

Eng. RajaSegaran Kuppusamy Dpl.(Bldg.Engr.); B.Sc.; A.A.Sc.; M.Sc.; DM (IFRC)

Expertise: Humanitarian Relief Response and Reconstruction  
Projects: Shelter, Housing, Camp Infrastructure  
Mission Work : Indonesia, Afghanistan, Nepal, Iraq, Bangladesh

### Profile

Raja is an active professional engineer experienced in emergency shelter and settlement infrastructure projects specialist in housing, formal and informal camps. He has a relentless drive in seeking excellence in his work with broad impact rather than just deliver results. Experience of more than 30 years coordinating and managing big scale macro engineering design build construction projects all around the world specifically in United States of America, Malaysia, Indonesia, Nepal, Iraq Bangladesh and Afghanistan. Initially within the corporate world, for twelve years more and more for the humanitarian emergency crisis disaster relief benefits environment. Raja's leadership as confident leader and communicator with strong interpersonal and analytical skills who thrives on social interaction and customer/donor satisfaction.

Raja contributions last 12 years working with the International Organization for Migration (IOM<sup>1</sup>) in emergency disaster response shelter, camps and infrastructure program during crisis response from Earthquake and Tsunami in Indonesia conflict in Afghanistan, Nepal and Iraq IDP camps and housing projects to Rohingya refugees crisis in Bangladesh. While employed with IOM, Raja started focusing his design and construction engineering skills with disaster response project management projects. While employed with IOM, Raja completed post graduate certification in Disaster Management "resilience preparedness" and recovery program with IFRC Geneva in collaboration with major Indian R&D university to bring the value of his expertise to the benefit of humanitarian international organization. His other additional skills are in design build environment heading technical engineering department with experienced architects and engineers overseeing planning , design , construction management well over 100 major infrastructures projects. Providing capacity building training in project management and emergency camp shelter planning and construction management projects is his added expertise.

### Contact Information

#### Email/Website

- ❖ Website : [www.cmtss.com/raja@cmtss.com](http://www.cmtss.com/raja@cmtss.com)(under upgrade)
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#### Mobile no :

- ❖ +60125921608 ( Malaysia)
- ❖ +9647500211696 ( Iraq)

### Areas of Skills & Expertise:

**Shelter & Settlement Program Officer(Sr.Shelter engineer),IOM Iraq, 2014- Present**  
Emergency Shelter & Settlement Camps: Camp planning, coordination, construction and camp care and maintenance OJT projects (Training Mobil Technical Team)

### Technical Engineering Advisor For Shelter & Settlement and Infrastructure Development Projects

#### Total Years of Experience:

30 + years, of which..

11+ Years ( 2006 – Present) .

- **Humanitarian Relief Emergency Crisis / Disaster Response, Reconstruction Projects** – Technical Project Advisor Cum QA/QC Manager in overseeing sustainable earthquake safe Shelters, Camps and Infrastructure Projects
- Capacity Building Trainer in PM Bok, Shelter, WASH and infrastructure development projects
- Emergency shelter camp site care and maintenance project management
- Emergency shelter Camp planning and construction projects
- Solar renewable projects for humanitarian response ( QUIPS
- **Green Field Airports Projects** – Project Manager ,QA/QC Project Controls Manager
- **Monorail Project Management** –Project Manager, oversee project controls and QA/QC and Grants Disbursement Manager for Government.
- projects

- ❖ Place: KRG , Central and Southern Iraq  
**Multi Donor Funding / Volume : Overall project volume USD 10 Million under KSA, Japan, ECHO ,OFDA**

**Scope, Duration & Supervised:**

- ❖ Responsible in camp planning, design and construction management.
- ❖ Responsible in planning, design and project management Shelter transitional housing projects
- ❖ Responsible in direct supervision of critical shelter rehabilitation projects
- ❖ Performed CCCM Mobil team , shelter engineers capacity building training, camp site care and maintenance programs
- ❖ Provide on job skilled training ( OJT) for IDP's community , Duration of project 24 months. Directly supervised more than 20 support staffs and field engineers
- ❖ Completed 3 major IDP camps construction in Dohuk Governorate.

