KL Office (Main)
GCU Consultants Sdn Bhd
3F-09, IOI Business Park,
Bandar Puchong Jaya,
47170 Puchong, Selangor Darul Ehsan
Tel : +603 – 8070 5501
Fax : +603 – 8070 5503
Contact Person : Ir. EG Balakrishnan / Ir. Mohd Redzuan
H/P No : +6012 – 201 0434 / 019 – 281 3018

C&S Office
GCU Consultants (C&S) Sdn Bhd
1F-28, IOI Business Park,
Bandar Puchong Jaya,
47170 Puchong, Selangor Darul Ehsan
Tel : +603 – 8070 5502
Fax : +603 – 8070 5503
Contact Person : Ir. S Vijayakumar / Ir. R Thinagaran
H/P No : +6012 – 390 0966 / 012 – 385 6706

M&E Office
GCU Consultants (M&E) Sdn Bhd
E3A-03A, Neo Damansara, Jalan PJU 8/11,
Bandar Damansara Perdana,
47820 Petaling Jaya, Selangor Darul Ehsan
Contact Person : Ir. Narendran Naidu
H/P No : +6012 – 278 7974
Fax : +603 – 7729 0654

Johor Office
GCU Consultants (Johor) Sdn Bhd
No.12-02, Jalan Molek 1/5C, Taman Molek,
81100 Johor Bahru, Johor Darul Takzim
Tel : +607 – 350 7391
Fax : +607 – 350 7392
Contact Person : Ir. Lee Kai Ming
H/P No : +6012 – 232 3806

Sabah Office
GCU Consultants (Sabah) Sdn Bhd
Lot B-11A-2, Block B, Pavilion Bundusan,
Lorong Pavilion Bundusan 3,
Jalan Bundusan,
88300 Penampang, Sabah
Tel / Fax : +6088 – 739 755
Contact Person : Ir. Amarjit Singh
H/P No : +6017 – 339 8479
# PROFILE OF MAIN COMPANY

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1. Project Summary
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Section 3 – Curriculum Vitae (CV)
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2. Ir. Vijayakumar Somasundaram
3. Ir. R Thinagaran V Ramasamy
4. Ir. Amarjit Singh
5. Ir. Mohd Redzuan Ahmad
6. Engr. Si aLing Heng
7. Engr. Zailah Zakaria
SECTION 1

COMPANY INFORMATION

1. Introduction

2. Principals & Key Professionals

3. Organisation Chart

4. Software List

5. Certificates

6. Professional Indemnity Insurance Coverage
INTRODUCTION
INTRODUCTION

GCU Consultants Sdn Bhd (GCU) is a registered consulting firm providing civil and structural engineering consultancy services in general with specialised skills in geotechnical engineering. GCU was established in the year of 1998. The firm and the key personnel have been successfully servicing the clients with a comprehensive range of civil, structural and geotechnical engineering projects.

The company is registered with the Board of Engineers Malaysia and Ministry of Finance Malaysia to provide engineering consultancy services. GCU is also an ISO Certified by SIRIM and UKAS to MS ISO 9001 : 2008 Quality Management Systems Standard.

GCU has been granted with Certificate of Achievement for Achieving 3 Star Rating under the SME Competitive Rating for Enhancement (SCORE) by SME Corp Malaysia in Year 2009.

GCU has also been accredited by Asia Entrepreneur Alliance for Super Excellence Brand Award for the Year 2011 presented by YB Dato’ Sri Peter Chin Fah Kui, the Minister of Energy, Green Technology and Water Malaysia.

The foremost goal of the company is to provide quality, innovative and economical solutions for our clients. The strength of the firm lies with its well qualified and experienced staffs who are committed to achieving excellence in the profession. The professional staff of GCU has carried out numerous reputable jobs successfully contributing to the country’s development. We have a high frequency of repeat business indicating the client’s satisfaction in our services.

GCU has the capability of providing an excellent range of civil, structural and geotechnical engineering consultancy services for highways, railways, airports, large commercial / industrial building mixed developments, ports, hospitals and many development projects.

The professional staff of GCU has the relevant capability and experience in providing a wide range of civil infrastructural and structural engineering consulting services. Our strong foundation in geotechnical engineering which has paramount importance to the civil engineering works has helped us in moulding a strong civil and structural engineering consulting capability. An example of this is the Express Rail Link Project from KL Sentral to KLIA, Sepang. Started as a geotechnical specialist consultant and later culminating as the lead civil consultant for the turnkey contractor, Syarikat Pembenaan Yeoh Tiong Lay Sdn Bhd.

The firm and the professional staff of the firm has the capability in providing civil infrastructural and structural engineering consulting services for the following areas :-

- Highways / Roads.
- Railways.
- Civil Infrastructure for Mixed Developments.
- Large Commercial / Industrial Buildings & Complex
- Building Structures–Highrise Residential, Public Amenities, Hospitals
- Ports.
- Power Plants.
- Reclamation Works.
- Flood Mitigation Works.
- Water Supply and Sewerage.
Major projects undertaken by firm :-

- Express Rail Link (ERL) Project for YTL (RM800 million).
- Merdeka Villa comprising of 6 blocks of 10 to 19 Storey high rise Apartments for Darma Hemat (RM110 million).
- Setia Hills – 45 units of High-end Bungalow at Ampang Hill for S P Setia (RM45 million).
- Tesco Hypermarket at Bandar Setia Alam for S P Setia (RM45 million).
- 68 units of High-end Bungalow at Eco-Setia Park for S P Setia (RM30 million)
- Setia Avenue High-end Commercial Complex at Bandar Setia Alam for S P Setia (RM100 million)
- Arunamari Medical Centre in Bukit Tinggi
- Mixed Development in Klang for Perbadanan Kemajuan Negeri Selangor (PKNS)
- Pipe Replacement for Syabas in Klang, Selangor
- Housing Development in Mukim Hulu Langat, Daerah Hulu Langat, Selangor
- Upgrade Pipe and Water Plant at Sungai Intan, Semporna, Sabah (RM47 million)
- Industrial Facilities for Vale Malaysia Mineral, Lumut
- Expansion and Upgrading for Perak Hanjoong Cement Plant, Padang Rengas, Perak
- Mining Facilities for Terengganu Silica
- 1 Block of Service Apartment 39-Storey with Podium Parking, Commercial & Public Facilities for Wajatex Sdn.Bhd.
- Development of 275kV/133kV PMU Southkey, JB on PTD 21311, Mukim Plentong, Johor Bahru.
- Parking Holding Area for Jimah East Power Sdn Bhd, Mukim Jimah, Port Dickson, Negeri Sembilan.
- 1 Unit Factory and Facilities for Biocare Pharma Plant
- Pengerang Deepwater Terminal 2 at Pengerang, Johor Darul Takzim
- 1000 Unit of Terrace House, 1 Unit Community Centre, 1 Unit Kindergarten, 1 Unit Masjid, 3 Unit TNB Sub-Station, 32 Unit of Shop Lot and 616 Unit (6 Block) Apartment 9-10 stories include facilities.

- Menaiktaraf Laluan Persekutuan 150, Paboi to Bukit Tambun, Seberang Perai, Pulau Pinang for Zambina Wawasan Sdn Bhd.


- Proposed Interchange at Lot 3024 for Connection to PLUS Highway after Nilai Toll Plaza for Sime Darby Property.
PRINCIPALS & KEY PROFESSIONALS
PRINCIPALS AND KEY PERSONNEL

GCU Group has adequate technical manpower resources to undertake major Civil and Structural engineering consulting services.

The Principals and key personnel of the GCU Group under the C & S department are :-

Ir. E G Balakrishnan
- As a Managing Director of GCU Group, Ir. E G Balakrishnan has more than 31 years experience, in the field of civil, structural and geotechnical engineering, both design and construction.
- He holds a Degree in Civil Engineering from University of Malaya.
- He holds a Master Degree in Geotechnical Engineering from the Asian Institute of Technology, Bangkok and studied under Professor A.S. Balasubramaniam.
- Apart from his responsibility in managing and developing the business, he is also responsible for the overall engineering direction undertaken by the firm.

Ir. Vijayakumar Somasundaram
- As a Director and HOD of Civil & Structural Engineering Department, Ir. Vijayakumar Somasundaram has more than 19 years of experience, in the field of Civil & Structure, both Design and Construction Work.
- He holds a Degree in Civil Engineering from University Science Malaysia (USM).
- He holds a Master Degree in Civil Engineering from University Teknologi Malaysia.

Ir. R Thinagaran V Ramasamy
- As a Director of Civil & Structural Engineering Department, Ir. R Thinagaran V Ramasamy has more than 26 years of experience, in the field of Civil, both Design and Construction Work.
- He holds a Degree in Civil Engineering from University Teknologi Malaysia (UTM).

Ir. Amarjit Singh
- As a Director of Sabah Office, Ir. Amarjit Singh has more than 19 years of experience, in the field of Water Supply and Sewerage, both Design and Construction Work.
- He holds a Degree in Civil Engineering from UNIMAS.
- He holds a Master Degree in Water Engineering from University Putra Malaysia.

Ir. Mohd Redzuan Bin Ahmad
- As a Director and HOD Geotechnical Department of GCU Group, Ir. Mohd Redzuan Bin Ahmad has more than 19 years experience in the field of geotechnical engineering, both design and construction.
- He holds a Degree in Civil & Structural Engineering from University of Sheffield, United Kingdom.
- He holds a Master Degree in Geotechnical Engineering from University Teknologi Malaysia.
ORGANISATION CHART
SOFTWARE LIST
SOFTWARE

The firm is equipped with an excellent range of computer software to analyse even the most complex tasks in civil and structural engineering. These computing power coupled with the judgement of the experienced engineers are vital in the analyses of the complex behavior of the civil and structures. The available programs at present are:

MIDUSS (VERSION 2)
Miduss helps to model the hydrology of a catchment, or a series of sub-catchments, so that the runoff hydrograph at various points in the catchment can be computed. The program allows the design of the hydraulic elements (based on uniform flow hydraulics) in a network. Miduss is highly interactive in use and allows engineering judgement to be exercised at all stages at the design process.

12D MODEL (VERSION 7)
12D Model is a powerful terrain modeling. 12D Model calculate the earthworks volume and model the cross section. It provides a 3 dimensional surfaces for both visualisation and volume calculation. The TIN’s are traditionally built from the design surface model and the existing or natural surface surveyed data.

WATERCAD
WaterCad is a feature rich program with extensive online documentation that is able to provide a level of instruction appropriate to the needs. WaterCad is an extremely efficient tool for laying out a water distribution network. WaterCad can prepare a schematic drawing and link node connectivity.

STAAD.PRO (VERSION 8i)
STAAD.Pro V8i is the structural engineering software product for 3D model generation, analysis and multi-material design. It has an intuitive, user-friendly GUI, visualization tools, powerful analysis and design facilities and seamless integration to several other modeling and design software product.

ORION R15
Orion is developed for the analysis, design and drafting of Concrete Building Structures. Orion is concentrated on accurate analysis, fast data preparation, automated reinforced concrete design and automated preparation of engineering drawings and details.

MX ROAD
MX Road allows powerful Digital Terrain Model (DTM) creation and analysis, full alignment, road and junction design capability, 2D and 3D drainage design, volume and quantity extraction, integration with Google Earth and automated production of drawings for any type of road, large or small.

AUTODESK BUILDING DESIGN SUITE (BIM)
- Design with BIM – or CAD – based tools to quickly explore design alternatives
- Use integrated analysis to help inform your design and construction decisions before breaking ground.
- Produce near-realistic 3D visualizations to help communicate design intent, identify conflicts, and reduce costly design changes
- Create more consistent, higher-quality construction documentation and as-built models
- Help coordinate multiple team members and disciplines working together to deliver on schedule and on budget.

INHOUSE SPREADSHEET PROGRAMS
Numerous inhouse spreadsheet programs have been developed by GCU to assist in voluminous repetitious nature of computational work and parametric studies. Spreadsheet programs for the following analysis/design are available:
- Reinforced Concrete Wall
- OCL foundation
- Reinforced Concrete Design
- Prestressed Concrete Design
- Steel Design
- Sewer Reticulation Design
ACHIEVEMENT CERTIFICATES
CERTIFICATE

SIRIM QAS International hereby certifies that

GCU CONSULTANTS SDN. BHD.
UNIT 3F-09, IOI BUSINESS PARK
NO. 1, PERSIARAN PUCHONG JAYA SELATAN
BANDAR PUCHONG JAYA
47100 PUCHONG
SELANGOR DARUL EHSAN
MALAYSIA

has implemented a Quality Management System complying with

ISO 9001 : 2008
QUALITY MANAGEMENT SYSTEMS - Requirements

Scope of Certification

PROVISION OF CIVIL, STRUCTURAL AND GEOTECHNICAL ENGINEERING
CONSULTANCY SERVICES.

Issue date : 17 May 2013
Validity period : 18 May 2013 - 17 May 2016
Certification No. : AR 4335

Khalidah Mustafa
Managing Director
SIRIM QAS International Sdn. Bhd.

This certificate is granted subject to the terms and conditions as stated in the Certification Agreement.
Certificate of Achievement

This is to certify that
Asia Entrepreneur Alliance
has accredited

GCU CONSULTANTS SDN BHD

This accreditation is awarded
in recognition of compliance with the
Super Excellent Brand Accreditation
Standards with respect to:

Brand Development and Management
Organisation and Management

Accreditation Award Date:
9th January, 2012

Prof. Dr. Denver Tan
Hons Ph.D  Hon.F.AEA  Hon.F.AIMS (USA)
President
CERTIFICATE

IQNet and SIRIM QAS International hereby certify that

GCU CONSULTANTS SDN. BHD.
UNIT 3F-09, IOI BUSINESS PARK
NO. 1, PERSIARAN PUCHONG JAYA SELATAN
BANDAR PUCHONG JAYA
47100 PUCHONG
SELANGOR DARUL EHSAN
MALAYSIA

has implemented and maintains a

QUALITY MANAGEMENT SYSTEM

which fulfils the requirements of the following standard

ISO 9001 : 2008

for the following activities

PROVISION OF CIVIL, STRUCTURAL AND GEOTECHNICAL
ENGINEERING CONSULTANCY SERVICES.

Issued on : 17 May 2013
Validity date : 17 May 2016
Certification Number : MY-AR 4335

Michael Drechsel
President of IQNet

Khalidah Mustafa
Managing Director
SIRIM QAS International Sdn Bhd

IQNet Partners*: AENOR Spain  AFNOR Certification France  ATB-Vinsipte International Belgium  ANCE Mexico  APCER Portugal  CCC Cyprus  CIBQ Italy  CQC China  CQM China  CQS Czech Republic  Cro Cert Creative  DQS Holding GmbH Germany  DS Denmark  ELOT Greece  FCAV Brazil  FONGONORMA Venezuela  HKQA Hong Kong China  ICONTEC Colombia  IMNC Mexico  Inspecta Certification Finland  IRAM Argentina  IQA Japan  KFQ Korea  MSZT Hungary  Nemko AS Norway  NSAI Ireland  PCBC Poland  Quality Austria  RR Russia  SII Israel  SIQ Slovenia  SIRIM QAS International Malaysia  SQS Switzerland  SRAC Romania  TEST St Petersburg Russia  TSE Turkey  YUQS Serbia

IQNet is represented in the USA by: AENOR Certification, CIBQ, DQS Holding GmbH and NSAI Inc.

* The list of IQNet partners is valid at the time of issue of this certificate. Updated information is available under www.iqnet-certification.com
Certificate of Achievement

Congratulations to

GCU CONSULTANTS SDN BHD

for successfully achieving

⭐⭐⭐⭐⭐⭐⭐

for the year 2009

under the

SME COMPETITIVE RATING FOR ENHANCEMENT (SCORE)

TAN SRI ABDUL RAHMAN MAMAT
Secretary General
Ministry of International Trade and Industry (MITI)

DATUK' HAFSAH HASHIM
Chief Executive Officer
Small And Medium Enterprises Corporation Malaysia (SME Corp, Malaysia)

DATUK IR. MOHAMED AL AMIN
HJ. ABDUL MAJID
Chairman
Small And Medium Enterprises Corporation Malaysia (SME Corp, Malaysia)
REGISTRATION CERTIFICATES
Dengan ini disahkan bahawa

GCU CONSULTANTS SDN. BHD.
UNIT 3F-09, IOI BUSINESS PARK,
NO. 1, PERSIARAN PUCHONG JAYA SELATAN,
BANDAR PUCHONG JAYA,
PETALING,
47170, PUCHONG, SELANGOR

Telah berdaftar dengan Tenaga Nasional Berhad sebagai

**Perunding Perkhidmatan**

**di bawah kategori yang tercatat dalam sijil ini**

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**330101, 330102, 330103**

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Tarikh tempoh sah laku pendaftaran ini adalah tertakluk kepada tempoh sah laku Pendaftaran sijil-sijil Kementerian Kewangan(KK), Lembaga Pembangunan Industri Pembinaan Malaysia (CIDB) dan sijil-sijil professional yang berkaitan.

Ir. Syed Abu Hanifah bin Syed Alwi
Ketua Pegawai Perolehan
Bahagian Perolehan
Tenaga Nasional Berhad
Tarikh kelulusan : 13.08.2015

*Ini adalah cetakan komputer dan tidak memerlukan tandatangan.*
KEMENTERIAN KEWANGAN MALAYSIA
SIJIL AKUAN PENDAFTARAN FIRMA PERUNDING

NO SIJIL : J19712428821493836
NO RUJUKAN PENDAFTARAN : 465-00001892
TEMPOH SAH LAKU : 13/07/2015 - 12/07/2018

Bahawa dengan ini diperakui Firma Perunding :

GCU CONSULTANTS SDN. BHD. (460942-T)
UNIT 3F-09, IOI BUSINESS PARK,
NO.1, PERSIARAN PUCHONG JAYA SELATAN,
BANDAR PUCHONG JAYA,
PETALING
47170 PUCHONG
SELANGOR, MALAYSIA

Telah berdaftar dengan Kementerian Kewangan Malaysia dalam bidang perkhidmatan perunding di bawah bidang dan sub-bidang seperti di Lampiran A1. Kelulusan ini adalah tertakluk kepada syarat-syarat seperti yang dinyatakan di Lampiran B1. Individu yang diberi kuasa oleh firma perunding bagi urusan perolehan Kerajaan adalah seperti berikut :

AMIRTHARAJ A/L BATHMANABAN 741120145967 COMMERCIAL MANAGER

Dato' Hashmuddin bin Mohammad
Bahagian Perolehan Kerajaan
b.p Ketua Setiausaha Perbendaharaan
Kementerian Kewangan Malaysia

Tarikh Berdaftar Dengan Kementerian Kewangan Malaysia : 13/07/2015

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AKTA PENDAFTARAN JURUTERA 1967
PERATURAN-PERATURAN PENDAFTARAN JURUTERA 1990
(PERATURAN 35)

LEMBAGA JURUTERA MALAYSIA
PERAKUAN PENDAFTARAN SEBAGAI AMALAN JURUTERA PERUNDING

INI ADALAH UNTUK MEMPERAKUI BAHAWA

Nama: Pertubuhan Perbadanan
GCU CONSULTANTS SDN. BHD.

Alamat: UNIT 3F-09 IOI BUSINESS PARK
NO. 1 PERSIARAN PUCHONG JAYA SELATAN
BANDAR PUCHONG JAYA
47100 PUCHONG SELANGOR

Cawangan Kejuruteraan: ** CIVIL, ELECTRICAL **

yang telah mematuhi kehendak-kehendak Akta Pendaftaran Jurutera 1967 dan telah membayar fee pendaftaran didaftarkan sebagai suatu AMALAN JURUTERA PERUNDING dalam cawangan kejuruteraan yang dinyatakan di atas tertakluk kepada syarat-syarat yang dinyatakan di bawah.

Syarat-syarat:

Perakuan pendaftaran ini akan habis tempoh pada 31 DESEMBER 2016

(DATUK Ir. ADANAN BIN MOHAMED HUSSAIN)
Yang Dipertua

(lr. HIZAMUL-DIN BIN AB. RAHMAN)
Pendaftar

Tarikh dikeluarkan: 07 DECEMBER 2015

** No. Resit 265584 ** PBB 084650 ** RM1,000.00 ** Tarikh bayaran:07-12-2015**
[ RM1,000.00(Renewal Fee) ]
Pengesahan pendaftaran hendaklah disemak dilaman web www.bem.org.my
The Association of Consulting Engineers Malaysia
certifies that
GCU Consultants Sdn Bhd
is a Member of
ACEM Panel of Consulting Firms

Membership no.: P144
Member since: 23 August 2010

Ir. Wong Loo Min
President

Ir. Prem Kumar
Deputy President

Ir. Looi Hip Peu
Honorary Secretary

Session 2010/2011
REGISTRATION OF ENGINEERS ACT 1967
REGISTRATION OF ENGINEERS REGULATIONS 1990

Certificate No. : 1615-0100-PC-C18283

BOARD OF ENGINEERS MALAYSIA

CERTIFICATE OF REGISTRATION OF
PROFESSIONAL ENGINEER WITH PRACTISING CERTIFICATE

THIS IS TO CERTIFY THAT

Name :  Ir. BALAKRISHNAN A/L ETTY GAUNDER
Address :  NO 21 JALAN BK 6A/1
       BANDAR KINRARA
       47100 PUCHONG
       SELANGOR, MALAYSIA

Identification Card No :  610317086227   Nationality :  MALAYSIAN

having complied with the requirements of the Registration of Engineers Act 1967 is registered as a
PROFESSIONAL ENGINEER WITH PRACTISING CERTIFICATE in the branch of engineering
specified below -

Registration No :  C18283   Branch of Engineering :  CIVIL

subject to the conditions stipulated below -

Not Applicable

This certificate of registration shall expire on 31 DECEMBER 2016

(DATUK Ir. ADANAN BIN MOhammed HUSSAIN)
President

(Ir. HIZAMUL-DIN BIN AB. RAHMAN)
Registrar

Date of Issue : 18 JANUARY 2016

** Receipt No. 271082 ** PBB 084672 ** RM200.00 ** Payment Date:18-01-2016**
[ RM200.00(Renewal Fee (B2016)) ]
Scan QR code or barcode or visit BEM website (www.bem.org.my) for confirmation of registration
REGISTRATION OF ENGINEERS ACT 1967
REGISTRATION OF ENGINEERS REGULATIONS 1990

Certificate No.: 1615-0100-PC-C113655

BOARD OF ENGINEERS MALAYSIA

CERTIFICATE OF REGISTRATION OF
PROFESSIONAL ENGINEER WITH PRACTISING CERTIFICATE

THIS IS TO CERTIFY THAT

Name: Ir. MOHD REDZUAN BIN AHMAD
Address: 26 JALAN PP 3/24
TAMAN PUTRA PERDANA
47100 PUCHONG
SELANGOR, MALAYSIA

Identification Card No.: 741008145561 Nationality: MALAYSIAN

having complied with the requirements of the Registration of Engineers Act 1967 is registered as a
PROFESSIONAL ENGINEER WITH PRACTISING CERTIFICATE in the branch of engineering
specified below -

Registration No.: C113655 Branch of Engineering: CIVIL

subject to the conditions stipulated below -
Not Applicable

This certificate of registration shall expire on 31 DECEMBER 2016

(DATUK Ir. ADANAN BIN MOHAMED HUSSAIN)
President

(Ir. HIZAMUL-DIN BIN AB. RAHMAN)
Registrar

Date of Issue: 18 JANUARY 2016

** Receipt No. 271083 ** PBB 084672 ** RM200.00 ** Payment Date: 18-01-2016 **
[ RM200.00(Renewal Fee (B2016))]
REGISTRATION OF ENGINEERS ACT 1967
REGISTRATION OF ENGINEERS REGULATIONS 1990

Certificate No.: 1615-0100-PC-C112687

BOARD OF ENGINEERS MALAYSIA

CERTIFICATE OF REGISTRATION OF
PROFESSIONAL ENGINEER WITH PRACTISING CERTIFICATE

THIS IS TO CERTIFY THAT

Name:  
IR. VIJAYAKUMAR A/L SOMASUNDARAM

Address:  
17-4-2A OG COURT
JALAN AWAN JAWA
TAMAN YARL
58200 KUALA LUMPUR
W. PERSEKUTUAN (K.L), MALAYSIA

Identification Card No.: 721002086371  Nationality: MALAYSIAN

having complied with the requirements of the Registration of Engineers Act 1967 is registered as a
PROFESSIONAL ENGINEER WITH PRACTISING CERTIFICATE in the branch of engineering
specified below -

Registration No.:  C112687  Branch of Engineering:  CIVIL

subject to the conditions stipulated below -

Not Applicable

This certificate of registration shall expire on 31 DECEMBER 2016

(DATUK IR. ADANAN BIN MOHAMED HUSSAIN)

President

(Ir. HIZAMUL-DIN BIN AB. RAHMAN)

Registrar

Date of Issue: 18 JANUARY 2016

** Receipt No. 271086 ** PBB 084672 ** RM200.00 ** Payment Date: 18-01-2016**

[ RM200.00(Renewal Fee (B2016)) ]

Scan QR code or barcode or visit BEM website (www.pem.org.my) for confirmation of registration
BOARD OF ENGINEERS MALAYSIA

CERTIFICATE OF REGISTRATION OF PROFESSIONAL ENGINEER WITH PRACTISING CERTIFICATE

THIS IS TO CERTIFY THAT

Name: Ir. R THINAGARAN A/L V RAMASAMY
Address: NO 4 JALAN ANGGERIK ONCIDIUM 31/74A
KOTA KEMUNING SEKSYEN 31
40460 SHAH ALAM
SELANGOR, MALAYSIA

Identification Card No: 640114085133 Nationality: MALAYSIAN

having complied with the requirements of the Registration of Engineers Act 1967 is registered as a PROFESSIONAL ENGINEER WITH PRACTISING CERTIFICATE in the branch of engineering specified below -

Registration No: C115920
Branch of Engineering: CIVIL

subject to the conditions stipulated below -
Not Applicable

This certificate of registration shall expire on 31 DECEMBER 2016

(DATUK Ir. ADANAN BIN MOHAMED HUSSAIN)
President

(Ir. HIZAMUL-DIN BIN AB. RAHMAN)
Registrar

Date of Issue: 18 JANUARY 2016

** Receipt No. 271085 ** PBB 084672 ** RM200.00 ** Payment Date: 18-01-2016 **
RM200.00 (Renewal Fee (B2016))

Scan QR code or barcode or visit BEM website (www.bem.org.my) for confirmation of registration
AKTA PENDAFTARAN JURUTERA 1967
PERATURAN-PERATURAN PENDAFTARAN JURUTERA 1990
(Permukiman Isi)

No. Perakuan: 1504-010000-PE-11848

LEMBAGA JURUTERA MALAYSIA
PERAKUAN PENDAFTARAN SEBAGAI JURUTERA PROFESIONAL

INI ADALAH UNTUK MEMPERAKUAN BAHWA

Nama: Ir. AMARJIT SINGH
No. Kad Pengenal: 700513125253
Alamat: NO 78 LORONG 2G
TMN PENAMPANG
88300 KOTA KINABALU SABAH

No. Pendaftaran: 11848

Cawangan Kejuruteraan: ** CIVIL **

yang telah mematuhi kehendak-kehendak Akta Pendaftaran Jurutera 1967 dan telah membayar fee pendaftaran didaftarkan sebagai seorang JURUTERA PROFESIONAL dalam cawangan kejuruteraan yang dinyatakan di atas teriakluk kepada syarat-syarat yang dinyatakan di bawah.

Syarat-syarat:

- Tiada -

Perakuan pendaftaran ini akan habis tempoh pada 31 DESEMBER 2015

Tarikh dikeluarkan: 11 DECEMBER 2014

** No. Resit 243336 ** M2U 10122014(2223790779) ** RM200.00 ** Tarikh bayaran: 10-12-2014 **

[ RM200.00(Fee Pembaharuan)]

Pengesahan pendaftaran hendaklah disemak disini dalam web www.bem.org.my

(DATO' Ir. Hj. ANNIES BIN MD. ARIFF)
Yang Dipertua

(Ir. HIZAMUL-DIN BIN AB. RAHMAN)
Pendaftar
SURUHANJAYA PERKHIDMATAN AIR NEGARA

PERAKUAN PENGIKTIRAFAN
SEBAGAI
ORANG YANG BERKELAYAKAN

(menurut Seksyen 47 Akta Industri Perkhidmatan Air 2006 [Akta 655])

Adalah dengan ini disahkan bahawa

IR BALAKRISHNAN A/L ETTY GAUNDER
Syarikat
GCU CONSULTANTS SDN BHD
telah diiktiraf sebagai Orang Yang Berkelayakan menurut Seksyen 47 Akta Industri Perkhidmatan Air 2006 (Akta 655) Dalam Bidang Seperti Berikut:

W1, W2, W5, W7, S1, S2, S5 & S7

Nombor Orang Yang Berkelayakan: SPAN QP 2144

Pengiktirafan ini adalah tertakluk kepada syarat-syarat seperti yang dinyatakan di belakang sijil ini

DATO' TEO YEN HUA
Ketua Pegawai Eksekutif
Suruhanjaya Perkhidmatan Air Negara

Tarikh: 29 Jun 2011

**Sila rujuk lampiran 1 untuk keterangan lanjut**
SURUHANJAYA PERKhidMATAN AIR NEgARA
PERAKUAN PENGIKTIRAFAN
SEBAGAI
ORANG YANG BERKELAYAKAN
(menurut Seksyen 47 Akta Industri Perkhidmatan Air 2006 [Akta 655])

Adalah dengan ini disahkan bahawa

VIJAYAKUMAR SOMASUNDARAM
Syarikat
GCU CONSULTANTS SDN BHD
telah diiktiraf sebagai Orang Yang Berkelayakan menurut Seksyen 47 Akta Industri Perkhidmatan Air 2006 (Akta 655) Dalam Bidang Seperti Berikut:

W1, W2, W5, W7, S1, S2, S5 & S7

Nombor Orang Yang Berkelayakan: SPAN QP 2973

Pengiktirafan ini adalah tertakluk kepada syarat-syarat seperti yang dinyatakan di belakang sijil ini

DATO’ TEO YEN HUA
Ketua Pegawai Eksekutif
Suruhanjaya Perkhidmatan Air Negara

Tarikh:
24 Sep 2013

**Sila rujuk lampiran 1 untuk keterangan lanjut**
PROFESSIONAL INDEMNITY INSURANCE COVERAGE
# POLICY SCHEDULE

**ENGINEERS PROFESSIONAL INDEMNITY**

**Date**: 15/09/2015

**Policy No**: 15DHQ/LNE28788

**The Insured**: GCU CONSULTANTS SDN BHD

**Address**: UNIT 3F-09, IOI BUSINESS PARK BANDAR PUCHONG JAYA PUCHONG 47170 SELANGOR

**Period Of Insurance**: From 01/09/2015 To 31/08/2016 (Both dates Inclusive)

<table>
<thead>
<tr>
<th>First Premium</th>
<th>RM 20,000.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>GST 6.000%</td>
<td>RM 1,200.00</td>
</tr>
<tr>
<td>Stamp Duty</td>
<td>RM 10.00</td>
</tr>
<tr>
<td>Total Due</td>
<td>RM 21,210.00</td>
</tr>
<tr>
<td>Annual Premium</td>
<td>RM 20,000.00</td>
</tr>
</tbody>
</table>

**Location No**: 1

**Territorial Limits**: WORLDWIDE EXCLUDING USA/CANADA

**Country Of Law And Jurisdiction**: WORLDWIDE EXCLUDING USA/CANADA

**Retroactive Date**: 12/09/1986

**Currency**: RINGGIT MALAYSIA

**Limit Of Indemnity**

- (a) Any One Claim: 5,000,000.00
- (b) Aggregate Of All Claims Any One Period: 5,000,000.00

**Excess**: RM 50,000.00 EACH & EVERY CLAIM INCLUSIVE OF COSTS & EXPENSES

**Profession**: CONSULTING ENGINEERS

Subject to the following Clauses, Warranties And Endorsements as printed herein or attached hereto:

**PREMIUM WARRANTY**
EXTENSION

1) AUTOMATIC REINSTATEMENT

2) DISHONESTY OF EMPLOYEE

Date of Proposal : 27/05/2015

BSI (PI01) 15.07 Mal

DUTY OF DISCLOSURE

Where Insured has applied for this Insurance wholly for purposes related to Insured’s trade, business or profession, Insured has a duty to disclose any matter that Insured knows to be relevant to the decision of the Company in accepting the risks and determining the rates and terms to be applied and any matter a reasonable person in the circumstances could be expected to know to be relevant otherwise it may result in avoidance of Insured’s contract of insurance, refusal or reduction of insured’s claim(s), change of terms or termination of Insured’s contract of insurance.

