RAJA - CV

 **AROUND 10 YEARS 6 MONTHS OF OVER ALL EXPERIENCE AS ELECTRICAL ENGINEER**

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# CAREER SUMMARY

As an individual Raja is a master’s degree qualified, Electrical Design Engineer with

10 Plus years of experience in Electrical engineering focused primarily on undertaking the design and project co-ordination for High rise Office /Residential buildings, Retail, Commercial, Hotels, Educational buildings, Mixed Use Developments projects, Infrastructure projects throughout Middle East and India. Excellent interpersonal and communication abilities enjoy being part of a team, as well as managing, motivating and training a productive team and thrives in high pressure and challenging working environments. Gained knowledge through previous work experiences to provide cost effective,

HSE (Health and Safety Environments) and sustainable designs in UK & Middle East projects. Working independently as well as with team on various projects in line with client requirement. Working in collaboration with other design disciplines to ensure the integrity of the overall design. Building a profile

in the industry and keeping up-to-date with innovations and developments. Ability to carry out design reviews independently. Aware of basic knowledge of HVAC and Plumbing design calculations with Shop drawings layout preparation, Duct software calculations, head load calculations, Duct sizing and SLD, Static pressure calculations, AHU and motor selection, Chiller and Pipe sizing, drainage water supply, Sewage water supply, rain water pipe size and Firefighting design, pump head calculations, UGT and OHT sizing, Hydrant pipe size calculation, Sprinkler pipe size calculation, Sprinkler layout arrangement etc.

# ACADEMIA

* MBA (Distance), Project Management, Sikkim Manipal University, Gangtok, East Sikkim, India (2014-2016) with 69%
* B.Tech. Electrical & Electronics, Jawaharlal Nehru Technological University, Hyderabad, India (1999-2003) with 65.05%
* Intermediate (MPC), Gowtham College, Vijayawada, India (1997-1999) with 85.7%
* Board of Secondary Education, DAV Public School, Vijayawada, India (1997 pass out) with 83.3%

# PROFESSIONAL EXPERIENCE

* **Mumbai, INDIA - November 2018 to present (WME India) Role**: Senior Engineer involved in Scheme, Tender, GFC Design involving the design of Detail design with all relevant calculations, Substation layouts and Equipment layouts, Builders work Layouts, CSD layouts, Equipment sizing, Schematic preparation, Voltage drop, Bus duct sizing, Capacitor bank sizing, load assessment including final DB load schedule. Amtech Calculations for Cable sizing, Breaker discrimination and Checking.

**Project Brief:** Borivalli Mall is a Mixed development project with Mall & hotel areas having three Basements, Lower ground, Ground to level 4 and hotel level starts from Level 6 to Level 26 which level 6 to Level 23 having typical Guest rooms.

* **HOTEL in Saudi Arabia, RIYADH - Sep 2018 to Oct 2018 (WME India) Role:** Senior Engineer involved in 50% Detail Design involving the design of Detail scheme design with all relevant calculations, load assessment including final Feeder Pillars load schedule, Preparation of Electrical layouts, QA/QC review, Amtech Calculations for Cable sizing, Breaker discrimination and Checking.

**Project Brief:** Centro Almadinah is a mid-class hotel with three Basements including Car park and Guest rooms located in upper levels up to ten levels located in Saudi. The Project mainly consists of Car parking, Basement, Podiums, Swimming pool, Mechanical floors, Apartment Floors etc.

* **Dubai, UAE - July 2018 to August 2018 (WME India) Role:** Senior Engineer involved in 50% &100% Detail Design involving the design of Detail scheme design with all relevant calculations, load assessment including final MDB load schedule, Substation layouts, Preparation of Electrical layouts, QA/QC review, Amtech Calculations for Cable sizing, Breaker discrimination and Checking.

**Project Brief:** Parkfield Plot 15 is a mid-class residential building with Ground, podium including Car park and Duplex rooms located in upper levels up to twenty levels located in Dubai. The Project mainly consists of Car parking, Podiums, Swimming pool, Apartment Floors etc.

* **Abu Dhabi, UAE - May 2018 to June 2018 (WME India) Role:** Senior Engineer involved in Detail Design involving the design of Detail scheme design with all relevant calculations, substation layouts, Preparation of Electrical layouts, QA/QC review, load assessment including final Feeder Pillars load schedule. Amtech Calculations for Cable sizing, Breaker discrimination and Checking.

**Project Brief:** Shams reflection is a Residential high-rise Tower area with Podiums and Car park areas project in Abu Dhabi. The Project mainly consists of Car parking, Basement, Podiums, Swimming pool, Mechanical floors, Apartment Floors etc.

