

CURRICULAM VITAE OF PROJECT TEAM

Name : Ir. Menachi Sundaram Chettiar
Role / Position : Managing Director of MSC
 JURUTERA KONSULTANT
 & Lead Geotechnical Engineer
NRIC No. : 500527 – 07 - 5449
BEM PEPC Reg. No. : C111751
BEM Reg. No. : 2504-1000-00000-SP-119
Nationality : Malaysian



1. Working Experiences (Starting with current employment) :

No	Name of Firm	Position	Commencement Date of Services (MM/YYYY) (A)	Last Date of Services (MM/YYYY) (B)	Number of Years of Experience (B - A)
1.	MSC Jurutera Konsultant (Geotechnical Engineering Consultancy Firm) BEM Reg No. 2404-1000-00000-SP-119	Director/Chief Geotechnical Engineer	July 2004	Present	22
2.	K.L Consult Associates Sdn Bhd. (Civil and Structural & Railway Consultancy Firm) (under MSC Jurutera Konsultant)	Geotechnical Sub-Consultant (under MSC Jurutera Konsultant) & Lead Geotechnical Engineer	August 2011 October 2016	August 2012 Present	1 6
3	Emenea Engineering Services Sdn Bhd (under MSC Jurutera Konsultant)	Geotechnical Sub-Consultant (under MSC Jurutera Konsultant)	January 2008	January 2012	4
4.	Maunsell Sharma & Zakaria Sdn Bhd (Civil, Structural, Electrical & Mechanical Engineering and Project Management engineering Consultants)	Senior Geotechnical Engineer	November 2001	July 2004	3
5	SMHB Sdn Bhd (Civil, Structural, Electrical & Mechanical Engineering and Project Management Engineering Consultants)	Senior Geotechnical Engineer	September 1997	October 2001	4
6	HSS Integrated Sdn Bhd (Civil, Structural, Electrical & Mechanical Engineering and Project Management Engineering Consultants)	Senior Soils, S.I & Materials Engineer (for Packages 2C1, 2C2 & 2C3 of	February 1997	August 1997	1

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No	Name of Firm	Position	Commencement Date of Services (MM/YYYY) (A)	Last Date of Services (MM/YYYY) (B)	Number of Years of Experience (B - A)
		North – South Expressway Central Link and KLIA Expressway)			
7.	HSS Integrated Sdn Bhd (Civil, Structural, Electrical & Mechanical Engineering and Project Management Engineering Consultants)	Resident Engineer for Soils, S.I & Materials (for World Bank Loan Highway Rehabilitation and Improvement Project, (Sg. Tampok – Batu Pahat – Sg. Balang; Batu Pahat – Kluang)	January 1995	January 1997	2
8.	Jurutera Konsultant (SEA) Sdn Bhd (Civil, Structural, Electrical & Mechanical Engineering and Project Management Engineering Consultants)	Asst. Resident Engineer for Earthworks, Ground Improvement, Soils & Materials Testing (Proposed Johore Bahru to Kota Tinggi Road Improvement Project – Dual Carriageway)	November 1993	December 1994	1
9	Zaidun – Leeng Sdn Bhd (Civil, Structural, Electrical & Mechanical Engineering and Project Management Engineering Consultants)	Asst. Resident Engineer for Earthworks, Ground Improvement, Soils & Materials Testing (North South Interurban Expressway, Package 8B – 1A)	August 1992	October 1993	1
10	MINCONSULT Sdn Bhd (Civil, Structural, Electrical & Mechanical Engineering and Project Management Engineering Consultants)	Asst. Resident Engineer for Earthworks, Ground	June 1990	July 1992	2

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No	Name of Firm	Position	Commencement Date of Services (MM/YYYY) (A)	Last Date of Services (MM/YYYY) (B)	Number of Years of Experience (B - A)
		Improvement, Soils & Materials Testing (North South Interurban Toll Expressway between Tanjong Malim to Sungai Selangor			
11	Tameside Metropolitan Borough, England	Geotechnical Engineer	June 1985	June 1990	5
TOTAL OF YEARS OF EXPERIENCE (in Geotechnical Engineering)					41 years