Insured also has a duty to inform the Company immediately if at any time after Insured’s contract of insurance has been entered into, varied or renewed with the Company any of the information given in the Proposal Form (or when Insured applied for this insurance) is inaccurate or has changed.

GOODS AND SERVICES TAX (‘GST’)

Important Notice:

Please be informed that the Goods and Services Tax (‘GST’) will be implemented by the Government of Malaysia with effect from 1 April 2015 at a rate of six (6) per cent.

BERJAYA SOMPO INSURANCE BERHAD reserves the right to collect from you an amount equivalent to the GST payable on the applicable premium for the policy period, or in the event that the policy period commences before but expires after 1 April 2015, to collect from you an amount equivalent to the GST payable on the applicable premium calculated from 1 April 2015 on a pro-rated basis.

Your obligation to pay GST shall form part of the Terms and Conditions in your insurance policy.

Replacing Policy No : 15DHQ/LNEZ87934
Policy No.: 15DHQ/LNEZ97934

BERJAYA SOMPO INSURANCE BERHAD (62605-U)

keepsbrg/AON INSURANCE BROKER/2T01

Berjaya Sompo
Insurance Berhad
SECTION 2

CIVIL INFRASTRUCTURAL & STRUCTURAL PROJECTS

1. Project Summary

2. Project Profiles
CURRENT PROJECT SUMMARY
# Civil & Structural

## Current Project Summary

<table>
<thead>
<tr>
<th>No</th>
<th>Project Title</th>
<th>Client</th>
<th>Commencement Date</th>
<th>Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>J219</td>
<td>Residential &amp; Commercial (200 acres) at Section U10, Bukit Raja</td>
<td>Lebar Daun Development Sdn Bhd</td>
<td>October 2008</td>
<td>Building Structural</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Civil Infrastructural</td>
</tr>
<tr>
<td>J320</td>
<td>26 Storey Commercial &amp; Service Apartment at Pulau Melaka, Melaka</td>
<td>Fajarbaru Builders Sdn Bhd</td>
<td>January 2013</td>
<td>Highrise Building</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Civil Infrastructural</td>
</tr>
<tr>
<td>J321</td>
<td>Sentul 40 Storey Apartment</td>
<td>Fajarbaru Builders Sdn Bhd</td>
<td>January 2013</td>
<td>Building Structural</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Civil Infrastructural</td>
</tr>
<tr>
<td>J333</td>
<td>Pengerang Fabrication Facilities</td>
<td>Dialog E&amp;C Sdn Bhd</td>
<td>March 2013</td>
<td>Civil Infrastructural</td>
</tr>
<tr>
<td>J339</td>
<td>34 Units Semi D &amp; 15 units Town House (4.5 acres) at Kapar</td>
<td>ASPAC Alliance Developments Sdn Bhd</td>
<td>April 2013</td>
<td>Building Structural</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Civil Infrastructural</td>
</tr>
<tr>
<td>J354</td>
<td>78 Units Shoplots (9.8 acres) at Labis, Segamat</td>
<td>Pintaran Aktif Sdn Bhd</td>
<td>August 2013</td>
<td>Building Structural</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Civil Infrastructural</td>
</tr>
<tr>
<td>J372</td>
<td>Temple Hall Puchong</td>
<td>Bt 14, Mariamman Temple, Puchong Temple Commite</td>
<td>May 2014</td>
<td>Building Structural</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Civil Infrastructural</td>
</tr>
<tr>
<td>J374</td>
<td>52 Storey Condo Cheras</td>
<td>Chundi Incorporated</td>
<td>May 2014</td>
<td>Building Structural</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Civil Infrastructural</td>
</tr>
<tr>
<td>J380</td>
<td>Terengganu Silica</td>
<td>Terengganu Silica Consortium</td>
<td>July 2014</td>
<td>Industrial Building</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Structural Civil Infrastructural</td>
</tr>
<tr>
<td>J382</td>
<td>Track 3B Jimah CFPP</td>
<td>Hyundai Engineering Company</td>
<td>July 2014</td>
<td>Civil Infrastructural</td>
</tr>
<tr>
<td>J386</td>
<td>Transgrid South Key PMU, JB</td>
<td>Transgrid Ventures S./B</td>
<td>September 2014</td>
<td>Industrial Building</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Structural Civil Infrastructural</td>
</tr>
<tr>
<td>J390</td>
<td>YTL Housing</td>
<td>Syarikat Pembenaan YTL</td>
<td>November 2014</td>
<td>Independent Check</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Engineer</td>
</tr>
<tr>
<td>J398</td>
<td>Urbanisma Pharma Plant</td>
<td>Urbanisma Consulting Group</td>
<td>January 2015</td>
<td>Building Structural</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td>Civil Infrastructural</td>
</tr>
<tr>
<td>No</td>
<td>Project Title</td>
<td>Client</td>
<td>Commencement Date</td>
<td>Scope</td>
</tr>
<tr>
<td>----</td>
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<td>---------------------------------------------</td>
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</tr>
<tr>
<td>J400</td>
<td>Pengerang Terminal Phase 2 Detailed Design</td>
<td>Dialog Plant Services Sdn Bhd</td>
<td>February 2015</td>
<td>Building Structural Civil Infrastructural</td>
</tr>
<tr>
<td>J404</td>
<td>Petrofac Pengerang</td>
<td>Petrofac E&amp;C Sdn Bhd</td>
<td>April 2015</td>
<td>Civil Infrastructural</td>
</tr>
<tr>
<td>J405</td>
<td>Schlumberger Refurbishment</td>
<td>Tialoc Malaysia Sdn Bhd</td>
<td>April 2015</td>
<td>Industrial Building Structural Civil Infrastructural</td>
</tr>
<tr>
<td>J407</td>
<td>Kota Kemuning Temple Hall</td>
<td>Akshaa Resources Sdn Bhd / Dato’ Shan</td>
<td>April 2015</td>
<td>Building Structural Civil Infrastructural</td>
</tr>
<tr>
<td>J408</td>
<td>Kg Subang Factory</td>
<td>Chin Siew Mooi</td>
<td>May 2015</td>
<td>Building Structural Civil Infrastructural</td>
</tr>
<tr>
<td>J412</td>
<td>MRT Noise Barrier</td>
<td>Institute of Noise &amp; Vibration, UTM KL</td>
<td>June 2015</td>
<td>Civil Infrastructural</td>
</tr>
<tr>
<td>J413</td>
<td>Qcell TNB SSU</td>
<td>Tialoc Sdn Bhd</td>
<td>June 2015</td>
<td>Building Structural Civil Infrastructural</td>
</tr>
<tr>
<td>J417</td>
<td>PRIMA Senawang Tech Park</td>
<td>DMIA Sdn Bhd</td>
<td>July 2015</td>
<td>Building Structural Civil Infrastructural</td>
</tr>
<tr>
<td>J419</td>
<td>Pantai Hospital Ampang Extension</td>
<td>TES Avenue Sdn Bhd</td>
<td>August 2015</td>
<td>Building Structural</td>
</tr>
<tr>
<td>J423</td>
<td>Structural Assessment Sentul IPD &amp; Quarters</td>
<td>MMC Gamuda KVMRT (PDP SSP)</td>
<td>October 2015</td>
<td>Building Structural</td>
</tr>
<tr>
<td>J425</td>
<td>Serendah Sanctuary Access Road</td>
<td>Sanctuary Gasing Group</td>
<td>December 2015</td>
<td>Civil Infrastructural</td>
</tr>
<tr>
<td>J426</td>
<td>Flood Mitigation KTM Track</td>
<td>DMIA</td>
<td>December 2015</td>
<td>Civil Infrastructural</td>
</tr>
</tbody>
</table>
COMPLETED PROJECT SUMMARY
## Civil & Structural

### Completed Project Summary

<table>
<thead>
<tr>
<th>No</th>
<th>Project Title</th>
<th>Client</th>
<th>Commencement Date</th>
<th>Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>J022</td>
<td>Kajang Traffic Dispersal Ring Road</td>
<td>Scott Wilson Sdn Bhd</td>
<td>August 1998</td>
<td>Traffic Study</td>
</tr>
<tr>
<td>J025</td>
<td>ERL-Secondment of Staff for Construction Management</td>
<td>YTL</td>
<td>February 1999</td>
<td>Construction Supervision</td>
</tr>
<tr>
<td>J060</td>
<td>Highway Mahameru/Sentul (Tender)</td>
<td>YTL</td>
<td>January 2002</td>
<td>Highways</td>
</tr>
<tr>
<td>J070</td>
<td>Mixed Development Phase 1 &amp; 2 at Seri Merdeka, Kampung Baru Ampang</td>
<td>Darma Hemat Sdn Bhd</td>
<td>September 2002</td>
<td>Highrise Building Civil Infrastructural</td>
</tr>
<tr>
<td>J085</td>
<td>45 Units of Bungalow at Setia Hills, Ampang</td>
<td>SP Setia</td>
<td>April 2003</td>
<td>Building Structure on Hill</td>
</tr>
<tr>
<td>J118</td>
<td>10 Storey Low Cost Apartment &amp; 40 Units Shop Office (Seri Merdeka Phase 4) at Kampung Baru Ampang</td>
<td>Darma Hemat Sdn Bhd</td>
<td>March 2005</td>
<td>Highrise Building Civil Infrastructural</td>
</tr>
<tr>
<td>J133</td>
<td>Electrified Double Track from Sentul to Batu Caves</td>
<td>YTL</td>
<td>September 2005</td>
<td>Railway Track</td>
</tr>
<tr>
<td>J141</td>
<td>TESCO at Bandar Setia Alam, Shah Alam</td>
<td>SP Setia</td>
<td>October 2005</td>
<td>Commercial Building Civil Infrastructural</td>
</tr>
<tr>
<td>J144</td>
<td>32 Units of Bungalow at Bandar Eco Setia</td>
<td>SP Setia</td>
<td>January 2006</td>
<td>Building Structural</td>
</tr>
<tr>
<td>J147</td>
<td>Commercial Development (Setia Avenue) at Bandar Setia Alam, Shah Alam</td>
<td>SP Setia</td>
<td>May 2006</td>
<td>Commercial Building Civil Infrastructural</td>
</tr>
<tr>
<td>J159</td>
<td>6 Units Double Story Semi D at Bandar Setia Alam, Shah Alam</td>
<td>SP Setia</td>
<td>September 2006</td>
<td>Building Structural</td>
</tr>
<tr>
<td>J176</td>
<td>1 Unit 3 Storey Bungalow at Bandar Eco Setia, Shah Alam</td>
<td>SP Setia</td>
<td>June 2007</td>
<td>Building Structural</td>
</tr>
<tr>
<td>J177</td>
<td>81 Units Double Storey House at Klang</td>
<td>WCT</td>
<td>June 2007</td>
<td>Building Structural</td>
</tr>
<tr>
<td>No</td>
<td>Project Title</td>
<td>Client</td>
<td>Commencement Date</td>
<td>Scope</td>
</tr>
<tr>
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<td>--------------------------------------------------------</td>
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</tr>
<tr>
<td>J178</td>
<td>Link-In Bridge at Taman Shamelin, Kuala Lumpur</td>
<td>Alaf Muda Sdn Bhd</td>
<td>June 2007</td>
<td>Highway Bridges</td>
</tr>
<tr>
<td>J182</td>
<td>Menaiktaraf Laluan Persekutuan 150, Paboi to Bukit Tambun, Seberang Perai</td>
<td>Zambina Wawasan Sdn Bhd</td>
<td>September 2007</td>
<td>Highway Bridges</td>
</tr>
<tr>
<td>J183</td>
<td>Mixed Development 200 ha at Section U10, Shah Alam</td>
<td>Lebar Daun Development Sdn Bhd</td>
<td>September 2007</td>
<td>Civil Infrastructure</td>
</tr>
<tr>
<td>J184</td>
<td>32 Units Semi D at Bandar Setia Alam</td>
<td>SP Setia</td>
<td>September 2007</td>
<td>Building Structural</td>
</tr>
<tr>
<td>J198</td>
<td>44 Units Double Storey Bungalow at Bandar Eco Setia, Shah Alam</td>
<td>SP Setia</td>
<td>December 2007</td>
<td>Building Structural</td>
</tr>
<tr>
<td>J210</td>
<td>23 Units 3 Storey Bungalow at Phase 10, Bandar Eco Setia, Shah Alam</td>
<td>SP Setia</td>
<td>June 2008</td>
<td>Building Structural</td>
</tr>
<tr>
<td>J211</td>
<td>16 Units Double Storey Semi D at Phase 10, Bandar Eco Setia, Shah Alam</td>
<td>SP Setia</td>
<td>June 2008</td>
<td>Building Structural</td>
</tr>
<tr>
<td>J220</td>
<td>73 Units 2 ½ Storey Semi D at Phase 14B, Bandar Eco Setia, Shah Alam</td>
<td>SP Setia</td>
<td>September 2008</td>
<td>Building Structural</td>
</tr>
<tr>
<td>J221</td>
<td>High End Bungalows at Bandar Kinrara, Puchong</td>
<td>Perumahan Kinrara Bhd</td>
<td>October 2008</td>
<td>Building Structural Civil Infrastructural</td>
</tr>
<tr>
<td>J224</td>
<td>New Building for Arunamari Medical Centre</td>
<td>Arunamari Medical Centre Sdn Bhd</td>
<td>December 2008</td>
<td>Hospital Building Civil Infrastructural</td>
</tr>
<tr>
<td>J241</td>
<td>Shoplot &amp; Multi Purpose Hall at Bandar Puchong Jaya</td>
<td>IOI Properties Bhd</td>
<td>May 2009</td>
<td>Commercial Building</td>
</tr>
<tr>
<td>J251</td>
<td>AGL at KLIA 2</td>
<td>Malaysia Airport Bhd (MAS)</td>
<td>September 2009</td>
<td>Substations</td>
</tr>
<tr>
<td>J253</td>
<td>Earth Work for Phase 9 at Bandar Eco Setia, Shah Alam</td>
<td>Bandar Eco Setia Sdn Bhd</td>
<td>August 2009</td>
<td>Building Structural Civil infrastructural</td>
</tr>
<tr>
<td>No</td>
<td>Project Title</td>
<td>Client</td>
<td>Commencement Date</td>
<td>Scope</td>
</tr>
<tr>
<td>-----</td>
<td>-------------------------------------------------------------------------------</td>
<td>-------------------------------</td>
<td>-------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| J255| Sheet-pile Quay Wall, Wharf & Tank Foundation at Jubail Commercial Port, Saudi Arabia | Dialog Services Saudi Arabia Co. Ltd | December 2009     | Dredging
Dredging
Reclamation
Ground
Improvement
Tieback Quay Wall
Civil Infrastructure |
| J261| 2 Blocks 10 storey & 1 block 8 storey Apartment at Cyberjaya                  | SP Setia                      | September 2009    | Highrise Building
Civil Infrastructure                                                   |
| J262| Bridge connection from Cyberjaya (Jalan Teknokrat) to Putrajaya                | SP Setia                      | September 2009    | Bridge                                                              |
| J265| Church at Petaling Jaya                                                       | GT Vision Sdn Bhd             | February 2010     | Commercial Building                                                   |
| J268| Housing (Zero Lot) at Hulu Langat                                             | SMS Developer Sdn Bhd         | February 2010     | Building Structural
Civil Infrastructure                                                   |
| J271| 73 Units Semi-D at Bandar Eco Setia, Shah Alam                               | SP Setia                      | March 2011        | Building Structural                                                   |
| J273| 138 Units Link House at Bandar Setia Alam, Shah Alam                          | SP Setia                      | June 2011         | Building Structural                                                   |
| J279| ERL Extension to KLIA 2                                                       | YTL                           | August 2011       | Railway Track
Civil Infrastructure
Walls
Earthworks
Geotechnical |
<p>| J291| Show Room Unit Langat 2                                                       | SMS Developer                 |                   | Building Structural                                                   |
| J298| Pump House Structural Review                                                  | Erinco Sdn Bhd                |                   | Independent Checking                                                  |</p>
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PROJECT PROFILES
HIGHRISE
RESIDENTIAL BUILDINGS

PEMBANGUNAN BERCAMPUR SECARA PENSWASTAAN DI ANTARA KERAJAAN NEGERI SELANGOR DAN DARMA HEMAT SDN BHD DI ATAS LOT TANAH KERAJAAN, KAMPUNG BARU AMPANG, MUKIM AMPANG, DAERAH HULU LANGAT, SELANGOR DARUL EHSAN

 CLIENT : Darma Hemat Sdn Bhd

 PROJECT COST (ESTIMATED) : RM 110 million

 PACKAGES : Phase 1 & 2, Phase 3 and Phase 4

The proposed development consists of 4 phases. The development of each phase is listed as below:-

**Phase 1 & 2**

- **Block 1A** - 136 units of 10 storey ‘medium cost’ apartments.
- **Block 1B** - 136 units of 10 storey ‘low-medium cost’.
- **Block 2A** - 487 units of 17 to 19 storey 2B & 2C ‘medium cost’ apartment with 2 levels of car park podium.
- **Block 3** - 240 units of 16 storey ‘low cost’ apartment.

**Phase 3**

- **Block 1, 2 & 3 Double Storey Terrace House** - 220 units of 6 storey ‘low cost’ apartments.
- **Elevated Water Tank** - 140 units of (20 x 70) double storey link houses.
- **Elevated Water Tank** - 24 m high elevated water tank with 80,000 gallon capacity.

**Phase 4**

- **Block 2** - 100 units of 11 storey ‘low cost’ apartments.
- **Shop Office** - 40 units of double storey shop office.
Scope of Works:

GCU was appointed by DHSB as the civil & structural consultant and the scope of works involved the following:-

- All infrastructure design including submissions to authorities i.e. roads, drainage, sewerage and water supply :-

- All infrastructure design including submissions to authorities i.e. roads, drainage, sewerage and water supply :-
  
  ◊ The drainage design was carried out in accordance to the latest Stormwater Management Manual – whereby ‘on site detention’ facilities were provided for this development site which covers about 33.0 acres (overall).

- The entire apartments blocks were designed as shear wall structure adopting the wall form concept / system.

- Design and detailing for reinforced concrete structures including structural analysis for the following:-
  
  ◊ 45 units of 11 types of high end bungalows with 16 units of the bungalow on stilts.
  
  ◊ Elevated water tank, suction tank, pump house and TNB substation.
  
  ◊ R.C retaining walls on slopes areas.
  
  ◊ Micropiling is proposed for the bungalows on stilts and pad foundation for the bungalows at flat area.
Project Profile

CADANGAN PEMBANGUNAN PERNIAGAAN DAN PANGSAPURI SERVIS (26 & 30 TINGKAT) DI ATAS HAK MILIK HSD 68653 LOT PT586 & HSD 68654 LOT PT587, KAWASAN BANDAR XLIII, DAERAH MELAKA TENGAH, MELAKA

CLIENT
RENOWAJA SDN. BHD.

TOTAL PROJECT COST (ESTIMATED)
RM 125 Million

PROJECT DETAILS
Renowaja Sdn. Bhd. (RSB) is proposing to develop a plot of land located in Bandar Melaka. They are proposing to construct 3 towers of 26 & 30 storeys serviced apartment with 7 storeys of car parks and it is associated amenities. GCU was appointed as the Civil & Structural Consultant for this project.

SCOPE OF WORKS :
The scope of civil consultancy services provided include:-
◊ Planning and design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
◊ Planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
◊ Planning and design of proposed road network (profile and geometric) serving each lots and other amenities within the development including provision acceleration and deceleration lane at the main entrance road.
◊ Planning and design of overall water reticulation system.
◊ Planning and design of sewerage network for the proposed development.
• Preparation of submission drawings / reports to obtain approval from local authorities, SYABAS, JKR, JPS and IWK.
• Design and development for all structural elements including bored-pile foundation, beams, slabs, column and shear walls for apartment units.
• Design & technical support during construction and CCC.
Projects Profiles

JKR TOWER AT JALAN SULTAN SALAHUDDIN FOR IJM CORPORATION

- CLIENT : JABATAN KERJA RAYA MALAYSIA
- PROJECT COST (ESTIMATE) : RM 300 million
- Scope of Works :
  - 31 storey high office tower attached with 1 block of 7 stories car park.
  - Another block of 7 stories high independent car park.
  - 1 level of basement car park.
  - Preparation of complete set of civil, structural and geotechnical drawings for tender.
  - The design was carried out, complying to JKR IBS system.
Project Profile

CADANGAN PEMBANGUNAN 5 TINGKAT SERVIS APARTMENT (33 UNIT), 6 TINGKAT HOTEL (95 UNIT), 2 TINGKAT TEMPAT LETAK KERETA, 1 TINGKAT KEMUDAHAN RUANG PAMERAN, RUANG PERNIAGAAN (RENTABLE AREA) DI LOT 6633 & 6634, JALAN BUNGA KESUMA, WILAYAH PERSEKUTUAN LABUAN, SABAH.

- CLIENT
  YNRM GALLERIA (M) SDN BHD

- TOTAL PROJECT COST
  (ESTIMATED) RM 30 Million

- PROJECT DETAILS
  YNRM Galleria (M) Sdn. Bhd. (YNRM) is proposing to develop a plot of land located in Jalan Bunga Kesuma, Labuan. They are proposing to construct one block of 5 storeys hotel and another block of 5 storey of Studio Apartment and Penthouse with 2 storeys of car parks and a showroom and rentable shop space. GCU was appointed as the Civil & Structural

- SCOPE OF WORKS
  - Planning and design of the earthwork, surface drainage in accordance to MASMA guidelines.
  - Planning and design of proposed road network (profile and geometric) serving each lots and other amenities within the development including provision acceleration and deceleration lane at the main entrance road.
  - Planning and design of overall water reticulation system and sewerage network.
  - Preparation of submission drawings / reports to obtain approval from local authorities, Jabatan Bekalan Air WP Labuan, JKR, JPS and IWK.
  - Design and development for all structural elements including pile foundation, beams, slabs, and column and shear walls for factory units.
  - Design & technical support during construction and CCC.
Project Profile

CADANGAN MEMBINA BANGUNAN BERSTRATA YANG MENGANDUNGI PANGSAPURI 28 DAN 32 TINGKAT BERSERTA RUANG SERBAGUNA, PEJABAT PENTADBIRAN, TEMPAT LETAK KERETA DAN KEMUDAHAN LAIN DI MUKIM PULAI, DAERAH JOHOR BAHRU

■ CLIENT : WCT Construction Sdn Bhd

■ TOTAL PROJECT COST (ESTIMATED) : RM 150 Million

■ PROJECT DETAILS
The project was awarded to WCT Construction Sdn Bhd under Design and Build contract for the construction of 28 and 32 storey apartment with complete infrastructure facilities. GCU was appointed as the Geotechnical Consultant for this project.

■ SCOPE OF WORKS :
The scope of geotechnical consultancy services provided include:-

◇ Analysis of SI results and property characterisation for geotechnical design.
◇ Geotechnical analysis & design of CBP wall
◇ Planning of instrumentation monitoring.
◇ Production of drawings for the all the geotechnical works
◇ Design & technical support during construction
Project Profile

CADANGAN PEMBANGUNAN 1 BLOK PANGSAPURI SERVIS 39 TINGKAT (472 UNIT) DENGAN 8 TINGKAT PODIUM TEMPAT LETAK KERETA, RUANG PERNIAGAAN, KEMUDAHAN AWAM

- CLIENT
  Wajatex Sdn Bhd

- TOTAL EST. PROJECT COST
  RM 154 Million

- PROJECT DETAILS

Wajatex Sdn. Bhd. (WSB) is proposing to develop a plot of land located in Sentul, Kuala Lumpur. They are proposing to construct 1 towers of 39 storeys serviced apartment with 8 storeys of car parks and it is associated amenities. WSB appointed GCU as the civil and structural consultant for this project responsible for all civil & structural elements.

- SCOPE OF WORKS

The scope of geotechnical consultancy services provided include:-

- Planning and design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
- Planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
- Planning and design of proposed road network (profile and geometric) serving each lots and other amenities within the development including provision acceleration and deceleration lane at the main entrance road.
- Planning and design of overall water reticulation system.
- Planning and design of sewerage network for the proposed development.
- Preparation of submission drawings / reports to obtain approval from local authorities, SYABAS, JKR, JPS and IWK.
- Design and development for all structural elements including bored-pile foundation, beams, slabs, column and shear walls for apartment units.
- Design & technical support during construction and CCC.
Project Profile

CADANGAN PEMBANGUNAN PANGSAPURI 52 TINGKAT (161 UNIT) TERMASUK 6 ½ TINGKAT TEMPAT LETAK KERETA BERSERTA 1 TINGKAT ‘LOWER GROUND’

- **CLIENT**
  CI Lumix Sdn Bhd

- **TOTAL EST. PROJECT COST**
  RM 250 Million

- **PROJECT DETAILS**
  CI Lumix Sdn. Bhd. (CISB) is proposing to develop a plot of land located in Sg. Long, Selangor. They are proposing to construct 1 towers of 52 storeys apartment with 6 ½ storeys of car parks including one lower ground basement and it is associated amenities. CISB appointed GCU as the civil and structural consultant for this project responsible for all civil & structural elements.

- **SCOPE OF WORKS**
  The scope of geotechnical consultancy services provided include:-
  
  - Planning and design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
  - Planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
  - Planning and design of proposed road network (profile and geometric) serving each lots and other amenities within the development including provision acceleration and deceleration lane at the main entrance road.
  - Planning and design of overall water reticulation system.
  - Planning and design of sewerage network for the proposed development.
  - Preparation of submission drawings / reports to obtain approval from local authorities, SYABAS, JKR, JPS and IWK.
  - Design and development for all structural elements including bored-pile foundation, beams, slabs, column and shear walls for apartment units.
  - Design & technical support during construction and CCC.
RESIDENTIAL
RESIDENTIAL
2 AND 3 STOREY BUNGALOWS AT BANDAR ECO-SETIA, SHAH ALAM, SELANGOR.

The proposed development consists of 7 types of modern and complementary design of bungalows.

- **CLIENT : S P SETIA BHD**

- **PROJECT COST (ESTIMATE)**
  - RM 4.5 million (7 showunits)-Phase 3B
  - RM 22 million (32 units)-Phase 5
  - RM 35 million (44 units)-Phase 6B

![Completed Bungalow-Type Z1-B](image1)
![Completed Bungalow-Type Z1-A](image2)
![Completed Bungalow-Type Z1-E](image3)
![Completed Bungalow-Type Z1-D](image4)

**Scope of Works :**

- **Structural and foundation design for the bungalows.**
- **Submission of structural drawings and calculation to authorities**
- **Contract management and site coordination for RC Piling work.**
- **Site coordination for main building works**

**Special Features :**

- **Special features for the bungalows include suspended rooftop gardens and water features.**
RESIDENTIAL BUILDINGS

PERUMAHAN 45 UNIT RUMAH SESEBUAH (BUNGALOW) YANG EKSKLUSIF DI ATAS LOT 12991, PT 14534 DAN PT 14532, MUKIM HULU KELANG, SELANGOR DARUL EHSAN.

- CLIENT : Syarikat Kemajuan Jerai Sdn Bhd
Subsidiary of S P Setia Berhad)

- PROJECT COST (ESTIMATED) : RM 45 million

- AREA OF DEVELOPMENT : 15.79 acres

The proposed development consists of 11 types of bungalow units. The proposed bungalows built up area is ranging from 6000 sq ft to 8000 sq ft.

There are 16 units of bungalow which are located on slopes. This types of bungalows were designed to suit the undulating terrain of site condition on stilts.

- Design and detailing for reinforced concrete structures including structural analysis for the following :-
  - 45 units of 11 types of high end bungalows with 16 units of the bungalow on stilts.
  - Elevated water tank, suction tank, pump house and TNB substation.
  - R.C retaining walls on slope areas.
  - Micropiling is proposed for the bungalows on silts and pad foundation for the bungalows at flat area.
Completed Bungalow (Show Units)
Project Profile

STRUCTURAL INTEGRITY ASSESSMENT ON DISTRESSED THIRD PARTY HOUSES AT ROB 6, PERMATANG TINGGI, BUKIT MERTAJAM, 14000 BUTTERWORTH, PULAU PINANG

- CLIENT
  MMC-GAMUDA JV

- TOTAL PROJECT COST (ESTIMATED)
  RM500,000.00

- PROJECT DETAILS
  Total number of 10 houses in Permatang Tinggi are reportedly being distressed by the construction activities of the ROB 6 for Electrified Double Track (EDT) project which being constructed by MMC-Gamuda. GCU was appointed as the Independent Forensic Engineer for this project.

- SCOPE OF WORKS
  The scope of civil consultancy services provided include:
  ◦ Carry out visual and detailed inspection as to assess the structural integrity on the distressed houses
  ◦ Propose rectification works
  ◦ Preparation of Structural Assessment Report
The special appeal for the bungalows is the architecture, which portrays a modern façade for the bungalows.
Project Profile

STRUCTURAL INTEGRITY ASSESSMENT ON DISTRESSED SHOP HOUSE AT LOT 20, LORONG NAGASARI 21, TAMAN NAGASARI, 13600 BUTTERWORTH, PULAU PINANG

CLIENT
MMC-GAMUDA SDN BHD

TOTAL PROJECT COST (ESTIMATED)
RM150,000

PROJECT DETAILS
A shoplot in Taman Nagasari is reportedly being distressed by the post construction of the Electric Double Track (EDT) which being constructed by MMC-Gamuda. GCU was appointed as the Independent Forensic Engineer for this project.