**Head of Technical Engineering Unit ,IOM Iraq, June 2017- Present**

Responsibilities in the development of technical construction documents for major infrastructure development projects ( Health, Educational, School, housing, IDP camps, factories, and civil infrastructures). Disseminated IBC/ humanitarian standards engineering trainings to architects and engineers. Directly supervised more than 10 field engineers in QA/QC inspection practices. Provide other technical support unit functions with program managers and management support units

**Scope, Duration & Supervised:**

- ❖ Directly supervised and disseminated planning and technical design works for Health, Educational, School, housing facilities, IDP camps, factories, and civil infrastructures projects for program units
- ❖ Assisted Sr. Management and procurement units in the development tender documents and other support functions as when required
- ❖ Performing technical advisor role to program managers and support field staffs
- ❖ Support field QC engineers in QA/QC related matters
- ❖ Project duration 5 months ongoing. Directly supervised more than 5 engineering staffs

**Consultant : IOM – UNDP Space planning and Implementation projects Nepal, 2013 and 2014**

Space planning audit and assessment project in UN House compound.

- ❖ Place: Nepal, Katmandu

**Scope, Duration & Supervised:**

- ❖ Responsible in UN house space planning auditing and assessment study, recommendation for expansion of UN compound floor space in anticipated increase of UN staffs. Performed green environment recommendation program in waste water and rain water recycle and reuse in the compound.

**Technical Advisor Cum QC Manager – IOM Kabul, Kabul 2009 - 2013**

- ❖ CHEF – EDID Emergency infrastructure engineering development projects .Disaster Response and Reconstruction Projects in Infrastructure Development of major hospitals, educational institutions, government Facilities projects
- ❖ Place: Kabul Afghanistan  
**Multi donor funding/ volume: Overall project cost USD 65-70 Million. Funding from USAID, European Union, UN agencies, Norwegian relief, JIACA ( Japanese ), and Japanese Government, other NGO's)**

• **Capacity Building Trainer**

- PM BOK
- Soft Skills
- Emergency Post Crisis (EPC) Humanitarian field Monitoring & Evaluation work

**Highest Qualifications:**

- Disaster Management (Resilience preparedness) post graduate certification program with IFRC- TISS
- Masters of Science - Civil Construction Project Management, USA
- Bachelor Of Science – Industrial Construction Management USA
- Associate Applied Science- Building Engineering & construction, USA
- Engineering Diploma – Building engineering, Malaysia

**Expertise Knowledge & Skills:**

- Design Manager
- Sustainable earthquake resilient Shelters and Building Projects
- Technical Engineering Advisor in emergency shelter and settlement
- Camp care and maintenance Coordination
- Shelter planning and infrastructure development project engineer
- Camp planning engineer International Building
- Sphere standards and International building codes
- Capacity Building Trainer – Project Management and Humanitarians relief

**Scope, Duration & Supervised**

- ❖ Responsible in developing design drawings, tender documents, and construction management major 100 Bed general hospital projects, higher educational institutions, police training academy, community projects and Government facilities. Duration: 4 .5 years (2009 through 2013). Directly supervised more than 50 support and field engineers.

**Construction Manager- MCIP project – IOM Jakarta, Indonesia , 2008 -2009**

Construction Detention facility for intercepted migrant project

- ❖ Place: Tanjung Pinang and Kalideras, Jakarta, Indonesia  
**Funding from DIAC Australia**

**Scope, Duration & Supervised**

- ❖ Responsible in feasibility studies, planning and design development, tender documents, and construction management of major 600 facilities detention facility. Duration: 1 year. Directly supervised more than 25 support and field engineers.

