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# Soumendra Paul—

Associate & Transport Lead

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## Experience Overview

Soumendra Paul is a Civil Engineer with 18 years of experience in planning and feasibility studies, concept and detailed design of Motorways, Highway and Expressways, innovative Interchange designs, managed freeways as per VicRoads standards, Urban and Rural roads, roundabouts and at grade intersections, safe system solutions, Bus Rapid Transit (BRT), Light Rail Transit (LRT) systems, internal roads and township roads. His experience spectrum covers aerodrome design, geometric, drainage design and review of runway, taxiway, helipad, apron and strips in accordance with Civil Aviation Organization (ICAO) Annex-14 standards. He has been actively involved in Projects with DPTI (SA), MRWA, PTA, Chevron, Brookfield Rail, PAPL, State and Local Government authorities.

His experience also includes His experience also includes traffic survey projections and analysis, intersection and turning movement analysis, trip generation and traffic impact assessments, parking survey and analysis, use of SIDRA to determine LOS and queue lengths for signalised and non-signalised Intersections, freeway LOS and weaving analysis, highway and runway pavements and drainage designs, preparation of tender documents, preparation of bill of quantities and cost estimates, preparation and compilation of project reports and technical specifications.

Soumendra has also been actively involved in project delivery and design management, building client relations and liaison and transport group business development.

## Areas of Strengths

- Project Delivery and Design Management;
- Providing technically sound, innovative and cost effective Engineering solutions;
- Providing technical advice and engineering solution for bids;
- Business Development and maintaining strong relations with client and co-workers;
- Mentoring, guiding young professionals and team building;

## Project Experience

- ✓ Yan Yean Road Tender Design, VicRoads, 2017
- ✓ Northern Connector, DPTI, South Australia -2016
- ✓ Perth Freight Link, MRWA -2015
- ✓ Reid Highway Duplication, MRWA-2014-2015
- ✓ Concept Design for LRT/BRT (Thornlie and Cockburn) – PTA, 2015
- ✓ Gateway WA – Perth Airport and Freight Access Project, MRWA – 2013-2014
- ✓ Great Northern Highway Realignment-Port Hedland, MRWA – 2012
- ✓ Road Safety Audit for Kwinana Freeway and Roe Highway (Managed Freeways Pilot Project)- Concept Design-2012
- ✓ Independent Verification for Kwinana Freeway Widening and Upgrade, Leach Highway to Roe Highway , MRWA
- ✓ Great Eastern Highway- Roe Highway Interchange Project, MRWA
- ✓ Design of the 7 km of Nanutarra-Munjina Road upgrade, Pilbara Region, MRWA/Calibre

### Position—

Associate, BG&E Pty Limited (from 2017)

### Qualifications—

#### Bachelor of Civil Engineering

(1999) IEST, Kolkata

#### Master of Traffic

(2017) Monash University, Clayton, Melbourne

#### MIEAust, Engineers Australia;

#### Associate Member, AITPM

(Australian Institute of Traffic Planning and Management)

### Career Milestones—

- 1999/ Highway Engineer, Jacobs CES (India)
- 2003/Highway Design Engineer, Wilbur Smith Associates Private Limited (India)
- 2004 / Manager Design, Galfar Engineering & Contracting, (Oman)
- 2010/ Sr Civil Engineer, BG&E
- 2015/ Principal Civil Engineer, BG&E
- 2016/ Infrastructure Design Manager, Jacobs, APAC
- 2017/ Associate, BG&E

- ✓ Great Northern Highway Realignment – Port Headland –RFP(Tender Design)
- ✓ Access Road Design for Wheatstone Project LNG Plant, Onslow, Gascoyne Region, Western Australia, MRWA/Chevron
- ✓ Upgrade of Macedon Access Road, Onslow, Gascoyne Region, Western Australia, MRWA/Chevron
  