SCOPE OF WORKS
The scope of civil consultancy services provided include:-

- Carry out visual and detailed inspection as to assess the structural integrity on the distressed shoplot
- Monitor instrumentation on this shoplot
- Propose rectification works
- Preparation of Structural Assessment Report
Project Profile

CONSTRUCTION OF 285 UNITS GATED COMMUNITY SCHEME RESIDENTIAL

CLIENT
Syarikat Pembenaan Yeoh
Tiong Lay Sdn Bhd

PROJECT DETAILS

Syarikat Pembenaan Yeoh Tiong Lay Sdn Bhd undertakes the construction of 2 phases of 343 units of 3-storey terrace houses and 2 units of substation for a joint venture project with the Employee Provident Fund (EPF). YTL appointed GCU an independent checker for this project responsible for all structural elements.

SCOPE OF WORKS

The scope of geotechnical & structural independent checker consultancy services provided include:-

- Independent checking for structural works.
- Structural works include all structural elements such as beams, columns, walls, slabs and foundations.
- Providing independent design report plus comments on existing design.
Project Profile

PROPOSED MIX DEVELOPMENT WITH GUARD HOUSE INCLUDING 1000 UNIT TERRACE HOUSE, 1 UNIT COMMUNITY CENTER, 1 UNIT KINDERGARTEN, 1 UNIT MASJID, 3 UNIT TNB SUB-STATION, 32 UNIT SHOP LOT AND 616 UNIT (6 BLOCK) APARTMENT 9-10 STOREY INCLUDE FACILITIES.

CLIENT
Senawang Tech Park Sdn Bhd

TOTAL EST. PROJECT COST
RM 300 Million

PROJECT DETAILS
Senawang Tech Park Sdn Bhd undertake the construction of the mix developments under a design and built scheme. Senwang Tech Park appointed GCU as the civil and structural consultant for this project responsible for all elements.

SCOPE OF WORKS
The scope of civil and structural consultancy services provided include:-

- Interpretation of the available SI data.
- Design of the building foundation.
- Design of the infrastructure works e.g. earthworks, road and drain, water reticulation, sewerage.
- Design of the structural work e.g. residential, apartment and commercial.
- Submission to PBT and all technical department e.g. SAINS, IWK, JKR, JPS, MPN.
- Preparation of the preliminary, tender and construction drawings.
- Preparation of the specification.
- Design support during Construction.
INDUSTRIAL, COMMERCIAL & HOSPITALS
COMMERCIAL

2-STOREY HYPERMARKET (TESCO) AT BANDAR SETIA ALAM

- CLIENT : SP SETIA BHD
- PROJECT COST (ESTIMATE) : RM 50 million

The proposed development is a 2 storey hypermarket building measuring 138 m wide and 150 m long. The ground floor is utilized for retail and car park while the first floor is meant for retail and hypermarket sales area.

Scope of Works :

- Structural and foundation design for the hypermarket.
- Submission of structural drawings and calculation to authorities
- Contract management and site coordination for RC Piling work.
- Site coordination for main building works

Special Features :

- The structure is built using precast hollow core and prestressed beams supported on cast in situ columns.
- Wide spacing of column grids at 7.9 m by 12.5 m.
- Roof structure is built using steel trusses supported on encased steel column.
- Six nos. of signboard frames with 6.0 m high in various length are suspended on roof trusses at building perimeters.
- Steel frames at mall area for shop front cladding.
CONSTRUCTION STAGE
COMPLETED STAGE

[Images of Tesco building interiors and exteriors]
COMMERCIAL

SETIA AVENUE HIGH END COMMERCIAL COMPLEX AT BANDAR SETIA ALAM

- **CLIENT** : SP SETIA BHD
- **PROJECT COST (ESTIMATE)** : RM 100 million

The proposed development consist of 4 blocks of 6 storey shop offices and 6 blocks of 4 storey shop offices with 2 storey of car park podium.

A steel bridge of 25 m span was provided to allow a linkage between an existing TESCO hypermarket to this development.

- **Scope of Works** :
  - Structural and foundation design for the shop offices.
  - Submission of structural drawings and calculation to authorities
  - Contract management and site coordination for RC Piling work.
  - Site coordination for main building works

- **Special Features** :
  - Various shape of canopy roofs at the perimeter of the blocks.
  - Shallow beams (600mm depth) spanning across the width of the shop offices (10.4m span).
  - Pedestrian friendly concept at podium level, without steps at the level and beautifying with landscape features.
  - Extensive architectural façade treatment at the perimeter of block.
  - Post-tensioned flat slab and band beam system are used at podium block.
  - A 25 m span of steel bridge is proposed as access link to Tesco building.
SETIA AVENUE HIGH END COMMERCIAL COMPLEX AT BANDAR SETIA ALAM

Construction Works in Progress
INSTITUTION

MEDICAL CENTRE IN BUKIT TINGGI, KLANG, SELANGOR DARUL EHSAN

- **CLIENT** : ARUNAMARI SPECIALIST MEDICAL CENTRE
- **PROJECT COST (ESTIMATE)**
  RM 45 million

**Scope of Works**:

The proposed development consist of a 8 storey high building, including 2 levels of car park.

The proposed building is designed by adopting conventional reinforced concrete frame with light weight steel roof above M & E services level. The scope of works also covers:

- All infrastructure design including submissions to authorities i.e. roads drainage, sewerage and water supply.
- Design and detailing of reinforced concrete structures including foundation design.
- Preparation of tender documents and tender process for all infrastructure works.
- Infrastructure contract management as Superintendent Officer (S.O).
- Construction supervision.
Project Profile
STACKER/RECLAIMER FOUNDATION SYSTEM AT VALE MALAYSIA, MANJUNG, PERAK

CLIENT
VALE MALAYSIA MANUFACTURING SDN BHD

TOTAL PROJECT COST (ESTIMATED)
RM 100 Million

PROJECT DETAILS
The project was awarded to Keller (M) Sdn Bhd under Design and Build contract for the construction of new Stacker/Reclaimer Foundation System for the Iron Ore Storage Facility. GCU was appointed as the Structural Consultant for this project.

SCOPE OF WORKS:
The scope of structural consultancy services provided include:-

- Design of piled, shallow and raft for conveyor foundations.
- Design of embedded parts on reclaimer beams and conveyor foundations.
- Endorsement of drawings for all the foundation and structural works related to stacker/reclaimer foundations.
Project Profile

CADANGAN BANGUNAN DI BAWAH AKTA 133 BAGI KEDAI PEJABAT YANG MENGANDUNGI:

(1) FASA 1
   (a) 26 UNIT KEDAI PEJABAT 2 TINGKAT (22’ X 91’) – JENIS A
   (b) 13 UNIT KEDAI PEJABAT 3 TINGKAT (22’ X 91’) – JENIS B

(2) FASA 2
   (a) 26 UNIT KEDAI PEJABAT 2 TINGKAT (22’ X 91’) – JENIS A
   (b) 13 UNIT KEDAI PEJABAT 3 TINGKAT (22’ X 91’) – JENIS B

DI ATAS LOT 129, G.132740, MUKIM BANDAR LABIS, DAERAH SEGAMAT, JOHOR DARUL TAKZIM

- CLIENT
  SUNGAI KARAS DEVELOPMENT SDN BHD

- TOTAL PROJECT COST (ESTIMATED)
  RM 20 Million

- PROJECT DETAILS
  Sungai Karas Development Sdn Bhd is proposing to develop shop offices in Labis, Segamat. They are proposing to construct into two phases consisting of 52 units of 2-storey shop offices and 26 units of 3-storey. **GCU** was appointed as the Civil & Structural Consultant for this project.

- SCOPE OF WORKS
  - Planning and design of the earthwork, surface drainage in accordance to MASMA guidelines.
  - Planning and design of proposed road network (profile and geometric) serving each lots and other amenities within the development including provision acceleration and deceleration lane at the main entrance road.
  - Planning and design of overall water reticulation system and sewerage network.
  - Preparation of submission drawings / reports to obtain approval from local authorities, SAJ, JKR, JPS and IWK.
  - Design and development for all structural elements including pile foundation, beams, slabs, and column and shear walls for factory units.
  - Design & Technical support during construction and CCC.
Project Profile

INDEPENDENT CHECKING ON WASTE HEAT RECOVERY POWER GENERATION PROJECT (PHRPGP) IN PADANG RENGAS, PERAK DARUL RIDZUAN.

- TOTAL PROJECT COST (ESTIMATED)
  RM10 Million

- CLIENT
  PERAK HANJOONG SDN BHD

- PROJECT DETAILS
  Perak Hanjoong Sdn. Bhd. is proposing to construct a WHRPGP on 4 existing cement plant structures. Sinoma Energy Conservation (SEC) was the design consultant and GCU was appointed as the Independent Checking Engineer

- SCOPE OF WORKS
  The scope of civil consultancy services provided include:-
  ◊ Independent checking on proposed new structures on 4 existing cement plant structures namely SP1, SP2, AQC1 and AQC2 in WHRPGP
  ◊ Independent checking on 4 existing cement plant structures
  ◊ Carry out foundation checking on SP1 Structure
  ◊ Preparation of Independent Checking Report for both new and existing structures
Project Profile
CONSTRUCTION OF 74 UNITS SHOP OFFICE 2 & 3 STORIES AND 18 UNITS OF BAZAAR AT BERNAM JAYA SELANGOR

- **CLIENT**
  Perbadanan Kemajuan Negeri Selangor (PKNS)

- **TOTAL EST. PROJECT COST**
  RM 50 Million

- **PROJECT DETAILS**
  PKNS plans to build the 74 units shop offices and 18 units bazaar at Phase 7, Bernam Jaya.

  The proposed development consist of 10 blocks of shop offices and come with 18 units of bazaar.

  PKNS appointed GCU as the Civil and Structural consultant for this project responsible for all civil & structural works.

- **SCOPE OF WORKS**
  The scope of civil & structural services provided include:-

  - Planning and design of the civil and infrastructure works and including submission for approval to relevant authorities.
  - Design of the structure works including foundation, beam, slab and column for the shop offices building and the bazaar.
  - Preparation of the drawings covered all civil and structural elements.
  - Preparation of the specification and quantities for civil and structural works.
Project Profile

DEVELOPMENT OF PMU 132/33KV SOUTH KEY JB GIS (2X90MVA), JOHOR

- **CLIENT**
  Tenaga Nasional Berhad

- **TOTAL EST. PROJECT COST**
  RM 43 Million

- **PROJECT DETAILS**

  TNB is proposing to develop a PMU on Lot PTD213111 in mukim Plentong, Johor Bahru. This will serve an important supply to the utilization of electricity. GCU was appointed as the architect, geotechnical, civil & structural consultant for the proposed development.

- **SCOPE OF WORKS**

  The scope of architectural & civil consultancy services provided include:-

  - Planning and development of the architectural drawings.
  - Planning and design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
  - Planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
  - Planning and design of proposed road network (profile and geometric).
  - Planning and design of overall water reticulation system.
  - Planning and design of sewerage network for the proposed development.
- Preparation of submission drawings / reports to obtain approval from local authorities, SAJ, JKR, JPS, PPSPPA and IWK
- Design and development of all structural elements including rc-pile, pad footing and raft foundations, beams, slabs, column and shear walls for substation units.
- Design & technical support during construction and CCC.
Project Profile

CADANGAN PEMBANGUNAN BERCAMPUR YANG MENGANDUNGI FASA 1 – 1 BLOK KEMUDAHAN KESIHATAN 10 TINGKAT DAN 4 ½ TINGKAT BASEMEN TEMPAT LETAK KERETA

- CLIENT
  Fajarbaru Builder Sdn Bhd

- TOTAL EST. PROJECT COST
  RM 166 Million

- PROJECT DETAILS
  Fajarbaru Builder Sdn. Bhd. (RSB) is the turnkey contractor for proposing to built an extension of Gleneagles Hospital located in Jalan Ampang, Kuala Lumpur. They are proposing to construct Phase 1 consist of 1 tower of 10 storeys medical facilities with 4 ½ storeys of basement car parks and it is associated amenities. FBSB appointed GCU as the structural independent checker for this project responsible for all geotechnical & structural work.

- SCOPE OF WORKS
  The scope of geotechnical & structural independent checker consultancy services provided include:
  - Independent check and design & development for all structural elements including bored-pile foundation, beams, slabs, column and shear walls for medical block and basement parking.
  - Independent advice & technical support during construction and CCC.
  - Produce interim report at all stages of works i.e. preliminary and construction stage.
Project Profile

PROPOSED DIALOG FABRICATORS PENCERANG FACILITY AT PENCERANG, JOHOR DARUL TAKZIM

- **CLIENT**
  Dialog Fabricators Sdn Bhd

- **TOTAL EST. PROJECT COST**
  RM 16 Million

- **PROJECT DETAILS**
  Dialog Fabricators Sdn Bhd (DFSB) is proposing to develop the fabrication yard located at Tanjung Pengerang, southern part of Johor. DFSB appointed GCU as the civil consultant for this project responsible for all civil elements.

- **SCOPE OF WORKS**
  The scope of civil consultancy services provided include:

  - Planning and design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
  - Planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
  - Planning and design of proposed road network (profile and geometric) serving the proposed development and including provision acceleration and deceleration lane at the main road (Tanjung Pengelih).
  - Planning and design of overall water reticulation system.
  - Planning and design sewerage network for proposed development.
  - Preparation of Engineering Report and Specification
  - Liaising and assisting in obtaining approval from all relevant authorities.
  - Design and technical support during construction and CCC.
Project Profile

PROPOSED CONSTRUCTION OF A TEMPLE HALL AT BATU 14, JALAN PUCHONG, SELANGOR

- **CLIENT**
PERSATUAN PENGANUT SRI MAHA MARIAMMAN,
PUCHONG, SELANGOR

- **TOTAL EST. PROJECT COST**
RM 6 Million

- **PROJECT DETAILS**
Temple Committee is proposing to develop a Hall on the temple’s land. This will serve an important part in carrying out the temple activities and as a part of their future development. GCU was appointed as the civil & structural consultant for the proposed development.

**SCOPE OF WORKS**
The scope of architectural & civil consultancy services provided include:-

- Planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
- Planning and design of proposed road network (profile and geometric).
- Planning and design of overall water reticulation system.
- Planning and design of sewerage network for the proposed development.
- Preparation of submission drawings / reports to obtain approval from local authorities, SYABAS, JKR, JPS, PPSPPA and IWK.
- Design and development of all structural elements including rc-pile, pile cap and beams, slabs, and column.
- Design & technical support during construction and CCC.
Project Profile

CADANGAN MELOMBONG DAN MEMBINA KILANG BENIFIKASI SILIKA DI ATAS LOT 72017 DAN 72124 DI MUKIM CALUK, SETIU, TERENGGANU

- CLIENT
  Terengganu Silica Consortium (TSC)

- TOTAL EST. PROJECT COST
  RM 40 Million

- PROJECT DETAILS
  TSC was awarded a silica mining concession for the area estimated 1000 hectares by the Terengganu State Government at district of Setiu. TSC has appointed GCU as the project consultant for this project where are responsible for planning and design all the architecture, structural and civil works.
  The proposed project consist of planning and design for the process plant area and private jetty as loading facilities at Bukit Bari to facilitate the transportation of processed silica from the plant.

- SCOPE OF WORKS
  The scope of civil & structural services provided include:-
  - Planning and design of the civil and infrastructure works and including getting approval from related authorities.
  - Planning and design of the structure works for the process plant building including all the piping and conveyor works.
  - Planning and design of the architecture works for the process plant building including administration building, workshop, laboratory building and the toilet.
  - Preparation of the drawings covered all architecture, civil and structural elements.
  - Preparation of the specification and quantities.
  - Design support during Construction
Project Profile

PENGERANG DEEPWATER TERMINAL 2 AT PENGERANG, JOHOR DARUL TA’ZIM

- **CLIENT**
  Pengerang Terminals (TWO) Sdn Bhd

- **TOTAL EST. PROJECT COST**
  RM xxxx Million

- **PROJECT DETAILS**

  Pengerang Terminals (TWO) Sdn Bhd is proposing to develop the area that consists of administration building, workshop, guard house and 64 nos of terminal tank. Pengerang Terminals (TWO) Sdn Bhd has appointed GCU Consultants Sdn Bhd as the Civil, Structure, Geotechnical and Mechanical & Electrical Consultant for the project.

- **SCOPE OF WORKS**

  The scope of civil, structure, geotechnical and mechanical & electrical consultancy services provided include:-

  - Interpretation of the available SI data
  - Design of the building and terminal tanks foundation.
  - Preparation of all infra drawings including submission to local authority.
  - Preparation of architectural drawings including submission to local authority.
  - Preparation of M&E drawings including submission to local authority.
  - Preparation of the construction drawings.
  - Preparation of the specification and quantities.
  - Design support during construction.
  - Obtain CCC for the project.
Project Profile

PROPOSED 1 UNIT PHARMA FACTORY 2 STOREY, 1 UNIT GUARD HOUSE, 1 UNIT SSU TNB ON LOT 175, 176, 178 AND 269, INDUSTRY AREA, BANDAR BARU SERI ISKANDAR, MUKIM BOTA, DAERAH PERAK TENGAH, PERAK DARUL RIDZUAN.

CLIENT
Biocare Manufacturing (M) Sdn Bhd

TOTAL EST. PROJECT COST
RM 15 Million

PROJECT DETAILS
Biocare Manufacturing (M) Sdn Bhd do an open tender scheme for construction the factory. The development will serve operation for pharma industry. Biocare Manufacturing (M) Sdn Bhd appointed GCU as the civil and structural consultant for this project responsible for all elements.

SCOPE OF WORKS
The scope of civil and structural consultancy services provided include:-

- Interpretation of the available SI data.
- Design of the building foundation.
- Design of the infrastructure works e.g. earthworks, road and drain, water reticulation, sewerage.
- Design of the structural work e.g. factory and facilities.
- Submission to PBT and all technical department e.g. JAP, IWK, JKR, JPS, MPPT.
- Preparation of the preliminary, tender and construction drawings.
- Preparation of the specification.
- Design support during Construction.
Project Profile

**Proposed Mix Development with Guard House Including 1000 Unit Terrace House, 1 Unit Community Center, 1 Unit Kindergarten, 1 Unit Masjid, 3 Unit TNB Sub-Station, 32 Unit Shop Lot and 616 Unit (6 Block) Apartment 9-10 Storey Include Facilities.**

- **Client**
  Senawang Tech Park Sdn Bhd

- **Total Est. Project Cost**
  RM 300 Million

- **Project Details**
  Senawang Tech Park Sdn Bhd undertake the construction of the mix developments under a design and build scheme. Senawang Tech Park appointed GCU as the civil and structural consultant for this project responsible for all elements.

**Scope of Works**

The scope of civil and structural consultancy services provided include:-

- Interpretation of the available SI data.
- Design of the building foundation.
- Design of the infrastructure works e.g. earthworks, road and drain, water reticulation, sewerage.
- Design of the structural work e.g. residential, apartment and commercial.
- Submission to PBT and all technical department e.g. SAINS, IWK, JKR, JPS, MPN.
- Preparation of the preliminary, tender and construction drawings.
- Preparation of the specification.
- Design support during Construction.
Project Profile

NEW DEVELOPMENT OF ELECTRICAL SUBSTATION 132/33KV SSU, SENAWANG, NEGERI SEMBILAN

- **CLIENT**
  Kibing Group (M) Sdn Bhd

- **TOTAL EST. PROJECT COST**
  RM 18 Million

- **PROJECT DETAILS**

Kibing Group is proposing to develop a SSU on Lot 635 at Senawang Industrialization area, Senawang. This will serve an important supply to the utilization of the industrial electricity. GCU was appointed as the architect, geotechnical, civil & structural, mechanical & electrical consultant for the proposed development.

- **SCOPE OF WORKS**

The scope of architectural & civil consultancy services provided include:-

- Planning and development of the architectural drawings.
- Planning and design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
- Planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
- Planning and design of proposed road network (profile and geometric).
- Planning and design of overall water reticulation system.
- Planning and design of sewerage network for the proposed development.
- Preparation of submission drawings / reports to obtain approval from local authorities, SAJ, JKR, JPS, PPSPPA and IWK
- Design and development of all structural elements including rc-piles, pad footings and pilecaps, beams, slabs, columns and proof walls for substation units.
- Design & technical support during construction and CCC.
INTEGRATED MIXED DEVELOPMENT
PERUMAHAN 45 UNIT RUMAH SESEBUAH (BUNGALOW) YANG EKSKLUSIF DI ATAS LOT 12991, PT 14534 DAN PT 14532, MUKIM HULU KELANG, SELANGOR DARUL EHSAN.

■ CLIENT : Syarikat Kemajuan Jerai Sdn Bhd
   Subsidiary of S P Setia Berhad)

■ PROJECT COST (ESTIMATED) : RM 45 million

■ AREA OF DEVELOPMENT : 15.79 acres

Scope of Works :

GCU was appointed by SKJ as the civil & structural consultant and the scope of works involved the following :-

- Geological terrain mapping and geotechnical design including submissions to authorities for hill side development.
  - Terrain Mapping for hill side classification according to Jabatan Mineral & Geosains.
  - Geotechnical evaluation on the slope stability including the external stability at the proposed reinforced soil wall.
  - Foundation analysis and micropile design for the bungalows on stilts.

Reinforced Soil Wall

- All infrastructure design including submissions to authorities i.e. earthworks, roads, drainage, sewerage and water reticulation :-
  - The drainage design was carried out in accordance to the latest stormwater management manual with the concept of “concealed” drainage system for this development.

R. C Retaining Wall and Micropiles on Slope
Project Profile

CADANGAN PEMBANGUNAN BERCAMPUR DI PRESINT 10, BANDAR SETIA ALAM, SEKSYEN U13, SHAH ALAM, SELANGOR DARUL EHSAN.

- CLIENT
  Paksi Gagah Sdn. Bhd.

- TOTAL PROJECT COST (ESTIMATED)
  RM XXX Million

- PROJECT DETAILS
  Paksi Gagah Sdn. Bhd. is proposing to develop a plot of land located at Bandar Setia Alam, Mukim Klang, Shah Alam. The proposed site is approximately 100 acres. The topography is typically a hilly terrain within the proposed site. Paksi Gagah Sdn. Bhd. has appointed GCU Consultants Sdn. Bhd. as the civil consultant for this project.

- SCOPE OF WORKS:
  The scope of geotechnical consultancy services provided include:
  - Planning and design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
  - Planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
  - Planning and design of proposed road network (profile and geometric) serving each lots and other amenities within the development including provision acceleration and deceleration lane at the main entrance road.
  - Planning and design of overall water reticulation system.
  - Planning and design of sewerage network for the proposed development.
  - Preparation of submission drawings / reports to obtain approval from local authorities, SYABAS, JKR, JPS and IWK.
Project Profile

CADANGAN PEMBINAAN INDUSTRI BERKEMBAR 56 UNIT DI ATAS LOT 19003, SEKSYEN 19, BANDAR RAWANG, MUKIM RAWANG, DAERAH GOMBAK.

- CLIENT
  SMS Developer Sdn. Bhd.

- TOTAL PROJECT COST (ESTIMATED)
  RM 30 Million

- PROJEC DETAILS
  SMS Developer Sdn. Bhd. (SMS) is proposing to develop a plot of land located in Rawang, Selangor. They are proposing to construct 56 units of semi-detached factories in this plot with associated amenities. GCU Consultants Sdn Bhd (GCU) was appointed as the Civil, Structure and Geotechnical Consultant for this project.

- SCOPE OF WORKS:
  The scope of civil consultancy services provided include:-
  ◊ Planning and design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
  ◊ Planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
  ◊ Planning and design of proposed road network (profile and geometric) serving each lots and other amenities within the development including provision acceleration and deceleration lane at the main entrance road.
  ◊ Planning and design of overall water reticulation system.
  ◊ Planning and design of sewerage network for the proposed development.
  ◊ Preparation of submission drawings / reports to obtain approval from local authorities, SYABAS, JKR, JPS and IWK.
Diamond Project Profile

- Design and development for all structural elements including pile foundation, beams, slabs, column and shear walls for factory units.
- Planning, coordination and supervision of soil investigation
- Analysis of SI results and property characterisation for geotechnical design
- Planning of instrumentation monitoring.
- Preparation of Geotech Assessment Report
- Production of drawings for all the geotechnical works.

Building works in progress

Soil nail slope in progress

J Drain Construction in Progress
Project Profile

STRUCTURAL INTEGRITY ASSESSMENT FOR SENTUL IPD & POLICE QUARTERS
KUALA LUMPUR

CLIENT
MMC Gamuda KVMRT (PDP SSP) SDN BHD

TOTAL EST. PROJECT COST
RM 1 Million

PROJECT DETAILS
GCU Consultants Sdn Bhd (GCU) was appointed by MMC Gamuda KVMRT (PDP SSP) Sdn Bhd, Client of Project Mass Rapid Transit Lembah Kelang: Jajaran Sungai Buloh – Serdang – Putrajaya (SSP Line), to carry out a structural integrity assessment on any major defects in the IPD Sentul Building before two lines of the tunnel are built.

SCOPE OF WORKS
The scope of structural consultancy services provided include:

- Investigation of Building Condition including obtaining information on building structural detailing/dimensions
- Recording, assessment and evaluating all existing structural deficiencies and structural material deterioration
- Assessment of potential/likely risks to existing buildings condition subjected to future Underground Tunnel Construction
- Preparation of reports and if required calculations and drawings in hard and soft copies
- Provide technical support, i.e., during repair works
ROAD & BRIDGES
FLYOVER BRIDGE LINKING JALAN MAHKOTA, TAMAN MALURI AND JALAN 4/91, TAMAN SHAMELIN PERKASA, KUALA LUMPUR

- **CLIENT**: SYARQIAH HOLDINGS
- **PROJECT COST (ESTIMATED)**: RM 65 million
- **SCOPE OF WORKS**:

  GCU was appointed by SHSB as the civil and structural consultant for this highway project which is to be carried out on turn-key (design & build) basis. The scope of works involved the following:-

  - Highway geometric design, i.e. horizontal alignment and vertical profile.
  - Drainage design which also involve major river crossings
  - Bridge / viaduct design and general arrangement drawings.
  - Bridge foundation design.
  - Reinforced soil wall design, etc.
  - Diversion of affected utilities etc.
  - Preparation of bill of quantities and cost estimate.
  - Submission and obtaining approval from all relevant authorities.
UPGRADING OF THE FEDERAL ROUTE 150 FROM PA’BOI INTERCHANGE TO BUKIT TAMBUN SEBERANG PERAI, PULAU PINANG

CLIENT : ZAMBINA WAWASAN SDN BHD

PROJECT COST (ESTIMATED) : RM 20 million

Scope of Works :

GCU was appointed by ZAMBINA WAWASAN SDN BHD as the civil and structural consultant for this highway project which was to be designed and built. The scope of works involved the following:

- Highway geometric design, i.e. horizontal alignment and vertical profile. (cast in-situ box girder)
- Bridge structure design (4 span – semi-integral bridge).
- Drainage Design
- Reinforced soil wall and RC retaining wall design.
- Preparation of bill of quantities and cost estimate.
Project Profile

BRIDGE CONDITIONAL INSPECTION AND ASSESSMENT REPORT OF BRIDGES ALONG LEBUHRAYA KAJANG SEREMBAN (LEKAS) FOR LEBUHRAYA KAJANG SEREMBAN SDN BHD

CLIENT
Lebuhraya Kajang Seremban Sdn. Bhd. (LEKAS)

PROJECT DETAILS

Lebuhraya Kajang Seremban (LEKAS) is a new dual three lane highway between Kajang and Seremban. This inspection is aimed at identifying and recording defects as well as deterioration which may have been caused by unpredictable natural phenomena or physical/chemical influences exerted by the environment. In line with this, LEKAS has appointed GCU Consultants Sdn Bhd to carry out structural conditional inspection and assessment for twenty one (21) bridges along the highway including a motorcycle cum pedestrian bridge.

SCOPE OF WORKS

The scope of work required in order to accomplish the task as stipulated in the Letter of Appointment is as stated below :-

◊ Desk study of ‘As-built’ drawings and other available information as well as planning and organizing the work.
◊ Carryout general inspection of the bridges as per REAM guideline.
◊ Conduct field measurements and verification of details.
◊ Prepare Inspection Checklist and Summary Report Form.
◊ Prepare Final Report
BRIDGE/RAMP CONNECTION FROM LDP INTO THE PROPOSED DEVELOPMENT IN DAMANSARA PERDANA

■ CLIENT : KETARA MEGAH DEVELOPMENT SDN BHD (KMD)

■ PROJECT COST (ESTIMATED) : RM 20 million

■ Scope of Works :

GCU was appointed by KMD as the civil and structural consultant for this proposed highway link to allow proper access into a proposed development site.

The scope of works involved the following :-

- Highway geometric design i.e. horizontal and vertical alignment.
- Retaining Wall, Drainage Wall, Bridge/Ramp, Bridge Foundation and Reinforced Soil Wall Design.
- Diversion of affected utilities etc.
- Preparation of bill of quantities and cost estimate.
- Submission and obtaining approval from all relevant authorities.
PROJEK MEMBINA JEJAMBAT DAN JALAN MENYAMBUNG LEBUHRAYA MAHAMERU KE JALAN SENTUL / JALAN 2/48A, KUALA LUMPUR

- **CLIENT**: Syarikat Pembenaan Yeoh Tiong Lay Sdn Bhd (SPYTL)
- **PROJECT COST (ESTIMATED)**: RM 60 million
- **Scope of Works**:

  GCU was appointed by SPYTL as the civil and structural consultants for the pre-tender exercise for this highway project which was to be designed and built based on deferred payment scheme. The scope of works involved the following:-

  - **Highway geometric design, i.e. horizontal alignment and vertical profile**.
  - **Drainage design which also involve major river and monsoon drain crossings**.
  - **Preliminary bridge / viaduct design and general arrangement drawings**.
  - **Preparation of bill of quantities and cost estimate**.
  - **Preliminary Reinforced Soil and RC retaining wall design, etc**.
  - **Preparation of Engineering Report and Specification**.
Project Profile
CADANGAN PERSIMPANGAN BERTINGKAT DI ATAS LOT 30214, LALUAN PLUS SELEPAS TOL NILAI, NEGERI SEMBILAN UNTUK TETUAN SIME DARBY PROPERTY

CLIENT : SIME DARBY PROPERTY (NILAI) SDN BHD

PROJECT COST (ESTIMATED) : RM 50 million

SCOPE OF WORKS

GCU Consultants was appointed by Ingeniur Bersekutu Sdn Bhd as the civil and structural sub-consultant for this road project which is to be carried out on conventional contract basis. The scope of works involved the following :-

- **Highway geometric design, i.e. horizontal alignment and vertical profile.**
- **Road marking, signage and road furniture design**
- **Bridge design and general arrangement drawings.**
- **Bridge foundation design.**
- **Geotechnical design, i.e. reinforced soil wall and slopes design**
- **Preparation of bill of quantities and cost estimate.**
- **Preparation of Engineering Report and Specification.**
- **Liaising and assisting in obtaining approval from all relevant authorities, eg. MHA, PLUS and MPN.**
Project Profile

BRIDGE CONDITIONAL INSPECTION AND ASSESSMENT REPORT OF BRIDGES ALONG LEBUHRAYA KAJANG SEREMBAN (LEKAS) FOR LEBUHRAYA KAJANG SEREMBAN SDN BHD

CLIENT
Lebuhraya Kajang Seremban Sdn. Bhd.

