Curriculum Vitae

Ravi Shankar a/l R. Ayappan Project Director

Year of birth : 1969 Nationality : Malaysian

Education

Bachelor of Engineering (Hon.), Civil Engineering, University of Malaya, 1993 M.Sc. (Transport) UTM, 1999

Language And Degree Of Proficiency

	<u>Spoken</u>	Written
English	Good	Good
Bahasa Malaysia	Good	Good
Tamil	Good	Fair

Undergraduate Thesis Programme

Evaluation of the TESS Software In The Malaysia Environment (July 1992 to January 1993)

Master Thesis Programme

Peak Hour Trip Generation Rates And Estimation of Pass-By and Diverted Trips for Shopping Complexes in The Klang Valley.

Computer Proficiency

Word, Data and Graphics Software

• MS Word • Lotus 1-2-3

QuatroPro
 Excel and PowerPoint

Word Star
 CorelDraw

• Dbase

Traffic Engineering Software

TRIPS
PICADY
SIDRA
OSCADY
ARCADY
TRACKS

Employment Record And Experience

July 1994 To Date

Project Director

Perunding Trafik Klasik Sdn Bhd, Malaysia (Transportation Planning And Traffic Management Consultants)

Projects Undertaken

Transportation Masterplanning

Transportation masterplan studies comprise strategic transportation planning, sub-regional and regional transport network modelling, local area transport modelling and evaluation of transportation projects amongst others.

The work entailed in any of the above transportation masterplan studies can be summarised as estimation of trips generated and attracted by proposed development; investigation of existing travel pattern and how best can future traffic integrate into the existing transport system; development and recommendation of ingress/egress points and a circulation system that is compatible with traffic expectations by modifying the primary road network set up in the planner's masterplan; formulation of a primary road network and traffic flow concept and to review and modify road network when necessary mainly to ascertain that traffic congestion and associated problems are always alleviated.

Transportation masterplanning will be carried out by means of computer modelling, mainly utilising TRACKS and SIDRA.

List of transportation masterplan studies is as follows:

- Sibu Transport Masterplan Study (Client: Sibu Municipal Council)
- Kelana Jaya Sub-regional Modelling Study (Client: Saujana Pertiwi)
- Bukit Jalil Masterplan Study (Client: Ho Hup Construction Sdn Bhd)
- Proposed Development at Batu Kawa, Kuching (Client: Mudajaya Construction Sdn Bhd)
- Privatisation of Federal Reserve Land at Jalan Cochrane & Jalan Peel, KL (Client: Selangor Properties Sdn Bhd)
- Taman Equine Development Masterplan Studies (Client: Taman Equine Sdn Bhd)
- Taman Jubilee Transport Masterplan Study, Sibu, Sarawak (Client: Teo. A. Khing Sdn Bhd)
- KK Coastal (Macro) Masterplan Study (Client: CK Wong & Associates)
- KK Sembulan Renewal TIA (Client: Public Consultants)
- KK Likas Bay TIA (Client: Public Consultants)
- City Hall at Likas Bay, KK (Client: Konsultant Kumpulan)
- Bandar Sunway Traffic Study (Client: Sungei Way Group Sdn Bhd)

 Traffic Impact Assessment for proposed private hospital on H-S (D) 1682, Lot P.T No 13855, mukim and district of Klang Selangor

(Client: Damai Service Hospital/HSSI)

• TIA for JUSCO Bukit Indah (Client: SPV/SP SETIA)

• Cadangan Pembangunan Kedai 42 unit diatas PT 26720 - PT 26761, Taman Selaseh Mukim Batu, Daerah Gombak, SDK

(Client: Strategik Developer)

• Traffic Impact Assessment Study for Proposed Commercial Development on Lot 59, Section 57, Jalan Raja Chulan, KL

(Client: Public Bank Berhad)