2. List of Projects That Have Been Implemented :

No	Title of Project	Country	Name of Client	Type of Client	Start & Completion Date	Role/Position in the Project
1.	Design, Construction, Supply, Installation, Completion, Testing, Commissioning and Maintenance of Electrified Double Track from Gemas to Johor Bahru (Tender Design)	Malaysia	Ministry of Transport	Government	August 2011 to August 2012	Geotechnical Sub-Consultant to KL Consult Sdn Bhd (undertook all the geotechnical design and construction works)
2.	Design, Construction, Supply, Installation, Completion, Testing, Commissioning and Maintenance of Electrified Double Track from Gemas to Johor Bahru (Detailed Construction Design). Total Contract Sum – MYR 9 Billion	Malaysia	Ministry of Transport	Government	October 2016 to Present	Geotechnical Sub-Consultant to KL Consult Sdn Bhd (undertook all the geotechnical design and construction works)
3.	Projek Landasan Keretapi Berkembar Elektrik Ipoh - Padang Besar – (Electrified Double Track Railway Project between Ipoh – Padang Besar). Total Contract Sum MYR 14 Billion	Malaysia	KTMB	Semi-Government Company Appointed by Government of Malaysia	Jan 2008 to Jan 2012	Geotechnical Sub-Consultant for ICC works, Design, Construction & Maintenance (for Emenea Engineering Services Sdn Bhd) (undertook all the geotechnical design and construction works)
4.	MRT 3: Package CMC301: Design, Construction and Completion of Viaduct Guideway, Elevated Stations,	Malaysia	Ministry of Finance	Government Agency	30 th June 2022 to 31 st September 2022	Geotechnical Sub-Consultant to KL Consult Sdn Bhd (undertook all the

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No	Title of Project	Country	Name of Client	Type of Client	Start & Completion Date	Role/Position in the Project
	Depot and Other Associated Works from Pandan to Jalan Cheras. Total Contract Sum MYR 2.75 billion.					geotechnical design and construction works)
5	<p>In addition to above listed projects, I have carried out all aspects of Geotechnical Design for more than 180 projects under my present consultancy firm MSC JURUTERA KONSULTANT – Foundation systems including piled foundations (carried out design of heavy duty bored piles for highrise buildings and bridges and viaducts numbering in thousands of bored piles) in all types of rock formations throughout Malaysia for highrise buildings and bridges and viaducts) & caissons, retaining walls, soil nail & anchor stabilized slopes, soft ground stabilization works including piled embankment, stone column embankment & preload surcharged embankments, reinforced embankments on soft and competent grounds, and LAND RECLAMATION PROJECTS (including</p>	Malaysia	Government Agencies, Developers & Consultants	Government Agencies & Private Agencies & Consultants	July 2004 to Present	Geotechnical Consultant, MSC JURUTERA CONSULTANT, SELANGOR (undertook all the geotechnical design and construction works)

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No	Title of Project	Country	Name of Client	Type of Client	Start & Completion Date	Role/Position in the Project
	currently for West Port works in Pulau Indah) for 200 projects in Malaysia under MSC Jurutera Konsultant with contract sum values of upto MYR 14 Billion.					
6.	Proposed Electrified Dual Railway From Savannakhet To Lao Bao, Laos P.D.R. 200 KM railway project from 2013. Total Contract Sum US \$ 6 billion	Laos	Ministry of Works	Government Agency	2013 to 2015	Geotechnical Consultant for Preliminary Design for Aisar Engineers Sdn Bhd (undertook all the geotechnical design and construction works)
7.	Pembinaan Tiga Puluh (30) Unit Rumah Kekal Baharu (RKB) Mangsa Banjir Di Tapak RKB Berkelompok Kg Ulu Keneteh, Mukim Manjor, Jajahan Kuala Kral, Kelantan (Reka Dan Bina) from 2016 to 2017.	Malaysia		Private Agency	2016 to present	Chief Geotechnical Engineer and Geotechnical Consultant for Aisar Engineers Sdn Bhd (undertook all the geotechnical design and construction works)
8.	Cadangan Pembangunan Villa Resort Di Mukim Pulau Perhentian Daerah Besut, Terengganu.	Malaysia		Private Agency	2016 to present	Geotechnical Consultant for Aisar Engineers Sdn Bhd (undertook all the geotechnical design and construction works)
9.	Design, Construction, Completion and Commissioning of Malaysia Airport Academy at KL International Airport, Sepang from 2013 to 2014.	Malaysia	MOT	Government Agency	2013 to 2014	Geotechnical Consultant for Aisar Engineers Sdn Bhd (undertook all the geotechnical design and construction works)
10.	Pembangunan Bercampur Di	Malay		Private	2012 to	