PROJECT DETAILS
Lebuhraya Kajang Seremban (LEKAS) is a dual three lane highway between Kajang and Seremban. This inspection is aimed at identifying and recording defects as well as deterioration which may have been caused by unpredictable natural phenomena or physical/chemical influences exerted by the environment. In line with this, GCU Consultants was again appointed to carry out structural conditional inspection and assessment for twenty one (21) bridges along the highway including a motorcycle cum pedestrian bridge.

SCOPE OF WORKS
The scope of work required in order to accomplish the task as stipulated in the letter of appointment is as stated below:

- Desk study of ‘As-built’ drawings and other available information as well as planning and organizing the work
- Carry out general inspection of the bridges as per REAM guideline.
- Conduct field measurements and verification of details.
- Prepare Inspection checklist and summary report form.
- Prepare final report.
Project Profile

PERAK HANJOONG SIMEN ROAD AND DRAINAGE

- CLIENT
  PERAK HANJOONG SIMEN SDN BHD (PHSSB)

- TOTAL EST. PROJECT COST
  RM 10 million

- PROJECT DETAILS
  It is the intention of the PHSSB to upgrade the internal roads and drainage to facilitate the expansion of the plant. The proposed road and drainage upgrading works will serve the transportation of coal and cement via trucks better than before. At present due to improper gradient of the road as well as defective pavement structure the haulage trucks are facing difficulty in reaching its destination. Besides, the poor drainage condition will aggravate further the present condition of the pavement if it is not being addressed now.

- SCOPE OF WORKS
  The scope of civil & structural services provided include:-
  
  - Upgrade the existing concrete paved haul road which stretches approximately 2km to an-weather road to ensure smooth coal and cement transportation.
  - Upgrade and extend the existing drainage system.
  - Interpretation of SI data.
  - Preparation of the specification and quantities.
  - Design support during Construction.
Project Profile

TRACK 3B: JIMAH EAST POWER 2 X 1000MW COAL FIRED POWER PLANT (ACCESS ROAD WIDENING)

- **CLIENT:** HYUNDAI ENGINEERING COMPANY (HEC)

- **TOTAL ESTIMATE:**
  Project Cost RM 10 Million

- **PROJECT DETAILS**

  It is the intention of the HEC to widen the access roads to JIMAH Coal Fired Power Plant and drainage to facilitate the expansion of the plant. The proposed road, bridge and drainage upgrading works will serve the transportation during the construction phase and cater the future increased traffic. At present the 'Majlis' road is a dual lane single carriageway road which consist three bridges and one Box Culvert.

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- **SCOPE OF WORKS**

  The scope of civil & structural services provided include:-

  - Expansion the existing access road which stretches approximately 1.5km.
  - Planning and design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
  - Upgrade and extend the existing drainage system.
  - Planning and design of 3nos of bridges traversing across river tributaries.
  - Conduct, Supervise and interpretation of SI date
  - Preparation of the specification and quantities.
  - Design and construction support during construction and CCC.
EXPRESS RAIL LINK (KUALA LUMPUR - KLIA) ROAD DIVERSIONS / REALIGNMENT

The scope of works involved the following:

- **Realignment of existing roads where the railway line crosses either with underpass or overhead bridge options.**
- **Roadside drainage design.**
- **Submission of realignment design drawings to relevant authorities for approval, etc.**
- **Temporary road diversion design during construction of bridge, etc.**
- **Pavement design.**
- **Preparation of as – built drawings.**
EXPRESS RAIL LINK (KUALA LUMPUR - KLIA) CIVIL WORKS FOR RAILWAY TRACK

- **CLIENT**: Syarikat Pembenaan Yeoh Tiong Lay Sdn Bhd (SPYTL)

- **PROJECT COST (ESTIMATED)**: RM 2.8 billion

- **Scope of Works**:

  GCU was appointed by SPYTL as the civil engineering consultant and the scope of works involved the following:

  - All civil works for railway track.
  - Permanent Way (Railway line) design.
  - Road diversions / realignment design.
  - Stations and Depot Infrastructure design.
  - Staff secondment for construction management.

CIVIL WORKS FOR RAILWAY TRACK

GCU was responsible to cover the following scope of works under the civil works design:

- Detailed Geometric Design of the Permanent Way which covers about 56 km.
- Trackbed design.
- Complete earthworks and drainage design for the entire ERL alignment including liaison with the authorities, preparation and submission of drawing and document.
- Structural design for reinforced concrete retaining wall, box culverts, drain outfall structure i.e. baffle chute etc.
- Preparation of all civil construction drawings.
- Temporary works design i.e. silt traps, wash trough etc.
- Full time design support during construction.
- Preparations of as-built drawings.
EXPRESS RAIL LINK (KUALA LUMPUR - KLIA) INFRASTRUCTURE WORKS AT ERL STATIONS AND DEPOT

The scope of works at ERL and CRS (Commuter Rail Service) Intermediate Stations and Depot cover the following :-

- All infrastructural design i.e. roads, drainage, sewerage and water supply for all stations.

- Major access road design leading to Salak Tinggi Station and Depot connected from existing B20 highway which covers about 2.5 km. The scope covers the alignment design, flood level estimation, earthworks, drainage, retaining wall pavement design etc.

- Flood detention pond routing study at Bandar Tasik Selatan Station which encroached partly into existing Sg. Midah detention pond.

- Retaining wall, box culverts, suction tank and elevated tank structural design, etc.

- Authorities submission and approval, etc.

- Preparation of as-built drawings.
ELECTRIFIED DOUBLE TRACK PROJECT FROM SENTUL TO BATU CAVES

■ CLIENT : SYARIKAT PEMBENAAN YEOH TIONG LAY BHD (SPYTL)
■ PROJECT COST (ESTIMATED) : RM 200 million
■ Scope of Works :

GCU was appointed by SPYTL as the civil engineering consultant and the scope of works involved the following:

- Trackbed design.
- Complete earthworks and drainage design for the entire alignment including liaison with the authorities, preparation and submission of drawing and document.
- Structural design for reinforced concrete retaining wall, box culverts, drain outfall structure i.e. baffle chute etc.
- Preparation of all civil construction drawings.
- Temporary works design i.e. silt traps, wash trough etc.
- Full time design support during construction.
- Preparations of as – built drawings.
Project Profile

PROPOSED ERL EXTENSION FROM KLIA TO KLIA 2

CLIENT:
Syarikat Pembenaan Yeoh Tiong Lay Sdn Bhd

TOTAL PROJECT COST (ESTIMATED)
RM 150 Million

PROJECT DETAILS:
The project was awarded to Syarikat Pembenaan Yeoh Tiong Lay Sdn Bhd as a turnkey contractor to design and construct the extension. GCU was appointed as the Geotechnical and Civil Consultant for this project.

SCOPE OF WORKS:
The scope of civil consultancy services provided include:-

- Planning and design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
- Planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
- Planning and design of re-profiling Bunga Raya road (profile and geometric) and maintenance access road to approach light.
- Planning and design of relocation maintenance building and carpark.
- Preparation of submission drawings / reports to obtain approval from local authorities, JKR and JPS.
WATER SUPPLY & SEWERAGE
Project Profile

PROGRAM MITIGASI KEKURANGAN BEKALAN AIR DI SELANGOR, WILAYAH PERSEKUTUAN KUALA LUMPUR DAN PUTRAJAYA

PROGRAM PENGGANTIAN PAIP AIR LAMA 2011/2012

CLIENT
Syarikat Bekalan Air Selangor Sdn Bhd (SYABAS)

TOTAL PROJECT COST (ESTIMATED)
RM 6.5 Million

PROJECT DETAILS
Among the main reason for the increase in NRW in Selangor, Kuala Lumpur and Putrajaya is the frequent pipes burst which is mainly attributed to the aging of brittle asbestos cement pipes (ABS). The incident of pipe bursting is not only causing an increase in NRW but also causes unconveniences to the public in the form of water supply interruptions and damage to adjoining structures.

The scope of works involves the pipe replacement of existing AC pipes with Ductile Iron and High Density Polyethelene (HDPE) pipes. This scope of work also includes other associated wrks which include communication pipes and meter stands.

SCOPE OF WORKS:
The scope of civil consultancy services provided include:-

◊ Detailed engineering design and relevant technical drawing.
◊ Supervise and monitor the works from design stage, construction stage until the issuance of Certificate of Making Good Defects (CMGD) to the Contractors.
◊ Preparation of submission drawings / reports to obtain approval from local authorities and JKR.
SECTION 3

CURRICULUM VITAE

1. Ir. EG Balakrishnan
2. Ir. Vijayakumar Somasundaram
3. Ir. R Thinagaran V Ramasamy
4. Ir. Amarjit Singh
5. Ir. Mohd Redzuan b Ahmad
6. Engr. Sia Ling Heng
7. Engr. Zailah Zakaria
Ir. EG Balakrishnan
Ir. EG BALAKRISHNAN  
Curriculum Vitae

Present Position : Managing Director
Nationality : Malaysian
Year of Birth : 1961

Scholarship

- Esso Scholarship 1981
- Government of Japan 1992

Qualifications

- Bachelor of Engineering (Civil) 1985
  University of Malaya
- Master of Engineering (Geotechnical) 1994
  Asian Institute of Technology, Bangkok, Thailand
- Professional Engineer, Malaysia

Affiliations

- Member of Institution of Engineers, Malaysia.
- Committee Member of Geotechnical Engineering Technical Division, IEM.
- Member of American Society of Civil Engineers.
- Registered ASEAN Engineer
- Member of Association of Consulting Engineers Malaysia
- Member of Malaysian Geotechnical Society

Special Areas of Competence

- Ability to lead team of geotechnical engineers on large infrastructural project.
- Geotechnical engineering project concepts planning and scoping of works.
- Geotechnical investigation planning and laboratory testing programme for various type of projects.
- Geotechnical evaluation to derive the design profile and parameters and engineering assessments.
- Basement and foundation design for high-rise structures including R.C design.
- Design and detailing of geotechnical structures - R.C retaining wall, reinforced wall, ground improvement, sheetpile, ground anchors, etc.
- Structural designs and detailing of general civil engineering structures - sewage treatment plant, reservoir, main drain, simple bridge, etc.
- Design Management of large infrastructural system design.
Publications


Presentations

- Presentation to JKR Staff on Forensic Engineering For Geotechnical Engineers- Dec 2009
- International Conference - Geotech Asia 2011 : Geotechnical Design Considerations in Railway Engineering Projects
- Presentation at IEM (May 2012) : Ground Improvemnet for Electrified Double Track Project from Alor Setar to Padang Besar
- Short Course on Geotechnical Forensic Engineering (JKR) – Nov 2012 : Failure of Retaining Structure System
Professional Experience

February 1995 - Present

Managing Director :- GCU Consultants Sdn Bhd

Managing Director of GCU Consultants Sdn Bhd and responsible for all business and financial management of the firm. He is also fully responsible for the project and technical management of all geotechnical engineering services. Presently, lead a team of three (3) engineering managers, three (3) principal geotechnical engineers, three (3) senior geotechnical engineers, four (4) geotechnical engineers, three (3) engineering geologist at main office.

Currently involved in the following projects providing the geotechnical overall direction and specific inputs:-

- **West Coast Expressway - Perak Alignment from Changkat Jering to Sabak Bernam (Section 9 to Section 12)**
  - Providing geotechnical consultancy services for the Perak Stretch from Setiawan to Changkat Jering covering a total distance of 105 km. This design and built project is undertaken by West Coast Expressway Sdn Bhd (IJM Group).
  - Responsible for the all SI works, geotechnical design during tender and detail design stage covering earthworks, cut slopes, ground treatment using stone columns, complete replacement and surcharge preload, piled embankment, culvert foundation, wall foundation, bridge foundation, slope stabilization, etc

- **West Coast Expressway - Selangor Alignment from Sg Rasau (FHR2 Interchange) to NNKSB Interchange - Section 4**
  - Providing geotechnical consultancy services for the Selangor Alignment for a distance of 5 km mainly on viaduct. This design and built project is undertaken by West Coast Expressway Sdn Bhd (IJM Group)
  - Responsible for the all geotechnical design during tender and detail design stage covering ground treatment using stone columns, complete replacement and surcharge preload, piled embankment, culvert foundation, wall foundation, bridge foundation, slope stabilization, etc including construction supervision.

- **Proposed Sg Buloh- Kajang MRT Line (KVMRT) by MMC- Gamuda JV**
  - Providing geotechnical consultancy services for the Elevated Section 1,2 and 3 from Kota Damansara to Taman Tun Dr Ismail and the Depot at Sg Buloh.
  - Responsible for the all geotechnical design covering foundation for the viaduct, foundationfor the station buildings, multi-storey carparks, retaining walls, Underpass at Persiaran Surain with CBP retention wall system, ground treatment for surface works, all ground treatment and foundation at Sg Buloh Depot including construction supervision.
Ir. EG BALAKRISHNAN Curriculum Vitae

  
  ◦ Providing geotechnical consultancy services for the SI planning, SI supervision and preparation of the Geotechnical Interpretative Report for the SSP line for MMC-Gamuda Sdn Bhd.

- **Proposed Mixed Commercial, Retail and Residential Development in Bukit Tinggi, Klang, Selangor- WCT Land Sdn Bhd**
  
  ◦ Providing geotechnical consultancy services for the basement construction and foundation for the large commercial development at Bandar Bukit Tinggi, Klang.

- **Proposed Mixed Development at Lot PT12 (Magna Ecocity), Jalan Persiaran Selangor, Seksyen 15, Shah Alam Selangor.**
  
  ◦ Providing geotechnical consultancy services for the high CBP wall with soil nails along the boundary including submission to authorities and also design support during construction.

- **Consultancy Services for Civil & Structural Design for Independent Deepwater Petroleum Terminal – Phase 2 as FEED (Front End Engineering Design)**
  
  ◦ Providing consulting services for topside development covering geotechnical base report, tank foundation for 22 tanks, pipe rack foundation, bund walls, pipe sleepers, road ramps, channel crossings, drainage channels.

- **Pengerang Deepwater Petroleum Terminal – Marine Facility Phase 2 in Pengerang, Johor**
  
  ◦ Providing geotechnical consultancy services to URS Scott Wilson/Dialog on the planning of SI works, supervision & coordination of SI works and preparation of geotechnical interpretative report on the soil conditions and properties for marine facility foundation works.

- **Refinery and Petrochemical Integrated Development (RAPID) Project for Petronas - Additional Soil Investigation Work**

  Appointed by Geolab/Technip for the preparation of Geotechnical Interpretative Reports for the various facilities proposed at the RAPID site covering:

  ◦ Analysis and interpretation of SI results to produce design sub-soil models and parameters.
  ◦ Geotechnical Zoning based on Geological Map, Topographic Survey and Site Investigation
  ◦ Develop Geotechnical Subsoil model and recommend geotechnical parameters
  ◦ Propose Deep and Shallow foundation for various sizes at each zone using Eurocode (EC7) with Malaysian Annex.

- **Providing Geotechnical Support Services for the following Civil and Structural Projects :-**

  ◦ Construction of bungalow units on hill slope for Syarikat Perumahan Kinrara
  ◦ Construction of Arunamari Medical Center at Bandar Bukit Tinggi, Klang
  ◦ Construction of Bandar Puteri 12 semi detached and bungalow units on high ground.
Construction of 44 units of Zero Bungalow at ULU Langat for SMS Developer

Mines Golf City at Bukit Beruntung.

40 Units of Industrial buildings including all infrastructure, extensive RE wall, slope stabilization using soil nails,

Construction of 27 Units of Shop Office at Bandar Puchong Jaya

Mixed development at Serai and Kundang for Gamuda Land Sdn Bhd.

Mixed development at Serendah for WCT Land Sdn Bhd.

Responsible for the geotechnical consultancy services for the following completed projects :-

Providing specific geotechnical consultancy services for the following projects :

- Geotechnical assessment and slope stabilization design proposals for IOI development units at the following sites :
  - Bandar Puteri 9 wall collapse and the repair works
  - Bandar Puteri 11 slope stabilisation design and detailing using soil nails
- Geotechnical assessment and slope rectification design using soil nails, horizontal drains, etc of the slope at Bukit Bandaraya for Lebar Daun Sdn Bhd.
- Geotechnical independent checking engineer for the Gleanegles Hospital covering bored pile foundation and diaphragm wall with top doen construction technique.
- Providing all the geotechnical support for the new EMU Depot at Seremban as part of the upgrading of the KTMB rail network. The support cover the foundation, ground treatment, walls, etc.
- Providing geotechnical support for the Medini 1 and Medini Signature development undertaken by WCT Construction covering the foundation design and basement construction using contiguous bored pile with temporary ground anchors.
- Provide an independent geotechnical review on the distress on Bunker, Boiler foundation and the Turbine Hall retention system at Tanjung Bin 4 for Mudajaya Construction Sdn Bhd.
- Provide remedial solution to the distress observed on RE walls and bridge abutment for road over rail embankments at ROB 12 & 13 at Parit Buntar as part of the Electrified Double Track for MMC-Gamuda Sdn Bhd.
- Provide geotechnical support on all temporary retention/shoring works for the 4th lane widening works at PLUS expressway for WCT and Ekovest.

- **Sungai Besi Expressway Extension (Besraya Eastern Extension)**

  - Providing geotechnical consultancy services for the Besraya Eastern Extension project from Salak South to MRR2. This design and build project is undertaken by Besraya (M) sdn Bhd (IJM Group).
  - Responsible for the all geotechnical design during tender and detail design stage covering ground treatment using stone columns, complete replacement and surcharge preload, piled embankment, culvert foundation, wall foundation, all the bridge foundations on limestone formation, river diversion under existing bridge, etc including construction supervision.

- **ERL Extension to LCCT for ERL Sdn Bhd (YTL Group)**

  - The Express Rail Link (ERL) is required to be extended until the new LCCT which is under construction.
  - Providing complete C & S consultancy including geotechnical design works for the extension line covering all the drainage, main drains, road reprofiling, ground...
Ir. EG BALAKRISHNAN

Curriculum Vitae

- treatment using piled embankment acting as slab track, OCL pole foundation, carpark and maintenance relocation, etc

- **Proposed Iron Ore Stockpile and Reclaimer Foundation at Lumut by Vale**

  Appointed as the independent geotechnical consultant by Keller (M) Sdn Bhd for the design of the ground improvement scheme for the iron ore stockpile with a load of 524kPa and the foundation treatment for the reclaimer for the following scope of services:

  ◊ Checking on the adequacy of the SI for the design
  ◊ Analysis of the SI data to demarcate the subsoil zoning and soil properties
  ◊ Independent checking of the proposed ground improvement design using stone column for the iron stock pile area of 19m high (load of 524 kPa)
  ◊ Independent Checking of the foundation treatment using stone column for the reclaimer embankment.
  ◊ Independent checking of the pile foundation to support the reclaimer track particularly on the lateral capacity to withstand the lateral soil movement.
  ◊ Checking of all construction drawings and specification
  ◊ Support during construction works

- **Proposed Electrified Double Track Project from Alor Setar to Padang Besar (Kedah Line)**

  Appointed as the geotechnical consultant by MMC-Gamuda for the mainline for the following scope of services:

  ◊ Soil investigation planning, coordination and supervision.
  ◊ Design and detailing of ground treatment works for the mainline railway embankment covering PVD & Surcharge Preload, Stone Column, Piled Embankment, Removal & replacement, surcharge preload, etc
  ◊ Design and detailing of all retaining walls including temporary wall. Wall types including RC wall, Gabion Wall, Geotextile Wall, soil nail wall, etc.
  ◊ Design and detailing of temporary shoring works
  ◊ Design and detailing of ground treatment works for temporary tracks
  ◊ Preparation of construction drawings and specification
  ◊ Supervision of construction works

- **Independent Deepwater Petroleum Terminal in Pengerang, Johor**

  Appointed by Scott Wilson (M) Sdn Bhd as their geotechnical consultant, team of the FEED consultant for Dialog in carrying out the following works:

  ◊ Planning and supervision of SI works for both Site Preparation & Dredging and Marine Facility works.
  ◊ Analysis of the SI data to develop the reference design for the ground improvement scheme for the Site Preparation works at the reclamation site
  ◊ Preparation of tank foundation concept report based on the subsoil conditions and ground improvement reference design
  ◊ Assist in developing the Performance Criteria for the FEED contract
  ◊ Assist in preparing all the documentation and relevant design drawings for the FEED contract.
  ◊ Evaluation of the FEED tenders including design review
  ◊ Independent review of the Marine Facility design and design submission consultant for the marine facility works.
• **LCCT Earthworks and Integrated Complex for WCT Construction Sdn Bhd**

Appointed by WCT as their geotechnical adviser for the LCCT earthworks package addressing the impact compaction methodology and trial compaction programme, sequence of works particularly on the stage construction to eliminate stability problems during filling, review of the overall ground improvement design and advise on the impact, review of the instrumentation monitoring readings, attend the coordination meeting to resolve technical site issues, etc.

◊ For the Integrated Complex, providing geotechnical consultancy services for the foundation design of the building and ERL platform. Attended to all the design and construction issues.

• **Proposed Enhancement Works along LDP (Package C) at Bandar Puchong Jaya Interchange for Dasar Pintar Sdn Bhd (Gamuda Group)**

Appointed as the geotechnical consultant for the design of the following works:

◊ Foundation for the proposed bridge widening covering driven spun piles and micropiles
◊ Ground treatment for the road embankment, bridge approach, reinforced soil wall, etc

• **Electrified Double Track Project: Road Over Rail Bridge N3-ROB 12 (Jalan Telok Wan Jah, Alor Setar) for Ken Keong Sdn Bhd Under Design & Built Scheme**

Appointed as the geotechnical consultant for the design of the following works:

◊ Foundation for the proposed bridge widening using single large diameter 2.8m bored piles in a soft marine clay condition.
◊ Ground treatment for the road embankment, bridge approach, reinforced soil wall, etc

• **Proposed Klang Valley MRT (Red Line Stage 1) b From Sg Buloh to Seri Kembagghan for MMC-Gamuda JV**

◊ This project is the first part of the MRT project where various lines were studied. GCu worked with Scott Wilson, ZKR, etc on this project to develop the Stage 1 design works.
◊ Responsible for the all planning and supervision of SI works, geotechnical design covering foundation for the viaduct, foundation for the elevated station buildings, geotechnical input for tunnel works, protection works along the tunnel alignment, building instrumentation, geotechnical input for the underground station, preparation of the design brief, specification, term of reference (TOR), preparation of the drawings, etc.

• **New Condensate Tank Project at Bintulu for Dialog (BCOT)**

Appointed by Dialog for the design of the 66m diameter tank on poor ground condition and the overall infrastructure works:

◊ Responsible for the all planning and supervision of SI works, design options on the tank foundation, geotechnical design covering foundation for the tank, structural design of the slab, pile design, addressing site issues on jacked in piles, ground heaving, vibration control, etc.
• **Sheetpiled Quay Wall and Related Wharf facilities and Tank Foundations for the Proposed Jubail Offshore Supply Base at Jubail Commercial Port, Saudi Arabia.**

Appointed by Dialog for the engineering consultancy services for the above project covering the entire geotechnical and civil infrastructural works.

◊ Responsible for all planning and supervision of SI works, planning of the supply base including the extent of dredging & turning radius, design options on the sheetpiling quay wall, geotechnical design of the tie back sheetpile quay wall, design of the dredging works, foundation treatment for the tanks, addressing site issues, etc.

• **Residential Apartments at Bay 2 Plot 3 and Bay 3 Plot 10 Crescent Bay, Karachi for Emaar Giga Pakistan (Pvt) Ltd.**

Appointed as the geotechnical sub consultant by Urbanisma Consulting Group for the design of geotechnical elements for the high-rise apartment at the reclaimed sites (Residential Sites 3 & 10) in Crescent Bay, Karachi.

• **Proposed Upgrading of Taman Tun Dr Ismail Interchange at Lebuhraya Damansara-Puchong for Gamuda Engineering Sdn Bhd**

Appointed as the geotechnical consultant for the design of the following works:-

◊ Retention system for the Underpass comprising of braced contiguous boredpile wall, braced contiguous micropile wall, strutted sheepile wall, etc
◊ Foundation for the proposed bridges covering boredpiles and micropiles
◊ Ground treatment for the road embankment, bridge approach, reinforced soil wall, etc

• **Proposed Integrated Transport Terminal at Bandar Tasik Selatan for Maju Holdings/Maju Integrated Engineers Sdn Bhd**

Appointed as the geotechnical consultant for the design of the following works:-

◊ Ground treatment at pond reclamation and roads covering piled embankment, surcharge preload, R&R, etc
◊ Building foundation using boredpiles and driven piles
◊ Preliminary foundation design for the proposed bridges using bored piles and driven piles
◊ Foundation design for all proposed walls.

• **Proposed Politeknik at Banting**

◊ GCU has been appointed as the geotechnical consultant by DMY Electrical Sdn Bhd for the turnkey design covering soil investigation, ground treatment at roads, foundation design for the proposed buildings and infrastructure facilities, preparation of specification, drawings and BQ, etc.

• **Proposed Slope Repair at Sekolah Antara Gapi, Hulu Selangor**

◊ GCU has been appointed as the geotechnical consultant by Kementerian Pendidikan Malaysia for the repair of the existing slopes covering soil investigation planning, slope repair design using modular block + geogrid reinforced wall, RC retaining wall, soil nails, slope erosion protection works, preparation of specification, drawings, tender and contract documentation, BQ, etc and site supervision.
• **Menai taraf Jalan dari Persimpangan Bunga Chengkeh ke Persimpangan LDTR, Sg Lembing, Pahang.**

Ir. EG Balakrishnan has been appointed as the geotechnical independent checker by JKR for all geotechnical design works.

• **Proposed Construction of Jusco Shopping Mall and Associated Commercial Development at Peringgit Melaka.**

GCU has been appointed by IJM/WCT at the geotechnical consultant for the following works:

- Ground treatment works using PVD & surcharge preload
- Ground treatment along the widening of the main access road
- Complete design and detailing of the main drainage works covering permanent concrete sheetpile, box culverts, pond slopes, piled embankment under the transmission lines, concrete outfall structures.
- Geotechnical advise on the foundation for buildings and infra structures.

• **Electrified Double Track Project from Seremban - Gemas**

- GCU appointed by IJM as the geotechnical consultant for the design and detailing of all temporary shoring works during the pilecap excavation of proposed bridges and culvert construction next to the existing railway embankments.

• **Electrified Double Track Project from Sentul – Batu Caves**

- GCU appointed by YTL as the civil consultant for the design of the electrified double track project from Sentul to Batu Caves including all the stations and halt.
- The scope of geotechnical services include soil investigation planning, ground treatment designs, foundation for walls, track substructure design, etc.

• **Construction of IT Tower at Karachi, Pakistan**

- GCU was appointed by IJM to provide geotechnical consultancy services on the design and detailing of the basement retention system comprising of secant bored pile walls, strutting details, anchor details, construction sequence, etc.

• **Upgrading of Batu Berendam Airport at Melaka**

- GCU was appointed by Uni-Integrated Sdn Bhd as the geotechnical consultant to provide full geotechnical consultancy services for the airport upgrading works covering both the airside and landside.
- Scope of services comprises of SI planning, design and detailing ground treatment at runway extension, new parking apron, new access road to terminal building, Taman Merdeka road and Durian Tunggal road diversion, preparation of tender and construction drawings, preparation of BQ and engineer’s estimate.

• **Projek Jalan Pos Betau – Lembah Bertam, Pahang Darul Makmur**

- Hasrat Usaha Sdn Bhd, the design and build contractor for Package 3 of the said project, appointed GCU Consultants Sdn Bhd as the geotechnical consultant for the design and supervision works. The Package 3 works covers approximately 19.6 km
over hilly terrain and deep valley connecting Bukit Petubong in the district of Lipis and Kampung Susu in the district of Cameron Highlands in Pahang.

◊ The scope of geotechnical consultancy services provided by GCU comprise of planning and supervision of geotechnical works, evaluation and interpretation of geotechnical data; analysis and design of cut and fill slopes, soil stabilization using soil nails, geogrid wall, soil reinforced wall, rock toe, bridge/viaduct foundations, ground treatment and providing input to all geotechnical related issues.

• **Batu Gajah Railway Development Project**

◊ GCU appointed by Road Builder as the geotechnical consultant for the KTM Depot, Workshop, Quarters and Training School development project at Batu Gajah.
◊ The scope of services include soil investigation, ground treatment at mining ponds and mining pond surround for roads and track s, building foundation, pond reclamtion, slope stability, etc.

• **Construction of 2 Blocks of 20 storey Apartment at Jalan Sri Hartamas 3, KL**

◊ GCU appointed by Syarikat Pembinaan YTL for the design and detailing of the temporary retention system comprising of contiguous boredpile wall, temporary anchors, strutting system, soil nails, etc including support during construction .

• **North Manama Causeway Bridge 1 & 2 at Bahrain**

◊ Work in association with Benaim (M) Sdn Bhd to provide geotechnical consultancy services for the foundation design and detailing of Bridge 1 & 2 of the North Manama Causeway.

• **Upgrading of Jalan Loke Yew Sambungan, Kuala Lumpur**

Client : Benaim (M) Sdn Bhd

◊ Work in association with Benaim (M) Sdn Bhd to provide geotechnical consultancy services for the foundation design and detailing of five (5) bridges along the Jalan Loke Yew.
◊ Scope of services includes planning geotechnical investigation, pile optioneering, single pile and group pile analysis and design. Pile types include micropile and bored piles.

• **Construction Of Reservoir T3A At Damansara Perdana.**

Appointed as the geotechnical consultant providing the following services:-

◊ GCU is appointed as the Geotechnical Consultant for the construction of the reservoir T3A at Damansara Perdana
◊ Scope of services including soil investigation, slope studying, soil nail design and detailing, ground treatment for walls, advise on other geotechnical elements, rock stabilization details, etc.

Providing Geotechnical Support Services for the following Civil and Structural Projects :-

➢ **Menaiatkatar Laluan Persekutuan 150 di Pulau Pinang under JKR**
➢ **Construction of access road at Shamelin Perkasa including all bridge foundation, walls, ground treatment, river channelization, etc**
68 units of Bungalow Houses at Bandar Eco-Setia Park for S P Setia Sdn Bhd.