- ✓ Dualization of Bausher-Amerat Road (Design & Construction)– Oman
- ✓ Ras Al Hadd Airport Development Project – Oman
- ✓ Construction of 54km long Muscat Expressway with 12 Interchanges, Oman
- ✓ Dualization of Muluddha-Al Hazm Road (Al Batinah Region) -Oman
- ✓ Design and Construction of Airports at Fahud, Qarn Alam and Marmul under Petroleum Development of Oman
- ✓ Design and Construction of Bausher to Al-Amerat Road Phase-II under Muscat Municipality
- ✓ Design and Construction of Central Corridor from Madinat Al Sultan Qaboos to Bausher under Muscat Municipality
- ✓ Technical Assistance on Road Maintenance Management Study to Municipal Corporation of Greater Mumbai
- ✓ Project Management Consultancy to 4 packages of Eastern Express Highway under Mumbai Urban Infrastructure Project
- ✓ Design, Review and Improvement for Integration of Kalindi Kunj Bypass(NH-2) with Delhi-Noida Direct Flyway at Delhi Interchange
- ✓ Feasibility Study and Preparation of Detailed Project Report for 4-Laning of Gairkatta-Siligudi section of NH-31 & NH-31C (87km) in West Bengal (East-West Corridor)
- ✓ Inventory of existing roads and feasibility studies for their up gradation in the State of Arunachal Pradesh
- ✓ Design and Construction Supervision consulting Services for Rajasthan Urban Infrastructure Development Project

### **Detailed Project Experience**

**2017**

**BG&E Pty Limited – Associate**

#### ***Yan Yean Road – Tender Design with BMD***

As *Design Manager*, responsible for leading the tender design team, providing value add services to the client, liaison with client and VicRoads, responsible for ensuring design coordination and delivery, including program management, community and stakeholder engagement and providing safe systems and innovative solutions. The project involved dualization of 4km of urban road in a rolling terrain.

**2016**

**Jacobs Australia Pty Ltd- Infrastructure Design Manager**

#### ***Northern Connector, DPTI, South Australia (AUD \$1 Billion) - 2016***

As *Project Manager* for Northern Connector Project,

- Responsible for Resource management
- Accountable for design budgets, resourcing, design program, monthly reports
- Managing commercial risk
- Change management
- Primary contact with Lendlease Engineering for delivery issues
- Establishing and implementing systems Ensuring design reviews are scheduled and completed
- OH&S compliance
- Managing subcontractor compliance to project procedures, plans and systems
- Achieving project goals, including: completion on time; within budget; and to an agreed quality
- Implementation of project management controls including administration of the Contract

- Monitoring time, cost, earned value and quality performance including implementing corrective actions where appropriate
- Safety processes and systems for the project
- Responsible also for technical reviews of all design packages and technical guidance to the team.
- Responsible for developing innovative concept at Bolivar Interchange - Northern Connector Project with safe system solutions.

**2015-2016**

**BG&E Pty Limited – Principal Civil Engineer**

**Perth Freight Link – Tender Design with CPB Contractors (AUD 1.65 Billion) – 2015-2016**

*As Technical Advisor,*

- Responsible for leading and developing the Major Alternative proposal (concept designs with innovative solutions) at Roe-Kwinana and Roe-Stock Interchange for PFL (Section 1). The major alternative proposal was one of the main criteria for the Leighton Contractors, Georgiou, GHD, AECOM, BG&E and WA Limestone Alliance team being announced as the preferred proponent for Section 1.
- Responsible for feasibility study and concept design of an alternative route, which includes a tunnel option, for Section 2.

**Reid Highway Duplication Project – 2014-2015, MRWA**

*As Technical Design Manager and Lead Civil Designer,*

- Responsible for civil engineering design standards and all technical aspects.
- Internal reference point for all aspects of civil design
- Training of staff involved. Training provided includes use of BG&E software and general instruction on Codes and standards, Main Roads WA documents and the design and detailing of civil works, drainage and services.
- Liaison with associated disciplines for design input.
- Manager for all incoming and outgoing correspondence.
- Responsible for ensuring design coordination and delivery, including program.
- Coordinating report delivery and close-out.
- Guiding and mentoring Design Team.
- Community and Stakeholder engagement.
- Providing safe systems and innovative solutions.