**Technical Advisor Cum Engineering Manager Permanent Shelter Projects- IOM Aceh Indonesia, 2007-2008**

Design and Build permanent shelter and emergency infrastructure development projects

- ❖ Place: Aceh, Indonesia

**Funding from Multi donor Agency**

**Scope, Duration & Supervised**

- ❖ Responsible in Design and Build earthquake safe 5000 unit pre-engineered permanent shelters for Tsunami victims, government educational facilities and training academy for police training institutions throughout Aceh. Contributed in overseeing community water and sanitation infrastructures in Aceh. Duration: 1 year. Directly supervised more than 50 office support and field engineers.

**Consultant - EPC Emergency shelter Projects- IOM Jogjakarta Indonesia, 2006- 2007**

Design and Build earthquake resistant transitional bamboo shelter project

- ❖ Place: Jogjakarta, Indonesia

**Multi Donor Funding / Volume : Overall project volume USD 50-60 Million under Java Reconstruction Fund : World Bank, USAID, AusAID, Government of Indonesia , UN agency, JIACA, and other NGOs**

**Scope, Duration & Supervised:**

- ❖ Contributed and responsible in overseeing earthquake safe sustainable transitional and permanent community shelter projects. Duration of project 2 years. Directly supervised more than 100 support staffs and field engineers. Completed more than 10,000 units Transitional and permanent shelter projects.
- ❖ Emergency Disaster Response in Infrastructure Development of Educational Institutions, Shelters, Clinics, Schools, WASH, and Government Facilities Projects in Indonesia

**Languages:**

English, Bahasa Indonesia, Bahasa Malay, Tamil, Hindi(Partial

**Nationality:** Malaysian Citizen

**Accomplishment & Accolades**

- Design Build Largest IDP Camp in Iraq
- Transitional Low cost Shelter Projects
- Rehabilitation damages houses and critical shelters
- Completion of Dawodiye, Shekhan and Mamrashan IDP emergency shelter camp with functional WASH and infrastructure
- Successfully completed a pilot study renewable solar power project in schools and clinics in Iraq
- Successful completion and handover first KL Monorail trains in Malaysia
- Accolades - best project management capacity building trainer in Malaysia, Indonesia and Kabul

**Contact :**

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***Sr. Engineering Manager Cum Project Manager - KL International and Airport Project/ Denver International Airport Project, 1994 – 2006***

*Project Management Consultancy ( PMC)*

❖ *Place: KL, Malaysia & Denver, Colorado USA*

***Scope, Duration & Supervised:***

- ❖ *Responsible in office engineering and project engineer in Greenfield Airports projects in USA and Malaysia. Extensive overall project managerial experience overseeing engineering and construction management which include supervision of manpower resources and Grants disbursements on behalf of Sponsor Governments. Overall cumulative project cost for above projects was USD 1 Billion. Total 250 -300 project support staffs and project engineers under my supervision). Projects benefited the Governments in overcoming surge in passenger demand in national transportation systems*

***Project Manager - KL Monorail Project 2001 - 2006***

*Project management Consultancy ( PMC)*

*Place: KL, Malaysia*

***Scope, Duration & Supervised:***

- ❖ ***Place & Duration:*** (i) KL Monorail Project ,Malaysia,2001 - 2006 (ii)
- ❖ ***Clients & Project Funding:*** Government of Malaysia. Project cost : (i)RM 1.8 Billion (KL Monorail Project ,Malaysia
  
- ❖ ***Scope, Duration & Supervised***
- ❖ *Directly responsible in management and supervision of project controls activities i.e.: planning & scheduling, cost controls and QA/QC supervision all above mentioned 3 major projects. Total project duration: 1991 through 2006. Directly supervised more than 150 -200 project staffs.*

***Academia***

- ❖ *Master of Science Civil Construction Project Mgmt., USA , 1994*
- ❖ *Bachelor of Science Industrial Construction Mgmt., USA , 1989*
- ❖ *A.A.Sc Degree: Building Construction Engineering, USA, 1987*
- ❖ *Diploma: Building Engineering, Malaysia , 1982*
- ❖ *Disaster Management ( post graduate certification program),IFRC –TATA Institute, India ( **Graduated April 2014**)*
  