Construction of a temple at Bandar Baru Salak Tinggi covering foundation and slope stabilization works.

32 Units of Bungalow Houses at Bandar Eco-Setia

78 Units of Semi-detached bungalow houses at Bandar Eco-Setia

32 unit of semi-detached bungalow units at Bandar Setia Alam

Mixed development of 200 ha at Section U10 Shah Alam for Basco Sdn Bhd

44 units of Bungalow Units at Bandar Eco-Setia

Construction of Terrace Houses at Bandar Bukit Tinggi for WCT Construction Sdn Bhd.

45 units of High-End Bungalow Houses on Hillside (Setia Hills at Bukit Indah) for S P Setia Sdn Bhd.

Seri Merdeka (Phase 4) covering 1 block of 11 storey low-cost apartments and 40 units of double storey shop office on ex-mining pond for Darma Hemat Sdn Bhd.

27 units of Terrace House development at Dengkil for Mecopac Sdn Bhd.

Construction of TESCO Hypermarket at Bandar Setia Alam for S P Setia Sdn Bhd.

Construction of High-end Commercial Complex (P8 North Commercial) at Bandar Setia Alam for S P Setia Sdn Bhd.

Providing specific geotechnical consultancy services for the following projects:

- Geotechnical assessment and slope stabilization design proposals for IOI development units at the following sites:
  - Cut and fill slopes at 24 Units of Bungalow units at Bandar Puteri
  - Fill Slopes (reclaimed ground) at 3 ½ storey shop offices at Bandar Puchong Jaya next to IOI Mall.
  - Cut slopes at Aseania Apartment in Bandar Puteri
  - Bandar Puteri 9 wall collapse and the repair works
  - Bandar Puteri 11 slope stabilisation design and detailing using soil nails

- Geotechnical assessment and slope rectification design using soil nails, horizontal drains, etc of the slope at Bukit Bandaraya for Lebar Daun Sdn Bhd.

- Rectification of the collapsed RE wall under bridge abutment along LEKAS Expressway for IJM Construction Sdn Bhd using soil nail wall in front of the existing RE wall.

- Geotechnical design of retention cofferdam system for the trench at Melaka near shore for LYE.

- Construction of Jalan Gangsa diversion covering geotechnical ground treatment works and pavement for JKR Melaka

- Construction of Sekolah Sri Permaisuri for Vast Consultant at Bandar Sri Permaisuri covering SI planning, ground treatment, reclamation design, wall foundation, report for authority submission, etc

- Appointed by IJM construction for the alternative slope stabilization design at CH 29000 of Kajang-Seremban Expressway (LEKAS)

- Slope stability assessment for the proposed Libya Airport for Scott Wilson

- Geotechnical assessment including authority submission of the proposed mixed development at Bertam, Melaka for LNS Development Sdn Bhd

- Geotechnical assessment of the proposed development at Nusa Duta Johor for IJM land Sdn Bhd covering use of unsuitable materials at filling areas, ground treatment, etc

- Geotechnical assessment including authority submission for the proposed development at Lot 583, Seri Kembangan for Villa Harapan.

- Geotechnical study of the earth filled embankment at Phase 5, 6 & 8 of Bandar Setia Eco Park.
• Geotechnical assessment and slope stabilization design proposals for IOI development units at the following sites:
  - Cut and fill slopes at 24 Units of Bungalow units at Bandar Puteri
  - Fill Slopes (reclaimed ground) at 3 ½ story shop offices at Bandar Puchong Jaya next to IOI Mall.
  - Cut slopes at Aseania Apartment in Bandar Puteri

  ◊ TNB development project at Shah West to provide design on stone columns for slope repair.
  ◊ Geotechnical study on failure of the STP plant at Shah Alam.
  ◊ Geotechnical study on the piling problem at Bukit Tinggi Jusco project.
  ◊ Geotechnical assessment for the proposed Chinese School and Semi-D houses on hillside at Bandar Puchong Jaya.
  ◊ Geotechnical Independent Checker for a hill development at Templer Hills.
  ◊ Foundation assessment for apartment at Setia Putrajaya.
  ◊ Geotechnical assessment of the proposed development (extension of Lake Edge) for syarikat Pembinaan YTL Sdn Bhd at the existing pond.

• KLCC Tunnel Link

  ◊ Work in association with Benaim (M) Sdn Bhd to provide geotechnical consultancy services to the turnkey contractor, IJM Sdn Bhd for the construction of two (2) cut and cover tunnels within the KLCC development area. One tunnel (pedestrian) connect the KLCC Suria to the KLCC Convention Centre and the other tunnel (vehicular) link the main road to the KLCC Convention Centre.
  ◊ Services include the design and detailing of the temporary retention system and geotechnical design input for the permanent box structure, including bearing capacity evaluation, settlement assessment using numerical modeling.
  ◊ Pandan Bistari Slope 1A
  ◊ Providing geotechnical services for geotechnical study on slope and soil nail failure at Pandan Bistari for Dr Y G Tan Jurutera Perunding.

• Segmental Anchored Soil Wall

  Appointed by Geo-Millenium Sdn Bhd for providing specialist geotechnical services for the design and detailing of segmental anchored soil walls covering global, internal and external stability analysis for the following sites:

  ◊ Lot 3086 at Bandar Petaling Jaya
  ◊ Lush Development
  ◊ Kepong Industrial Site

• Upgrading of Jalan Loke Yew Sambungan, Kuala Lumpur

  ◊ Work in association with Benaim (M) Sdn Bhd to provide geotechnical consultancy services for the foundation design and detailing of five (5) bridges along the Jalan Loke Yew.
  ◊ Scope of services include planning geotechnical investigation, pile optioneering, single pile and group pile analysis and design. Pile types include micropile and bored piles.
- **Design, Construction, Commissioning and Completion of Regional logistic Hub (Phase 1) for MISC Logistic Sdn Bhd**

Appointed as the geotechnical consultant by Road Builder (M) sdn Bhd for the design and build of the large Regional Logistic Hub at Pulau Indah.

◊ Scope of services include planning soil investigation, tender design, foundation design and ground treatment for the roads and container yard.

- **Seri Merdeka (Phase 3), Ampang**

◊ Providing geotechnical consultancy services for a mixed development on a 18 acres ex-mining land in Kampung Baru Ampang. The project comprising of 3 blocks of six (6) storey (220 units) apartments and 140 units of terrace houses is a joint venture project between Messrs Darma Hemat Sdn Bhd and Majlis Perbandaran Ampang Jaya (MPAJ).

◊ The scope of services include geotechnical investigation, analysis and evaluation of SI data, design of foundation including pilecap, ground treatment for the infrastructural facilities, preparation of construction drawings and construction supervision.

- **Proposed Government Building (Parcel 4G7) at Precinct 4, Putrajaya**

Appointed as the geotechnical consultants by Messrs Road Builder (M) Sdn Bhd, the contractor for the construction of 16 storey office block with 7 to 10 level podium and 3 level basement in Wilayah Persekutuan Putrajaya.

◊ The scope of services comprises of design and detailing alternative single bored pile system, diaphragm wall for 16m excavation using island cut method, strutted sheetpile cofferdam, internal strutting system, plunging columns for top down construction scheme, preparation of construction drawings and design support during construction.

- **National Sewage Treatment Plant Project for Sewerage Department of Malaysia**

GCU was appointed as the geotechnical consultant for the construction of the Pantai Sewage Treatment Plant in Kuala Lumpur and the South Klang Valley CSTF Plant in Klang, Selangor. The scope of services provided are as follows:-

◊ Pantai Sewage Treatment Plant : GCU was entrusted with the design and detailing of the diaphragm wall for the 21 m excavation (in alluvial deposit) with internal strutting for the pumphouse. The scope also involved preparation and endorsement of design drawings, calculations and reports; and design support during construction.

◊ South Klang Valley CSTF Plant : design and detailing of ground improvement scheme, review of temporary structure design and advise on foundation and earthwork. The scope also involved preparation and endorsement of design drawings, calculations and reports; and design support during construction.

- **Proposed Upgrading of Alor Setar Airport**

GCU was engaged by Road Builder (M) Sdn Bhd to provide engineering consultancy advice on the proposed ground improvement comprising of stone columns, surcharge preload with PVD, surcharge preload, pavement subgrage, drainage earth bunds, etc. The advice includes the assessment of the ground improvement works.
• **Proposed Upgrading of Pangkor Airport**
  ◊ GCU was engaged by Bauer to design and detail ground improvement scheme using stone columns and cement columns as part of the tender proposal.

• **Proposed Upgrading of Pulau Tioman**
  ◊ GCU was engaged by Road Builder (M) Sdn Bhd to carry out the design for the ground treatment, slope cutting proposal, shore protection works, reclamation scheme, etc for the tender submission.

• **Settlement Study at Pangkor Airport**
  ◊ GCU was engaged by YTL to carry out a study on the settlement problem along certain part of the runway.

• **Electrified Double Track Project from Kluang to Johor Bahru**
  ◊ Work in association with Zaidun-Leeng Sdn Bhd to provide the geotechnical consultancy services for MMC – Gamuda for the above stretch.
  ◊ Services include planning and supervision of preliminary SI works, analysis and evaluation, design of ground treatment works, foundation design for railway and road bridges, foundation for walls, cut slope stabilization works, etc., for the preliminary cost estimate purpose

• **Proposed North-South Expressway Connection for Guthrie Corridor Expressway**
  ◊ Work in association with Perunding ZKR Sdn Bhd and PJSI Sdn Bhd to provide geotechnical consultancy services for the NSE Connection to the GCE. Services include all geotechnical elements including bridge foundation, ground treatment, cut slope, slope stabilization, etc.

• **Projek Bekalan Air Merbau Chondong, Fasa 1, Machang, Kelantan Darul Naim**
  ◊ GCU was appointed by Road Builder (M) Sdn Bhd to provide geotechnical consultancy services for the design and detailing of temporary sheetpile cofferdam for the intake including the internal strutting system, preparation of shop drawings and design support during construction.
  ◊ GCU was also appointed by Erinco Sdn Bhd as their sub-consultant for the foundation design of intake station, design and detailing of river protection works, etc.

• **Geogrid Reinforced Wall at Pandan Bistari**
  ◊ Provided geotechnical consultancy services for Forest Point Sdn Bhd, the turnkey contractor for the design and construction of a 12.5 m high and 4 (V) : 1 (H) batter geogrid reinforced wall on a mountainous terrain in Pandan Bistari, Cheras.
  ◊ The geotechnical consultancy services include the interpretation of the available SI data, analysis, design, preparation of construction drawings and design support during construction.
• **Proposed Upgrading of MRR2 between Batu Caves and Taman Sri Gombak**
  ◊ GCU was appointed by Bauer (M) Sdn Bhd to carry out alternative ground treatment design using soil-cement columns formed by deep-mixing method for the approach embankment and service road for the above upgrading works.
  ◊ The scope covered planning of SI programme, analysis and evaluation, interpretation, design of soil-cement treatment works and preparation of construction drawings.

• **New Pantai Expressway**

Providing geotechnical sub-consultancy services for RB Perunding Sdn Bhd, the bridge designer for the New Pantai Expressway Project.

Responsible for the desk study evaluation, geotechnical investigation, optioneering of pile types and size, detailed analysis and design of piles and pile groups at each pier location and providing design support during construction of the following nine (9) major bridges / viaducts:-

- A 1100 meters viaduct over Jalan Klang Lama.
- A 500 meters bridge over Federal Highway, Sg. Klang and KTM Track.
- A 430 meters bridge for Kewajipan Directional Ramp.
- A 300 meters bridge connecting Jalan Gasing to the New Pantai Expressway.
- A 450 meters bridge connecting to Kuchai Lama Besraya Highway.
- Four (4) viaducts of 400 to 1840 meters length along the expressway mainline.

The pile types include hand-dug caisson, bored piles, micropiles and driven spun piles.

• **Seri Merdeka (Phase 1 and 2),**

◊ Darma Hemat Sdn Bhd, appointed GCU to provide the geotechnical consultancy services for the proposed 6 blocks of high-rise buildings (10 to 19 storey) an ex-mining land.
◊ The services included planning SI programme, analysis and evaluation, interpretation, design of pile foundation including pilecap, proper driving methodology for RC piles in limestone area, ground treatment works for the infrastructure facilities, and preparation of construction drawings.

• **Sg Muar Raw Water Intake**

◊ Providing consultancy services for the design and detailing of the temporary strutted sheepile cofferdam and alternative foundation design using micropiles.

• **Electrified Double Track Project between Rawang and Bidor for Keller-Bauer Consortium**

◊ Responsible for the design and detailing of ground treatment works using stone columns and cement columns for the railway and road crossing embankments. Total treatment area is about 400,000 sq. meters.

• **Guthrie Corridor Expressway for WCT Engineering Sdn Bhd**

◊ Providing geotechnical sub-consultancy services for Perunding ZKR Sdn Bhd, the Lead Consultants for the 22 km privatized expressway from Bukit Jelutong in Shah
Alam to Kuang, Selangor. This design and build project is undertaken by WCT Engineering Berhad.

◊ Responsible for the geotechnical design during tender and detail design stage covering earthworks, cut slopes, ground treatment using stone columns, complete replacement and surcharge preload, mining reclamation, culvert foundation, wall foundation, etc.

• **Proposed Mixed Development on Lot PT 1, 69 & 1052, Mukim Peringgit, Melaka**

◊ Responsible for the soil investigation planning, tender management, supervision and preparation of the geotechnical interpretative report for the construction of high rise buildings and associated civil works on soft ground condition.

• **Express Rail Link from KL Sentral to KLIA in Sepang (56 km)**

◊ Responsible for the geotechnical and foundation engineering aspect of the civil engineering component of the project covering the geotechnical investigation, evaluation, ground improvement design which includes stone columns, preloading schemes, reclamation of mining ponds, extensive replacement, piled embankment, etc., cut and fill slopes, foundation for culverts and retaining walls, etc. Preparation of the geotechnical design drawings and specification for construction.

◊ Responsible for the foundation design and design support during construction for the following bridges:-
  - BR 6A : 2520 m viaduct over built up area crossing Sungai Klang and Federal Highway.
  - BR 8 : 1310 m viaduct over Seremban Expressway, Sungai Kerayong and Jalan Sungai Besi.
  - BR 11 : Bridge over KTM track.
  - Two (2) bridges (3 spans) in swampy areas.

◊ Variable ground formations were encountered at the above bridge sites (Limestone, Kenny Hill and Granite). Some stretches of the viaducts were close to the existing KTM railway tracks. The adopted foundation system comprise of pretensioned precast spun piles, steel H-piles, bored piles and micropiles according to ground conditions.

◊ Responsible for the design of catenary pole foundation using driven pile, tube foundation and bored piles.

◊ Stationed full time at the project office for about 2 years leading a team of engineers to handle all the construction problems as part of the construction management team.

• **Independent Geotechnical Audit for JKR Roads**

Provide overall direction for the independent geotechnical audit for the following road projects:

◊ Upgrading of Batu Pahat to Kluang Federal Road.
◊ Upgrading of Bentong to Kuala Lipis Federal Road 8 (Segment 6 & 8).
◊ Upgrading of Simpang Tiga to UIA Federal Road 68 in Gombak.
◊ Sg Klawang Road Upgrading Project
◊ Cadangan Membina Jalan Pintas Bandar Rawang (Rawang By-Pass), Selangor Darul Ehsan for Panzana Enterprise Sdn Bhd.
◊ Cadangan Projek menaiktaraf Jalan Nilai-Pajam, FT3265 Seremban.
◊ Projek Menaiktaraf Jalan Pintas Kuantan (Kuantan By-Pass), Pahang Darul Makmur  
◊ Projek Merekabentuk, membina dam menyiapkan Laluan Persekutuan 17, Jalan Pasir Gudang, Johor Darul Takzim for SP Setia Sdn Bhd.

• **Putrajaya Government Office Buildings**

Responsible for the substructure design and detailing of basement support and foundation system during tender for Messr Road Builder (M) Sdn Bhd for the following government building :-

◊ Lot 2C1.
◊ Putrajaya Convention Centre.
◊ Lot 4G1, 4G2, 4G3 and 4G4.

• **Ipoh-Lumut Expressway (50 km)**

◊ Providing all the geotechnical engineering support for HT Maltec Consultants, the lead consultant. The scope of geotechnical design covers the pile foundation for bridges (bored and driven piles), reclamation of mining ponds (three Nos.), cut slopes, ground improvement using preloading and vertical drains, extensive replacement, etc. Preparation of geotechnical interpretative reports, design solutions and specifications.

• **Upgrading and widening of Sg Besi Road into toll Road**

◊ Providing geotechnical specialist input for the specialist bridge designers, Robert Benaim & Associates Sdn Bhd. Responsible for the geotechnical and foundation design for three difficult bridges.

➢ Kg Malaysia Bridge – Involved in the design of micropile foundation for new piers under restricted headroom which will replace the existing ones. This project involved very tight working space and also stringent settlement requirement because the existing piers are supporting the existing KL - Seremban Expressway. Additional reinforcement in the form of mild steel pipes is introduced to reduce the elastic shortening on the piles. Instrumented pile load tests on compression and tension piles were carried out to verify the design criteria. Also involved in the checking of the temporary soil nailed wall supporting the existing bridge abutment.

➢ Turf Club Bridge – The construction of the bridge is to be carried out as top-down with the bored piles and bridge are constructed first. The soil underneath the bridge deck is excavated in stages and soil slope is reinforced with permanent soil nails due to limited space. Involved in the design of large diameter bored piled in karstic limestone formation, cavities treatment, and permanent soil nail slopes.

➢ Viaduct across KTM track and proposed Express Rail Link – The proposed viaduct is located at the interface of granite and limestone formation with ex-mining tailings and alluvium overlying the limestone formation. Currently carrying the optioneering exercise of the various pile options - large diameter bored piles, micropiles, and driven piles.
• **Slope Stabilization Works at Precinct 9 Smart School at Putrajaya**

  ◊ Responsible for the slope stability analysis, proposed slope profiling and extensive slope stabilization design using soil nails, subsoil drains and buttress wall.

• **Commuter Rail Station at KLIA**

  ◊ Responsible for the design and detailing of alternative deep foundation system using single large diameter bored pile for the CRS station, which is an extension of the KLIA at Sepang. Interpretation of the pile load tests using Osterberg Cell.

• **A 1500-acre residential, commercial and industrial development close to the coast in Sepang, Selangor.**

  ◊ Involved in the detailed study and design of the ground improvement scheme using preloading and vertical drains for various landuse - low cost houses, medium cost houses, industrial lands, infrastural facilities, etc.

• **Proposed High-rise buildings at Jalan Binjai comprising a 48 storeys, a twin 37 storeys, 7 storeys podium block and 4 levels of basement carparks**

  ◊ Geotechnical investigation, evaluation, foundation and basement support assessment and recommendation.

• **500 kV Transmission Towers (Line 3) from Air Tawar to Junjong**

  ◊ Pile load interpretation, formulation of pile design concept and procedures, design of pad and chimney foundations.

• **Cargo Terminal, Forwarder 1 and CSC Buildings, Kuala Lumpur Airport, Sepang**

  ◊ Geotechnical evaluation, assessment and foundation recommendation based on available geotechnical data.

• **Hill Slope Development at Shah Alam by Maddusalat Sdn Bhd**

  ◊ Geotechnical evaluation, assessment and slope stability assessment for proposed buildings on slopes.

• **A 500 acres high class residential development at Bukit Cahaya, Shah Alam, Selangor (Cahaya - The Sanctuary)**

  ◊ Geotechnical investigation, evaluation, and overall slope stability assessment for the complete project. Also involved in the design and inspection of each footing constructed on hill slopes prior to construction.

• **Second Ethylene, Cracker and Derivatives Project, Paka, Terengganu for OGP Technical Services Sdn Bhd**

  ◊ Preliminary geotechnical assessment of the project site and recommendations for suitable foundation, ground improvement options and economical locations of various proposed structures.
- Development of Lot 9016 and 9017 at Jalan Kepong on ex-tin mine area, rubbish dump and also mining pond
  ◊ Geotechnical investigation, evaluation, foundation assessment and recommendation for high-rise buildings and evaluation of ground improvement works.

- Bandar Puchong Jaya - Classic 2 houses for Pilihan Megah Sdn Bhd
  ◊ Analysis of slope stability, slope stabilisation scheme, development options, foundation design for the 2½ storey houses located on slopes and preparation of the geotechnical interpretative report, tender drawings and specification.

- Bandar Puchong Jaya – Hillview Apartments for Pilihan Megah Sdn Bhd
  ◊ Geotechnical evaluation and assessment of the subsoil conditions, design parameters, pile foundation design and assessment for the proposed high-rise structures on thick filled ground at the valley of a typical rolling terrain.

Responsible for the civil infrastructural and structural consultancy services for the following projects:-

- A 500 acre high class residential development at Bukit Cahaya, Shah Alam (Cahaya - The Sanctuary)
  ◊ Involved in the detailed design and detailing of few exclusive bungalow house design including the associated civil works. Each house is estimated to cost about RM 5 million.

- 500 acre mixed development at Padang Meha, Kulim for Hap Seng Consolidated Sdn Bhd
  ◊ Project Manager for the infrastructure design comprising of the masterplan for the whole development and detailed design for Phase 1.

- Involved in the infrastructural planning of the development plan for the following projects:-
  - 500 acre mixed development for Messrs Hap Seng Consolidated at Sg Pelek, Sepang, Selangor Darul Ehsan.
  - 30 acre industrial development at Bentong for Messrs Dekat Erat Sdn Bhd.

May 1994 - January 1995

Senior Geotechnical Engineer :- Perunding GEA (M) Sdn Bhd

Involved in the design and coordination of all geotechnical works for the following projects:-

- Taman Teknologi Johor.
- Development of Kg. Tengah, Jelutong, Pulau Pinang.
- Development of Teluk Merbau Estate, Sepang.
- Development of Sri Gading Industrial Lots in Batu Pahat.
- Contract management of the remedial works for the Gurun Jitra stretch of the North-South Expresway.
Also involved in the preparation of number of job proposals for geotechnical works.

September 1992 - April 1994

Post-Graduate Student :- Asian Institute of Technology, Bangkok, Thailand

Pursued a Master Programme (course work and thesis option) in Geotechnical Engineering at Asian Institute of Technology, Bangkok.

A thesis titled “Performance of Bored Piles in Kenny Hill Formation (Weathered Meta-Sedimentary) in Kuala Lumpur, Malaysia” was written under the guidance and supervision of Prof. A.S. Balasubramaniam. Most of the fully instrumented bored piles in the Kenny Hill Formation were analysed with particular emphasis on the load transfer characteristics. From the results, a rational design procedure was proposed incorporating a design methodology and a developed computer programme in fortran language for predicting the load settlement curves of single piles in this formation using load transfer method. In this study, the characterization of the weathering profiles of this formation was also carried out.

Obtained maximum CGPA of 4.0 in this post graduate program.

June 1991 - August 1992

Design Civil/Geotechnical Engineer :- Perunding GEA (M) Sdn Bhd

- **Involved in the design and project management of the proposed remedial works to overcome track subsidence and drainage problems between Salak South & Serdang Stations (Km 401.2 to Km 403.3) for Messrs Keretapi Tanah Melayu.**

  ◊ Scope of works included design of stone columns, slurry cut-off wall, drainage schemes, earthworks, and temporary railway track diversions, preparation of tender drawings, bill of quantities and tender documents, tender evaluation, preparation of construction drawings and project coordination.

- **Involved in the design and project management of the proposed flood mitigation works between Salak South and Serdang Stations (Km 399.4 to Km 401.2 and of the Km 403.3 to Km 404.9).**

  ◊ Scope of works included the design of the flood mitigation scheme (U-shape and L-shape channels), earthworks, temporary track diversion, preparation of tender drawings, bill of quantities and tender documents, evaluation, coordinating with adjacent developers - Messrs Mines Resort and Selangor Turf Club to alleviate the current flooding problem, preparation of construction drawings and project coordination.

- **Involved in the design and project management of the proposed railway bridge at Km 403.55 between Salak South and Serdang Stations.**

  ◊ Scope of works included the complete superstructure design of the 13.5m span pretensioned prestressed RC bridge, geotechnical assessment and foundation design using micropiles, preparation of Bill of Quantities and project coordination.
August 1990 - May 1991

Design / Resident Engineer :- Perunding GEA (M) Sdn Bhd

- **Involved in the design and construction supervision of the foundation and three (3) level basement carparks for the 13 storey-high building in Jalan Hicks, Kuala Lumpur for Messrs Harta Prima Sdn Bhd.**

  - Scope of works include design and supervision of bored piles and pile caps, diaphragm retaining walls, r.c. retaining walls; basement beam and slab system, r.c. ramps and staircases, and installation and monitoring of instrumentation, design of external works and project coordination.

February 1989 - July 1990

Civil Engineer :- Engineering and Environmental Consultants Sdn Bhd

Involved in the following projects :-

- **UEP Subang Jaya Project**

  Proposed development of Housing and Industrial on Lot 2026 Seafield Estate, Mukim Damansara, Petaling Jaya. This project covers an area of 1800 acres of land and provides residential, industrial, commercial and institutional facilities. The development was carried out in various stages and the responsibilities during each stage is as follows :-

**Stage 1**

- Responsibilities includes the preparation of road pavement design report, design of RC retaining walls, rubble pitching walls for roadside drains, checking of RC design of oxidation ditch, design of subsoil drainage system, future connection to trunk sewers and preparation of various cost estimates, design of road connections to existing Subang Jaya and attend site meetings to coordinate infrastructure works.

**Stage 2**

- Responsible for the design of temporary sewerage lift station, planning of geotechnical instrumentations during earthworks, design of subsoil and sand-fill drains along high slopes, redesign of sewer reticulation and attend site meetings to coordinate infrastructure works.

**Stage 3**

- Responsible for earthwork design in certain phases, complete design of sewer reticulation, RC design of another sewage treatment plant, planning of geotechnical instrumentation, design of two bridges of span 18.0m including pile foundations and attend Consultant / Client meetings.

**Stage 4**

- Engineer responsible for the design of earthworks for number of phases, complete sewer reticulation, road and roadside drainage and attend Consultant/Client Coordination meetings.
• **Seremban Flood Mitigation Project - Phase 4**

  ◊ This project involved the construction of RC channels along the Sungai Temiang and also few bridges across these channels to replace the old ones.
  ◊ Responsible for the complete design of the bridges, both post-tensioned I-beams and pre-tensioned inverted T-beams of single spans, pile foundations, contract documentation and project coordination.

July 1987 - February 1989

Deputy Site Agent/Site Agent :- Hybrid Ventures Sdn Bhd

Hybrid Ventures Sdn Bhd is a joint venture company formed between Wan Sam Construction Sdn Bhd and Pembinaan Maika Sdn Bhd to carry out the construction and completion of Main Pumping Station for Kemasin Rural Development Project in Kelantan. Employed, first as a Deputy Site Agent, then later as Site Agent cum Project Manager for this project. This project involved a wide range of civil engineering works including earthworks, rock excavation, permanent ground anchors, large concrete power for 2.5 m thick slab, RC walls, beam, columns, aluminium stoplogs and guides, driven piles, permanent sheetpiles, construction of groyne, JKR quarters and associated infrastructure works.

Duties and responsibilities included all the technical aspects of the project- design of permanent and temporary works, preparation of bar bending schedules and preparation of work method statement, assisting the Site Agent in the selection of sub-contractors and suppliers, site management, attending site meetings, etc. In the later stage, also acted as Project Manager.

June 1985 - July 1987

Geotechnical Engineer :- Engineering and Environmental Consultants Sdn Bhd

• **Review of Buildings and Ground on Lot 173 to Lot 192, Taman Melawati Phase 3A**

  ◊ This project involved a study on the degree of instability of the existing 20 units of semi-detached houses built on slopes and its grounds. These units are located adjacent to the two collapsed units of the same types.
  ◊ Responsibilities and duties include the assimilation of all relevant data on site and supervision of soil investigation programmes, recommendations on the survey requirements, analysis for each individual unit, preparation of complete report on the review of buildings and ground with recommendations on stabilisation works for potentially unstable grounds, preparation of cost estimates for the stabilisation works, detail design on the stabilisation works which include horizontal subsoil drains, ground anchors, jet grout columns, contiguous boredpile wall, crib wall and foundation for crib wall, preparation of tender drawing, specification and bill of quantities, tender evaluation and recommendations and coordination and supervision of construction.
Review of Building and Grounds on Lot 1 to 44, Taman Melawati Phase 3A

◊ This project also involved another detail study on the stability of the 44 units of double storey terrace houses and its grounds, following the appearances of severe cracks on the walls.
◊ Responsibilities and duties include the assimilation of the relevant data, mapping of all the cracks, summarizing and studying them, planning and supervision of soil investigation works, review of building foundations, compilation of a report on the review with recommendations on the necessary remedial measures, detail design on the remedial measures - jet grouting works, preparation of tender documents, evaluation for tender documents and supervision and coordination of the jet grouting stabilisation works.

Proposed Fisheries Centres Under Fisheries Infrastructure Project in Sarawak

Project undertaken in associated with PS Consultant, Sarawak to design marine, civil and associated works for a number of centre.

- Kuching Fisheries Centre

Engineer responsible for the slope stability analysis and design of anchored sheetpile wall include the design of the sheetpile, wailings, connections, tie-rods with turnbuckles. A-frame anchorages, pipe pile design, ground anchors for tension piles, RC design of pile caps, RC design of copings and also the preparation of the drawings and bill of quantities.

- Mukah Fisheries Centre

Geotechnical Engineer responsible for the slope stability analysis, design of the stabilisation works comprising strengthened soil columns, modelling of the stabilisation works for the analysis of slope stabilisation works, sheetpile wall design and pile requirements for buildings.

- Belawai and Miri Fisheries Centres

Geotechnical Engineer responsible for slope stability analysis, geotechnical assessment for subsurface soil conditions and recommendations on the pile requirements for building.

Proposed Chalets for Malayan Banking Berhad at Kuala Linggi

◊ Geotechnical Engineer responsible for planning, specifying, calling of tenders for subsurface investigation works, report on tenders received with Engineer's recommendation, collection and analysis of data, geotechnical and foundation engineering requirements of the projects.

LLN Substations at Tanjung Malim and Kangar

◊ Geotechnical Engineer responsible for the analysis and geotechnical assessment of the subsurface soil conditions including the foundation and stabilisation requirements.

Segambut Jaya Housing Development

◊ This project covers an area of about 74 acres and provides residential, commercial and recreational facilities.
Engineer responsible for identifying the requirements of retaining wall, design of both RC and rubble walls, preparation of cost estimates, Engineer’s recommendation and preparation of the tender drawings on the RC retaining wall.