- TIA for Proposed Commercial Dev on Part Lot 53382 & Lot 53391 Daerah Petaling (Client: Tmn Equine)
- Revised Traffic Impact Study for I-Borneo in Kota Kinabalu, Sabah (Client: Sagajuta Sabah Sdn Bhd)
- Traffic Study for Proposed Development of Sentul KTM Station & Assessment of Acuss Routes to Surrounding Development (Client: YTL)
- A Review of Junction Upgrading & Interchange Layout for Jalan Masjid Negeri, Jln Air Itam & Lorong Lanchang, Pulau Pinang (Client: Abad Naluri Sdn Bhd)
- Traffic Study for proposed Low Medium Cost Housing at Riffle Range, Penang (Client: Abad Naluri Sdn Bhd)
- TIA for Proposed Convention Centre on Lot PT 4800, Mukim Petaling, Kuala Lumpur at Bukit Jalil for Culvary Church (Client: Calvary Church)
- Transport Masterplan Study for Bandar Setia Alam Commercial Centre (Client: SP Setia)
- TIA for Lady Templer Hospital, Cheras (Client: Gadan Perembun Consortium)
- TIA for redevelopment of Empire Tower, Crown Princess Hotel & Yow Chuan Plaza (Client: MacQuarie Global Property Advisory (MGPA))
- Proposed Interchange at Batu Kawan for the Penang Second Link for Penang Development Corporation (PDC)
 (Client: PDC Consultancy)

- Kg Berembang Pevision 2 (Client: Prospektif Mesc)
- Traffic Impact stud for proposed commercial development at Jalan Tun Fuad Stephans (Adjacent to standard Chartered Bank, Kota Kinabalu, Sabah)
- Pelangi Junction, JB (Client: Pelangi Berhad)
- TIA on lot 1891, 1892, Jln Kiara 3 & 4, Mont Kiara, Mukim Batu. (MK22) (Client: Sunrise Berhad)

• Appointment as traffic study consultant for the accessibility from Senai Desaru Expressway fro the proposed development at PTD 105674, PTD 105776, PTD 105777, PTD 105799 and Lot 805 Mukim Tebrau district of Johor Bahru, Johor.

(Client: Pelangi Berhad)

 Preliminary Traffic Study to Determine the Vialibility of Butterworth - Kulim Expressway (Client: Prolintas)

• TIA Bukit Ceylon (Client: Wingtai)

Lot 2 & Lot 3, Tanjung Lipat, KK

(Client: SBC)

• TIA for Swettenham Pier Waterfront Development, Penang (Client: Azza ACT)

• Rancangan Tempatan Daerah Marang, Terengganu

(Client: Garis Arkitek/AJC)

• Modelling Analysis for the Tolling options between Sabak Bernam interchange & Tg Karang Interchange

(Client: KLPB)

• Traffic Masterplan for the Ledang Administration Centre, Muar Johor (Client: RRSB)

Tia for 340 Unit Apartments at Puchong

(Client: Jentrikon)

- Ridership Study for the Proposed Monorail System for the State of Penang (Client: Syarikat Prasarana Negara Berhad)
- Traffic Impact Assessment Study for proposed development kon the Parcel of Land next to Armada Hotel at Jalan Utara (Client: Malton)

 TIA for Puspahanas at Putrajaya Precint 1 (Client: Garis Arkitek/Awan Megah)

- TIA for 82 Units Shops at Taman Meranti Jaya, Mukim Dengkil, Daerah Sepang (Client: Wonderfull Property & Development Sdn Bhd)
- Preliminary conceptual Study to Determine the vialibility of a Proposed Privatised Highway Connecting Shah Alam - Batu Arang Road, Elmina Interchange at GCE and Kg Subang (Client: Prolintas)
- Verification Study of proposed Medan Binjai Toll Road (Client: AMDB)
- Traffic Impact Assessment Study for the Proposed Terrace Factory at UEP Industrial Park, USJ

(Client: Tangkas Properties Sdn Bhd)