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No	Title of Project	Country	Name of Client	Type of Client	Start & Completion Date	Role/Position in the Project
	Atas Lot 889 G.91987 dan 1905, Mukim Buloh Kasap, Johor – Proposed Mixed Development on Lots 2, 48, 49, 51, 59, & 60 Wilayah Persekutuan Kuala Lumpur from 2012 to Present.	sia		Agency	present	Geotechnical Consultant for Aisar Engineers Sdn Bhd (undertook all the geotechnical design and construction works)
11.	Trans Eastern Kedah Interland Highway Kedah Darul Aman (dari Durian Burung Ke Kupang) Fasa 2: dari Pedu Ke Weng, 115 KM expressway from 2007 to 2014.	Malaysia	JKR	Government Agency	2007 to 2014	Geotechnical Consultant for Aisar Engineers Sdn Bhd (undertook all the geotechnical design and construction works)
12.	Jalan Persisiran Pantai Dan Kuala Sanglang ke Kuala Kedah, Pakej 1 : dari Kuala Sanglang ke Kampung Baharu, expressway from 2002 to 2006.	Malaysia	JKR	Government Agency	2002 to 2006	Geotechnical Consultant for Aisar Engineers Sdn Bhd (undertook all the geotechnical design and construction works)
13.	Cadangan Membina Persimpangan Bertingkat Di Persimpangan Jalan Cheras, Jalan Segar, KL, from 2003 to 2010	Malaysia	JKR	Government Agency	2003 to 2010	Geotechnical Consultant for Aisar Engineers Sdn Bhd (undertook all the geotechnical design and construction works)
14.	Consultancy Services for Independent Engineer for Six Laning of NH-4 from Walajahpet to Poonamallee (Km 106.800 to Km 13.800, approx. length 93.000 Km) in the State of Tamil Nadu on DBFOT Basis under NHDP-Phase- V. Total Contract Sum MYR 500 million	India	National Highways of India	Government Agency	June 2012 to till Date	Pavement & Geotechnical Subconsultant for Artefact Projects Ltd India (undertook substantial portion of the geotechnical design works)
15.	Consultancy Services for Independent Engineer for Four laning of Solapur-Maharashtra/ Karnataka border section of NH-9 from km 249.00 TO KM 348.800 under NHDP Phase-III in the state of Maharashtra on BOT (TOLL) basis. Total Contract	India	National Highways of India	Government Agency	June 2012 to till Date	Pavement & Geotechnical Subconsultant for Artefact Projects Ltd India (undertook substantial portion of the geotechnical design works)