**Taman Putra Sulaiman, Ampang**

- A large housing development project undertaken on ex-mining land. Severe cracks has appeared on walls of two rows of double-storey link units. EEC was appointed to study the possible cause and propose remedial measures.
- Geotechnical Engineer engaged in the analysis and geotechnical assessment of the subsurface soil conditions. Duties include the checking of the pile design of various combinations, interpretation of subsurface conditions based on soil investigation report and piling records, settlement analysis and mapping of cracks and studying them.

**Proposed Resettlement and Redevelopment of Kampung Puah (Kg Cubadak), Wilayah Persekutuan**

- This is one of the Federal Territory privatisation scheme. It covers an area of 74 acres and provides residential, commercial, institutional and recreational facilities.
- Geotechnical Engineer responsible for the supervision of soil investigation works on ex-mining pond, analysis and geotechnical assessment of the data, recommendations on the proposed platform levels, settlement analysis, design of surcharge and vertical drains to accelerate consolidation settlement, preliminary cost estimate of vertical drains, foundation requirements and finally preparation of Engineer’s report on the subsurface soil conditions.

**Proposed Luxury Condominium at Phase IIIB, Taman Melawati, Ulu Kelang**

This Condominium consists of a High-rise and three Low-rise blocks to be built on a hilly top.
- Geotechnical Engineer responsible for analysis and geotechnical assessment of subsurface soil conditions, translational stability analysis and geotechnical design of piling system comprising bored piles with sleeves to relieve the skin-friction.

**Pembinaan Sebuah Dewan Besar di Institute Pertanian Serdang**

- A construction of large multi-purpose hall for Kementerian Pertanian Malaysia at the Serdang Agricultural Institute.
- Geotechnical Engineer responsible for the report on tenders received, analysis and geotechnical assessment of subsurface soil conditions and recommendation on the foundations system.

**Investigation for Overburden and Rock in Lot 1100 Adjoining Batu Tiga Quarry**

- A study performed for Batu Tiga Quarry Sdn Bhd to determine the economic viability of carrying out quarry activities on this lot.
- Engineer responsible for the interpretation of borehole data, establishment at rock surface contours, computation of earthworks using computer and the report on the Engineer’s recommendations.
Training Attachments

1984  :-  ESSO Production Malaysia Incorporated

Attached to the Quality Control Section in Construction Division for 20 weeks. Exposed to the responsibilities involved in ensuring the quality of construction works both offshore and onshore.

1983  :-  ESSO Production Malaysia Incorporated

Attached to the Survey Section in Construction Division for 10 weeks. Exposure and experience in hydrographic survey.

1982  :-  Syarikat Manong Sdn Bhd.

Stationed at the Sembrong Earth Dam Construction Site in Air Hitam, Johor for 10 weeks. Experience in laboratory testing of concrete components, concrete trial mix and testing of soil samples.
Ir. Vijayakumar Somasundaram
Ir Vijayakumar Somasundaram

Curriculum Vitae

Present Position : Director
Nationality : Malaysian
Year of Birth : 1972

Qualification

M. Eng, Civil 2010
University Technology Malaysia (UTM)
B. Eng (Hons), Civil 1997
University Science Malaysia (USM)

Affiliations

- Member of the Board of Engineers Malaysia (BEM) PE No.12687
- Graduate Member of the Institution of Engineers Malaysia (IEM).

Professional Experience

GCU CONSULTANT SDN BHD (SEPTEMBER 2011 – TO DATE)

Associate Director – Civil & Structures (Jan 2014 – To date)

Responsible for the overall design and implementation of the following projects:

- Proposed 1 Block 39-Storey Service Apartment (473 Units) with 8 Storey Podium Car Park at Sentul, Kuala Lumpur for Wajatex Sdn Bhd
- Proposed 52-Storey Condo (161 Units) including 6 ½ Storey Basement and 1 Lower Ground At Sg. Long, Cheras for CI Lumix Sdn Bhd
- Cadangan Pemajuan Pencawang Masuk Utama (PMU), PMU South Key JB Di Atas PTD 213111, Mukim Plentong, Daerah Johor Bahru, Johor Darul Takzim Untuk Tetuan Transgrid Ventures Sdn Bhd
- Cadangan Pelebaran Jalan Akses bagi Projek Janakuasa Berasaskan Arang Batu 2 x 1000MW Di Mukim Jimah, Negeri Sembilan Darul Khusus Untuk Tetuan Hyundai Engineering Corporation Ltd.
- Cadangan Membina Dan Menyiapkan 74 Unit Rumah Kedai Dan Pejabat 2 & 3 Tingkat Serta 18 Unit Bazar, Di Fasa 7, Laman 1, Bernam Jaya, Ulu Bernam, Selangor Darul Ehsan Untuk Tetuan PKNS
- Cadangan Melombong dan Membina Kilang Benifikasi Silika Di Atas Lot 72017 dan Lot 72124 Di Mukim Caluk, Daerah Setiu, Terengganu Darul Iman Untuk Tetuan Terengganu Silica Consortium Sdn Bhd
- Cadangan Membina Pembangunan Perindustrian ‘Fabrications Facility’ Beserta Kemudahan-kemudahan Sokongan Di Mukim Pengerang, Daerah Kota Tinggi, Johor Darul Takzim Untuk Tetuan Dialog Fabricators Sdn Bhd
Bridge Conditional Inspection and Assessment Report for Bridges on Lebuhraya Kajang Seremban (LEKAS) for Year 2014 Untuk Tetuan IJM Bhd.

Cadangan Membina 22 Tingkat Menara A, 17 Tingkat Menara B, 6 Tingkat Kompleks Membeli-belah, 2 Tingkat Apartment Servis (8 Unit) Berserta 2 Tingkat Tempat Letak Kendaraan Di Atas Lot PTD 32665, Jalan Mewah Ria 2, Taman Bukit Mewah, Mukim Tebrau, Daerah Johor Bahru, Johor Darul Takzim

Independent checker for Proposed 10 Storey + 4 Basement Gleneagles Hospital Extension at Jalan Ampang, KL Untuk Tetuan Fajar Baru Builders

Proposal Upgrading of Perak Hanjoong Simen Internal Ring Road Untuk Tetuan Perak Hanjoong Simen Sdn Bhd

Cadangan Pembangunan Di Atas Sebahagian Lot 6435, Batu 14, Jalan Puchong, Mukim dan daerah Petaling, Selangor Darul Ehsan Untuk Tetuan Penganut Kuil Sri Maha Mariamman

Engineering Manager – Civil & Structures (Sept 2011 – Dec 2013)

Responsible for the overall design and implementation of the following projects:

- Cadangan Pembangunan Perniagaan dan Pang sapuri Servis Fasa 1 & 2 (26 & 30 Tingkat) LOT PT586 & PT587, Kawasan Bandar XLIII, Daerah Melaka Tengah, Melaka

- Cadangan Membina 8 Unit Rumah Berkembar Tiga (3) Tingkat Di Atas Sebahagian LOT PT 65636 – 65641, Jalan Puteri 12/2, Bandar Puteri, Mukim Petaling, Daerah Petaling, Selangor Darul Ehsan untuk Flora Development Sdn Bhd.

- Cadangan Pembangunan 6 Tingkat Servis Apartment, 6 Tingkat Hotel, 2 Tingkat Tempat Letak Kereta, 1 Tingkat Kemudahan Ruang Pameran dan Ruang Perniagaan Di Lot 6633 & lot 6634, Jalan Dewan, Bandar Labuan, Wilayah Persekutuan Labuan

- Cadangan Pembangunan Kedai Pejabat Yang Mengandungi 52 Unit Kedai 2 Tingkat & 26 Unit Kedai 3 Tingkat Di Atas LOT 129, G.132740, Mukim Bandar Labis, Daerah Segamat, Johor Darul Takzim.

- Cadangan Membina & Menyiapkan 113 Unit Rumah Teres 2 Tingkat (Phasa 3A), Di Atas Sebahagian PT 7714, Precint 10, Seksyen U13, Shah Alam, Selangor

- Cadangan Membina & Menyiapkan 106 Unit Rumah Teres 2 Tingkat (Phasa 3B), Di Atas Sebahagian PT 7714, Precint 10, Seksyen U13, Shah Alam, Selangor

- Cadangan Membina & Menyiapkan 104 Unit Rumah Teres 2 Tingkat (Phasa 2), Di Atas Sebahagian PT 7714, Precint 10, Seksyen U13, Shah Alam, Selangor Darul Ehsan.

- Cadangan Pembangunan 55 Unit Perumahan Sesebuah (Zero Lot) Di Atas LOT 587, Batu 10 ¼, Mukim Hulu Langat, Daerah Hulu Langat, Kajang, Selangor.

- Bridge Substructure Assessment at ROB13, EDT Ipoh to Padang Besar
Assessment and analysis of bridge foundation loading and pile group analysis
Design and analysis of substructure for Abutment B.

- **Vale Malaysia Mineral Stacker/Reclaimer and Conveyor Support System**
  - Design of piled, shallow and raft foundation for conveyor system supports.
  - Design and analysis anchor bolts for conveyor, rail and associated fittings.
  - Preparation of inserts and foundation detail drawings
  - Design coordination with respect to the above mentioned matters.

- **Bridge Conditional Inspection and Assessment Report for Bridges on Lebuhraya Kajang Seremban (LEKAS) for Year 2012**
  - Conditional Inspection and Assessment of 20 Nos. bridges
  - Preparation of assessment report for authority submission

- **Cadangan Persimpangan Bertingkat Di atas Lot 30214, Laluan PLUS selepas Tol Nilai, Mukim Setul, Daerah Seremban, Negeri Sembilan Darul Khasus**
  - Preliminary and detail design of dumbbell interchange bridge
  - Preliminary and detail design of underpass bridge
  - Preparation of drawings and corresponding bill of quantities
  - Design coordination of interchange, bridge and geotechnical works.

- **West Coast Expressway – Section 4(Federal Highway Route 2 To New North Klang Straits Bypass)**
  - Preparation of SI layout plan and bill of quantities
  - Foundation analysis and design for MCS1 Ramp
  - Pile embankment analysis and design for Ramp and Mainline at CH1152 to CH1470

- **Bridge Substructure Assessment at BR16, LEKAS**
  - Assessment and analysis of bridge approach slab under reduced ground support condition
  - Design and analysis of substructure for Abutment A.

- **Cadangan Pesimpangan Bertingkat Dari Lebuhraya Persekutuan Ke Kawasan Pembangunan Seksyen 7 Shah Alam**
  - Preliminary design of Motorcycle Bridge, VBC and high mast foundation.
  - Preparation of drawings and corresponding bill of quantities
  - Design coordination of Toll Plaza structures.

- **Cadangan Pembangunan Bercampur Untuk Projek Usahasama DBKL – KL Eco City**
  - Preliminary structural checking and analysis of building foundation for Tender proposal

- **56 Unit Kilang Berkembar Diatas Lot 157, Seksyen 19, Bandar Rawang, Selangor Untuk Tetuan SMS Developer**
  - Design coordination for structural works consists of building, retaining wall and etc.
• **Cadangan Pembangunan Perumahan Sesebuah (Zero Lot), Diatas Lot 587, Batu 10 ¼ Mukim Hulu Langat Untuk Tetuan SMS Developer**
  ◊ Preliminary design of bridge crossing over existing SYABAS water pipes.

• **Assessment of Existing Road Bridge at Jalan Megat Dewa, Jitra**
  ◊ Site reconnaissance and inspection carried out to ascertain bridge damage due to fire.
  ◊ Analysis and Design to determine load carrying capacity of the bridge
  ◊ Recommendation of remedial measures for bridge repair works
  ◊ Liaison with JKR Kubang Pasu and Client, Gamuda Sdn. Bhd.

• **Independent Deepwater Petroleum Terminal, Pengerang, Johor**
  ◊ Independent checking of detailed design works of Marine facilities which consist of Access Trestle, Mooring Dolphin, Jetty and Small Craft Harbour.
  ◊ The checking works comprise of superstructure, substructure and foundation system.

**MINCONSULT SDN BHD (OCTOBER 2002 – August 2011)**

**Manager, Bridge and Marine Division (Sept 2009 – Aug 2011)**

• **Second Penang Bridge, Package 3 : Land Expressway**
  ◊ Coordination of works with interdivisions, Client, design consultants as well as Contractors in ensuring compliance of works in accordance to the drawings and specification. The works comprises three packages under different Contracts.
  ◊ Responsible for structural bridge and geotechnical works checking besides coordination of road, drainage and electrical works.
  ◊ Responsible for reviewing and commenting designs, specification and drawings submitted by Contractor.
  ◊ Carry out bi-monthly audit works of site and corresponding works.
  ◊ Responsible for verification and preparation of payments certificates for Claims submitted by Contractors.

• **Proposed Kelana Jaya LRT Extension Project**
  ◊ Coordinating with division on interfacing works affecting the guideway alignment.
  ◊ Substructures design for various LRT guideway supporting structures.
  ◊ Preliminary cost estimation for entire LRT guideway which stretches about 20km.

• **National Highway Authority of Pakistan**
  ◊ Design and drawings review of RC and post tensioned bridges which form part of highways at Baluchistan state.

**Assistant Manager, Bridge & Marine Division (Sept 2007 – Aug 2009)**

• **Proposed KLIA Spur Line at KLIA**
Overall project coordinator, liaising with client, contractor and inter division coordination.

Structural design for guideway and substructures.

- **Proposed Bridge Over Sg. Chandong Besar, Pulau Indah, Port Klang**
  - Project coordination, detail design and cost estimation for 8 nos. spans bridge crossing river.

- **Proposed Flyover Over Jln Bangsar and Jalan Travers for KL Sentral Development**
  - Detail design for 3 spans simply supported bridge.
  - Detail design for simply supported ramp from KL Sentral to Jalan Mahameru
  - Detail design and cost estimation for 5 nos. pedestrian bridges in Brickfields area.

- **Proposed Breakwaters for Ramunia Fabrication Yard, Teluk Ramunia**
  - Preliminary engineering, cost estimation and preparation of Statement of Needs

### Structural Engineer (Jan 2007 – Aug 2007)

- **The Express Rail Link (ERL) Dedicated Baggage Handling System at Kuala Lumpur National Airport (Phase 1)**
  - Responsible for viewing and commenting on all designs, specifications and drawings submitted by the Contractor pertaining to all architectural works, civil works, structural RC and steel works for the project.
  - Reviewing and commenting on all method statements for the above works. Reviewing ITP and coordinated with HQ before responding to Contractor.
  - Participating in joint inspections and monitoring all architectural works, civil works, structural RC and steel works for the project. Taking note of any deficiencies observed.
  - Preparing appropriate instructions for issuance by Construction Manager to Contractor to ensure compliance with Contract requirements.
  - Reviewing all filled inspection forms, test reports, audit report to ensure accuracy of data. Prepare a response to Contractor if discrepancy is detected.

### Assistant Resident Engineer (Oct 2006 – Dec 2006)

- **Kuala Sawah Sewrage Network Project, Seremban**
  - Responsible for supervision of sewer pipe laying works, i.e VCP and RCP pipes and pipe jacking works. Day to day activities involves
  - Day to day activities involves Contract administration, liaison with Client, Main Contractor and Sub Contractor.
  - Attending/organizing site meetings.
  - Scheduling, planning coordinating, inspections, progress monitoring and Claims certification.
Assistant Resident Engineer, Section 5, Ipoh (Feb 2004 – Sept 2006)

- **Electrified Double Track Project between Rawang and Ipoh for DRB Hicom Berhad**
  - Responsible for supervision of 10 bridges, consisting of road over rail, rail over road and river bridges.
  - Day to day activities involves Contract administration, liaison with Client, Main Contractor and Sub Contractor.
  - Attending/organizing site meetings.
  - Scheduling, planning coordinating, inspections, progress monitoring and Claims certification.


- **Electrified Double Track Project Between Seremban and Gemas for Gamuda-MMC**
  - Involved in grillage analysis, design of superstructures and substructures and material take-off for railway bridges.

- **Elevated Ramp Phase 1, Redevelopment of Kuching International Airport, Sarawak**
  - Involved in analysis of segmental box girders for curved 5 span road bridge.

- **Coal Unloading Jetty, 3 x 700MW Coal Fired Power Plant, Tanjung Bin, Johor for SKS Power**
  - Involved in analysis and design of jetty for 150,000 DWT, mooring dolphin and access bridge.
  - Assisted in preparing detail drawings.

- **Kuantan – Ketereh Railway Project Kemaman Branch Line.**
  - Involved in grillage analysis design of superstructures and substructures and material take-off for railway bridge at CH 5765/CH6000.

- **Electrified Double Track Project between Ipoh and Padang Besar, DRB-HICOM**
  - Responsible for preparing financial proposal i.e. collating all BQs under various scope of works and linking to CSA and summaries.
  - Involved in checking drawings and details to verify quantity take off and cost.
  - Involved in conceptual planning and preliminary design.
  - Attended and participated in meetings with Client where rationalization of cost took place.
  - Advised Client wherever required on scope of works, design and cost.
  - Supported team of engineers involved in preparation of submission for Tender.

- **Projek Menaiktaraf Jln Pintas Kuantan (Kuantan Bypass), Pahang**
  - Involved in grillage analysis, design of superstructures and substructures and material take-off for Sg. Balok, Sg. Nyiur and EJ3 (Indera Mahkota) road bridges.
MAXIS COMMUNICATIONS BHD (OCTOBER 2001 – SEPTEMBER 2002)

Engineer, Construction Engineering & Management Division

- **Involved in setting up new Base Transceiver Station i.e. rooftop structures, mini mast and towers for telecommunication systems**
  - Responsible for reviewing design and approving construction drawings (structural and M&E engineering drawings).
  - Managing, supervising and coordinating construction works.
  - Evaluating site progress to assess quality and speed of work.
  - Implementing strict quality control.
  - Maintaining good system to monitor site progress and producing weekly and monthly report to be presented in meetings.
  - Comments on Contractors Method Statement and Specifications.
  - Checking and verifying final quantities and As-Built drawings.
  - Commissioning of new Base Transceiver Stations (BTS).

MAJID & ASSOCIATES SDN BHD (APRIL 2001 – SEPTEMBER 2001)

Civil & Structural Engineer,

- **Responsibilities include design of structures and infrastructures and project management for projects as stated below:**
  - Design of revised pile caps and ground beams for Main Building, University Teknologi Petronas, Perak.
  - Coordination of construction works for PPU Worldwide Substation, Shah Alam, Selangor.
  - Structural precast element design of 3 storey school in Lanchang, Pahang for ACPI Bhd.
  - Structural beam slab design of ACC Block, Hospital Tunku Ampuan Rahimah, Klang.

shr Associates Sdn Bhd (February 2000 – March 2001)

Civil & Structural Engineer,

- **Responsibilities include design of structures and infrastructures for projects as stated below:**
  - Bridge over Sg. Bruas, Bruas Perak for JKR
  - Involved in hydraulic analysis of Sg. Bruas, grillage analysis, design of superstructures and substructures and material take-off for road bridge.
  - Met and liaise with relevant authorities i.e. JKR, JPS and local council to resolve design and construction issues.
ANGKASA JURUTERA PERUNDING SDN BHD (JULY 1997 – JANUARY 2000)

Structural Engineer

- **Responsibilities include design of structures and infrastructures and site supervision for projects as stated below:**
  
  - Administration, library and student hostels of Advanced Technology Centre, Kulim for Jabatan Tenaga Rakyat.
  - Bungalows at Mines Resort City for Anchor Point Sdn. Bhd.
  - Temporary steel buildings for BPC Acrylics Complex, Gebeng, Pahang for BASE Petronas.
  - Preliminary design of 4 Blocks of 5 storey apartments, Klang.
  - Preliminary design of 9 storey apartments, Klang.
  - 140 units of double storey link houses, Tmn Sri segambut, KL.
  - 18 units of single storey houses, Tmn Wangsa Cheras, Cheras.
  - Rehabilitation works of 23 storey condominium at Hulu Langat, for MBF Holdings Sdn. Bhd.

FEDERAL INSTITUTE OF TECHNOLOGY (FIT) (JULY 1998 – DECEMBER 1999)

Part Time Lecturer

- **Responsibilities include preparing course material and teaching courses as stated below:**
  
  - Structural Analysis I
  - Structural Analysis II
  - Reinforced Concrete Design
  - Structural Steel Design
  - Mathematics

HSS INTEGRATED SDN.BHD. (JANUARY 1996 - JUNE 1996)

Trainee Engineer

- **Assisted in analysis, design and preparation of detailed drawings for projects as stated below:**
  
  - Structural steel buildings for various port facilities at West Port.
  - RC water retaining structure for chemical plant, Terengganu for T.O.C Ltd. (India)
  - Preliminary cost estimation on structural works for East and West viaducts, KLIA
Ir. R Thinagaran V Ramasamy
Present Position : Director
Nationality : Malaysian
Year of Birth : 1964

Qualification

- B.Eng. (Hons) Civil Engineering, University Teknologi Malaysia: 2005
- Diploma in Civil Engineering, Universiti Teknologi Malaysia: 2001
- Certificate in Civil Engineering, Polytechnic Ungku Omar, Ipoh: 1984

Affiliations

- Member of the Board of Engineers Malaysia (BEM)
- Member of the Institution of Engineers Malaysia (IEM)

Professional Experience

October 2015 – Present

Director :- GCU Consultants Sdn Bhd

October 1984 – October 2015

Senior Civil Engineer :- Zaidun-Leeng Sdn Bhd

  - Involved in the design for infrastructure works :-

  - Has been actively involved in the concept and detailed design and coordinate for infrastructure works :-

◊ Has been actively involved in the concept and detailed design and coordinate for infrastructure works :-

• *Improvement of Drainage System at Treacher Valley and Pudu Catchment for DBKL (1991)*

◊ Member of the study team involved in the site studies of the existing drainage system and preparation of the reports

• *Proposed Development at Bandar Sri Damansara, Daerah Petaling, Selangor for Sri Damansara Sdn Bhd (1992 -1993) Package Area A01 (81 acres)*

◊ Involved in the overall planning, preparation of master plans and design for infrastructure works :-
• Contract administration and supervision of the infrastructure works.

• *Proposed Development at Bandar Sri Damansara, Daerah Petaling, Selangor for Sri Damansara Sdn Bhd (1993 -2000) Package Area A02, A05, A06 and A07 (205 acres)*

◊ Involved in the overall planning, preparation of master plans and design for infrastructure works :-
• Contract administration and supervision of the infrastructure works.


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• Contract administration and supervision of the infrastructure works.
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  ◊ Contract administration and supervision of the infrastructure works.

  ◊ Involved in the overall planning, preparation of master plans and design for infrastructure works :-
  ◊ Contract administration and supervision of the infrastructure works.

  ◊ Overall in-charge for the drainage impact assessment studies.

  ◊ Head of design team for the drainage hydrology studies and hydraulic analysis.

• **Cadangan Pembangunan Taman Saujana Hijau, Precint 11, Wilayah Persekutuan Putrajaya Untuk Tetuan Perbandaran Putrajaya (2000 – 2007)**
  ◊ Head of design team for the drainage hydrology studies and hydraulic analysis.

• **Cadangan Pembangunan Taman Botani, Precint 1, Wilayah Persekutuan Putrajaya Untuk Tetuan Perbandaran Putrajaya (2005 – 2007)**
  ◊ Head of design team for the drainage hydrology studies and hydraulic analysis.

• **Electrified Double Track Project : Padang Besar to Ipoh for MMC-Gamuda Joint Venture (July 2007 to July 2015)**
  ◊ Head of design team for the drainage hydrology studies and hydraulic analysis.

• **Proposed Upgrading of the Existing Access Road From Kg. Kahang to endau Rompin National Park, Johor for East Coast Economic Region Development Council (ECERDC) (June 2010 to July 2012)**
  ◊ Head of design team for the drainage hydrology studies and hydraulic analysis.
• **Projek Mass Rapid Transit Lembah Kelang Jajaran Sungai Buloh – Kajang Package UG2 : Underground Works (Tunnels, Stations And Associated Works) From Cochrane Station To Maluri South Portal (March 2011 to October 2015)**

  ◊ Head of design team for the drainage hydrology studies and hydraulic analysis.

• **Projek Mass Rapid Transit Lembah Kelang Jajaran Sungai Buloh – Kajang Package V5 : Construction And Completion Of Viaduct Guideway And Other Associated Works From Maluri Portal To Plaza Phoenix Station. (March 2011 to October 2015)**

  ◊ Head of design team for the drainage hydrology studies and hydraulic analysis.

• **Projek Mass Rapid Transit Lembah Kelang Jajaran Sungai Buloh – Kajang Package S5 : Construction And Completion Of Viaduct Guideway And Other Associated Works From Maluri Portal To Plaza Phoenix Station. Bukit Ria Station - (April 2011 to October 2015)**

  ◊ Head of design team for the earthworks design and drainage hydrology studies and hydraulic analysis.

• **Projek Mass Rapid Transit Lembah Kelang Jajaran Sungai Buloh – Kajang Package S5 : Construction And Completion Of Viaduct Guideway And Other Associated Works From Maluri Portal To Plaza Phoenix Station. Bukit Mewah Station - (April 2011 to October 2015)**

  ◊ Head of design team for the earthworks design and drainage hydrology studies and hydraulic analysis.

• **Projek Mass Rapid Transit Lembah Kelang Jajaran Sungai Buloh – Kajang Package S5 : Construction And Completion Of Viaduct Guideway And Other Associated Works From Maluri Portal To Plaza Phoenix Station. Leisure Mall Station - (April 2011 to October 2015)**

  ◊ Head of design team for the earthworks design and drainage hydrology studies and hydraulic analysis.

• **Projek Mass Rapid Transit Lembah Kelang Jajaran Sungai Buloh – Kajang Package S5 : Construction And Completion Of Viaduct Guideway And Other Associated Works From Maluri Portal To Plaza Phoenix Station. Plaza Phoenix Station - (April 2011 to October 2015)**

  ◊ Head of design team for the earthworks design and drainage hydrology studies and hydraulic analysis.

• **Projek Mass Rapid Transit Lembah Kelang Jajaran Sungai Buloh – Kajang Package V8 : Construction And Completion Of Viaduct Guideway And Other Associated Works From Taman Mesra To Kajang Station. (January 2012 to October 2015)**

  ◊ Head of design team for the drainage hydrology studies and hydraulic analysis.
• *Projek Penswastaan Lebuhraya Bertingkat Damansara – Shah Alam (DASH) (Seksyen B) (November 2014 to October 2015)*

◊ Head of design team for the drainage hydrology studies and hydraulic analysis.
Ir. Amarjit Singh
Ir. Amarjit Singh
Curriculum Vitae

Present Position : Director
Nationality : Malaysian
Year of Birth : 1970

Qualification
Certificate (Construction Eng.), 1992
Kuching Polytechnic
Diploma (Civil Engineering) 1994
University Technology Malaysia
B.Eng (Civil Engineering) 1997
University Malaysia Sarawak
MSc (Water Engineering), 2005
University Putra Malaysia

Affiliations

- Professional Engineer, Board of Engineers Malaysia (PE)
- Corporate Member, Institute Engineers Malaysia (MIEM).
- Member, Malaysia Water Association (MWA)
- Member, International Association For Contracts & Commercial Management (MIACCM)
- Associate Value Specialist (AVS), SAVE International
- Asean Associate Engineer, (AAE)
- IEM member - EXCO Member (Sabah Branch)
- ACEM member – EXCO Member (Sabah Branch)
- Medal of Honour (BSK) - TYT Sabah

Professional Experience

July 2013 – Present
Director :- GCU Consultants (Sabah) Sdn Bhd

In-charge of engineering design of hydraulic structures mainly water treatment plants, treated water bulk transmission (pipe line design including pumping stations), open channels and closed consuits.

- Projek Menaiktaraf Loji Air Sungai Intan Dan Paip Di Semporna, Sabah (RM47 million).
- Projek Pengantian Paip AC Dari Tangki SGI ke Kawasan Industri Ranca-Ranca Sepanjang 6KM Menggunakan Paip MSCL Berukuran 600mm W.P Labuan (RM20 million).
Ir. Amarjit Singh

**Curriculum Vitae**

- **Development of Draft State Water Activities Management Policy and Guidelines** *(RM1.2 million).*

- **Cadangan Kerja Pemasangan Band Screen & Sand Injector Pump Bagi Menyelesaikan Masalah Mendapan Sedimen & Sampah di Mukasauk Fasa 1 & 2, Loji Rawatan Air, Kg. Lawa Gadong, Beaufort** *(RM9 million).*

- **Design, Supply, Delivery and Installation of the Proposed Gabion System and Accessories as Erosion Protection for Monopole “A” at Pegalan River Bank Keningau** *(RM 300,0000)*

**Aug 2010 – Jun 2013**

**Project Manager** :: PY Konsep Perunding Sdn Bhd & Perunding Shahelmey & Rakan-Rakan Sdn Bhd

- **Projek Bekalan Air Luar Bandar Sistem Retikulasi Negeri Sabah Tahun 2011/2012 – Zon 6B (2)** *(RM35 million)*

- **Projek Bekalan Air Luar Bandar Sistem Retikulasi Negeri Sabah Tahun 2011/2012 – Zon 6B (1)** *(RM 10 million)*

- **Projek Bekalan Air Sistem Retikulasi dari R16 – Pekan Tuaran, Sabah – Ministry of Rural Development, Putrajaya** *(RM 10 million)*

- **Projek Bekalan Air Pekan Nabalu, Mukim Kiulu, Sabah – Ministry of Rural Development, Putrajaya** *(RM 5.40 million)*

- **Projek Bekalan Air Kg. Toboh – Jalan Tambunan Ranau – Ministry of Rural Development, Putrajaya** *(RM 20 million)*

- **Menaiakan Taraf Loji Air Topokon, Tuaran, Sabah – Ministry of Rural Development, Putrajaya** *(RM 23 million)*

- **Projek Bekalan Air Alternatif Mukim Ulu Sugut, Ranau, Sabah – Ministry of Rural Development, Putrajaya** *(RM 17 million)*

- **Alternative Water Study at Taman Tunku Abdul Rahman Parks (Sabah Parks), Sabah** *(RM 1.3 million)*

  - Study on proposal for potable water supply for the Islands namely; Pulau Gaya, Pulau Sapi, Pulau Manukan, Pulau Mamutik and Pulau Sulug. The study will propose the best method of water supply either surface water, underground water, desalination or laying submarine pipeline from the mainland to the Islands.

**Jun 2009 – Aug 2010**

**Technical Manager** :: Othman & Associates (Brunei)

- **Bulk Water Transmission from Lamunin to Gadong, Brunei** *(B$ 100 million)*

  - Design the treated water pipeline (1200mm diameter) for 65 km including all auxiliary works namely pipe supports, horizontal/vertical bends, pipe fittings, river overcrossing, pump selection, motor ratings, pipe flotation analysis, pipe shell thickness analysis, etc. Hydraulic analysis for the total flow required is done using hydraulic modeling software (EPANET).
• **Bulk Water Transmission from Lamunin to Gadong, Brunei (B$ 100 million)**

 ◦ Design the open flow channel requirement (5.2m x 2.2m) for 2.5km including performing hydraulic modeling using HYDROCAD, hydrology analysis (Rational Method) and Brunei Drainage Design Standards.