- Traffic Study for Proposed Dataran Perdana, Kuala Lumpur (Client: PHBB)
- Traffic Impact Assessment Study for Proposed Street Mall At Jalan Subang, Selango (Client: Puncak Dana)
- TIA for mixed development on Reclaim Land Jalan Ibrahim Sultan, Stulang Laut, JB (Client: Renung Nusantara (CMP))
- Jln Merlimau Seksyen 69, Kuala Lumpur (Client: Daratan Asli)

• Traffic Enhancement Study for Guthrie Corridor Expressway (Client: Prolintas)

 Traffic Impact Assessment (TIA) study for the proposed Majestic Hotel, Kuala Lumpur (Client: GSD Architect)

 Traffic Study for Penang Sentral. Butterworth Transport Terminal (Client: MRCB)

- Road Safety Audit for main Access from Lebuhraya Sungai Besi to proposed Development on Lot PT16719, Mukim Petaling, Daerah Petaling, Selangor Darul Ehsan (Client: Mines Wonderland Sdn Bhd)
- Proposed renovation and extension to existing the Thenhon Temple on Lot 143, 141, 42, 97, PT 1, Seksyen 9413 Persiaran Endah, Kuala Lumpur (Client: Persatuan Hainan Selangor)
- TIA for the proposed Commercial Development at Precinct 18 (18c3) Core Island, Putrajaya (Client: Putrajaya Holdings)
- TIA for the proposed Neighbourhood Commercial (18RSNC) at Precint 18 (18R5) Core Island, Putrajaya (Client: Putrajaya Holdings)
- Proposed Parcel 1, parcel 2 and parcel 3 condominium Blocks at Taman Taynton View, Kuala Lumpur for Messrs Ace Acres S/B (Client: Hong Leong Properties)
- TIA for proposed Farlim Land Development and Phase 3 (Client: Sunway)
- TIA for the Revised Master plan on proposed Lagun Puteri (E) and commercial area (A1) of Danga Bay Mixed Development, Daerah Johor Bahru (Client: Ekovest)
- TIA for commercial office and Rerail Development (one mont kiara) on part of Lot PT 17741, (Formally part of Lot 21755), Mont Kiara, Mukim Batu, KL (Client: Ireka)
- TIA for proposed redevelopment of Mines Shopping Centre (Client: NAY Architect)
- Traffic Accessibility Study for PJS2 and SS13, Bandar Sunway (Client: Sunway City Berhad)
- TIA for Sunway Tower KL: Refurbishment for the Existing Building (Wisma Denmark) and New Office Tower (Client: Sunway City Berhad)

 Dataran Perdana (Client: PHBB)

- Rimcity / Iskandar Development Region (Client: Khazanah / Rim City)
- Update study for proposed Penang Bridge widening (Client: Penang Bridge Sdn Bhd
- TIA for Proposed Development Along Jalan Ampang, Kuala Lumpur (Client: Guthrie Properties)
- Temporary Road Closure of Link Road between Jalan 3/148A and Jalan 1/108C (Client: YTL)

Dataran Perdana, Transport Master plan

(Client: PHBB

 Transport Master plan Study for Prolink Projek At Nusajaya, Johor (Client: Tradewinds Properties Sdn Bhd)

• TIA Study for Abadi Ria Development (Client: Abadi Man Nien Sdn Bhd)

• TIA Study for 2 Blocks of office Tower & 1 Block of Serviced Apartments (348 Sentral) on Lot 348, Jalan Tun Sambathan, KL (Client: GSB Sentral (Gapurna))

 Traffic Impact Assessment for A Preliminary EIA Study for proposed Oil Terminal at the Port of Tanjung Langsat, Mukim Sg, Tiram, Johor Darul Takzim (Client: Alam Sekitar Malaysia Sdn Bhd)

 Sering Ukay - Proposed Residential Development (Phase 2) Services & Bungalow Lots on Part of Lot 452 & 453 Mukim Ulu Kelang Daerah Gombak Selangor for Angel Wing CM 1 (Client: DNP Property Sdn Bhd)

