, Berkshire, U.K. 29-30 October 1996.
27. The 25th European Transport Forum (ETF) Organised by the Planning and Transport Research and Computation (PTRC), London, U.K. 1-5 September 1997.
28. Invited to give a presentation on the Role of Underground Metro on Traffic Congestion Problems in Cairo at a Seminar entitled Traffic Problems: Causes and Solutions Organised by the Arab Association for Roads, Cairo, Egypt. 1998.
29. Invited to give a presentation on Applications of New Technologies in Traffic Management, Operation and Control at the Annual Conference for Traffic Police Officials entitled New Technologies to Improve Traffic Performance. Cairo, Egypt. 1998.
30. Invited to give a presentation on Integrated Approach for Management of Traffic Safety at the Annual Conference for Traffic Police Officials entitled New Technologies to Improve Traffic Performance to Relieve Traffic Accidents. Cairo, Egypt. 1999.
31. Invited to give a presentation on Standardisation of Transport Systems: A Way Forward Towards Facilitating Cross Border Trading. In a Seminar on Performance and Procedures of Crossing Borders. Organised by Arab League Organisation for Management Development. Cairo, Egypt. September, 1999.
32. Invited to give a presentation on the Role of Underground Metro on Environmental Pollution in Cairo. In a Seminar on Transport and the Environment. Organised by the Arab Scientific Association for Transport, Cairo, Egypt. November, 1999.

33. Hubert H. Humphrey Fellowship Annual Seminar: Building a Global Network of Democracy: Leadership Beyond Elections. Sponsored by the United States Department of State - Administered by the Institute of International Education. Washington DC. USA. October 29-November 3, 2000.
34. Globalization, Governance and Planning Seminar. Organised by City and Regional Planning Department, Cornell University, USA. January 2001.
35. The 12th International Conference on Traffic Safety in Three Continents. Organised by VTI, TRB, CSIR, FERSI, HNNAT and held in Moscow, Russia. September 19-21, 2001.
36. The 23rd Annual Meeting of the International Association for Impact Assessment: Impact Assessment and Capacity Building. Organised by International Association for Impact Assessment and held in Marrakech, Morocco. June 17-20, 2003.
37. The 5th European Operational Research Societies/Institute for Operations Research and the Management Sciences Joint International Meeting (EURO/INFORMS), held in Istanbul, Turkey. July 6-10, 2003.
38. The European Transport Conference (ETC). Organised by Association for European Transport, Strasbourg, France. October 8-10, 2003.
39. 10th World Conference on Transport Research (WCTR04). Organised by the World Conference on Transport Research Society WCTRS, Istanbul, Turkey. July 4-8 2004.
40. Attended 4 Seminar Series Organised by Engineers Australia – Canberra – Transport Branch, Canberra, Australia. 2008
41. 15th International Conference Road Safety on Four Continents, - Organised by Swedish National Road and Transport Research Institute (VTI) & UAE National Transport Authority - held in Abu Dhabi, UAE 28-30 March 2010
42. 59th UITP World Congress and Mobility and City Transport Exhibition – Boosting Public Transport: Action! 10-14th April 2011
43. VIII International Conference “Trans Eurasia 2011”. 10-11 November 2011 Astana – Republic of Kazakhstan.

ABSTRACTS OF MAIN RESEARCH PUBLICATIONS

JOURNAL PAPERS

<p><i>Abbas K. A., and M. G. H. Bell (1994) System Dynamics Applicability to Transportation Modelling. Transportation Research, Vol. 28A, No. 5. Pergamon Press, UK pp. 373-400.</i></p>
<p>The main focus of this paper lies in reviewing and evaluating the strengths and weaknesses of the System Dynamics (SD) methodology with respect to its suitability and appropriateness to transportation modelling. This evaluation helps in gaining an appreciation of how the SD modelling style can contribute to understanding better the relationships between elements of the transport system and between transport and its environment. It establishes the ease with which SD can be applied to construct useful tools for testing alternative transport-related policies.</p>
<p><i>Abbas K. A., Mabrouk I., and Al-Araby A. K. (1996) School Children as Pedestrians in Cairo: Proxies for Improving Road Safety. Journal of Transportation Engineering, Vol. 122, No. 4, American Society of Civil Engineers (ASCE), U.S.A. pp. 291-299.</i></p>
<p>This research attempts to infer the pattern of traffic behaviour of school children. In doing so, the study seeks to measure the factors that affect traffic behaviour of school children. These include: traffic experience, traffic cognitive skills and abilities, traffic perceptual skills, traffic attitude and traffic knowledge. The study would endeavour to explore the extent that these factors contribute to the traffic behaviour of school children in Cairo. The study also aims to perceive and identify the constraints that hinder the mobility of school children and the traffic hazards that they encounter. A sample of school children is chosen. The sample is chosen to represent different parameters such as affluence of district where school is located, type of school, level of education, gender and age of school children. A specially designed questionnaire is completed by the sample (1615 school child). The purpose of this questionnaire is to measure the level of traffic knowledge as well as traffic attitude of school children. In addition, the data collected would help in defining the level of traffic experience that school children possess. Collected data items include: gender and age of school children, age at which children were first permitted to deal with traffic on their own, type and intensity of road traffic to which children are exposed. In addition, several traffic-related perceptual questions were included in the questionnaire. In conclusion, measures aimed to enhance (raise and improve) the existing levels of school children traffic experience, traffic cognitive skills and abilities, traffic perceptual skills, traffic attitude and traffic knowledge, and hence traffic behaviour are suggested. In addition different safety actions, (engineering, educational, enforcement, publicity, regulatory), are examined. Appropriate methods that are meant to eventually improve the road safety situation for school children are recommended.</p>
<p><i>Bahgat A. and Abbas K. A. (1997) Effect of Accessibility on the Development of New Cities in Egypt: A System Framework. Urbanismo, Revista Del Colegio Oficial De Arquitectos De Madrid No. 31, Madrid, Spain. pp. 50-57. (In Spanish)</i></p>
<p>The main objective of this research is to gain a general insight into the development process of new cities in Egypt and, in particular, into the role played by transport. Efforts to develop an integrated framework that considers the main factors contributing to the development process is pursued. This framework is used to show the effect of transport accessibility in comparison to other infrastructure provisions (water and waste water projects, electricity and communications projects) on the development of new cities in Egypt. Development is defined in terms of industrial and population development. The intention of this research is to use historical data to develop statistical models to verify the causal relationships displayed in this framework.</p>
<p><i>Abbas K. A. and Abd-Allah H. Mona (1999) Estimation and Assessment of Cost Models for Main Transit Systems Operating in Cairo. Transport Reviews, Vol. 19, No. 4, pp. 353-375. Francis & Taylor, UK</i></p>
<p>This paper reviews the main characteristics of the provision of urban transit systems in Cairo, namely buses, minibuses, river buses, trams, and surface metros, all being currently operated by Cairo Transport Authority (CTA). The paper presents some generic types of indicators to compare and assess the performance of the five main urban transit systems provided by CTA. The CTA budget plan for the Financial Year 96/97 is reviewed. The absence of any form of cost modelling as an integral part of CTA budget plans is identified. In this paper, an attempt is made to develop cost models for the main urban transit systems operated by CTA. Four generic approaches for estimating cost models for transit services are comparatively reviewed, namely the causal factor, cost allocation, regression and temporal variation methods. Cost allocation methods are particularly applied in this research to estimate different cost models for the main transit systems operated by CTA. These models are meant to assist in predicting and showing the relative magnitude of expected changes in various cost categories, resulting from systems/services expansion or down-sizing for the transit modes operated by CTA. The development of such models is thought to contribute in raising the cost consciousness in CTA with the ultimate benefit of maximizing system efficiency.</p>