**September 2008 – March 2009**

**Construction Manager:** - PUNJ LLYOD Oil & Gas (M) SDN BHD

In charge for construction compressor station, metering stations and block valve stations scraper / launcher stations of the Sabah-Sarawak Gas Pipelines Projects (510 KM). Total project cost is USD500 million.

**January 2006 – July 2008**

**Senior Manager:** - Syarikat Bekalan Air Selangor Sdn Bhd

In charge of operation works for 34 water treatment plants (4400 MLD) and 6 dams in Selangor. Monitoring daily treated water productions and dam storages. Specific duties are preparing daily reports on production and dam levels, optimizing distribution system, vetting EIA reports, reviewing materials and standards that is being used in SYABAS, involves in Emergency Response Team, Preparation of monthly reports to top management and Energy, Telecommunication and Water Ministry, involved in river management committee, in charge of minor project management works, purchased water budget plus demand projections, preparation of bulk supply payment certificates and planning for water treatment shutdows (scheduled or unscheduled). Able to use hydraulic modeling software AQUIS for distribution network purposes.

**July 2005 – December 2005**

**Project Manager:** - Zecon Engineering Bhd

• **Completion of Earthworks in Pending, Sarawak**

 ◦ In charge and manage the project for earthworks at Pending for housing development. Duties included monitoring process, preparation of monthly claim, project management, contract Administration and attending meetings. The job was very successful, as it was able to complete in stipulated time.

**June 2004 – July 2005**

**Project Manager:** - NS Water Konsortium Sdn Bhd

• **Sg. Muar Raw Water Transfer in Negeri Sembilan**

 ◦ Duties include monitoring overall progress, providing technical solutions, attending progress meeting, progress claims, in charge of progress claim collection, contract management and reporting to top management.
April 2002 – June 2004

Design Engineer :- SMHB SDN BHD

- Pub (Singapore) Raw Water and Treated Water Supply to Singapore
- Pipeline Relocation Works at Johor, Malaysia
- Bukit Badong Selangor Water Distribution System (SSP3)
- Pub (Singapore) Raw Water Pipeline Relocation at Bukit Cahagar, Malaysia
- SAJ Treated Water Pipeline Relocation at Bukit Chagar, Malaysia
- Hulu Terengganu Water Supply Project, Malaysia
- Muar Melaka Raw Water Transfer, Malaysia
- Telibong Water Supply Project, Sabah, Malaysia

◊ Design works for mild steel pipe diameter ranging from 1800mm to 900mm and submarine pipelines. Design works for raw water intake, chemical building, chlorine building, administration building, electrical switch rooms, TNB substations, treated water pumping station, balancing reservoirs and service reservoirs. Prepared BQ for Civil works, specifications and tender evaluation. Design of simple mechanical & electrical equipment like pumps, motor ratings and ventilation fans for pump stations.

October 1994 – April 2002

Assistant Resident Engineer :- SMHB SDN BHD

- Rasa Distribution System (SSP3)

◊ Supervision of RC works for 3 service reservoirs and 24km distribution pipelines comply with specifications, drawings and material. In charge of progress monitoring and reporting to the client.

- KIPC Dungun Water Supply Project

◊ Supervision of RC works for water retaining structures comply with specification, drawing and material. Supervised Treated Water Pipelines (Mild Steel 1800 diam.) – 14 Km, RC washout chambers, RC Air Valve Chambers, drainage works, submarine pipelines across Sg. Paka (120m), interconnecting steel and RCP pipes for individual structures (Treatment Works) and monitoring day to day contractors’ progress.

September 1998 – October 1999

Site Engineer :- Sunway Juarasama Sdn Bhd

- Johor River Water Works Stage 4 & 5

◊ In-charge of RC works for water retaining structures i.e. GAC contractors, Ozone house, Generator house and Sludge treatment works. Planning day to day activities for sub-contractor, liaise with consultants on technical matters, preparing weekly
program, coordinating meeting with sub-contractor and construction material ordering.

September 1997 – September 1998

Site Engineer :- Sri Datai Sdn Bhd

- **Construction of Road Project at Kg. Puruh Garung to Padawan, Sarawak**
- **Infrastructure works at various locations at Kuching, Sarawak**

◊ Overall in-Charge of site, planning day to day works, managing resources and plants, taking off for materials (i.e steel reinforcement, formwork and concrete). Co-ordinate the work between sub-contractor and main contractor, attending progress meeting, liaise with consultants and preparing progress payments.

April 1997 – June 1998

Trainee Engineer :- Trans Resources Corporation, Sarawak

◊ Involved in tendering process for Bakun Resettlement Scheme and Padawan Road Project. Material taking-off for Completion of Maktab Perguruan Islam, Kota Samarahan, Kuching.

April 1995 – July 1995

Trainee Engineer :- Pilecon Szeto, Sarawak

◊ Supervised bored pile operation at kuching International Airport and Satok Bridge, Kuching. Supervised Tri-Pile operation at Inti-College Campus, Kuching, demolition works at William Tan Hall, kuching and finishing works at Riverside Condominium, Kuching.

COURSES ATTENDED

- Bond and Warranties in Construction Contracts, PUJA
- Integrated River Management for Sungai Selangor
- Membrane Filtration
- Water Treatment Methods
- Value Engineering, SAVE International
- Contracts Administrators For Site Personnel’s IEM.
- Managing Risk Through Excellence Contract, IBN
- Microsoft Project, IEM
- Speaking For Success, Xcel Training Services
- Engineering Management Practice, BEM
- Safety and Health, BEM
- Code of Practice, BEM
- Safety at Construction Site, CIDB
Ir. Mohd Redzuan Ahmad
Ir. MOHD REDZUAN B AHMAD

Present Position : Director
Nationality : Malaysian
Year of Birth : 1974

Qualification

- B.Eng. (Hons) Civil and Structural 1997
  University of Sheffield, United Kingdom
- M.Eng (Civil-Geotechnics) 2006
  Universiti Teknologi Malaysia
- Professional Engineer, Malaysia

Affiliations

- Member of the Board of Engineers Malaysia (BEM)
- Member of the Institution of Engineers Malaysia (IEM)
- Member of the Association of Consulting Engineers (ACEM)

Professional Experience

January 2006 – Present

Director :- GCU Consultants Sdn Bhd

As a Director, involved in management of the Geotechnical Department, planning & coordination of geotechnical engineering services from conceptual, planning to detailed design, contract administration as well as coordination of supervision works. Some of the projects involved:

- Projek Mass Rapid Transit Laluan 2 : Sungai Buloh-Serdang-Putrajaya (SSP) : Construction and Completion of Earthworks for Serdang Depot
  ◦ Planning & coordination of detailed soil investigation
  ◦ Coordination of Geological Terrain Mapping works & reporting
  ◦ Preparation of Geotechnical Interpretative Report
  ◦ Ground treatment design for high fill embankment to support the Depot Buildings
  ◦ Stability analysis & design for earth & rock slopes at Kenny Hill Formation area
  ◦ Foundation for Depot buildings and structures
  ◦ Preparation of geotechnical design report & drawings

- Projek Mass Rapid Transit Laluan 2 : Sungai Buloh-Serdang-Putrajaya (SSP) : Construction and Completion of Viaduct Guideway and Associated Works from UPM to Taman Pinggiran Putra (V207)
  ◦ Planning & coordination of detailed soil investigation
  ◦ Preparation of Geotechnical Interpretative Report
  ◦ Foundation Design for Viaducts, Elevated deck with U-beam, U-trough on open cut and fill, Cut & Cover tunnel and Station
◊ Ground treatment design for road embankment, cut & cover tunnel and u-trough on-grade
◊ Stability analysis & design for earth & rock slopes at Kenny Hill Formation area
◊ Preparation of geotechnical design report & drawings

- **Geotechnical Services and Slope Stability Assessment for Petronas Research Sdn Bhd (PRSB)**
  ◊ Review and assessment on condition of existing slope within Petronas Research facility compound
  ◊ Preparation of slope risk assessment map
  ◊ Planning & coordination of detailed soil investigation
  ◊ Analysis and interpretation of SI results
  ◊ Slope stability analysis and design
  ◊ Proposed rectification for improvement of slope condition
  ◊ Preparation of cost estimates for slope rectification works

- **Geotechnical Services involving Slope Stability Assessment and Rectification of Distressed/Collapsed Slopes within TNB compound at following sites:**
  ◊ CADANGAN KERJA-KERJA MEMBAIK PULIH RUNTUHAN CERUN DI MENARA T18 TALIAN ATAS 132 KV BBNL-NLAI, NEGERI SEMBILAN
  ◊ CADANGAN KERJA-KERJA MEMBAIK PULIH RUNTUHAN CERUN DI PENCAWANG MASUK UTAMA (PMU) KOTA PUTERI, JOHOR BAHRU
  ◊ CADANGAN PEMBAIKAN RUNTUHAN CERUN DI SEKITAR MENARA NO 21 DAN 22, TALIAN ATAS 275/132 kV KULE-SGBT, KUALA LUMPUR
  ◊ KERJA – KERJA MEMBAIKPULIH RUNTUHAN CERUN DI SEKITAR GANTRY PMU 132kV DAMANSARA HEIGHTS, KUALA LUMPUR
  ◊ CADANGAN KERJA-KERJA MEMBAIKPULIH RUNTUHAN CERUN DI SEKITAR MENARA NO. 156 TALIAN 275kV TMGR – BTGH, PULAU PINANG
  ◊ CADANGAN KERJA – KERJA MEMBAIKPULIH RUNTUHAN CERUN DI SEKITAR MENARA NO.58 275kV KPAR- KULN, SELANGOR

- **Privatisation of Lebuhraya Persisiran Pantai Barat (Taiping – Banting) : Section 9b to Section 11**
  ◊ Planning & coordination of detailed soil investigation
  ◊ Analysis and interpretation of SI results
  ◊ Ground Treatment design for highway embankment, drainage & vehicular box culverts involving removal & replacement, surcharge preload and PVD
  ◊ Stability design for earth & rock slopes.
  ◊ Pile Foundation design for bridges
  ◊ Preparation of geotechnical design report & drawings.

- **Proposed Dredging and Reclamation Works for New Deep Water Terminal at Kuantan Port, Pahang Darul Makmur**
  ◊ Planning & coordination of detailed offshore soil investigation
  ◊ Analysis and interpretation of SI results
  ◊ Design of dredging & reclamation works
  ◊ Ground Treatment design involving removal & replacement, surcharge preload and PVD
  ◊ Preparation of geotechnical design report & drawings.
Ir. MOHD REDZUAN B AHMAD
Curriculum Vitae

- **Projek Mass Rapid Transit Lembah Kelang (KVMRT) Jajaran Sungai Buloh-Serdang-Putrajaya (SSP Line) : Package UG-01 & UG-02 (Northern UG Portal to Felda Platinum)**
  - Planning & coordination of preliminary soil investigation for the underground section
  - Preparation of Geotechnical Interpretative Report

- **Kajian Bagi Kerja-kerja Pemulihan Untuk Mengawal Kejadian Tanah Runtuh dan Hakisan Tebing Sungai Bagi Penjajaran Semula Landasan Kereta Api Negeri Sabah Dari Beaufort ke Tenom (Sub-Consultant for Geotechnical & Geological Assessment Works).**
  - Planning & coordination of soil investigation.
  - Evaluation and interpretation of soil investigation & laboratory testing results.
  - Geotechnical evaluation of the existing hill slopes & riverbank slope along the existing track.
  - Coordination of the Geological Mapping & rock slope assessment in Crocker & Temburong Formation.
  - Design of slope protection / rehabilitation measures & retaining structures along the proposed alignment.
  - Evaluation of soft ground condition along proposed alignment and recommendation on ground improvement techniques.
  - Evaluation & recommendation on foundation system for rail bridges & viaducts.
  - Preparation of Geotechnical Assessment Report & scheme design drawings

- **North - South Expressway (PLUS) Proposed Fourth Lane Widening (Package E) Between Nilai (Km 280.4) and Seremban (Km 258.5)**
  - Analysis and interpretation of SI results to produce design sub-soil models and parameters.
  - Geotechnical analysis & design of temporary retention system using sheet pile wall (cantilever or strutted).
  - Preparation of geotechnical design reports and design submissions.
  - Provision of technical support to Client during construction.
  - Design of RC cantilever wall, RC drain and other works as requested by the Client.

- **Design, Construction, Completion, Testing & Commissioning of EMU Depot, Seremban**
  - Planning of SI works, checking field SI data and issuing laboratory test schedules.
  - Preparation of BQ and Engineer's Estimate for SI works.
  - Analysis of SI results and property characterization for geotechnical design.
  - Analysis and design of building foundation system using RC square piles.
  - Analysis and design of ground improvement works involving Removal and Replacement.
  - Checking of piling as-built data, selection of test piles and analysis of deviated pile groups.
  - Analysis and design of temporary retention system for excavation works.
  - Preparation of design reports and design brief.
- **Projek Mass Rapid Transit Lembah Kelang (KVMRT) Jajaran Sungai Buloh-Kajang: Elevated Section V1 to V3 and Sungai Buloh Depot**

  ◊ Planning & coordination of detailed soil investigation.
  ◊ Analysis of SI results and property characterisation for geotechnical design.
  ◊ Design of foundation for Viaduct, Elevated station, Multistorey carpark and Sungai Buloh Depot Buildings.
  ◊ Design of Contiguous Boredpile Wall (CBP) for station areas and monsoon drain area.
  ◊ Ground Treatment design for Sungai Buloh Depot and road widening works along the alignment.
  ◊ Production of design report & drawings for all the geotechnical related works.

- **Cadangan Membina Kompleks Penjara Reman (Tegar) Fasa 2 Di Atas Lot-Lot 94 & 490 to 497, Mukim Pulai, Daerah Johor Baharu, Johor Darul Takzim (sub-consultant under the C&S Consultant for the project)**

  ◊ Analysis of SI results and property characterisation for geotechnical design.
  ◊ Coordinated the Geological Terrain Mapping works.
  ◊ Analysis of the slope stability and design of soil nail slope.
  ◊ Geotechnical evaluation of the site.
  ◊ Preparation of Geotechnical Assessment report

- **EPCC for New Condensate Tank Project at Bintulu Crude Oil Terminal (BCOT), Sarawak**

  ◊ Planning & coordination of detailed soil investigation.
  ◊ Analysis of SI results and property characterisation for geotechnical design.
  ◊ Design of foundation for Crude Oil tank
  ◊ Reviewing alternative Ground Treatment proposal for tank foundation
  ◊ Planning and Design of Earthworks, Road and Drainage works
  ◊ Production of Submission and Construction Drawings
  ◊ Preparation of submission for planning approval to Bintulu Development Authority

- **Design, Construction, Completion, Testing, Commissioning And Maintenance of the Double Track Project Between Seremban And Gemas**

  ◊ Analysis and interpretation of SI results to produce design sub-soil models and parameters.
  ◊ Geotechnical analysis & design of temporary retention system using sheet pile wall (cantilever or strutted).
  ◊ Preparation of geotechnical design reports and design submissions.
  ◊ Provision of technical support during construction.

- **Proposed Jubail Supply Base at Al-Jubail Commercial Port, Saudi Arabia**

  ◊ Planning & coordination of detailed soil investigation.
  ◊ Analysis of SI results and property characterization for geotechnical design.
  ◊ Design and detailing of sheet-piled Quay-Wall and Related Wharf facility.
  ◊ Design of ground treatment for Diesel and Water Tank foundation.
  ◊ Coordination with Marine Engineers on the design of the dredging works for access and berthing channel and reclamation works.
• **Cadangan Pembangunan Perumahan Sesebuah (Zero Lot), Diatas Lot 587, Batu 10 ¾ Mukim Hulu Langat, Selangor Darul Ehsan Untuk Tetuan SMS Developer Sdn. Bhd.**

  ◦ Planning and design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
  ◦ Planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
  ◦ Planning and design of proposed road network (profile and geometric) serving each lots and other amenities within the development including provision acceleration and deceleration lane at the main entrance road.
  ◦ Planning and design of overall water reticulation system.
  ◦ Planning and design of sewerage network for the proposed development.
  ◦ Preparation of submission drawings / reports to obtain approval from local authorities, SYABAS, JKR, JPS and IWK.

• **Proposed Slope Stabilization and Erosion Protection Works, Sekolah Kebangsaan Antara Gapi, Hulu Selangor for Kementerian Pelajaran Malaysia**

  ◦ Planning of detail soil investigation works including preparation of BQ.
  ◦ Checking field SI data and issuing laboratory test schedules.
  ◦ Analysis and interpretation of SI results to produce design sub-soil models and parameters.
  ◦ Preliminary and detail design for geotechnical related works such as ground improvement, soil nails, geogrid reinforced soil walls and RC retaining walls.
  ◦ Preparation of BQ and Engineer’s Estimate for geotechnical related works.
  ◦ Preparation of Tender & Contract document
  ◦ Management and supervision of the project
  ◦ Coordination with Client, surveyor, SI contractor and other parties.

• **Cadangan Pembinaan Industri Berkembar 56 Unit Diatas Lot 19003 Seksyen 19, Bandar Rawang, Mukim Rawang, Daerah Gombak, Selangor Darul Ehsan Untuk Tetuan SMS Developer Sdn. Bhd.**

  ◦ Planning and design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
  ◦ Planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
  ◦ Planning and design of proposed road network (profile and geometric) serving each lots and other amenities within the development including provision acceleration and deceleration lane at the main entrance road.
  ◦ Planning and design of overall water reticulation system.
  ◦ Planning and design of sewerage network for the proposed development.
  ◦ Preparation of submission drawings / reports to obtain approval from local authorities, SYABAS, JKR, JPS and IWK.

• **Projek Naiktaraf Laluan Persekutuan 150 dari Persimpangan Pa’Boi ke Bukit Tambun, Seberang Perai Selatan, Pulau Pinang.**

  ◦ Planning & coordination of detailed soil investigation.
  ◦ Analysis of SI results and property characterisation for geotechnical design.
  ◦ Geotechnical analysis & design for ground treatment involving Piled Embankment, Surcharge Preloading and Removal/Replacement.
  ◦ Geotechnical and structural analysis & design for the bridge bored piles foundation.
  ◦ Preparation of Geotechnical Assessment Report.
Production of drawings for the all the geotechnical works.

- **Cadangan Membina & Menyiapkan Pejabat Jabatan Kesihatan Negeri Di Rasah, Seremban, Negeri Sembilan (for Kementerian Kesihatan)**
  - Detailed analysis & design of Soil Nail slope reinforcement
  - Preparation of Geotechnical Design & Assessment Report
  - Production of drawings for the geotechnical works

- **Cadangan Pembangunan Politeknik Banting, Selangor Darul Ehsan (for Kementerian Pengajian Tinggi).**
  - Planning & coordination of detailed soil investigation.
  - Analysis of SI results and property characterisation for geotechnical design.
  - Geotechnical analysis & design for ground treatment involving PVD, Surcharge Preloading and Removal/Replacement.
  - Pile foundation design on soft ground condition.
  - Planning of instrumentation scheme.
  - Preparation of Geotechnical Assessment Report.
  - Production of drawings for the all the geotechnical works.
  - Design & technical support during construction.

- **Electrified Double Track Project between Padang Besar and Ipoh : Kedah Line N1 & N2 (Padang Besar to Alor Setar)**
  - Planning & coordination of preliminary and detailed soil investigation.
  - Analysis of SI results and property characterisation for geotechnical design.
  - Ground treatment analysis & design for railway track embankment involving PVD, Piled Embankment, Stone Column, Surcharge Preloading and Removal/Replacement.
  - Geotechnical analysis & design of permanent wall involving Cantilever RC Wall, Contiguous Bored Piles (CBP) Wall and Soil Nailed Wall ; and temporary wall involving sheetpile, reinforced geogrid/geotextile and gabion wall.
  - Planning of instrumentation scheme.
  - Production of drawings for the all the geotechnical works.
  - Design & technical support during construction.
  - Planning & coordination of condition assessment survey works for the existing KTMB track embankment.

- **Cadangan Pembangunan 2 Blok Pangsapuri 20 Tingkat (160 unit), Tempat Letak Kereta 4 Tingkat, Kemudahan Penduduk dan Tembok Penahan Di Atas Lot 48629 (F2), Jalan Sri Hartamas 3, Kuala Lumpur**
  - Analysis of SI results and property characterisation for geotechnical design.
  - Geotechnical analysis & design of temporary excavation support system using CBP wall with combination of ground anchors, soil nailing and strutted system.
  - Preparation of Geotechnical Design Report for the temporary excavation support system.
  - Design & technical support during construction.

- **Proposed West Coast Expressway from Taiping to Banting : Perak Alignment – Taiping to Lambor Kiri**
  - Planning & coordination of preliminary soil investigation
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- Analysis of SI results and property characterisation for geotechnical design.
- Conceptual and preliminary ground treatment design for highway embankment involving PVD, Surcharge Preloading and Removal/Replacement
- Planning of instrumentation scheme
- Preparation of Preliminary Geotechnical Assessment Report.

**Upgrading of Melaka Airport, Batu Berendam, Melaka**

- Planning of soil investigation
- Analysis of SI results and property characterisation for geotechnical design.
- Geotechnical analysis & design for ground treatment involving PVD, Stone Column, Surcharge Preloading and Removal/Replacement
- Planning of instrumentation scheme
- Preparation of Geotechnical Assessment Report
- Production of drawings for the all the geotechnical works.
- Design & technical support during construction

**Railway Development at Batu Gajah, Perak Darul Ridzuan : Package 1 – Workshops and Depots**

- Planning of soil investigation
- Analysis of SI results and property characterisation for geotechnical design.
- Geotechnical analysis & design for ground treatment involving PVD, Surface Vibratory Compaction,
- Planning of instrumentation scheme
- Preparation of Geotechnical Assessment Report
- Production of drawings for the all the geotechnical works.
- Design & technical support during construction

**Railway Development at Batu Gajah, Perak Darul Ridzuan : Package 2 – Staff Quarters and Training School**

- Planning of soil investigation
- Analysis of SI results and property characterisation for geotechnical design.
- Geotechnical analysis & design for ground treatment involving Surcharge Preloading and Removal/Replacement; and foundation design for buildings.
- Planning of instrumentation scheme
- Production of drawings for the all the geotechnical works
- Preparation of Geotechnical Assessment Report
- Design & technical support during construction

**Proposed Integrated Transport Terminal, Bandar Tasik Selatan, Kuala Lumpur**

- Analysis of SI results and property characterisation for geotechnical design.
- Conceptual and preliminary Ground Treatment design involving Stone Columns, Surcharge Preload and Removal/Replacement

**Proposed 4 Blocks of Low Cost Flats at Jalan Bukit Belacan, Mukim Ampang, Selangor**

- Detailed analysis & design of Soil Nail Wall and slope reinforcement
- Preparation of Geotechnical Design & Assessment Report
- Production of drawings for the geotechnical works
July 2001 – December 2005

Assistant Resident Engineer    :- Minconsult Sdn Bhd

- **KTMB Electified Double Track Project : Ipoh to Rawang**
  
  ◊ Assisting the Resident Engineer in supervision, monitoring and reporting of ground treatment, earthworks and drainage works for construction of KTMB Electified Double Track Project from Malim Nawar to Bidor Section. Hands on experience in the quality control supervision, comprising among others:
  - Ground treatment and earthworks for railway and road embankment and on cut formation;
  - Drainage works comprising surface, subsoil drains and culverts;
  - Bored pile and piling works including pile testings;
  - Temporary protection works along existing KTMB track involving sheetpiling, ground anchors, reinforced earth wall and geotextile wrap around system.
  
  ◊ Assisting the Senior Geotechnical Engineer in the following tasks:
  - Planning and execution of pre-treatment site investigation works involving CPTU.
  - Supervision, monitoring and reporting of ground treatment works involving R/R works, Surface Vibratory Compaction, Vibro Replacement (stone column), Dynamic Compaction and Replacement, PVD and piled embankment.
  - Planning and monitoring of instrumentation works for railway and road embankments.
  - Liaising with design office on design issues, checking contractor’s method statement for approval, replying to contractor’s request for information, organizing and arranging supervision works for clerks of work, keeping proper records of works and ensuring quality of works and safety at site.

December 2000 – June 2001

Geotechnical Engineer    :- Minconsult Sdn Bhd

Reporting to the Senior Geotechnical Engineer. Involved in planning and periodic/full time supervision of site investigation works; geotechnical design involving slope stability, settlement analysis, ground treatment, foundation system; and preparation of geotechnical assessment report. Some of the projects involved:

- **Electrified Double Track Project : Ipoh to Rawang**
  
  ◊ Evaluation and interpretation of subsoil parameters.
  ◊ Carrying out analysis of slope stability and settlement of railway and road embankment on soft/loose ground.
  ◊ Carrying out design on ground improvement for construction of railway and road embankment on soft/loose ground involving removal and replacement method, Dynamic Compaction and Replacement, Vibro-replacement (Stone Column), piled embankment, PVD and Surface Vibratory Compaction.
  ◊ Carrying out design for foundation of motorcycle crossings and road bridges.
- Preparation of Drawings and BOQ for Ground Improvement Works.

- **National Sewage Treatment Project : Bunus Sewage Treatment Plant, Setapak**
  - Supervision of site investigation works involving on-land and over-water borings.

- **Telok Gong CCGT Power Plant Project, Melaka**
  - Full time supervision of site investigation works involving onshore and offshore borings.
  - Evaluation and interpretation of subsoil parameters.
  - Preparation of Geotechnical Assessment Report.

**September 1997 – November 2000**

**Geotechnical Engineer :- Jurutera Perunding Zaaba Sdn Bhd**

Reporting to Head of Geotechnical Department. Involved in planning and periodic supervision of site investigation works; geotechnical design involving slope stability, settlement analysis, ground treatment, foundation system; and preparation of geotechnical assessment report. Some of the projects involved :-

- **Naiktaraf Laluan FT 001 dari Johor Bahru ke Simpang Pontian, Johor Darul Takzim**
  - Evaluation and interpretation of subsoil parameters.
  - Carrying out design on ground treatment for road embankment involving slope stability and settlement analysis.
  - Carrying out design on Gabion and Terramesh retaining structures.
  - Preparation of Geotechnical Assessment Report.

- **Membina dan Menyiapkan Jalan Baru (Premix) Dari Kg. Binjai Ke Kg. Mak Lagam Kemaman Terengganu, Membina dan Menyiapkan Jambatan Di Kg. Binjai, Kemaman, Terengganu**
  - Evaluation and interpretation of subsoil parameters.
  - Carrying out design on ground treatment for road embankment on soft/loose ground involving slope stability and settlement analyses.

- **Memperelokkan Jalan Persekutuan 8 Dari Bentong Ke Kuala Lipis, Pahang Darul Makmur : (Pakej 2)**
  - Carrying out design for slope stability and rehabilitation for slope failure involving soil nailing.
  - Carrying out road embankment settlement analysis.
  - Instrumentation planning and monitoring (settlement plate).

- **Projek Jalan dari Kg. Berchang Lipis Ke Ringlet Cameron Highlands, Pahang Darul Makmur. Pakej 4 : Kg. Susu / Sg. Bertam Ke Ringlet**
  - Planning and periodic supervision of site investigation works.
  - Preparation of proposal for slope protection and retaining structures.
• **Menjajar Semula Laluan B15 Di Putrajaya dan Cyberjaya**
  ◊ Carrying out design for ground treatment for road embankment on soft/loose ground; slope stability and settlement analyses.

• **Roadworks from Zone A to Zone B at Carey Island for Pulau Carey Properties Sdn. Bhd.**
  ◊ Planning and periodic supervision of site investigation works.
  ◊ Carrying out design for ground treatment for road embankment on soft (marine clay) ground.
  ◊ Preparation of Geotechnical Assessment Report.

• **Kajian Pra-Kemungkinan Pembinaan Jambatan Bukit Bunga, Kelantan Darul Naim**
  ◊ Geological and geotechnical assessment for pre-feasibility study.
  ◊ Preparation of proposal for foundation system, ground treatment, river protection.

• **Kajian Kemungkinan Bagi Cadangan Jalan Jerantut – Sg. Lembing, Pahang Darul Makmur.**
  ◊ Geological and geotechnical assessment along the proposed corridor.
  ◊ Preparation of proposal for slope protection and retaining structures.

• **Safety Review and Preparation of Emergency Action Plan for Bukit Merah and Padang Saga Dams.**
  ◊ Carrying out slope stability analysis.

• **Detailed Design of Paka Barrage, Paka, Terengganu**
  ◊ Carrying out preliminary design of sheet pile cofferdam.

• **Penyiasatan Kestabilan Tapak Bagi Cadangan Membina dan Menyiapkan 2 Blok Perumahan Awam (936) 10-22 Tingkat Diatas Lot Pt.8 dan Tanah Kerajaan (Kg. Limau / Kg. Selamat) Jalan Pantai Dalam, Kuala Lumpur**
  ◊ Carrying out design for slope stability and stability analysis of monsoon drain retaining wall.
  ◊ Preparation of Geotechnical Assessment Report of overall site stability.

• **Projek Pembesaran Desa Bukit Bujang, Kampung Ampang Pecah, Kuala Kubu Baru, Selangor Darul Ehsan**
  ◊ Planning and periodic supervision of site investigation works.
  ◊ Carrying out design for slope stability, foundation system, settlement analysis for building on fill embankment and stability of pond excavation works.
  ◊ Instrumentation planning and monitoring (settlement plate).

• **Cadangan Membina Jambatan Di Atas Sg. Kayu Ara, Selangor Darul Ehsan**
  ◊ Carrying out design for foundation system, stability analysis of monsoon drain and retaining structures.
• *Multimedia University, Cyberjaya for Telekom Malaysia Berhad*
  ◦ Carrying out design for slope stability and retaining walls.

• *Cadangan Membina Sebuah Bangunan 4 Tingkat Serta Satu (1) Tingkat Basement Ibusawat Telekom (CBJ2) Di Cyberjaya Sepang Selangor Darul Ehsan.*
  ◦ Carrying out design for foundation system and piling work.

• *Pembaikpulihan Cerun Bagi Cadangan Pembinaan Politeknik Dungun, Terengganu Darul Iman*
  ◦ Carrying out design on slope rehabilitation work involving Terramesh retaining structure.

• *Proposed Development of a Mosque in the Flagship Zone of Cyberjaya.*
  ◦ Planning and periodic supervision of site investigation works.
  ◦ Geotechnical assessment of the project site.

**June 1995 – August 1995**

**Technical Assistant :: SSM Associates Consulting Engineers**

Performed various tasks related to the preparation of contract and design (civil works) of Microwave Ground Station, GSM Exchange and Radio-base Station for Cellular Communication Network Malaysia (Celcom), including contract administration and periodic supervision.