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No	Title of Project	Country	Name of Client	Type of Client	Start & Completion Date	Role/Position in the Project
	Sum MYR 500 million					
16.	Independent Engineer services for Four laning of Amravati-Jalgaon section of NH-6 from 166.725 TO 441.950 under NHDP Phase-IV in the state of Maharashtra on BOT(TOLL) basis. Total Contract Sum MYR 500 million	India	National Highways of India	Government Agency	June 2012 to till Date	Pavement & Geotechnical Subconsultant for Artefact Projects Ltd India (undertook substantial portion of the geotechnical design works)
17.	Independent Engineer services for Four laning between Nagpur-Wainganga bridge section of NH-6 from km 498/0 to km 544/200 under NHDP Phase-III in the state of Maharashtra on BOT (TOLL) basis (Package No. NHDP III/BOT/MH/2011/01) (Completed). Total Contract Sum MYR 500 million	India	National Highways of India	Government Agency	June 2012 to till Date	Pavement & Geotechnical Subconsultant for Artefact Projects Ltd India (undertook substantial portion of the geotechnical design works)
18.	Independent Engineer services for Four Laning of Jalgaon-Maharashtra/Gujarat Border Section of NH-6 from km 441.950 to km 650.794 (length 208.844 kms) to be executed on DBFOT(Toll) pattern under NHDP Phase-IV. Total Contract Sum MYR 500 million	India	National Highways of India	Government Agency	June 2012 to till Date	Pavement & Geotechnical Subconsultant for Artefact Projects Ltd India (undertook substantial portion of the geotechnical design works)
19.	Independent Consultancy Services for 4/6 laning of Bangalore-Kolar-Mulbagal section of Km 237.00 to Km 318.00 on NH-4 in the State of Karnataka. Consultancy Package No:- IC/PHIIIA/NH-4/KNT/001/Karnataka. (Completed). Total Contract Sum MYR 500 million	India	National Highways of India	Government Agency	July 2007 to June 2012	Pavement & Geotechnical Subconsultant for Artefact Projects Ltd India (undertook substantial portion of the geotechnical design works)
20.	Independent Consultancy Services for 4/6 laning of Projects on North-South Corridor in the State of Madhya Pradesh & Uttar	India	National Highways of India	Government Agency	July 2007 to June 2012	Pavement & Geotechnical Subconsultant for Artefact Projects Ltd India (undertook

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No	Title of Project	Country	Name of Client	Type of Client	Start & Completion Date	Role/Position in the Project
	Pradesh on BOT (Annuity Basis) under NHDP- Phase-II. The Rehabilitation & Upgradation to four laning of Jhansi-Lalitpur section from km 46.100 to km 94.000 of NH-26 Total 49.305 km– Pkg No. NS-1/IS/UP-3. (Completed). Total Contract Sum MYR 500 million					substantial portion of the geotechnical design works)
21.	Independent Consultancy Services for 4/6 laning of Trichy –Dindigul section (km.333 – km 421.273) on NH 45 in the State of Tamilnadu. Consultancy Package No. IC/PhIIIA/NH68/TN /003/2007Tamilnaidu. (Completed). Total Contract Sum MYR 500 million.	India	National Highways of India	Government Agency	July 2007 to June 2012	Pavement & Geotechnical Subconsultant for Artefact Projects Ltd India (undertook substantial portion of the geotechnical design works)
22.	Proposed Upgrading of Pasir Gudang Highway Total Contract Sum MYR 700 million.	Malaysia	JKR	Government Agency	November 2001 to July 2004	Principal Senior Geotechnical Engineer Maunsell Sharma & Zakaria Sdn Bhd
23	MRT3, PACKAGE 1, Total Contract Sum RM 2.7 Billion	Malaysia	MRT 3	Private Concessioner	June – August, 2022	Principal Subconsultant Geotechnical Engineer for KLC Associates SB
24.	Projek Landasan Keretapi Berkembar Elektrik Ipoh - Padang Besar (Preliminary Studies on Ground Treatment & Foundation for Bridge & Road Crossings) Total Contract Sum MYR 500 million.	Malaysia	KTMB	Government Agency	November 2001 to July 2004	Principal Senior Geotechnical Engineer Maunsell Sharma & Zakaria Sdn Bhd
25.	Proposed Upgrading of Seremban Kemayan Road Total Contract Sum MYR 500 million.	Malaysia	JKR	Government Agency	June 2000 to Nov 2001	Principal Senior Geotechnical Engineer (SMHB Sdn Bhd)
26.	KIPC Water Supply – Kertih Total Contract Sum MYR 500 million.	Malaysia	PETRONAS	Private Agency appointed by Government of Malaysia	September 1997 to October 2001	Principal Senior Geotechnical Engineer (SMHB Sdn Bhd)