Abbas K. A. (2003) *Environmental Assessment of Road Alignments Based On Multicriteria Scoping: A Case Study of Cairo-Ain Sukhna Freeway. Journal of Impact Assessment and Project Appraisal, Vol. 21, No. (4), pp. 323-330. Beech Tree Publishing, UK.*

This research develops a multicriteria scoping framework by which alternative road alignments can be assessed, using the Cairo–Ain Sukhna freeway in Egypt as an example. Four alternative alignments were assessed using 60 comparative criteria covering technical, accessibility, economic and financial matters, development, safety and security, severance, social considerations, as well as natural and man-made environmental aspects. Baseline information was collected from maps, site visits and consultants' reports. A comparative analysis ranks the alternative alignments based on their potential impacts. Weightings, giving higher weights to environmental aspects, are applied to the rankings, and the best alternative is identified. The multicriteria scoping framework proved a sufficient tool for assessing alternative road alignments and for selecting the most environmentally preferable one.

Abbas K. A. & Aly M. G. (2004) *Logistics Chain Analysis of Upper Egypt Wheat Milling Company: A Basis for Developing Efficiency Models for Transport Activities. International Journal of Logistics: Research and Applications, Vol. 7(2), pp. 85-107. Taylor & Francis, UK.*

This paper develops a methodological approach that is meant to compute and assess the financial efficiency of transport activities within a company. The applicability of this approach is demonstrated by using 1998/99 data and information from the Upper Egypt wheat-milling company. It starts by constructing two logistics chains that simulate the process involved in the wheat-milling business in Egypt. These chains are used as the basis for identifying types of transported commodities, unique transport phases, trip origins and destinations of each of these phases as well as the transport modes and providers involved. This is followed by compiling and synthesizing for each transport phase a number of origin/destination matrices representing operational data and generic operational variables. In addition, similar size matrices are synthesized to represent transport costs and transport revenues. Manipulations of the developed matrices are undertaken to compute financial efficiency for transport activities as well as to develop disaggregate route-based cost and revenue allocation models for transported wheat and flour. These are used in identifying profitable and non-profitable transport routes. Such conclusion assists in re-pricing transport services along certain routes, or termination of operation of other routes.

Abbas K. A. (2004) *Conceptual and Regression Models for Passenger Demand Prediction: A Case Study of Cairo Airport and Egyptair. Invited Paper to Airlines Magazine. E-Zine edition - Issue 26, pp. 1-4. University of Amsterdam, Netherlands.*

The main aim of this research is to develop demand models for passenger aviation from/to Cairo airport. The paper starts by forming a conceptualisation of main factors affecting passenger demand for international air transport from/to Egypt. In addition, a conceptualisation is drawn portraying factors influencing passenger selection of Egyptair, as a potential international carrier. Following this, historical data concerning aviation demand variables as well as other explanatory variables thought to affect this demand is collected and compiled from several sources. Demand variables are historically plotted to determine the most proper and representative ones. A correlation matrix is then computed using Pearson coefficient to show extent of relation between demand variables and selected explanatory variables. Based on these analyses, it is decided to develop single and multiple variable models, using different functional forms, relating air passenger demand to population, GDP and number of foreign tourists. All calibrated models are subjected to logical and statistical tests. Finally, two models were selected based on their logical acceptability, best fit and statistical significance. The paper concludes with a demonstration of usefulness of selected models in terms of ability to predict future passenger demand levels.

Abbas K. A. (2004) *Assessment and Improvement of Road Safety in Developing Countries: Egypt as a Prototype Case Study. Advances in Transportation Studies: An International Journal, Vol. 1 (3), Section A, pp. 5-24. University of Rome, Rome, Italy.*

This paper starts by presenting a conceptualization of the road safety pyramid, its components and affecting factors. The paper develops a three-step procedure to assess road safety conditions. More than 40 criteria are identified and applied in an attempt to semantically assess the road safety culture. Deaths per million vehicle kilometres are obtained and compared. This is followed by compiling traffic and accident data. These are used to compute and compare 13 traffic safety indicators for these roads. The third stage for assessing traffic safety is concerned with presenting a detailed analysis of accident causes. More than 26 causes are identified. These are categorized under six main categories, namely driver related, pedestrian related, vehicle related, road related, environment-related causes and other causes. Furthermore, the paper develops an integrated road safety programme composed of 16 fields of actions. Each of these contains a number of recommended policies, measures and actions targeted to improve road safety. These are also categorized in accordance with the concerned authority/agency responsible for implementation. The paper concludes by suggesting further road safety research that is needed.

Abbas K. A. (2004) *Developing a Conceptual Model for Sustainable Management of Traffic Safety. Part 1: Methodology. Advances in Transportation Studies: An International Journal, Vol. 1 (4), Section A, pp. 33-56. University of Rome, Rome, Italy.*

In this article, the concept, ingredients and levels of sustainable traffic safety management are proposed. The paper presents a thorough review of the literature showing a number of frameworks/approaches that were suggested to conduct traffic safety work in a systematic, integrated manner. The core of the paper lies in developing a conceptual model aimed at achieving sustainable management of traffic safety. The proposed process encompasses all the phases, functions and activities that ought to be pursued within a sustainable management process of traffic safety. The paper presents, in a structured manner, these phases, functions and activities. It concludes by discussing the advantages and main limitation of the proposed model. In this context, a comparison of the proposed model versus the ones reviewed in the literature is also presented.

Abbas K. A. & Al Hossieny A. (2004) *In-depth Statistical Analyses of Accident Databases. Part 2: A Case Study. Advances in Transportation Studies: An International Journal, Vol. 1 (4), Section A, pp. 57-67. University of Rome, Rome, Italy.*

The main aim of this research is to develop a generic approach for the utilization of statistical methods to conduct basic as well as indepth investigation of accident databases. This is meant to obtain accident characteristics as well as to isolate accident causes and hence assist in the selection of specific appropriate traffic safety countermeasures. The paper presents a full description of the developed approach. The applicability of the approach is demonstrated by analyzing an accident database. In this context, the paper presents and discusses the results and conclusions of the indepth statistical analysis of accidents and establishes, in statistical terms, the specific characteristics and causes for such accidents. Such focused conclusions are used to suggest some specific safety countermeasures.