**Sept 2010 – 2015**

**BG&E Pty Limited – Senior Civil Engineer**

**Gateway WA – Perth Airport and Freight Access Project (AUD 1 billion) – 2013-2014**

*Position – Principal Highway Engineer – North zone*

- Responsibility included managing the Mx and Civil design team, geometric design of System Interchange on Tonkin-Leach and Service Interchange on Tonkin-Boud, value engineering, solving critical issues and providing sustainable solutions to complex design problems, coordinating with multi-disciplinary units, integrating aviation, structural, geotechnical, lighting, environmental and urban design aspects into civil design, liaising with MRWA, verifiers, stakeholders and local governments, delivering design documentation at various stages, writing position papers, preparation of technical reports, mentoring junior engineers in the team and providing construction support.
- Also responsible for DCT design of Roe-Berkshire Interchange with Safe System Initiative

**Design and Construction Great Northern Highway Realignment-Port Hedland – (AUD 250 Million) 2012**

- *Position – Highway Team Leader;*

- Responsibility included managing and leading civil design team, design co-ordination with multi-disciplinary units, geometric design of Highway and Interchanges Interchange to cater for trucks (Network 10 vehicles) and over size loads, preparation of design reports, specifications, bill of quantities and cost estimate, providing value engineering solutions, preparing major and minor sign strategies, liaising with client, MRWA, verifiers, stakeholders and concerned authorities for approval of design documentation.

***Independent Verification for Kwinana Freeway Widening and Upgrade, Leach Highway to Roe Highway – 2011-2012***

- Responsibility included verification of Freeway alignment, Ramp geometry and configurations, ramp terminals and intersections, road safety barriers and ramp metering, storage lanes in accordance with MRWA, Austroads, NAASRA, Vic Roads (Managed Freeways) and AASHTO standards.

***Design of the Upgrade of Nanutarra-Munjina Road to Western Turner Brockman Project in Pilbara Region***

- *Position - Project Manager;*
- Responsibility includes design coordination and delivery, including program, responsible for implementing civil engineering design standards and all technical aspects, acts as internal reference point for all aspects of civil design, liaison with associated disciplines for design input, liaison with client and MRWA for approval of design standards and drawings. Responsibility also includes alignment study, design of road geometrics (7km) and associated road and civil engineering infrastructure, co-ordination of drainage, geotechnical and pavement design, preparation of technical reports, specifications and bill of quantities.

***Road Safety Audit for Kwinana Freeway and Roe Highway (Managed Freeways Pilot Project)- Concept Design-2012***

- Position – RSA Team Member. Responsibility included managed freeways audit on the Roe Highway and Leach Highway entry ramps in accordance with VicRoads documents on Managed Freeways and ramp signals, site inspection, reviewing background information and attending meetings with MRWA.

***Great Eastern Highway- Roe Highway Interchange Project - (AUD 75 million) 2010-2012***

- Position – Highway Team Leader, Responsibility: Overall co-ordination & design management, geometric design of Parclo interchange, design of loops and ramps, design of at grade intersections, design of accommodation works, modification and realignment to utility services, storm water drainage design, design of barriers, solving critical design issues, liaison with client and asset holders, co-ordination between multidisciplinary units, liaison with MRWA for design approval and construction support.

***Design of the Upgrade of Nanutarra-Munjina Road to Western Turner Brockman Project in Pilbara Region***

- Position - Project Manager; Responsibility includes design coordination and delivery, including program, responsible for civil engineering design standards and all technical aspects, acts as internal reference point for all aspects of civil design, liaison with associated disciplines for design input, liaison with client and MRWA for approval of design standards and drawings. Responsibility also includes alignment study, design of road geometrics (7km) and associated road and civil engineering infrastructure, co-ordination of drainage, geotechnical and pavement design, preparation of technical reports, specifications and bill of quantities.

***Great Northern Highway Realignment – Port Headland –RFP (Tender Design)***

- Position - Sr. Civil Engineer: Responsibility included design of Highway and Connecting Roads, design of at grade intersections and Port Headland Parclo Interchange including loops and ramps, alignment study and design of shared paths, design of parking bays, roadside safety barriers and road furniture. Responsibility also included managing civil design, co-ordination with multidisciplinary units and verifying tender submission drawings.