**COURSES ATTENDED**

• Highway Slope Management
  (Organised by JKR and IEM), Kuala Lumpur, 1997

• Short Course on Slopes, Embankments and Basements
  (Organised by BEM), Kuala Lumpur, 1999

• Short Course on Code of Ethics / Regulations
  (Organised by BEM), Kuala Lumpur, 2000

• Introduction to Quality Management System ISO9001
  (Organised by Minco), Petaling Jaya, 2001.

• CIDB Safety and Health Induction Course
  (Minco In-house Training), Petaling Jaya 2001.

• KTMB Safety Training 038 Course.

• Short Course on “Slope Stability in Residual Soil Slopes”.
  (Organised by IEM), Petaling Jaya, 2002

• 16th Southeast Asian Geotechnical Conference
  (Organised by SEAGS & IEM), Subang Jaya, 2007
Present Position : Structural Engineering Manager

Nationality : Malaysian

Year of Birth : 1976

Qualification

- Degree in Civil Engineering
  University Technology Malaysia

Professional Experience

August 2011 – Present

Asst. Engineering Manager :- GCU Consultants Sdn Bhd

Projects Involved :

- Cadangan Membina Terminal Petroleum Marin Air Laut Dalam (Pengerang Deepwater Petroleum Terminal) Fasa Kedua Yang Mengandungi: (A) 1 Unit Bangunan Pejabat 3 Tingkat (B) 1 Unit Bengkel (C) 1 Unit Rumah Pengawal (D) Pencawang Elektrik Berserta Kemudahan-Kemudahan Sokongan Di Atas Lot 11084, Mukim Pengerang, Daerah Kota Tinggi, Johor untuk Tetuan Pengerang Terminal (2) Sdn Bhd

  Scope of works :-
  ◊ Design structure and coordinate drafting works to meet client dateline
  ◊ Liaise with architect to coordinate with design issues
  ◊ Liaise with local authorities on infrastructure works

- Structural Integrity Assessment for IPD Sentul and Police Quarters Kuala Lumpur for MMC Gamuda KVMRT.

  Scope of works :-
  ◊ Monitor in-situ Test

- Cadangan Membina 1 Unit Gudang Sesebuah 2 Tingkat Beserta 2 Tingkat Pejabat Dan 1 Unit Kebuk Sampah Di Atas PT 7929, Jalan Sigma U6/14, Seksyen U6, 40150 Shah Alam, Selangor Darul Ehsan Untuk Puan Chin Siew Mooi

  Scope of works :-
  ◊ Chairing monthly client consultant meeting
  ◊ Monitoring design work progress
  ◊ Liaise with local authorities on infrastructure works
• *Cadangan Perumahan Yang Mengandungi* (i) *Rumah Berkembar 1-1 ½ Tingkat Sebanyak 26 Unit* (ii) *Rumah Berkembar 2 - 1 ½ Sebanyak 6 Unit* (iii) *Rumah Berkembar 3 – 1 ½ Tingkat Sebanyak 2 Unit* Di Atas Lot PT75121 – 75157, Jalan Masjid/KU 14, Mukim Kapar, Daerah Klang, Selangor Untuk Tetuan Aspac Alliance Developments Sdn Bhd.

Scope of works :-
◊ Design structure and coordinate drafting works to meet client dateline
◊ Attend monthly client consultant meeting
◊ Liaise with architect to coordinate with design issues
◊ Liaise with local authorities on infrastructure works

• *Cadangan Pembangunan Yang Mengandungi* 78 Unit Pejabat 3 Tingkat Di Atas Lot 129, G.132740, Mukim Bandar Labis, Johor Untuk Tetuan Sungai Karas Development Sdn Bhd

Scope of works :-
◊ Design structure and coordinate drafting works to meet client dateline
◊ Attend monthly client consultant meeting
◊ Liaise with architect to coordinate with design issues
◊ Liaise with local authorities on infrastructure works

• *Cadangan Pembangunan 1 Blok Pangsapuri Servis 39 Tingkat (473 Unit)* Dengan 8 Tingkat Podium Tempat Letak Kereta, Ruang Perniagaan, Kemudahan Awam Di Atas Lot 76 Off Jalan Kovil Hilir, Seksyen 76, Bandar Kuala Lumpur, Wilayah Persekutuan Kuala Lumpur untuk Tetuan Wajatex Sdn. Bhd.

Scope of works :-
◊ Design structure and coordinate drafting works to meet client dateline
◊ Attend fortnightly client consultant meeting
◊ Liaise with architect to coordinate with design issues
◊ Liaise with local authorities on infrastructure works

• *Cadangan Membina Pangsapuri 52 Tingkat (161 Unit) Termasuk 6 1/2 Tingkat Tempat Letak Kereta Beserta 1 Tingkat ‘Lower Ground’ Di Atas Pt 40893 , Mukim Cheras, Daerah Hulu Langat Selangor Darul Ehsan untuk Tetuan Ci Lumix Sdn. Bhd.

Scope of works :-
◊ Design structure and coordinate drafting works to meet client dateline
◊ Attend fortnightly client consultant meeting
◊ Liaise with architect to coordinate with design issues
◊ Liaise with local authorities on infrastructure works
• **Cadangan Melombong Dan Membina Kilang Benifikasi Silika Di Atas Lot 72017 Dan Lot 72124 Di Mukim Caluk, Daerah Setiu, Terengganu Darul Iman Untuk Tetuan Terengganu Silica Consortium**

  Scope of works: -
  ◦ Design structure and coordinate drafting works to meet client dateline

• **Cadangan Pemajuan Pencawang Masuk Utama (PMU), PMU South Key Jb Di Atas Ptd 213111, Mukim Plentong, Daerah Johor Bahru, Johor Darul Takzim.**

  Scope of works: -
  ◦ Design structure and coordinate drafting works to meet client dateline

• **Cadangan Membina Dan Menyiapkan Pembangunan Perniagaan Dan Pangsapuri Servis 26 Tingkat (Fasa 1) Di Atas Lot Pt 586 Dan Sebahagian Lot Pt 587, Jalan Baiduri 8, Pulau Melaka, Kawasan Xi ii, Daerah Melaka Tengah, Melaka Untuk Tetuan Renowaja Sdn. Bhd.**

  Scope of works: -
  ◦ Design structure and coordinate drafting works to meet client dateline
  ◦ Attend fortnightly client consultant meeting
  ◦ Liaise with architect to coordinate with design issues
  ◦ Liaise with local authorities on infrastructure works

• **Cadangan Pembinaan Industri Berkembar 56 Unit Di Atas Lot 19003, Seksyen 19, Bandar Baru Rawang, Mukim Rawang, Daerah Gombak, Selangor Darul Ehsan Untuk Tetuan Sms Developer Sdn. Bhd.**

  Scope of works: -
  ◦ Design structure and coordinate drafting works to meet client dateline
  ◦ Attend fortnightly client consultant meeting and monthly site meeting
  ◦ Liaise with architect to coordinate with design issues
  ◦ Liaise with local authorities on infrastructure works

• **Cadangan Membina 8 Unit Rumah Berkembar Tiga (3) Tingkat Di Atas Sebahagian Lot Pt 65636-65641, Mukim Petaling, Daerah Petaling, Selangor Darul Ehsan Untuk Flora Development Sdn. Bhd.**

  Scope of works: -
  ◦ Design structure and coordinate drafting works to meet client dateline
  ◦ Attend fortnightly client consultant meeting
  ◦ Liaise with architect to coordinate with design issues
  ◦ Liaise with local authorities on infrastructure works

• **Provision Of Engineering, Procurement, Construction And Commissioning Of New Consensate Tank And Associated Facilities At Bintulu Crude Oil Terminal (Bcot)**

  Scope of works: -
  ◦ Design structure and coordinate drafting works to meet client dateline
Sia Ling Heng

Curriculum Vitae

- Liaise with local authorities on infrastructure works

- **Cadangan Pembangunan Bercampur Yang Mengandungi ;**
  Fasa 1 – 1 Blok Kemudahan Kesihatan 10 Tingkat Dan 4 ½ Tingkat Baseemen Tempat Letak Kereta Di Atas Pt.210, Seksyen 88, Jalan Ampang Kuala Lumpur, Wilayah Persekutuan.

  Scope of works :-
  ◇ Independent checker for all structural elements

- **Vale Malaysia Manufacturing Project Gound Improvement And Piling Works,**
  Phase 1a At Teluk Rubiah, Perak

  Scope of works :-
  ◇ Design structure and coordinate drafting works to meet client dateline

- **Bridge Conditional Inspection And Assessment Report Of Bridges Along Lebuhraya Kajang Seremban (Lekas) For Lebuhraya Kajang Seremban Sdn Bhd (2012 & 2014)**

  Scope of works :-
  ◇ Bridge Assessment works

- **Cadangan Pembangunan Bercampur Di Presint 10, Bandar Setia Alam, Seksyen U13, Shah Alam, Selangor Darul Ehsan Untuk Tetuan Paksi Gagah Sdn Bhd.**

  Scope of works :-
  ◇ Design structure and coordinate drafting works to meet client dateline
  ◇ Liaise with architect to coordinate with design issues

- **Cadangan Membina 78 Unit Kedai Pejabat Di Atas Lot 129, G. 132740, Mukim Bandar Labis, Daerah Segamat, Johor**
  Fasa 1 : (A) 26 Unit Kedai Pejabat 2 Tingkat (22’ X 91’) – Jenis A
  (B) 13 Unit Kedai Pejabat 3 Tingkat (22’ X 91’) – Jenis B
  Fasa 2 : (A) 26 Unit Kedai Pejabat 2 Tingkat (22’ X 91’) – Jenis A
  (B) 13 Unit Kedai Pejabat 3 Tingkat (22’ X 91’) – Jenis B

  Untuk Tetuan Sungai Karas Development Sdn.Bhd.

  Scope of works :-
  ◇ Design structure and coordinate drafting works to meet client dateline
  ◇ Attend fortnightly client consultant meeting and monthly site meeting
  ◇ Liaise with architect to coordinate with design issues
  ◇ Liaise with local authorities on infrastructure works

- **Cadangan Pembangunan 6 Tingkat Servis Apartment, 6 Tingkat Hotel, 2 Tingkat Tempat Letak Kereta, 1 Tingkat Kemudahan Ruang Pameran Dan Ruang Perniagaan Di Lot 6633 & Lot 6634, Jalan Dewan, Bandar Labuan, Wilayah Persekutuan Labuan Untuk Tetuan YNRM Galleria (M) Sdn Bhd**
Scope Of Works :-
◊ Design structure and coordinate drafting works to meet client dateline
◊ Attend fortnightly client consultant meeting
◊ Liaise with architect to coordinate with design issues

October 2010 – July 2011
Senior Engineer :- JPS Consulting Engineers Sdn Bhd
Projects Involved :
• One South Mixed Development for Huayang Group
• 2 Block 39-Storey Condominium Dutamas for TA Global
• 1120 Unit Apartment in Jalan Klang Lama for Peter’s Brickwork Sdn Bhd
• 2 Block 14-Storey Apartment in Sungai Besi for Zeus Development Sdn Bhd

June 2000 – September 2010
Senior Design Engineer :- DPI KONSULT SDN BHD
Projects Involved :
• Pandan Hospital (704 Beds) Johor
• Ampang Hospital (562 Beds) KL
• Proposed KPM 10-storey office building at North Port
• Proposed PPR School Lembah Subang, Selangor
• Proposed Klinik Kesihatan 3 and Quarters, Slim River
• Independent Checker for Proposed Kastam Eksais Diraja Office & Housing at SS6/3, Kelana Jaya
• Proposed Conversion of Berth 14 to Multi Purpose Berth at North Port, Port Klang
• Proposed Conversion Ward 3B into ICU unit at Hospital Ipoh, Perak
• Proposed 14-Storey 5 Blocks of Army Quarters at Kem Pasifik, Jalan Ampang, KL
• Proposed Police Quarters and HQ for IPD Pekan, Pahang
• Proposed Marina at Tg Pengelih, Johor
• Proposed Modernisation of Ramunia Yard, Johor
• Proposed 8-Storey of Chemical Block and 5-Storey of Admin Block for Universiti Malaya
• Proposed Uitm Medical Campus at Sungai Buloh, Selangor
• Proposed 4 Blocks of 20-storey Condominium with 5 levels of Car Park at Selayang, Selangor
• Independent Checker for Proposed UPP Perlis
• Proposed Housing Design for Alam Impian Selangor

Scope of works :-
• Design and coordinate drafting works to meet client dateline
• Attend fortnightly client consultant meeting and monthly site meeting
• Liaise with architect to coordinate with design issues
- Liaise with local authorities on infrastructure works

May 1999 – June 2000

Site Engineer :- HIAP AIK CONSTRUCTION BHD

Projects Involved :

- **Administration Block for Proposed Tanjong Pelepas, Johor**
- **2 Blocks of 25-Storey Police Quarters (Desa Aman 2) at Pantai Dalam, KL**

Scope of works :-

- Coordinate construction sequence and works with Sub-Contractor
- Checking Structure construction drawing against architectural drawing for any discrepancies
- Attend monthly site meeting and weekly sub-con meeting
- Liaise with consultant for design issues
- Checking reinforcement bars & formwork with supervision team at site
Engr. Zailah Zakaria
Present Position : Civil Engineering Manager

Nationality : Malaysian

Year of Birth : 1974

Qualification

- Diploma in Civil Engineering 1999
  University Technology Malaysia
- Certificate in Civil Engineering 1996
  Institut Kemahiran Mara, Sg Petani, Kedah
- Bachelor Degree of Engineering (Civil) 2014
  University Technology Malaysia

April 2010 – Present

Civil Engineer :- GCU Consultants Sdn Bhd

- Cadangan Membina Terminal Petroleum Marin Air Laut Dalam (Pengerang Deepwater Petroleum Terminal) Fasa Kedua yang mengandungi: A) 1 Unit Bangunan Pejabat 3 Tingkat, B) 1 Unit Bengkel, C) 1 Unit Rumah Pengawal, D) Pencawang Elektrik Berserta Kemudahan-Kemudahan Sokongan Di atas Sebahagian PTD 4996 dan A) 64 Unit Tangki Terminal Berserta Kemudahan-Kemudahan Fasiliti Di atas Lot 11084 dan Sebahagian Lot 11081, Mukim Pengerang, Daerah Kota Tinggi, Johor.

  ◊ Carried out design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
  ◊ Carried out planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
  ◊ Carried out planning and design of overall water reticulation system.
  ◊ Carried out planning and design of sewerage network for the proposed development.
  ◊ Prepared all submission drawings / reports to obtain approval from local authorities, SYABAS, JKR, JPS and IWK.
  ◊ Attending client consultant meeting

- Cadangan Mendirikan Pembangunan Bercampur dan Berpondok Pengawal Yang Mengandungi: Fasa 1: 1) 500 Unit Rumah Teres 2 Tingkat Jenis A (20’x65’), 2) 1 Unit Pusat Komuniti, 3) 1 Unit tadika, 4) 1 Unit Masjid, 5) 4 Unit Pencawang Elektrik, 6) 32 Unit Rumah Kedai 2 Tingkat (20’x70’), Fasa 2: 1) 500 Unit Rumah Teres 2 Tingkat Jenis B (20’x65’), Fasa 3: 1) 616 Unit (6 Blok) Apartment 9-10 Tingkat Termasuk Kemudahan Asas Lain Di Atas Lot 27733, Mukim rantau, Daerah Seremban, Negeri Sembilan.

  ◊ Carried out design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
  ◊ Carried out planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
  ◊ Carried out planning and design of overall water reticulation system.
  ◊ Carried out planning and design of sewerage network for the proposed development.
  ◊ Prepared all submission drawings / reports to obtain approval from local authorities, SYABAS, JKR, JPS and IWK.
  ◊ Attending client consultant meeting
• Design, Upgrading and Construct New Drainage System, Trackworks and Associated Works To Mitigate Floods From KM 14.636 To KM 20.519 Between Subang Jaya and Batu Tiga Railway Station.

  ◦ Carried out planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
  ◦ Preparing Bill of Quantities for drainage works.
  ◦ Prepared all submission drawings / reports to obtain approval from local authorities and JPS.
  ◦ Attending client consultant meeting

• Engineering, Procurement, Construction and Commissioning of Proposed Supply Base at Jubail Commercial Port, Kingdom of Saudi Arabia

  ◦ Design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
  ◦ Design of all surface drainage including cut off drains from external discharge in accordance to Kingdom Saudi Arabia guidelines.
  ◦ Preparation of Earthwork Report
  ◦ Preparation of Drainage Report


  ◦ Carried out design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
  ◦ Carried out planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
  ◦ Carried out planning and design of overall water reticulation system.
  ◦ Carried out planning and design of sewerage network for the proposed development.
  ◦ Prepared all submission drawings / reports to obtain approval from local authorities, SYABAS, JKR, JPS and IWK.
  ◦ Attending client consultant meeting

• Cadangan Pembangunan 6 Tingkat Servis Apartment, 6 Tingkat Hotel, 2 Tingkat Tempat Letak Kereta, 1 Tingkat Kemudahan Ruang Pameran Dan Ruang Perniagaan Di Lot 6633 & Lot 6634, Jalan dewan, Bandar Labuan, Wilayah Persekutuan Labuan Untuk Tetuan YNRM Galleria (M) Sdn. Bhd.

  ◦ Carried out planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
  ◦ Carried out planning and design of overall water reticulation system.
  ◦ Carried out planning and design of sewerage network for the proposed development.
  ◦ Prepared all submission drawings / reports to obtain approval from local authorities, SYABAS, JKR, JPS and IWK.
  ◦ Attending client consultant meeting

◊ Carried out design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
◊ Carried out design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
◊ Carried out design of overall water reticulation system.
◊ Prepared all submission drawings / reports to obtain approval from local authorities, Syarikat Air Johor (SAJ) and JPS.
◊ Attending client consultant meeting


◊ Carried out planning and design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
◊ Carried out planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
◊ Carried out planning and design of proposed road network (profile and geometric) serving each lots and other amenities within the development including provision acceleration and deceleration lane at the main entrance road.
◊ Carried out planning and design of overall water reticulation system.
◊ Carried out planning and design of sewerage network for the proposed development.
◊ Prepared all submission drawings / reports to obtain approval from local authorities, SYABAS, JKR, JPS and IWK.
◊ Attending client consultant meeting

• Pengerang Deepwater Petroleum Terminal – Terminal Facility for RAPID at Pengerang Johor

◊ Design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
◊ Preparation of Drainage Report
◊ Carried out Material Taking Off
• Cadangan Membina Dan Menyiapkan Pembangunan Perniagaan Dan Pangsapuri Servis 26 Tingkat (Fasa 1) Di atas Lot PT 586 Dan Sebahagian Lot PT 587, Jalan Baiduri 8, Pulau Melaka, Kawasan XL III, Daerah Melaka Tengah, Melaka Untuk Tetuan Renowaja Sdn. Bhd.

◊ Carried out planning and design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
◊ Carried out planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
◊ Carried out planning and design of proposed road network (profile and geometric) serving each lots and other amenities within the development including provision acceleration and deceleration lane at the main entrance road.
◊ Carried out planning and design of overall water reticulation system.
◊ Carried out planning and design of sewerage network for the proposed development.
◊ Prepared all submission drawings / reports to obtain approval from local authorities, SYABAS, JKR, JPS and IWK.
◊ Attending client consultant meeting

• Cadangan Persimpangan Bertingkat Di atas Lot 30214, Laluan PLUS selepas Tol Nilai, Mukim Setul, Daerah Seremban, Negeri Sembilan Darul Khusus (Sub-consultant for the C&S Consultant).

◊ Carried out planning and design of road alignment
◊ Preparation of submission drawings / reports to obtain approval from local authorities, PLUS and MHA.
◊ Attending client consultant meeting

• Cadangan Pembangunan Perumahan Teres 2 Tingkat (22’x70’) 50 Unit Dan (20’x70’) 46 Unit, Serta Pencawang Elektrik Di Atas Lot 587, Batu 10 ¾, Mukim Hulu Langat, Daerah Hulu Langat, Kajang, Selangor Darul Ehsan Untuk Tetuan SMS Developer Sdn. Bhd.

◊ Carried out planning and design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
◊ Carried out planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
◊ Carried out planning and design of proposed road network (profile and geometric) serving each lots and other amenities within the development including provision acceleration and deceleration lane at the main entrance road.
◊ Carried out planning and design of overall water reticulation system.
◊ Carried out planning and design of sewerage network for the proposed development.
◊ Prepared all submission drawings / reports to obtain approval from local authorities, SYABAS, JKR, JPS and IWK.
◊ Attending client consultant meeting

• Cadangan Pembinaan Industri Berkembar 56 Unit Diatas Lot 19003 Seksyen 19, Bandar Rawang, Mukim Rawang, Daerah Gombak, Selangor Darul Ehsan Untuk Tetuan SMS Developer Sdn. Bhd.

◊ Carried out planning and design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
Carried out planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.

Carried out planning and design of proposed road network (profile and geometric) serving each lots and other amenities within the development including provision acceleration and deceleration lane at the main entrance road.

Carried out planning and design of overall water reticulation system.

Carried out planning and design of sewerage network for the proposed development.

Prepared all submission drawings / reports to obtain approval from local authorities, SYABAS, JKR, JPS and IWK.

Attending client consultant meeting.

  Program Penggantian Paip Lama 2011/2012, Pakej: P2 (Klang / Shah Alam)
  - Carried out planning and design of proposed new pipe replacement.
  - Prepared all submission drawings / hydraulic reports to obtain approval from Client (SYABAS)
  - Involved in the preparation of tender documents, bill of quantities (BQ), job specifications, cost estimation and tender evaluation for pipe replacement works.
  - Attending client consultant meeting.

- Cadangan Pembangunan Perumahan dan Perniagaan yang Mengandungi 73 Unit Rumah Teres Dua Tingkat (20x70), 67 Unit rumah Teres Dua Tingkat (22x65), 25 Unit Kedai Pejabat Dua Tingkat (22x70), 2 Unit Kedai Dua Tingkat (37x70) dan 1 Unit Pencawang Elektrik di atas Sebahagian Lot 77176, Kg Pendamar, Daerah Klang, Selangor Darul Ehsan untuk Tetuan PKNS.
  - Carried out planning and design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
  - Carried out planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
  - Carried out planning and design of proposed road network (profile and geometric) serving each lots and other amenities within the development including provision acceleration and deceleration lane at the main entrance road.
  - Carried out planning and design of overall water reticulation system.
  - Carried out planning and design of sewerage network for the proposed development.
  - Prepared all submission drawings / reports to obtain approval from local authorities, SYABAS, JKR, JPS and IWK.
  - Attending client consultant meeting

- Projek Sambungan ERL Ke KLIA 2
  - Carried out planning and design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
  - Carried out planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
  - Carried planning and design of road re-profiling at Bunga Raya Kompleks and road network for Maintenance Access For Approach Light
  - Prepared all submission drawings / reports to obtain approval from local authorities, JKR, JPS and IWK.
  - Attending client consultant meeting
May 2006 – Mac 2010

Senior Civil Engineer :: GCU Engineers Sdn Bhd

- **Cadangan Pembangunan Bercampur Diatas Tanah Seluas 100 Ekar Di Precint 10, Bandar Setia Alam, Shah Alam Selangor, Darul Ehsan Untuk Tetuan Paksi Gagah Sdn. Bhd.**
  
  ◇ Carried out planning and design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
  ◇ Carried out planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
  ◇ Carried out planning and design of proposed road network (profile and geometric) serving each lots and other amenities within the development including provision acceleration and deceleration lane at the main entrance road.
  ◇ Carried out planning and design of overall water reticulation system.
  ◇ Carried out planning and design of sewerage network for the proposed development.
  ◇ Prepared all submission drawings / reports to obtain approval from local authorities, SYABAS, JKR, JPS and IWK.
  ◇ Involved in the preparation of tender documents, bill of quantities (BQ), job specifications, cost estimation and tender evaluation for all civil related works.
  ◇ Involved in solving day to day site construction related problems for civil works.

- **Electrified Double-Track Project from Sentul to Batu Caves**
  
  ◇ Earthworks designs comprising cut and fill computation, earthwork computation, earthwork formation level, cut and fill slopes along the proposed track alignment, etc.
  ◇ Designs of temporary works i.e. silt traps, earth drains, wash trough, etc.
  ◇ Hydrology and hydraulics design for the proposed main culverts and trackside drains in accordance to MASMA guidelines.
  ◇ Involved in the preparation of all the necessary drawings and details for construction on site.
  ◇ Carried out design and planning for earthworks, road and drainage, water reticulation and sewerage design for total 5 units of the proposed KTM stations / halts, relocation of the existing army supply depot and Alex Lee Hall including submission to local authority for approval.
  ◇ Involved in accommodating design changes when required.
  ◇ Involved in solving day to day site construction related problems for civil works.

- **Cadangan Membina 10 Blok (274 unit) Kedai Pejabat, Di No. 2 Jalan Setia Prima S U13/S, Fasa 1A, Seksyen U13, Setia Alam, 40170 Bandar Setia Alam, Shah Alam Selangor Darul Ehsan Untuk Tetuan Bandar Setia Alam Sdn. Bhd.**
  
  ◇ Carried out planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
  ◇ Carried out planning and design of proposed road network and other amenities within the development including provision acceleration and deceleration lane at the main entrance road.
  ◇ Carried out planning and design of overall water reticulation system.
  ◇ Carried out planning and design of sewerage network for the proposed development.

◦ Carried out planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
◦ Carried out planning and design of proposed road network and other amenities within the development including provision acceleration and deceleration lane at the main entrance road.
◦ Carried out planning and design of overall water reticulation system.
◦ Carried out planning and design of sewerage network for the proposed development.
◦ Prepared all submission drawings / reports to obtain approval from local authorities, SYABAS, JKR, JPS and IWK.

• Proposed Bungalow and Semi Detached At Lot 5590 And Part of Lot 5591 And 5592, Mukim Petaling, Daerah Petaling, Selangor Darul Ehsan Untuk Tetuan Pilihan Megah Sdn. Bhd.

◦ Carried out planning and design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
◦ Carried out planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
◦ Carried out planning and design of proposed road network (profile and geometric) serving each lots and other amenities within the development including provision acceleration and deceleration lane at the main entrance road.
◦ Carried out planning and design of overall water reticulation system.
◦ Carried out planning and design of sewerage network for the proposed development.
◦ Prepared all submission drawings / reports to obtain approval from local authorities, SYABAS, JKR, JPS and IWK.

• Cadangan Membina Sebuah Hospital Pakar (150 Katil) 7 Tingkat Dengan 2 Tingkat Tempat Letak Kereta, Diatas Lot 83211, Pekan Pandamaran, Daerah Klang, Selangor Darul Ehsan Untuk Tetuan Arunamari Specialist Medical Centre Sdn. Bhd.

◦ Carried out planning and design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
◦ Carried out planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
◦ Carried out planning and design of proposed road network (profile and geometric) serving each lots and other amenities within the development including provision acceleration and deceleration lane at the main entrance road.
◦ Carried out planning and design of overall water reticulation system.
◦ Carried out planning and design of sewerage network for the proposed development.
◦ Prepared all submission drawings / reports to obtain approval from local authorities, SYABAS, JKR, JPS and IWK.
- Cadangan Membina a) 2 Blok Pangasapuri 10 Tingkat (Blok A & B), b) 1 Blok Pangasapuri 8 Tingkat (Blok C) Diatas Sebahagian dari Lot 12182, (H.S. (D) 30760 PT 42863), Cyberjaya Flagship Zone, Mukim Dengkil, Daerah Sepang, Selangor Darul Ehsan Untuk Tetuan Setia Haruman Sdn. Bhd.

  ∘ Carried out planning and design of the earthwork platform levels for cut and fill analysis, silt traps and temporary earth drains during construction.
  ∘ Carried out planning and design of all surface drainage including cut off drains from external discharge in accordance to MASMA guidelines.
  ∘ Carried out planning and design of proposed road network (profile and geometric) serving each lots and other amenities within the development including provision acceleration and deceleration lane at the main entrance road.
  ∘ Carried out planning and design of overall water reticulation system.
  ∘ Carried out planning and design of sewerage network for the proposed development.
  ∘ Prepared all submission drawings / reports to obtain approval from local authorities, SYABAS, JKR, JPS and IWK.

February 2001 – April 2006

Civil Designer :- AC Haimi Jurutera Perunding

Scope of works:-

  ∘ Responsible in designing infrastructure works, calculation and report (earthwork, road and drainage (MASMA), sewerage and water supply).
  ∘ Attending client / consultant meeting, site meeting and inspection, and planning meeting with client / developer during planning stage.
  ∘ Dealing with authority.
  ∘ Dealing with contractor – processing claim and negotiation.
  ∘ Preparing Tender document and Bill of Quantities.
  ∘ Checking of drawings.
  ∘ Preparing infra and structural drawing by using Auto Cad.

Projects Involved :

- Cadangan pembangunan bercampur Sungai Kapar Indah untuk Tetuan Syarikat Pembangunan Hartanah Guthrie Sdn Bhd.
- Cadangan pembangunan 230 unit rumah teres dua tingkat untuk Tetuan TTDI Jaya Sdn Bhd.
- Cadangan membina dan menyiapkan 224 unit rumah teres satu tingkat di Taman Keruing, Rasa, Hulu Selangor untuk Tetuan Perbadanan Kemajuan Negeri Selangor.
- Cadangan, membina dan menyiapkan Sekolah Agama Pekan Pasir Panjang, Sabak Bernam untuk Tetuan Jabatan Kerja Raya, Selangor.
- Cadangan Membina 0.9 juta gelen tangki air di Lot 55, di sebahagian Ladang Sg. Kapar Indah untuk Tetuan Syarikat Pembangunan Hartanah Guthrie Sdn Bhd.
- Cadangan pembangunan bercampur di atas Lot 3 & 60 di sebahagian Ladang Sungai Kapar Indah untuk Tetuan Syarikat Pembangunan Hartanah Guthrie Sdn Bhd.
- Cadangan membina pumping station di Stadium Bolasepak Cheras, Kuala Lumpur untuk Tetuan Dewan Bandaraya Kuala Lumpur.
• Cadangan membina dan menyiapkan rumah teres kos rendah di Taman Keruing, Rasa, Hulu Selangor untuk Tetuan Perbadanan Kemajuan Negeri Selangor.

June 1999 – January 2001

Technical Assistant :- Angkasa Jurutera Perunding Sdn Bhd

Scope of works :-

• Design Infrastructure works (earthwork, road and drainage, sewerage and water supply).
• Attending client / consultant meeting, on and off site inspection.
• Checking of drawings.

Projects Involved :

• NS Superbowl Sdn Bhd (Seremban).
• Saiwai Realty Sdn Bhd.
• Low cost housing at Taman Beringin, Jinjang Utara, Kuala Lumpur.
• Factory / Warehouse at Ulu Yam, Selangor.
• Sekolah Menengah Kebangsaan Muadzam Shah, Rompin, Pahang.

Computing Skills

• Ms Word
• Ms Excel
• Power Point
• Miduss Version 2
• Water Cad
• 12D Model
• MiTS Programmed (Designing all infra works)