Abbas K. A. (2004) *Framework for Assessing Traffic Impacts Generated by Mega Complexes: A Case Study of San Stefano Grand Plaza in Egypt. Journal of Impact Assessment and Project Appraisal, Vol. 22, No. (4), pp. 311-325. Beech Tree Publishing, UK.*

This paper develops a generic framework of the process involved in conducting traffic impact assessment (TIA) for mega-complexes, applies it to a real world unique project and derives lessons of use in similar situations. The process involves surveys and analysis of present traffic and pedestrian circulation systems, and parking and transit conditions, to establish current levels of services, traffic problems and issues. Projections are made of the normal growth in traffic and generated demand, as a result of proposed developments and land-use changes. Future expected levels of services are determined and compared for the with-project and without-project scenarios, taking into account other expected traffic issues, such as pedestrian, parking, safety, and environmental problems. Finally, ways of mitigating adverse effects are explored and assessed. The suggested TIA process is applied to San Stefano grand plaza, Alexandria, Egypt.

Abbas K. A. (2004) *Traffic Safety Assessment and Development of Predictive Models for Accidents on Rural Roads in Egypt. Accident Analysis and Prevention, Vol. 36(2), pp. 149-163. Pergamon Press, UK.*

This paper starts by presenting a conceptualization of indicators, criteria and accidents' causes that can be used to describe traffic safety. The paper provides an assessment of traffic safety conditions for rural roads in Egypt. This is done through a three-step procedure. First, deaths per million vehicle kilometers are obtained and compared for Egypt, three other Arab countries and six of the G-7 countries. Egypt stands as having a significantly high rate of deaths per 100 million vehicle kilometers. This is followed by compiling available traffic and accident data for five main rural roads in Egypt over a 10-year period (1990–1999). These are used to compute and compare 13 traffic safety indicators for these roads. The third step for assessing traffic safety for rural roads in Egypt is concerned with presenting a detailed analysis of accident causes. The paper moves on to develop a number of statistical models that can be used in the prediction of the expected number of accidents, injuries, fatalities and casualties on the rural roads in Egypt. Time series data of traffic and accidents, over a 10 years period for the considered roads, is utilized in the calibration of these predictive models. Several functional forms are explored and tested in the calibration process. Before proceeding to the development of these models three ANOVA statistical tests are conducted to establish whether there are any significant differences in the data used for models' calibration as a result of differences among the considered five roads.

Abbas K. A. Ghareib A. H. and Wahdan A. H. (2009) Safety Modeling and Improvement of Railroad Grade Crossings in Egypt. Advances in Transportation Studies: An International Journal. University of Rome, Rome, Italy. Under Publication.

The paper starts by presenting a generic conceptualization of factors affecting safety of railroad grade crossings. This is followed by classification of different types of railroad grade crossings. Probabilistic safety models are developed, where accidents occurring at railroad grade intersections are defined as an outcome of a collision between a train and a vehicle(s) or a collision between a train and a pedestrian(s). The research develops statistical models that relate crossing safety at railroad crossings, represented by the potentiality of accident occurrence, to exposure parameters such as vehicle and pedestrian flows. The potentiality of accident occurrence is being expressed in terms of crossing violations whether vehicle and/or pedestrian violations. Five functional forms were utilized, namely linear, power, logarithmic, exponential and quadratic polynomial. To establish goodness of fit and statistical significance of the calibrated models two statistical indicators were computed namely the R2 and the F-statistic. A total of 50 statistical models were calibrated. The power function was the most dominant. The paper concludes by proposing a package of countermeasures that is meant to improve the traffic safety conditions at railroad grade crossings. Such package includes ten categories, namely organizational, education, training, mass-media, train related, evaluation, engineering and maintenance, regulatory, enforcement, and intelligent transport systems.

Abbas K. A. (2009) Integrated Programs for Mitigating Traffic Problems in Developing Countries: An In Depth Analysis of Experts Judgment. Advances in Transportation Studies: An International Journal., University of Rome, Rome, Italy. Under Publication.

This research starts by developing a comprehensive inventory and categorization of demand and supply-based policies and measures that are aimed at relieving traffic problems in metropolitan cities. A set of generic criteria that can be used as a basis for the judgmental assessment of such policies and measures is identified and selected. An attitudinal questionnaire is then designed to elicit the judgment of transport, traffic and highway experts regarding potentiality (efficiency and effectiveness), public acceptability, applicability, perceived cost and priority of implementation of these policies and measures. Appropriate nonparametric statistical tests and techniques are selected and applied to conduct an in depth statistical analysis of gathered expert information. The main purpose of such analysis is to obtain judgment patterns of experts and degree of consensus among them. Statistical analysis is complemented by a weighting procedure to establish the potential achievement rate of each policy and measure and hence to support in making decisions on whether to use and implement such policy or measure in relieving traffic problems. As a result of the analysis, an integrated package of traffic relief policies and measures is recommended for developing countries.

Abbas K. A. and Abd-Allah H. Mona (1998) Estimation of Consumption and Requirement Models for Bus Transit System Operated by Cairo Transport Authority. Civil Engineering Research Magazine (CERM), Volume 20, No. 3, pp. 441-461. Faculty of Engineering, Al-Azhar University, Cairo, Egypt.

system. These can also give guidelines for the decision maker on areas that warrant intervention so as to reduce consumption rates and minimise requirements. Ultimately, this would lead to minimizing operating costs, without affecting the quality of produced services. Mass transit systems in the city of Cairo are being mainly operated by the Cairo Transport Authority (CTA). These transit systems include buses, minibuses, trams, metros and river buses. In this paper, the CTA bus transit system is reviewed, where the main operational characteristics of CTA bus garages are presented. The core of the paper lies in the estimation and testing of different regression models that are meant to produce an acceptable presentation of the consumption of materials and the requirement of staff by buses operated by CTA. The development of materials consumption models include developing separate models to represent the consumption of fuel, oil and lubricants by buses. On the other hand, the development of staff requirements models include developing separate models to represent the requirement of drivers, conductors, and engineering staff by buses. More than twenty different linear regression models are developed for each of the above mentioned consumption and requirement parameters. Comparative statistical analysis of these models are conducted and models that are judged to produce the best presentation of reality are identified. Ultimately, these are meant to minimize the operating costs, without affecting the quality of produced services. The paper concludes with a set of conclusions and recommendations that are meant to improve the performance of the bus transit system operated by CTA in Cairo.

Abbas K. A. and El-Maksoud A. A. (1999) Development of a Generic Analytical Framework for Assessing Impact of Inefficiencies on Bus Operation in Cairo. Scientific Bulletin, Faculty of Engineering, Ain Shams University, Volume 34, No. 1, Part 1: Architecture and Civil Engineering. Faculty of Engineering, Ain Shams University, Cairo, Egypt. pp. 83-109.