• Traffic Impact Assessment for Proposed Egress from Shah Alam Expressway to Persiaran Subang 2 (Jln 1/13k) for Kota Mulia (Client: Jurutera Perunding Primareka Sdn Bhd)

• Transport Masterplan Planning for Abdullah Hukum Development (Client: S P Setia)

TIA Study for Proposed Development at Lot 171 (Lot C), at KLCC (Client: KLCC Project)

• Segamat Local Plan Study (Client: Perunding UEP Sdn Bhd)

 Tangkak Local Plan Study (Client: Perunding UEP Sdn Bhd)

• Lunas, Kedah Local Plan Study (Client: Perunding EUP Sdn Bhd)

 Traffic Impact Assessment (TIA) for Proposed Mixed Development of Ladang Elmina, Mukim Bukit Raja, Daerah Petaling.
 (Client: Europasia Sdn Bhd

• Traffic Impact Assessment (TIA) for Proposed FRU Complex (Client: Europasia Sdn Bhd

Traffic Studies

Traffic studies include traffic impact assessments (TIA), traffic management schemes, parking studies and analyses, road network planning, trip generation, intersection capacity and design, accident reduction and prevention studies. The Scope of Works for traffic studies can be broadly categorised as ingress/egress analysis, projection of traffic generated and attracted by proposed development, traffic distribution pattern, analysis of the impact of the development on adjacent roads and junctions, traffic circulation and management scheme, parking requirement, pedestrian movement, junction analyses, recommendation on remedial measures to ameliorate any adverse impacts and finally propose upgrading to cater for future traffic.

Traffic studies are listed below: -

- Damansara City TIA (Client: Selangor Properties Sdn Bhd)
- Commercial Development at Jalan 51A/223 TIA (Client: Crystal Properties Sdn Bhd)
- New Kelana Jaya Centre TIA (Client: Saujana Pertiwi Sdn Bhd)
- Commercial Development at USJ TIA (Client: Baktihan Sdn Bhd)
- Kuantan Shopping Centre Traffic Study (Client: Cempaka Properties)
- TIA for Proposed Damansara City (Client: Hong Leong Properties Sdn Bhd)
- Development of Jalan Barat (Client: Akitek Akiprima)
- Hill and Lake Resort Development, Macap (Client: Aldini Project Management Sdn Bhd)
- Kemayan City Flyover Study (Client: Perunding Lee & Ooi Sdn Bhd)
- Kelana Jaya Urban Centre, TIA (Client: Hicom- Menang)
- JB World Trade Centre, TIA (Client: Ranhill Bersekutu Sdn Bhd)
- Endah Parade TIA (Client: MCB Holdings)
- Jalan Semantan, TIA (Client: Selangor Properties)
- Securities Commission, TIA (Client: Securities Commission)
- Gardens International School (Client: MBF Education Sdn Bhd)
- Public Transport Interchange Tasek Selatan (Client: ASM/Hijjas Kasturi Associates Sdn)
- Jalan Seputeh Development TIA (Client: Berjaya Group Berhad)
- Bandar Baru Nilai Town Centre Traffic Management Study (Client: Peladang Kimia Berhad)
- Pasar Borong Selayang Traffic Study (Client: HSS Integrated Sdn Bhd)

Traffic studies are listed below: - (Cont.)