- ❖ *Sr. Lecturer with Engineering College in KL, Malaysia.*
- ❖ *PM BoK Trainer in project management courses with major training providers in Malaysia and Indonesia*
- ❖ *Emergency shelter field supervision trainer for IOM field mission in Indonesia , Afghanistan and Iraq.*
- ❖ ***Academia Period*** : January 1978 through 2015
- ❖ ***Participants:*** Engineering college students, Corporations, and IOM field staffs, donors, communities and stakeholders
- ❖ ***Clients*** : International Organization for Migration ( IOM), Government of Malaysia, Government Of Indonesia, Government of Afghanistan, Malaysia, Humanitarian Agencies, Corporate organizations , Students,

***Accomplishments & Accolades***

- ❖ *Design and construction largest IDP emergency camp for 10,000 Families in Gayarah, Mosul Ninawa, and 7500 families in Haj Ali Mosul Ninawa 2016- 2017*
- ❖ *Successful design and construction completion of 170 low cost transitional shelter housing project in Salah U Din , Iraq , 2017*
- ❖ *Successfully rehabilitated 750 returnees damaged house and critical settlement in central and south Baghdad. 2016 -2017*
- ❖ *Accomplished in completing and handover 3 major challenging IDP camps in Kurdistan Republic Governorate Dohuk province, Iraq*

- ❖ *Contributed in the design and build sustainable earthquake safe bamboo Transitional and Permanent Shelters for Post-Earthquake relief project in association with University Gadjamada Jogjakarta for IOM Jogjakarta, Indonesia.*
- ❖ *Developed rapid response fast track fabrication, production & construction of 10,000 Temporary and Permanent shelter units in Jogjakarta Indonesia*
- ❖ *Developed workable sanitation system project for 5000 units permanent shelter projects for IOM Aceh Indonesia.*
- ❖ *Design, Build and direct management environment safe Green Building Immigration detention facility project for Indonesian Immigration Ministry under IOM flagship and DIAC donor ship for 600 bed capacity Immigration detention facility in Tanjung Pinang and Jakarta ( refurbishment only), Indonesia*
- ❖ *Appointed as Technical Advisor with IOM overseeing multi donor, multi-million dollar major Infrastructure developments projects in Afghanistan( i.e.: Major Hospitals, clinics, Universities, Colleges, Schools & Government Institutions)*
- ❖ *Developed and disseminated humanitarian field training manuals for IOM field mission projects. Capacity building training focused on Project Management, O&M facilities management and QA/QC supervisory courses*
- ❖ *Trained engineering students in Institution of Higher Learning, Governments Agencies, and corporate organization. In Soft skills techniques in projects management applications*
- ❖ *Appointed as PM Book Trainer with KLIACS training and research consultants in Malaysia.*
- ❖ *Directly oversee and management and successful handover an operational first Malaysian made KL Monorail project for Government of Malaysia*
  
- ❖ *Contributed in structural audit and assessment building space and material elements study in already completed high rise building for IOM Nepal mission tenancy occupation. Invitation by IOM Chief of Mission. Year June 2013.*

***Publications – Rehabilitation, engineering and QA/QC manuals for IOM Field support staffs and Higher learning institutions;***

- ❖ *Publications – IOM Rehabilitation emergency response critical shelter projects (Returnees damages houses and informal settlement), 2016*
- ❖ *Publication – Building construction handbook for off campus college students, 1985*
- ❖ *Building construction Handbook (contributed to Subang College, Malaysia)*
- ❖ *Quality Controls Procedural Field Manual and Construction Safety Procedural Plans (contributed to IOM field mission in Indonesia and Afghanistan)*
- ❖ *Hospital and Educational Facilities Operations & Maintenance Reference Manual (contributed to IOM field mission in Afghanistan)*
- ❖ *Environnemental Mitigation& Management Plan (Checklist). contributed to IOM field mission in Afghanistan)*
- ❖ *Humanitarian Shelter projects, Field monitoring, supervision and Evaluation procedural plans (contributed to IOM field mission in Indonesia and Afghanistan)*
- ❖ *Community based sustainable shelter and WASH humanitarian projects*

***References available upon request.***

***End.***