There is a tangible move, across cities of the world, towards achieving efficiency gains in the bus industry. The main bus transit system in Cairo is being provided by Cairo Transport Authority (CTA). The paper starts by reviewing some important indicators for buses operated by CTA. This research presents a classification of generic types of inefficiencies identified in public bus operation, namely; inefficiencies causing cost incurring, inefficiencies causing revenue loss, and inefficiencies causing cost incurring and revenue loss. The paper specifically identifies, categorizes and reviews those inefficiencies, which are reported in CTA annual statistical reports. These reports show losses in operation time being mainly attributed to four main causes, namely Engineering Failures, Operational Inefficiencies, Accidents' occurrence, and Force Majeure incidents. The main objective of this research is to develop a generic analytical framework for assessing the impact of these types of inefficiencies on public bus operation. In structuring this framework, several statistical relations, based on a priori causalities, are estimated. The paper concludes by presenting a demonstration of the utilization of the above relationships, within the developed analytical framework, for CTA. This takes the form of conducting sensitivity tests that are meant to explore impact of potential inefficiencies in terms of time and revenue lost as a result of varying the extent of services provided by CTA.

Abbas K. A., Fattah N. A. & Farhat H. H. (2003) A Proposed Bridge Inspection and Maintenance Management System (BIMMS) in Egypt. Civil Engineering Research Magazine (CERM), Faculty of Engineering, Volume 25, No. 2, Al-Azhar University, Cairo, Egypt.

Bridges are considered as one of the most valuable transport infrastructure assets. One of the major factors affecting the life span and the safety of traffic on bridges is their physical condition. In this context, bridges should be inspected and maintained in accordance with a management plan, which is part of a wider bridge management system aiming at sustaining the physical condition of bridges in an acceptable form. This paper is concerned with proposing a Bridge Inspection and Maintenance Management System (BIMMS) in Egypt. In pursuing this objective, the literature was reviewed and two questionnaire forms, concerned with details of the components of bridge inspection and maintenance, were designed, piloted, refined and distributed between two groups of specialized respondents. The first group includes a number of professional employees holding key positions concerned with bridge construction, inspection and maintenance at the Egyptian Railway Authority, the Egyptian Roads and Bridges Authority as well as the Roads and Transport Bureau at Cairo governorate. The second group includes a number of Egyptian academics specialized in the fields of structural, road and bridge engineering and management. Completed questionnaires were collected. These were thoroughly analyzed using a number of statistical tests. The first test aimed at investigating the independence of responses between the two responding groups. Based on the results of this test, descriptive statistics, either for the two groups combined or for each group separately, were computed to show the central tendencies of the responses. Finally, goodness of fit tests were also applied in an effort to determine whether some of the collected data are fitting common statistical distributions. Based on the results of the questionnaire analysis as well as on the literature review, a proposed Bridge Inspection and Maintenance Management System (BIMMS) was envisaged for Egypt.

Abbas K. A. (1990) A Road Provision Model Using System Dynamics. In System Dynamics '90, D. F. Andersen, G. P. Richardson and J. D. Sterman (Eds.). The System Dynamics Society, Cambridge, Mass., pp. 1-15.

One of the most difficult tasks facing highway administrators is how to efficiently manage the allocation of road funds. In this paper, a comprehensible, easy-to-use, highway management tool is presented. This tool takes the form of a computer simulation model, which is intended to assist managers of a network of highways to make better decisions concerning the allocation of scarce funds. It mainly simulates the effects of different investment strategies and maintenance options on the road network. This is done by tracing the life-cycle costs of the major activities of providing and maintaining the road system, and by considering the effects that these activities have on the state and performance of the road network.

Abbas K. A. (1990) The Use of System Dynamics in Modelling Transportation Systems With Respect to New Cities in Egypt. In System Dynamics '90, D. F. Andersen, G. P. Richardson and J. D. Sterman (Eds.). The System Dynamics Society, Cambridge, Mass., pp. 16-30.

Since the development of System Dynamics, it has been applied successfully to a range of complex problems in different areas. However, relatively little use of the methodology has been made in the field of transportation. This paper attempts to review and evaluate the utility of the System Dynamics methodology for transportation studies, showing that it is well suited to the needs of various analytical problems in transportation. In fact, System Dynamics offers a potential way forward for transportation planning in general. The focus of this paper is on appreciating the strengths and weaknesses of the methodology of System Dynamics as an aid to reach a better understanding and appreciation of the dynamic, feedback relationships between the transport system and the other major sectors contributing to the development of a new city in the Egyptian desert.

Abbas K. A. (1990) A System Dynamics Road Provision Model. In Dynamic Analysis of Complex Systems. V. D'Amato & C. Maccheroni (Eds.). Franco Angeli, Milano, Italy. pp. 93-100.

The growing conflict between the requirements of the road network and the available financial resources is one of the most serious problems with which highway authorities have to deal. There is a need for simplified planning techniques that are capable of testing alternative strategies for investing in the road network. These tools are meant to provide a powerful support to highway decision-makers so that they can make more rational and informed decisions. The main purpose of this study is to construct a dynamic simulation model that describes the structural feedback interactions of the road system. The model is meant to analyse and show the impacts of alternative road strategies. This will eventually lead to a more efficient management of the funds available for roads as well as to a more effective road maintenance programme. The paper attempts to indicate alternative ways for managing the allocation of the available road funds into major categories. The process involved in the evaluation of alternative road strategies is also introduced.

INTERNATIONAL CONFERENCE PAPERS

Abbas K. A., Bell M. G. H., and Crouch F. O. (1990) Computer-Based Support for the Management of Investments in Road Infrastructure. Proceedings of the 18th Planning and Transport Research and Computation (PTRC) Summer Annual Meeting, Seminar J/K: Highway Appraisal Design and Management/Highway Construction and Maintenance, Sussex, UK, pp. 41-45/85-98.

Road transport is regarded as one of the key elements that contributes to the economic growth and development of a country. Lack or deterioration of roads represents a major obstacle to the prosperity and well-being of a country and investments in construction, maintenance and upgrading of roads constitute a large portion of their transport budget. The growing conflict between the requirements of the road network and the available financial resources is one of the most serious problems with which highway authorities have to deal. There is a need for simplified planning techniques that are capable of testing alternative strategies for investing in the road network. These tools should provide powerful support to highway decision-makers so that they can make more rational and informed decisions. Decisions should be targeted towards achieving a better management and control of the road network system to maximise and sustain the benefits obtained from road investments. Financial stringency requires the development of road management systems. These systems can be described as computerised, analytic tools that consider the whole-life costing of alternative strategies for the road network. These tools enable the testing of alternative planning programmes for the highway sector and hence the effective management of the road network.

Abbas K. A., and Bahgat A. (1992) A Process of Knowledge Representation for Developing Transport Models. Proceedings of the 1st International Conference on Expert Systems and Development, Session 5: Expert Systems Applications in Engineering-II. Expert Systems for Improved Crop Management Project (ESICM), Ministry of Agriculture and Land Reclamation (MOALR), United Nations Development Programme (UNDP), Food & Agriculture Organisation (FAO). Cairo, Egypt. pp. 145-155.

The main focus of this paper lies in presenting a structured process of knowledge representation, which constitutes the main qualitative part of a powerful modelling methodology known as System Dynamics. System Dynamics can contribute to understanding better the relationships between elements of the transport system and their environment. It can also be applied to construct useful tools for testing alternative transport-related policies.