* **Dubai UAE - March 2018 to April 2018 (WME India) Role:** Senior Engineer involved in Detail Design involving the design of Detail scheme design with all relevant calculations, Preparation of Earthing and Lightning Protection layouts, load assessment including final Feeder Pillars load schedule. Amtech Calculations for Cable sizing, Breaker discrimination and Checking.

**Project Brief:** SRG holding Ltd is a Residential high-rise Tower area along with Car park building connected at level 12 located in Dubai. The Project consists of 111 Levels mainly of Car parking, Basement, Podiums, Swimming pool, Mechanical floors, Apartment Floors etc.

* **Dubai, UAE - Jan 2018 to Feb 2018 (WME India) Role:** Senior Engineer involved in Scheme and Detail Design involving the design of concept scheme design with all relevant calculations, load assessment including final Feeder Pillars load schedule, Preparation of Earthing and Lightning Protection layouts. Amtech Calculations for Cable sizing, Breaker discrimination and Checking.

**Project Brief:** A017 is a Residential Two high rise Tower area with Podiums and Car park areas project in Dubai. The Project mainly consists of Car parking, Basement, Podiums, Leisure deck, Mechanical floors, Apartment floors etc.

* **Dubai, UAE - July 2017 to Dec 2017 (WME India) Role:** Senior Engineer involved in Scheme and Detail Design involving the design of scheme design with all relevant calculations, Preparation of Electrical layouts, QA/QC review, load assessment including final Feeder Pillars load schedule. Amtech Calculations for Cable sizing, Breaker discrimination and Checking.

**Project Brief:** Down Town Views II is a Residential three high rise Tower area with Podiums and Car park areas project in Dubai. The Project mainly consists of Car parking, Basement, Podiums, Leisure deck, Mechanical floors, Apartment Floors etc.

* **Dubai, UAE - Jan 2017 to June 2017 (AECOM India) Role:** Project Engineer involved in Final Design NOC stage design involving the design of Single Line drawing with cable sizing in Amtech, Breaker Sizing, Lighting circuiting with Voltage drop calculations, load assessment including final Feeder Pillars load schedule.

**Project Brief:** Dubai EXPO 2020 is an Infrastructure area project in Dubai. The Project mainly consists of Car parking, Road ways, Street Lighting and External Lighting areas.

* **Dubai, UAE- Aug 2016 to December 2016 (WSP/PB NOIDA) Role:** Senior Electrical Engineer involved in scheme stage design involving the design of Amtech model SLD with cable sizing and Voltage drop calculations. Transformer, DG, UPS design, Containment calculations, load assessment including final distribution boards, Earthing layouts and Fire Alarm system design along with Central battery system sizing. Coordination of information from other contracts.

**Project Brief:** Dubai Design District is an ongoing Landlord, Retail Commercial area project in Dubai. The building mainly consists of Car parking in Basements, Retail, Food & Beverage, Landlord, BOH, Plant rooms & front of house areas.

* **Dubai, UAE - March 2016 to July 2016 (WSP/PB NOIDA) Role:** Senior Electrical Engineer involved in scheme stage design involving the design of Amtech model SLD with cable sizing and Voltage drop calculations, Transformer, DG, UPS design, Containment calculations, load assessment including final distribution boards, Earthing layouts and Fire Alarm system design along with Central battery system sizing. Coordination of information from other contracts. **Project Brief:** Ajman City Centre is an ongoing Landlord, Retail Commercial area mall project in Dubai. The building mainly consists of Retail, Food & Beverage, Landlord, BOH, Car parking in Basements, Plant rooms & front of house areas.
* **South East London Aug 2015 to Feb 2016 (WSP/PB NOIDA) Role:** Electrical Engineer involved in validating the stage E design produced by an external consultant. Progressing with the stage F design works in coordination with the WSP UK team which includes all the Internal Lighting systems, Amtech Modelling, Small Power & data, Fire Alarm and Containment design. Coordination of information from other contracts.

**Project Brief:** South Quay Plaza is an ongoing Landlord, Residential area project in London. The building mainly consists of Typical Apartments, BOH, Plant rooms & front of house areas. [Option 2 - Multiple Projects for the same Client or for the same Building or Site]

* **London – May 2015 to July 2015(WSP/PB NOIDA) Role:** Electrical Engineer involved in detailed design which includes the design of all the Internal Lighting systems, Amtech Modelling, Small Power and Containment design.