- Linear City TIA 1
 (Client: KL Linear City Sdn Bhd)
- Linear City TIA 2 (Client: KL Linear City Sdn Bhd)
- Sg. Buloh TIA (Client: KL-Kepong Sdn Bhd)
- TIA for Proposed Development at Jalan 19/1 (Client: Primetech Sdn Bhd)
- TIA for Karamunsing, Sabah (Client: Ranhill Bersekutu Sdn Bhd)
- Additional Traffic Consultancy Service Jalan Barat (Client: Palmshine Project Management)
- Leisure Commerce Square (Client: Capping Corporation Sdn Bhd)
- Bukit Idaman Traffic Study (Client: Ideal Heights Sdn Bhd)
- Wijaya Baru Office Tower Traffic Study (Client: Wijaya Baru Sdn Bhd)
- Section 19/1, Petaling Jaya (Client Akitek OCA (Manshoon))
- KL City Bazaar, (Chow Kit) (Client: KL City Bazaar)
- Heliport Traffic Study (Client: Maju Holdings)
- Pudu Jail Redevelopment Project (Client: UDA/Akitek MAA
- Traffic Study for Parcel 10, Kelana Jaya (Client: Rapid Commercial)
- Bangsar Traffic Modelling (Client: Amat Juta Sdn Bhd)
- De Palme Inn Hotel, Shah Alam (Client: Perunding AJZ/PKNS)

Road Privatisation Studies

A road privatisation generally looks at the viability and feasibility of a particular stretch of road, either an existing road network or an entirely new road alignment, to be privatised. Privatisation exercise would include upgrading an existing stretch or providing a high-speed high-capacity new road in a particular area. Normally a privatisation scheme would be undertaken as a BOT project (Build, Operate and Transfer). This would entail toll collection and maintenance for a concession period of 25 to 35 years.

Privatisation studies are conducted by means of a computer modelling exercise (with the help of TRACKS) whereby existing travel demand and trip making pattern is validated and replicated to ground conditions. This would allow future estimation of traffic to be determined and also various toll options and locations of interchanges to be tested and analysed.

Among the privatisation studies are: -

- Dedicated Highway for Guilin-Liangjing International Airport (Client: Amdex Corporation Sdn Bhd)
- LBJ Lagong Sendayan Highway (Client: Mekar Idaman Sdn Bhd)
- Pantai Expressway Modelling Study (Client: Maxtro Engineering Sdn Bhd)
- Kuala Lumpur Privatised Tunnel Study (Client: Lai Sing Berhad)
- Trunk Road Toll Expressway, Mauritius (Client: C & H Engineering)
- Elevated Highway (Client: Prolintas Sdn Bhd)

Special Traffic Studies

These include studies involving interchange location and design, location of toll plazas, port studies, and accessibility studies amongst others.

Some of the studies are: -

- Nilai Northern and Southern Interchange Study (Client: Peladang Kimia Berhad)
- Trip Generation Study (Client: Ministry of Transport)
- PRT Traffic Survey (Client: KL LinearCity Sdn Bhd)
- Kota Kinabalu, Sandakan and Tawau Public Transport Study (Client: Sabah State Government)
- Klang Integrated Transportation Masterplan Study (Client: Hume Industries)

April 1993 to June 1994

Traffic Engineer

The MVA Consultancy Sdn Bhd, Malaysia (Transportation Planning And Management Consultants)

Project Undertaken

· Nilai Township

Duties:

- i) Proposed a circulation scheme for the various sections and parcels of the Nilai Township.
- ii) Investigated the required carpark capacity and tin the proposed township of Nilai.
- iii) Advised on the road widths for the internal carriageway of the township.
- vi) Suggested the types of junction control for the ingress and egress of the various sections of the township.
- v) Liaison with clients and relevant consultants of the project.

Client: N.S. Township Development Sdn Bhd

Johor Bahru Public Transport Study

Duties:

- i) Organised and supervised 16-hour bus counts, origin destination interviews, bus capacity and bus route surveys.
- ii) Processed the collected survey data and analysed the existing public transport supply and demand for Johor Bahru using Quattro Pro and Dbase.
- iii) Assisted in the preparation of the home interview survey form.
- iv) Liaison with relevant authorities to obtain the required information.