Abbas K. A., Saleh A. E., and Bahgat A. (1992) Towards Market Economy: Past Present and Future Policies in the Intercity Bus Transport in Egypt. Proceedings of 20th Planning and Transport Research and Computation (PTRC) Summer Annual Meeting, Seminar J: Financing Transport Infrastructure: Transport Organisation in Market Economies, Manchester, UK, pp. 129-147.

The Egyptian transport industry is undergoing substantial changes within the framework of the national economic reform programme. There is a tangible move towards deregulation and privatisation. The current position could be mainly described as a relaxation of the controls over nationalised transport companies and a loosening of the administrative regulation. The changes are meant to restructure public transport companies and transform them into market-oriented companies. This paper reviews the intercity transport policies in Egypt with emphasis on the intercity bus transport.

Abbas K. A. (1993) Illustration of SDPMS: A Generic Pavement Management System. Proceedings of the XII International Road Federation (IRF) World Congress, Volume III, Session 4: Road Maintenance Techniques, Madrid, Spain, pp. 149-158.

In any transport system, financial resources are consumed in constructing, administrating and maintaining the road network to an adequate standard. This paper introduces a Pavement Management System developed using the concepts of System Dynamics methodology SDPMS. The main objective of the SDPMS is to act as a tool for testing the consequences of different road policies on the development of the road network. The policy analysis is concerned with those aspects of the road system that the decision-maker can control. To demonstrate the utility of the SDPMS for policy analysis, alternative scenarios for allocating and generating road funds were simulated. A set of simulation runs was performed on the computer in an attempt to understand what effects changes in the amount and timing of road funds might have on the performance of the road network. In these runs, road funds were stochastically specified with the same mean and standard deviation. The main change from one run to another was in the initial integer (seed) that randomises the sequential generation of values of road funds in the same manner as repeated Monte Carlo simulation. To compare these alternatives, some of the main indicators that show the structural performance of the road network, over time are displayed.

Abbas K. A. (1993) Management Training in Light of Deregulation of the Egyptian Transport Industry. Proceedings of 21st Planning and Transport Research and Computation (PTRC) Summer Annual Meeting, Manchester, UK, pp. 231-251.

This paper explores the different components of the training cycle. Its main emphasis lies in presenting the results of a questionnaire survey designed to assess management training needs of some major Egyptian transport organisations. The assessment is considered in light of the relatively recent moves towards deregulation of these organisations. The paper discusses some of the questionnaire results.

Abbas K. A. (1993) Performance Measures Used for Comparing the Achievements of Passenger Transport Companies in Egypt. Proceedings of 3rd International Conference on Competition and Ownership in Surface Passenger Transport, Workshop No. 4: Planning and Analysis. Toronto (Mississauga), Ontario, Canada, pp. 377-390.

In light of the current deregulation of the transport industry in Egypt, this paper explores the different types of performance indicators that are used in the evaluation of the yearly achievements of the intercity passenger transport companies in Egypt. The paper presents and compares the performance of these companies over the financial year 91/92. It stresses the importance of some financial and operational performance measures. It suggests the inclusion of other performance measures that are meant to guide the managers of these companies to steer the companies safely towards reaching more stable grounds and conditions that can encourage and instigate profit making.

Abbas K. A. (1993) Management Training in the Egyptian Transport Organisations: Is there a Difference. Proceedings of the International Conference on Training for the Future. Organised by the Public Authority for Applied Education and Training (PAAET), Kuwait.

A questionnaire survey was undertaken in an attempt to infer the way in which senior managers of transport companies/authorities as well as transport experts in Egypt perceive the main components of the training cycle. This paper was mainly concerned with establishing whether there exists a difference in the responses of the questionnaire among the main responding groups. This comparison is meant to test whether as a result of the different transport activities that the organisations in each of these groups undertake, there will be a difference in the way their senior managers perceive different components of the training process. It attempts to statistically infer whether responses of senior managers of transport organisations, regarding training process, would significantly differ from those of transport experts.

Abbas K. A. (1993) Expert Systems in Transportation: Usefulness and Applicability. Proceedings of the Al-Azhar Engineering 3rd International Conference: Volume 4: Civil Engineering: Transportation and Traffic Engineering, Cairo, Egypt, pp. 492-508.

The main focus of this paper lies in reviewing the Expert Systems (ESs) technology and evaluating the strengths and the weaknesses of applying ESs to solving transportation problems. This evaluation helps in gaining an appreciation of how ESs can contribute to the field of transportation.

Abbas K. A. (1994) Policies for Improving Operational Profitability in Intercity Bus Companies in Egypt. Proceedings of the 7th International Conference on Travel Behaviour, Workshop 6: Transport Management, Volume II, Santiago, Chile, pp. 815-826.

The paper starts by laying down the current organisational scene within which transport companies in Egypt operate. The main objective of transport companies is to maximise profit. Intercity bus companies are accountable for the financial profitability they produce. This paper presents two important financial indicators, namely the operating ratio and operational profitability. The paper considers some of the elements leading to the generation of these financial ratios. In doing so, it disintegrates operating cost into its different components establishing their relative weights. Costs and productivity of staff as well as of bus kilometre are examined. Problems related to age and mark composition of intercity bus fleets are explored. An analysis of the sensitivity of operational profitability to reductions in operational cost components is presented. In light of the current deregulation of the transport industry in Egypt and based on the potential issues raised in the paper, the core of the paper suggests a set of policies aimed at reducing operational costs and increasing operational revenue in the intercity bus companies in Egypt, thus improving the operational profitability in these companies.

Mabrouk I., and Abbas K. A. (1994) Pedestrian Environment Problems Encountered by the Mobility Handicapped in Cairo. Proceedings of the 22nd European Transport Forum Organised by Planning and Transport Research and Computation (PTRC), Seminar J: Traffic Management and Road Safety, Warwick, UK pp. 101-111.

The pedestrian walking and crossing environment in Cairo is considered to be unfriendly and uncomfortable for ordinary pedestrians. The situation is much more aggravated when it comes to a handicap person walking on sidewalks or crossing streets in Cairo. This paper presents the results of a questionnaire survey that was specially designed with the purpose of identifying the perception of mobility handicapped to pedestrian environment problems that they face in the streets of Cairo. It was decided to concentrate the research efforts on surveying the Physically Handicapped and the Visually Impaired people. These two groups were thought to be the most significantly hindered groups in terms of transport mobility. The paper concludes by suggesting a set of policies and measures that could be adopted and implemented to improve the pedestrian environment for the mobility handicapped in Cairo and to relieve the current problems that they encounter when moving along sidewalks and whilst crossing streets.

Abbas K. A. and Mabrouk I. (1994) Physically Handicapped and Visually Impaired: Trip Characteristics and Transport Problems in Cairo. Proceedings of the 22nd European Transport Forum Organised by Planning and Transport Research and Computation (PTRC), Seminar F: Provision for Accessible Transport Services, Warwick, UK pp. 43-59.