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27.	Kajang Toll Expressway (SILK) Total Contract Sum MYR 250 million.	Malaysia	SILK Holdings Bhd	Private Agency appointed by Government of Malaysia	September 1997 to October 2001	Principal Senior Geotechnical Engineer (SMHB Sdn Bhd)
28.	Common Utility Tunnel, Putrajaya Total Contract Sum MYR 150 million.	Malaysia	Putra Jaya Holdings	Government Agency	September 1997 to October 2001	Principal Senior Geotechnical Engineer (SMHB Sdn Bhd)
29.	Sungai Selangor Dam, Phase 3. Total Contract Sum MYR 2 billion.	Malaysia	GAMUDA Bhd	Private Agency appointed by Government of Malaysia	September 1997 to October 2001	Principal Senior Geotechnical Engineer (SMHB Sdn Bhd)
30.	Cheroh Dam, Kuantan, Pahang Total Contract Sum MYR 300 million.	Malaysia	Jabatan Bekalan Air Pahang	Government Agency	September 1997 to October 2001	Principal Senior Geotechnical Engineer (SMHB Sdn Bhd)
31.	Pahang – Selangor Interstate Water Transfer Project (Preliminary Design Work for Dam & Tunnel) Total Contract Sum MYR 3 billion.	Malaysia		Relevant Government Agency	September 1997 to October 2001	Principal Senior Geotechnical Engineer (SMHB Sdn Bhd)
32.	Sabah University	Malaysia		Relevant Government Agency	September 1997 to October 2001	Principal Senior Geotechnical Engineer (SMHB Sdn Bhd)

3. Academic Qualifications:

	Qualification (Degree, Masters/PHD)	Field of Study	Majoring	Year Awarded	Name of country of Graduation	Professional Certification (If any)
1.	Bachelor of Science with Honours	Civil Engineering	Civil Engineering	1985	United Kingdom	1. Professional Engineer with Practicing

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						Certificate of B.E.M 2. Member of Institution of Engineers Malaysia
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4. Membership of Professional Bodies (if any) :

No	Name of Professional Body	Membership No. & Date of Registration	Expiry Date of Membership
1.	Board of Engineers Malaysia (Professional Engineer with Practicing Certificate)	C111751 Civil Date of Registration 18 th December 2003	31 st December 2025 (subject to mandatory annual renewal of registration)
2.	THE INSTITUTION of ENGINEERS MALAYSIA as Member	22225 Date of Registration 18 th July 2002	31 st December 2024 (subject to mandatory annual renewal of registration)

5. Award Received (If Any)

No.	Name of Award	Year Awarded	Awarding Body / Organisation
1.	Certificate awarded for presenting a major paper on reinforced granular foundation for mitigating differential settlement of 10 m x 10 m section segmented Common Utility Tunnel at Putrajaya constructed over poorly compacted soil upto 20 m depth.	January 2001	SMHB Sdn Bhd
2.	Certificate awarded for the presentation of a major paper entitled " Large Diameter Bored Piles as Single Pile-cum-Pier Columns " presented in the SEMINAR AND EXHIBITION ON BRIDGE ENGINEERING organised by the ASSOCIATION OF	June 2003	ASSOCIATION OF CONSULTING ENGINEERS

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No.	Name of Award	Year Awarded	Awarding Body / Organisation
	CONSULTING ENGINEERS on 25 & 26 June 2003. This is a 5000 words long paper dealing on the rigorous design of large diameter bored piles.		
3.	Certificate awarded for the presentation of a major paper entitled “ A New System for Slope Stabilization and Earth Retaining Structures ” in a half-day presentation seminar organized by INSTITUTION OF ENGINEERS MALAYSIA / JKR (PUBLIC WORKS DEPARTMENT) on 29 th October 2007.	October 2007	INSTITUTION OF ENGINEERS MALAYSIA / JKR (PUBLIC WORKS DEPARTMENT)