***Access Road Design for Wheatstone Project LNG Plant, Onslow (Gascoyne Region) – 2011-2012***

- Position – Senior Civil Engineer, Responsibility: Overall co-ordination & design management, document control, geometric design of roads, design of at grade intersections, design of accommodation works, interpretation of geotechnical findings, results and recommendation and applying them into Road design, environmental culvert designs, modification and realignment to utility services, solving critical design issues, preparation of Project Report, liaison with client and asset holders, co-ordination between multidisciplinary units, delivering design drawings in limited time frame and liaison with MRWA for design approval.

### **Upgrade of Macedon Access Road, Onslow (Gascoyne Region) – 2011 -2012**

- Position – Senior Civil Engineer, Responsibility: Overall co-ordination & design management, geometric design of roads, design of at grade intersections, design of accommodation works, interpretation of geotechnical findings, results and recommendation and applying them into Road design, modification and realignment to utility services, environmental culvert design, solving critical design issues, liaison with client and asset holders, co-ordination between multidisciplinary units, delivering design drawings in limited time frame, preparation of Design Report and Project specifications, liaison with MRWA for design approval and construction support.

**August 2004 – Sept 2010**

**Galfar Engineering & Contracting SAOG – Sultanate Of Oman**

### **Ras Al Hadd Airport Development Project – Sultanate of Oman (US\$ 100 million) 2010**

- Position - Design Manager, Responsibility: Review of Runway Geometrics and Aerodrome Standards, coordination with consultants and overall management of design activities, reviewing design delivery program and preparation of monthly reports.

### **Dualization of Bausher-Amerat Road (Design & Construction)– (US\$ 65 million) 2009-2010**

- Position - Highway Design Engineer / Coordinator, Responsibility: Overall co-ordination & Planning of Design Works, Geometric Design of 14 km dual carriageway road through mountainous and rolling terrain. Concept plan & design of Interchanges, loops and ramps, escape ramps, At grade intersections and roundabouts using Mx-Roads software, pavement design as per Oman Highway Design Manual and AASHTO, design of culvert vent openings and road side drains, finalization of slope protection works, co-ordination of electrical and structural drawings, preparation of detailed design report, slope stabilization report and estimation of quantities. Liaison with client for approval of design drawings and co-ordination with supervision consultants to produce working drawings.

### **Construction of 54 km long Muscat Expressway with 12 Interchanges– (US\$ 350 million) 2006 - 2010**

- Position-Design Coordinator; Responsibility: Overall co-ordination & Planning of Design Works, “Geometric design review of 54km long (2 x 3 lanes) dual carriageway, collector and distributor streets, 12 interchanges, loops, ramps and ramp terminals, at-grade intersections, roundabouts”, generation of cross-sectional templates, pavement and earthwork quantities, developing profile for roadside covered and uncovered drains, reviewing storm water network along the project corridor, intricate detailing of road furniture, traffic signs and Mechanically stabilized Earth walls, co-ordination of electrical and structural drawings between interdisciplinary units, providing technical guidance to junior team members and draughts person. Liaison with client for approval of detailed drawings and co-ordination with supervision consultants to produce working drawings.

### **Dualization of Muluddha-Al Hazm Road (Al batinah region) –(US\$ 24.4 million) - 2007 – 2010**

- Position-Highway Design Engineer; Responsibility: Geometric design of 24 km long dual carriageway (2x2 configuration) road including frontage roads using Inroads software and preparation of plan & profile drawings.

### **Design and Construction of Airports at Fahud, Qarn Alam and Marmul under Petroleum Development of Oman (US\$ - 22.3 million) - 2006 -2007**

- Position-Design Coordinator; Responsibility: Overall coordination of engineering survey, investigations and design works related to airstrip, airstrip lighting and aerodrome buildings, reviewing geometric design of runways, taxiways and aprons, pavement design, overall drainage design, liaison with client and DGCAM for approval of design drawings, preparation of preliminary and detailed project reports, estimation of quantities and generation of working drawings.

### **Design and Construction of Bausher to Al-Amerat Road Phase-II under Muscat Municipality (US\$-16.5 million) -2004-2006**

- Position-Senior Design Engineer, Responsibility: Identifying and studying alternative alignments in terms of financial and technical viability, preparation of feasibility report and cost estimates. Detailed geometric design of concept alignment, intersections and roundabouts by Inroads software, design of cross-drainage structures, and estimation of quantities. Liaison with client for design approval and coordinating preparation of design drawings.