The overwhelming majority of residents in Cairo, the capital of Egypt, face many transport-related problems in their daily commuting. However, these problems are magnified when encountered by the handicapped people. In addition, mobility handicapped confront other transport problems that can be directly related to their type of disability. This study aims to recognise the trip characteristics of the mobility handicapped in Cairo as well as to identify the perception of mobility handicapped towards the seriousness of the problems that they encounter when using public transport modes, namely Cairo Transport Authority (CTA) buses. These objectives were achieved through conducting a questionnaire survey with a sample of the mobility handicapped in Cairo. The questionnaire is of the revealed preference type. It comprises ranking and choice type of questions. A total of 172 Physically Handicapped and 142 Visually Impaired people completed the questionnaire. The questionnaire responses were analysed to investigate, understand and statistically infer the trip characteristics and the transport problems of the mobility handicapped in Cairo. The study concludes by suggesting a set of policies and measures that are meant to relieve the transport problems confronted by the mobility handicapped, and in general to improve their public transport accessibility and mobility.

Abbas K. A., and Mabrouk I. (1995) Mobility of Vulnerable Road Users in Cairo. Proceedings of the 7th International Conference on Mobility and Transport for Elderly and Disabled People, Volume 2, Session: Access Solutions for Countries in Transition Organised by Cranfield University's Centre for Logistics and Transportation, the Department of Transport's Mobility Unit and the Transport Research Laboratory under the auspices of the Transportation Research Board. Reading, UK Cranfield Press, pp. 89-97.

In recent years, many countries in the world are giving more attention to improving the safe and easy mobility of vulnerable road users. The road environment in many urban areas is relatively uncomfortable and sometimes even hazardous. The paper presents the results of surveys that took the form of 3 questionnaires that were specially designed with the purpose of identifying the most profound mobility difficulties and traffic safety problems that vulnerable road users (pedestrians, physically handicapped and visually impaired) face while walking on sidewalks and crossing roads in Cairo (i.e. problems related to the road environment, drivers' behaviour, police enforcement).

Abbas K. A. (1996) A Generic System for Planning Activities in a Bus Transit Company. Proceedings of 24th European Transport Forum Organised by Planning and Transport Research and Computation (PTRC), Seminar F: Public Transport Planning and Operations, London, UK

Managers of bus transit companies have the task of managing their companies' resources (financial, human, material, fleet of vehicles) in an efficient and effective manner. This task is becoming more difficult due to tangible pressures, mainly in the form of limited available funds and shortages in subsidies resulting from budget deficits and financial cuts. Planning of bus transit activities is becoming an increasingly complex and sophisticated task. The various elements involved in managing a transit company call for coordinated approaches for future planning. Reorientation is needed in the planning of bus transit activities from the standard piecemeal approach to the holistic system approach. Efforts to develop an integrated system that considers within its framework the planning of the main activities involved in the management of a transit company ought to be pursued. This paper presents a generic procedure for planning bus transit activities. This procedure is developed within a system approach framework. It contains eight subsystems namely: a vehicle maintenance management system, a vehicle operation management system, a new vehicles procurement management system, frequency setting, cost accounting, fare determination and subsidy computation, travel demand prediction and performance evaluation. The proposed planning approach provides a better understanding and insight into the inter- and intra- structural feedback relationships that exist among the various components involved in the overall management of a bus transit company. It is meant to achieve an integrated tactical planning of activities constituting the management of a bus transit company. It is also meant to provide practical and credible support to transit managers, so that they can make more rational and informed planning decisions. Decisions should be targeted towards achieving an efficient and effective management of bus transit activities, so as to sustain and maximize benefits obtained from resource utilization.

Abbas K. A., Okail O., and Mabrouk I. (1997) A Trio Management Package for Relieving Traffic Congestion in Cairo: Traffic, Travel Demand and Land Use Management. Proceedings of 25th European Transport Forum, Organised by Planning & Transport Research & Computation (PTRC), Seminar C/D: Policy, Planning and Sustainability, London, UK, pp. 323-349.

The traditional strategy for tackling the traffic congestion problem has been, for years, to add more capacity to the transport supply system through expansion of road network infrastructure by widening existing roads and constructing new ones, thus allowing for better traffic conditions. However, this approach has its limitations, in terms of absorbing an enormous amount of scarce financial and land resources, causing environmental intrusion, and generally increasing the environmental and safety hazards. Above all, this approach has frequently been reported to ultimately cause the generation of new and suppressed traffic. In many countries, where resources are becoming limited, the tendency has been to adopt policies and measures that enable the utilization of road space in the most efficient manner. Such strategy is known as Traffic Management and Control. Both strategies can be grouped under the heading supply-based strategies. In recent years, a significant change in thinking had emerged. This advocates demand-based strategies whereby policies and measures that affect the pattern of the demand for people to travel are selected and implemented. Such measures can be grouped under Travel (Traffic) Demand Management and Land Use Management strategies. The overall aim of this research is to provide a means of understanding Travel Demand Management in a comprehensive manner and assist in decisions on whether to use and implement (i.e. assess potentiality of) Travel Demand Management in relieving traffic congestion in Cairo.

White P., Bahgat A. G., El-Tony F., El-Mahdi R., Boshra E., Abbas K. A., Fattah A., and Al-Keelany O. (1999) Impacts of the Cairo Metro (Passenger Survey). Sixth International Conference on Competition and Ownership in Land Passenger Transport, Theme 3: User Needs and Impacts on Public Transport Systems. Cape Town, South Africa.

The Cairo Metro – the first in Africa and the Middle East – is a two-line system, heavily used. Data from the operator and a direct passenger survey are used to illustrate patterns of use and draw policy implications for other systems. While current revenue exceeds operating costs, cross-subsidies may exist between different passenger groups as a result of highly discounted student season tickets. A fare increase in 1996 is used to estimate short-run elasticity of demand with respect to price, approximately -0.2 , a similar figure to other metro systems. Substantial use is made of motorised feeder modes, notably shared taxis (paratransit minibuses). The high level of use occurs despite a substantial premium over other public transport fares, and lack of integrated ticketing. A likely explanation is that the fares are 'reasonable' compared with incomes, and that the price differential is offset for many users by the time savings vis a vis congested traffic conditions.

Abbas K. A. (2001) Environmentally Sustainable Transport Strategies: The Way Forward in Metropolitan Cities. In 12th International Conference on Traffic Safety in Three Continents – Session 11: Costs and Environment. Organised by VTI, TRB, CSIR, FERSI, HNNAT and held in Moscow. pp. 1-12. Published by Swedish National Road and Transport Research Institute VTI, Sweden.

This paper is concerned with one of the three requirements of a sustainable transport system, namely the environmental dimension. It starts by presenting components and interactions of the transport and traffic systems using causal diagrams. Generic traffic problems are identified and their causes categorized. A classification of demand and supply-based policies and measures that can be used in designing environmentally sustainable transport strategies is depicted. Such strategies are targeted towards minimizing the generic traffic problems encountered in metropolitan cities i.e. traffic congestion, accidents, environmental degradation and energy inefficiencies. In this paper, Travel Demand and Land Use Management are considered as two of the basic pillars for designing environmentally sustainable transport strategies. Criteria for comparing demand versus supply-based policies are suggested. These are applied to assess the benefits and limitations of each policy, hence assisting decision makers in the prioritisation and choice of such policies.