**Project Brief:** RAF Valley project is refurbishment of existing office and training complex to accommodate squadron and training facilities. Basic Flying Training will be delivered at RAF Valley (UKMFTS – United Kingdom Military Flying Training System).

* **UK – Jan 2015 to April 2015 (WSP/PB NOIDA) Role:** Electrical Engineer primarily involved in detailed design which includes the design of all the Internal Lighting systems, Amtech Modelling, Small Power and Containment design & 3D co-ordination w.r.t Revit model for Lighting Calculations.

**Project Brief:** London Development Project is an office development for a large American Investment bank mainly consists of Plant rooms, BT spaces, UKPN spaces, Loading Bay, Amenity, Office spaces, BOH & the Front of House areas.

* **UK – Feb 2015 to March 2015 (WSP/PB NOIDA) Role:** As an Electrical Engineer responsible for Lighting, Small power, Fire Alarm designs and building the Amtech model for Final Distribution Boards.

**Project Brief:** Caspian water front consists of Seven Levels having two Basement levels for car parking, Ground level, First level and other level commercial areas.

* **Sultanate of Oman – April 2014 to Dec 2014 (WSP/PB NOIDA) Role:** Electrical Engineer involved in designing all the Internal Lighting systems, Amtech Modelling, Small Power & Containment design for MRO building.

**Project Brief:** MRO Building of the Muscat Airport is the building where Maintenance and repair of the Aircraft is carried out. It consists of the various workshops, machine shops, washing bay and the office space for the support staff.

* **Pune, Hyderabad 2011 – 2013(SOBHA DEVELOPERS) Role:** Engineer responsible for Design stage to Hand over stage Shop drawings Designing of Electrical System, Dialux calculations for all software development blocks, Load Calculations, preparing Access control system & Fire alarm system with relevant cable schematic drawings, Preparing Small power, lighting & Fire alarm layouts, Preparing BOQ, Equipment selection, Specification and, Cost estimation.

**Project Brief:** Software Development Blocks 10 & 11 consists of ten levels of Office floors, meeting rooms, server rooms, hub rooms & conference rooms.

* **Doha-Qatar 2008-2009 (G.I.G) Role:** Electrical Engineer involved in Preliminary Report to Hand over stage Designing of Electrical System, Load Calculations, Equipment selection, Specification, Cost estimation, Schedule of quantity, Supervision and installation in accordance with Kahramaa codes, standards and specifications. Three (3), 460 volts, 50hz.Oil Transformer 800 KVA, 440V / 220 Volts.50 Hz, Medium Voltage control panel with loads connected and additional load of 250 A MCCB connected and distributed to Load end lighting, Power Sockets and Electrical appliances power supply. **Project Brief:** Alfardan Gardens consists of residential Villas, Club house, Sauna & steam rooms, Squash court and reception areas located in Abusidra area.
* **Doha-Qatar 2009 – 2010 (G.I.G) Role:** Involved from Preliminary Report to Hand over stage of Ashgal government project Designing of Electrical System, Load Calculations, Equipment selection, Specification, Cost estimation, Schedule of quantity, Supervision and installation. Existing Load end cables from MV Panel are connected to MCCB Incomer of Sub Main Switch Board and outdoor Feeder Pillars and distributed to Load end lighting, Power Sockets and Electrical appliances power supply.

**Project Brief:** Inspection Yard is a three-floor building consisting of office areas, Inspection areas, Guard rooms and reception areas located at Doha port area.

* **Doha-Qatar, 2010 – 2011 (G.I.G) Role:** Involved from Concept Design to Hand over stage. Designing of Electrical System, Load Calculations, Equipment selection, Specification, Cost estimation, Schedule of quantity, Supervision and installation.

**Project Brief:** Residential Building (Villa compound) consisting of Bed rooms, Halls, reception, Lobbies and balcony areas with external Lighting premises located at Garaffa area.