### **Design and Construction of Central Corridor from Madinat Al Sultan Qaboos to Bausher under Muscat Municipality (US\$ -27.3 Million) -2005-2006**



- Position-Senior Design Engineer, Responsibility: Coordinating survey and design works with design Consultants Parsons International and Company LLC, review of design drawings including plan, profile, intersections and interchanges, preparation of cross-sections and estimation of quantities.

**Oct 2003 – Jul 2004**

**Wilbur Smith Associates Private Limited – India**

***Technical Assistance on Road Maintenance Management Study to Municipal Corporation of Greater Mumbai – (3 months-2004)***

- Position-Road Engineer, Responsibility: Review of existing road maintenance system, developing pavement rating system, coordinating with MIS Specialist for development of RMMS software including preparation of road-data base of R-North ward in Mumbai.

***Project Management Consultancy to 4 packages of Eastern Express Highway under Mumbai Urban Infrastructure Project – 2004***

- Position: Highway Design Engineer, Responsibility: Reviewing design of 12 km Urban Expressway including development of alignments, design of intersections, creating typical cross sectional library and estimation of quantities.

***Design, Review and Improvement for Integration of Kalindi Kunj Bypass(NH-2) with Delhi-Noida Direct Flyway at Delhi Interchange – 2003 [Client : Noida Toll Bridge Company Limited]***

- Position: Highway Design Engineer, Responsibility: Developing schematic layouts of interchange, geometric design of ramps including improvement of at-grade intersections. Also involved in coordination with client, attending meetings and preparation of reports.

**Sept 1999 – Sept 2003**

**Consulting Engineering Services (India) Pvt. Ltd -India (Jacobs-CES)**

***Feasibility Study and Preparation of Detailed Project Report for 4-Laning of Gairkatta-Siligudi section of NH-31 & NH-31C (87km) in West Bengal (East-West Corridor) - 2002 [Client : (NHAI)]***

- Position: Highway Design Engineer, Responsibility: Geometric design for 87 km of dual carriageway road, bypass alignments, developing cross-sections, planning widening schemes and estimation of quantities for road works.

***Inventorisation of existing roads and feasibility studies for their up gradation in the State of Arunachal Pradesh under NEC's 10th Plan - 2002 (Client : Chief Engineer, PWD, Govt. of Arunachal Pradesh )***

- Position: Highway Design Engineer, Responsibility: checking survey drawings, geometric design of 92 km single carriageway major district Roads in hilly terrain, design of junctions, estimation of quantities using Inroads software, preparation of reports and overall co-ordination with design team and client.

***Design and Construction Supervision consulting Services for Rajasthan Urban Infrastructure Development Project - 2001-2006 (Client : Government of Rajasthan - ADB funded )***

- Position: Junior Road Designer , Responsibility: Coordinating engineering survey and investigation works, geometric design of roads, road under bridges and ramps, design of intersections, junctions and roundabouts, Traffic survey projections and analysis, design of pavement, road side drains, preparation of detailed project report, bill of quantities, rate analysis, detailed cost estimate and preparation of tender documents.

***4-Laning of Rajahmundry to Tuni section of NH-5 in the State of Andhra Pradesh in association with M/s. Winter Associates, Canada – 2000-2001 [Client : National Highways Authority of India (NHAI)]***

- Position : Highway Engineer, Responsibility: Road and culvert inventory and condition survey, strip plan preparations, geometric design of alignment, intersections and junctions, preparation of utility relocation plans and Land Acquisition Plans, overall co-ordination of site activities and liaison with client.

***Strengthening and Widening to 4-lanes of Panagarh-Palsit Section of NH-2 in the state of West Bengal with M/s. Winter Associates, Canada – 1999-2000 [Client : National Highways Authority of India (NHAI)]***

- Position: Junior Highway Engineer, Responsibility: Designing of at-grade intersections, scheduling and estimation of traffic signs and road markings, preparation of project reports and bid documents.