Abbas K. A. & Mokhtar M. M. (2003) Assessing and Improving Container Handling Services at Alexandria Port: Based on Logistics & Questionnaire Analysis. In 15th Annual Conference for Nordic Researchers in Logistics, (NOFOMA 2003) Striving for Leading Edge Logistics, Work in Progress Session: Transport. Oulu, Finland. As web publication: <http://www.nofoma.org/conferences/nofoma2003/program/information.htm>

This research aims at developing two logistics chains that simulate the activities performed by Alexandria Container Handling Company (ACHC). The first is the chain describing the process involved in handling imported containers and the second is the chain concerned with handling exported containers. These chains include activities such as loading, unloading of containers, internal transport to container storage yards, handling of containers, customs procedures, other inspections and quality control, and finally loading of containers to customers' vehicles. The research presents an assessment of the quality of services provided by ACHC. This is based on examining the developed logistics chains as well as on the analysis of 45 service assessment questionnaires completed by ACHC customers. A diagnostic identification of strengths and weaknesses of ACHC then follows. The paper concludes with proposing a number of potential measures and considerations aimed at producing improvements to the operation of the current logistics chains for the company, in particular, as well as for other container handling companies.

Abbas K.A. (2002) Assessment of Traffic Safety on Rural Roads in Egypt. In Proceedings of 2nd Safety on Road International Conference (SORIC 2), Session 7: Traffic Management, pp. 1-12. Bahrain.

This paper starts by presenting a conceptualization of indicators and criteria that can be used to describe traffic safety. This includes traffic exposure measures; dangerous incidents; accident, severity and damage risk rates; accident and casualty based severity rates as well as criteria describing safety culture. In addition, a categorization of the main causes of traffic accidents and their possible effects on traffic safety are presented. In this context, the paper attempts to assess the traffic safety conditions for rural roads in Egypt. This is done through a three-step procedure. First, a set of generic descriptive criteria that can be used to assess and compare the road safety culture is proposed. These criteria are applied in an attempt to semantically assess the traffic safety culture in Egypt. The second step starts by reviewing and categorizing the main traffic safety indicators that can be computed as well as identifying their data requirements. Deaths per million vehicle kilometers are obtained for Egypt, three other Arab countries and 6 of the G-7 countries. These were compared in an effort to determine the traffic safety position of Egypt. Finally, the third step for assessing traffic safety for rural roads in Egypt is concerned with presenting a detailed tabular analysis of accident causes. This analysis is based on all accident records collected in 1998 for the five considered rural roads in Egypt. More than 26 causes are included. These are categorized under six main categories, namely driver related, pedestrian related, vehicle related, road related, environment-related causes and other causes. The paper concludes by presenting, in a tabular form, an integrated traffic safety package composed of various policies, measures and actions targeted to improve traffic safety on rural roads in Egypt. These are categorized in accordance with the concerned authority/agency responsible for implementation.

Abbas K. A., Fattah N. A. & Reda H. R. (2003) Developing Passenger Demand Models for International Aviation from/to Egypt: A Case Study of Cairo Airport and Egyptair. In Proceedings of Air Transport Research Society, pp. 1-14. Toulouse, France.

This research is concerned with developing passenger demand models for international aviation from/to Egypt. In this context, aviation sector in Egypt is represented by the biggest and main airport namely Cairo airport as well as by the main Egyptian international air carrier namely Egyptair. The developed models utilise two variables to represent aviation demand, namely total number of international flights originating from and attracted to Cairo airport as well as total number of passengers using Egyptair international flights originating from and attracted to Cairo airport. Such demand variables were related, using different functional forms, to several explanatory variables including population, GDP and number of foreign tourists. Finally, two models were selected based on their logical acceptability, best fit and statistical significance. To demonstrate usefulness of developed models, these were used to forecast future demand patterns.

Abbas K. A. (2003) Modelling Bus Transit Operation: A Basis for Budgeting and Fare Determination. In Proceedings of European Transport Conference, Seminar on Innovative Methods in Transport Analysis, Planning and Appraisal: Public Transport Models. Strasbourg, France.

Transit planning and management is a combination of art and science. The proposed research aims at investigating and developing the rules, practices, procedures, steps and policies involved in the planning and management of a bus transit company. This is followed by integrating these rules and procedures, as mathematical formulations and algorithms, within a model that simulates the interactions among the components of the bus transit system. The developed model consists of several interrelated modules, the bus maintenance, operation, procurement, fare determination and cost accounting modules, which represent the supply aspects of bus industry. In addition, the demand analysis module, representing the demand side of bus industry. The model is meant to provide better understanding and insight into the feedback relationships that exist between components forming the supply parameters of bus transit as well as affecting the demand. Overall, such model is needed to provide practical and credible support to transit managers to explore a wide variety of alternative scenarios and examine their effects on the budget and performance of a company, so that they can make more rational and informed planning decisions. A scenario can be composed of the user specification of certain relationships between model parameters, selection of policies and specification of values for key input parameters. The applicability of the model as a tool that can support the planning and budgeting decisions of bus managers is fully demonstrated and evaluated using a case study.

Abbas K. A. (2003) User Charging for Roads in Egypt: A Case Study of Cairo-Alexandria Toll Road. In Proceedings of European Transport Conference, Seminar On Financing Infrastructure: Risk Assessment in Road Funding. Strasbourg, France.

This research starts by reviewing the current situation of toll roads in Egypt. The core of the research is to develop a simulation model that can be used to compute toll rates that are equivalent to the benefits enjoyed by road users. A case study of the first and most vital toll road in Egypt, namely Cairo Alexandria desert road, is considered. In this context, a review of traffic patterns on the road is presented. Several methodological steps are then followed as part of the framework for simulating the effects induced by changes in toll rates on travel demand as well as on toll revenues. First, vehicle operation costs, time passenger costs, as well as vehicle running time costs are reviewed from previous studies and updated. This is culminated into the formulation of generalized cost functions for four types of vehicles on both alternative roads along the Cairo-Alexandria corridor, namely the Cairo-Alexandria desert tolled road as well as the Cairo Alexandria agriculture road. The expected difference in the generalized costs is considered as a benefit for road users using the Cairo-Alexandria desert road. These are compared with current charged tolls and the discrepancy of charging very low toll rates is identified. The discrepancy represents the forgone income by the road agency. In order to simulate the effect of toll rate changes on traffic demand as well as on generated toll revenue, four binary logit route assignment models are calibrated for each type of vehicles constituting the traffic stream. In the effort to develop such models, data is compiled to estimate Annual Average Daily Traffic (AADT) by type of vehicle on these roads as well as to establish appropriate traffic growth rates. The logit models are used to obtain the expected demand using each road in light of changes in toll rates. Four graphs showing the demand pattern as a function of toll rate changes are produced for the four types of vehicles, on the two alternative roads. Finally four bell shaped curves describing the toll revenue changes with respect to toll rate changes are produced for each of the four types of vehicles. These curves can assist decision makers to determine an optimum or a sub-optimum toll rate that generates maximum revenue from road users or that induces a certain demand split between the two roads serving the Cairo-Alexandria corridor.