# PROFESSIONAL EXPERIENCE ABILITIES

* Preparation of Equipment sizing like Transformer, Generator, UPS, Battery bank/DC Auxiliary supply, Capacitor bank and Substation Equipment Layout spacing with Switch gear sizing for GA drawing preparation.
* Preparation of Main Electrical Single Line drawings (SLD), short circuit & Voltage drop calculation at each level of distribution, final distribution Board circuit loading with complete Calculations and discriminating the same using **Amtech** Software.
* Electrical Power system Analysis like Load flow analysis, Short circuit analysis and Load balance analysis for static system and Motor starting analysis for dynamic performance of electrical system using **ETAP** software.
* Selected HT & LT switchgear based on breaking, making & short time capacity and selected HT & LT cables based on thermal, short circuit & volt drop based Ampacity.
* Preparation of Lighting Control schematics for all Levels and mark-up’s for Lighting layouts.
* External Lighting Calculations done using Relux software by viewing 3D sections and elevations from **Revit 3D** software.
* Lighting design calculations done for Airports, Cargo, IT, Commercial, Retail, Residential buildings, Mixed use building, Hotel, Infrastructures using **Dialux** Software and **Relux** software.
* Preparation of coordination Electrical services layout for coordination to other MEP, Structural and HVAC services using **Revit 3D** software. Review and modelling of Revit 3D and 2D floor plans for Small power, Containment, Lighting, Fire Alarm & other services.
* **Navisworks** to combine all models from the various design teams of Revit 3D (Architectural, Structural, Civil, MEP/FP, etc.) into a "Master Model" and perform 3D clash detection.
* Designing Earthing & Lightning protection system mark-up for High rise buildings, IT Software buildings, Retail, Commercial, Residential, Mixed use building, Hotel, Airport Building and Switchyard design.
* Preparation and design of Lighting, Small power, Access control system, CCTV, PAVA, Fire Alarm System, IPTV, Data and Telephone mark-ups for all buildings with relevant cable schematic drawings.
* Prepared building plan & equipment layout such as Point of supply and Cable trench layout, DG & Main LT electrical room layout, earthing scheme & earthing layout, Lighting, Power & UPS layout with distribution scheme and coordinated cable tray & raceways layout with detailed sections. Preparation of cable duct details and layout drawings.
* Prepare technical specifications and schedules and design development reports.
* Attend weekly periodic site meetings with Contractor, Employer and other stakeholders as and when required. Site inspections w.r.t shop drawings and MEP coordination layouts. Review of Shop drawings before issuing to site team.
* Capable of handling all of electrical design needs starting with design parameters or general set of building specifications.
* Sanity checks to ensure that the design brief is effectively implemented, and that deliverables are properly presented.
* Site surveys and coordination with Electrical utility (DEWA, ADDC) and client, to obtain latest drawings and to update them before commencing design.
* Coordination and cooperation with other disciplines on new requirements, design interference checks and design changes.
* Supervision of the design of various electrical systems for sites and buildings.
* Prepare all technical documentation required for the execution of the project.
* Preparation of Hub room, Server room, DB room sectional rising main detailed race way layouts.
* Prepared final documents containing detailed drawings and technical specifications with relevant standard codes/estimation / bill of quantities /tender documents for the project. Techno commercial evaluation of tender. Prepared time schedules for the project.
* Familiarity with building MEP systems like HVAC, Plumbing, and firefighting systems.
* Basic HVAC design calculations knowledge including Head load estimation, Machine selection, Selection and location of Diffusers and Grills in layouts, SLD preparation of ducting, Duct sizing by EFM and VRM methods using Softwares, Static pressure calculations, Chiller and cooling tower sizing, Pipe sizing with Tappings, Head loss calculation etc.
* Basic Plumbing design calculations knowledge including drainage water supply, Sewage water supply, rain water pipe size and Firefighting design, pump head calculations, UGT and OHT sizing, Hydrant pipe size calculation, Sprinkler pipe size calculation, Sprinkler layout arrangement etc.

# PROFESSIONAL COMPANY WISE EXPERIENCE

* Worked as Senior Electrical Engineer during July 2017 TO August 2019
* as Project Electrical Engineer during January 2017 to June 2017
* Worked as Senior electrical Engineer during March 2014 to December 2017
* Worked as Electrical Design Engineer during March 2012 to March 2014
* Worked as Electrical Engineer during November 2008 to February 2011
* Worked as Electrical Design Engineer during June 2007 to October 2008

# SOFTWARE SKILLS

* Amtech, Revit MEP, Navisworks, Auto CAD, Dialux, Relux, Blue beam, Microsoft Office, ETAP etc.

# ACADEMIA PROJECTS UNDERTAKEN

* Project seminar on Auto-regressive Recurrent Neural Network Approach for Electricity Load forecasting, Hyderabad in November 2007.
* Project seminar on Harmonics reduction by PWM inverter using Artificial Neural networks in July 2003.

# PERSONAL DETAILS

Date of Birth **:**26th August 1982

Sex : Male

Marital Status : Married

Nationality : Indian

# DECLARATION

The above information mention is true to the best of my knowledge. And for any deviation, I will be solely responsible.

# Place: Dubai, UAE RAJA