Client: Johor Bahru City Council

• Masterplan Study for the Sepang Township

Duties:

- i) Proposed the circulation scheme for the Sepang Township and advised on the location of major junctions and roundabouts.
- ii) Investigated and proposed the type of interchanges required within the township to facilitate comfortable traffic movement.
- iii) Calculated and assigned the trips generated and attracted by the township and investigated the ability of the road network to handle the traffic flow.
- iv) Investigated the required number of ingress and egress points of various section of the township.

Client: Hong Leong Property Management

- Traffic Impact Assessment for Development at Lot 4271, Johor Bahru Duties:
 - i) Responsible in organisation and supervision of peak hour traffic counts.
 - ii) Processed and analysed the obtained survey data.
 - iii) Proposed the circulation scheme for the development and advised on the location of the ingress and egress points of the township.
 - iv) Advised on the locations of entry and exits for the proposed carparks of the development.
 - v) Analysed the impact of the development on adjacent junctions using the SIDRA-software.
 - vi) Attended meetings with clients and held discussions with relevant consultants and authorities.

Client: Punca Klasik Sdn Bhd

Malaysia/Singapore Second Crossing

Duties

- i) Responsible in organisation and supervision of 16 and 20 hour traffic counts and origin-destination interviews in Johor and Penang.
- ii) Processed and analysed data using Quattro Pro.
- iii) Used TRIPS to run a Penang model in validating a Johor model.
- iv) Liaison with clients and relevant local authorities.

Clients: UEM Engineers

Traffic Impact For Kelana Jaya

Duties:

- i) Responsible in organising and supervising enumerators for peak hour turning movement court, licence plate and parking surveys, followed by analysis of the data.
- ii) Compiled an inventory of the existing traffic conditions.
- iii) Assessed the performance of the traffic condition within development and the intersecting located in the proximity.
- iv) Analysed the current parking requirements and determine future requirements.
- v) Investigated future traffic generation and attraction and traffic circulation as a result of the development and historic growth of the location.
- vi) Proposed the traffic management scheme within the location involving improvements of existing roads and implementation of one way and two way traffic flow to minimise conflicts and excessive queues.
- vii) Recommended improvements to junction located in the proximity of the development to minimise future traffic impact due to the development.
- viii) Liaison with the clients and architect involved in the project.

Clients: Perunding AZ-A

- Traffic Impact Study for Proposed Development at Jalan Klang Lama/Jalan Templer Duties:
 - i) Analysed existing traffic conditions and future conditions after the completion of the developments using SIDRA.

Jan 1992 to June 1992

Trainee Engineer (Industrial Training)

HSS Integrated Sdn Bhd

Project Undertaken

 Sg. Batu Bridge And Roundabout Junction Analysis Duties:

- i) Involved in the organisation and supervision of the traffic counts and turning movements.
- ii) Processing the obtained traffic data using Quattro Pro.
- iii) Analysed existing traffic condition.
- v) Junction capacity analysis using SIDRA.

Client: Perunding AJZ Sdn Bhd

- Sin Heap Lee Marubeni Junction Traffic Management Scheme
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 - i) Proposed a management scheme for the construction phases of the junction.
 - ii) Prepared the management scheme report and supervised the drafting of the schematic plans.
- Sime UEP Development Sdn Bhd

Duties:

- i) Responsible in organising and supervising enumerators for 16-hour, traffic movement surveys and Origin-Destination Interviews.
- ii) Processing of data using Quattro Pro.
- iii) Compiled and inventory of the existing traffic conditions.
- iv) Liaison with client.

Client: Sime UEP Development Sdn Bhd

Courses Attend:

Attending the Road Safety Audit Training Program conducted by REAM:

Module 1: Stage 1 Audit, Planning And Feasibility Stage – Completed

Module 2: Stage 2 Audit, Preliminary (Draft) Design Stage - Completed

Module 3: Stage 3 Audit, Detail Design Stage - Completed

Module 4: Stage 4 Audit, During Construction And Pre-opening of a New Project

- Completed

Module 5: Stage 5 Audit, Audit of Existing Roads - February 2001