Abbas K. A. (2004) Reinventing Government Role in Transport Sector: The Way Forward. In Proceedings of 10th World Conference on Transport Research WCTR2004, Session H3: Deregulation, Privatisation and New Institutional Concepts. Istanbul, Turkey.

The main aim of this study was to develop a structured framework constituting the generic roles (functions and activities) that ought to be pursued by governments in national transport. The study starts by a world-wide state of the art review of roles played by Australian Department of Transport & Regional Services, United States Department of Transport, the Department of Environment, Transport & Regions in the UK and the Ministry of Land, Infrastructure and Transport in Japan. This is followed by discussing three important notions and their effects on government role in the transport sector, namely privatization, sustainability and governance. The framework developed, in this research, classifies the perceived roles of a department of transport into three main categories. The first includes those roles that are necessary to enable the performance of the main roles, so called enabling roles. The second category includes the main instrumental roles of the ministry of transport. Main roles can be defined as those roles that represent the core tasks that ought to be mandated to a Ministry of Transport. The third category includes those roles that are supportive of the main roles. Supporting roles can be defined as those roles that are meant to assist in performing the main roles in an efficient and effective manner. The paper concludes by proposing a government reinvention process involving several phases and stages required to create necessary environment for performing such roles.

Abbas K. A. (2004) Experts Judgement: A Basis for Developing Integrated Programs for Mitigating Traffic Problems in Mega Cities. In Proceedings of 10th World Conference on Transport Research WCTR2004, Session H10: Urban Transport Policy Instruments. Istanbul, Turkey.

This research starts by developing a comprehensive inventory and categorization of demand and supply-based policies and measures that are aimed at relieving traffic problems in metropolitan cities. A set of generic criteria that can be used as a basis for the judgmental assessment of such policies and measures is identified and selected. An attitudinal questionnaire is then designed to elicit the judgment of transport, traffic and highway experts regarding potentiality (efficiency and effectiveness), public acceptability, applicability, perceived cost and priority of implementation of these policies and measures. Appropriate nonparametric statistical tests and techniques are selected and applied to conduct an in depth statistical analysis of gathered expert information. The main purpose of such analysis is to obtain judgment patterns of experts and degree of consensus among them. Statistical analysis is complemented by a weighting procedure to establish the potential achievement rate of each policy and measure and hence to support in making decisions on whether to use and implement such policy or measure in relieving traffic problems. As a result of the analysis, three complementary traffic relief programs were developed. The research concludes with proposing an action program for the implementation of the suggested traffic relief package.

Abbas K. A. (2004) Developing a Generic Algorithm For Assessing Financial Feasibility of Build-Operate-Transfer Road Projects. In Proceedings of 10th World Conference on Transport Research WCTR2004, Session E1: Assessment and Appraisal Methods with Respect to Transport Infrastructure Projects and Transport Activities. Istanbul, Turkey.

This paper is concerned with developing a detailed generic algorithm to assist in conducting a comprehensive and structured financial feasibility assessment of private investment in road projects. The developed algorithm constitutes eight stages, namely defining the objectives of the project, traffic analysis, conducting Environmental Impact Assessments (EIA), estimation of potential costs, forecasting of project revenues, estimation of key financial criteria and comparing these with project financial objectives so as to determine project viability. Finally, the eighth stage is concerned with minimising uncertainties and risk through a three level procedure of conducting scenario analysis, sensitivity tests and risk analysis. Several conclusions are deduced, the most important of which is the importance to forecast and analyse the development of traffic flows over the life of a BOT road project. This forecast should particularly run over the time period considered for evaluating the proposed BOT scheme. The paper revealed the importance of using disaggregate traffic demand forecasting models for BOT road projects. Such quality traffic models are meant to forecast demand for different types of vehicles throughout the operation period rather than at peak periods. This is crucial for the rigor required in the forecasting of revenue, which is detrimental for establishing the project viability. The paper identified a number of parameters as critical to the financial success of a BOT road project. These include: length of the concession period, toll categories and rates, traffic growth rates, discount rate, etc.

Abbas K. A. (2004) Logistics Chain Analysis: A Basis for Assessing Greenhouse Impacts of Transport Activities for Industrial Premises. In Proceedings of 10th World Conference on Transport Research WCTR2004, Session B3: Logistics, Freight and Fleet Management. Istanbul, Turkey.

The main production and warehousing premises of Egypt Eastern Company for Tobacco is currently located in four different locations in Giza, Greater Cairo. The company is planning to agglomerate and relocate all of its premises into one big location in the industrial area of 6th of October new City to the south-west of Cairo. This research is concerned with assessing and comparing the greenhouse environmental impacts, resulting from transport activities in the two alternative location scenarios. In this context, two logistics chains that simulate activities and flow of raw materials and products for the company are developed. The first represents the company activities and operation from its current locations, while the second represents the expected operation of the company from its planned new location in 6th of October City. Transport phases in both chains are uniquely identified and described. A literature survey is conducted to obtain appropriate emission factors of the six main greenhouse gases emitted by transport activities. For each of the two considered industrial location scenarios, transport activities, represented by annual number of travelled kilometers, are multiplied by appropriate emission factors and expected annual values of six types of emissions are obtained. Finally, a comparative analysis is conducted to determine the location scenario expected to produce the least greenhouse emissions as a result of its transport activities.

Abbas K. A. (2004) Assessment of National Transport Sector in Egypt: A Basis for Developing a Skeleton Strategic Plan. In Proceedings of 10th World Conference on Transport Research WCTR2004, Session H1: Public Sector Performance. Istanbul, Turkey

This paper starts by presenting a discussion describing current status of the national transport sector in Egypt including the institutional development of governmental bodies responsible for the sector. It goes on towards pursuing its objective of assessing the national transport sector in Egypt. In this context, a system analysis of the transport industry is conducted. Such analysis is meant to show the main interactions between components of the system as well as to identify the non-existence of some important interactions and the weaknesses encountered in existing ones. In pursuing a more comprehensive evaluation, a semantic assessment; using 31 factors, of the four main transport sub-sectors in Egypt, namely road, rail, river and air transport; was also conducted. Based on these assessments, a diagnostic identification of problems and main causes for the current performance of national transport sector is reached. The above reviews, analysis and assessment acted as the basis for developing a skeleton strategic plan for the national transport sector in Egypt. Such plan involves deciding on acceptable values, determining the vision, mission statement and goals of the Egyptian ministry of transport and finally identifying a continuum of necessary strategies, policies and measures that can be followed to attain the preset strategic goals.

**LIST OF SOME WEB LINKS HAVING REFERENCE TO DR. KHALED ABBAS
ACADEMIC AND PROFESSIONAL WORK**

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