

J. RICHARD JOSHUA ABRAHAM



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Belfast, Northern Ireland, UK



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Richard J Abraham

EDUCATION

Master of Science in Building Information Modelling (BIM) Project Management [Sep 2025 - Sep 2026]

Queen's University Belfast – Northern Ireland, United Kingdom

Pursuing

Bachelor of Science in Fire and Industrial Safety, Faculty of Engineering and Technology [Jun 2016 - May 2019]

Annamalai University / National Institute of Fire and Safety – Tamil Nadu, India.

Percentage Obtained – 75% First Class (Twinning Programme)

Diploma in Electrical & Electronics Engineering, Directorate of Technical Education [Jun 2019 - Mar 2021]

PSG Polytechnic College – Tamil Nadu, India

Percentage Obtained – 87.5% First Class with Distinction

PROFESSIONAL EXPERIENCE

CMLC Consulting LLC, Kentucky, USA (Remote/WFH, India)

BIM MEP Coordinator

[Jul 2024 – Aug 2025]

BIM MEP Engineer

[Dec 2023 – Jun 2024]

- Served as POC and key team member, facilitating seamless communication among architects, engineers, contractors, clients, and vendors throughout the project lifecycle. Worked on Autodesk Construction Cloud (ACC), PROCORE Construction, BIM 360 and BIM-Track to ensure effective collaboration and coordination.
- Assisted with BIM Execution Plans (BEP), Request for Information (RFIs), Shop drawings, As-built drawings, developed naming conventions and templates, data-rich models, parameter verification, version control with authoring softwares like BIM 360, Revit, Navisworks and Bluebeam.
- Developed the creation and maintenance of comprehensive Electrical BIM models and families up to LOD400, ensuring the precision and accuracy in Aquatic Gymnasium Centre, Shepherdsville, USA.
- Ensured full compliance with established U.S. standards, including NFPA, ASHRAE, NEC and NEMA for META Data Centre, Indiana, USA.
- Performed 3D model quality assessments in various trades to identify discrepancies and ensure alignment with project specifications based on design drawings prior to project initiation.
- Identified and resolved conflicts and clashes among various MEPF (Mechanical, Electrical, Plumbing, and Fire Protection) systems and coordinated solutions for University of Louisville, Speed Engineering Building, Kentucky and GCCS Charlestown Elementary School, LV, Kentucky.
- Coordinated and participated in internal and external meetings to address clash resolution, track real-time site progress, and resolved design challenges for every project.
- Assisted in overall adherence to company's CAD/BIM standards and protocols among team members.
- Offered day-to-day technical support to the team with BIM softwares including but not limited to Autodesk Revit, Navisworks, AutoCAD, Revizto, BIM Collaborate Pro, etc.
- Proactively developed strategies alongside managers like data encryption, interoperability challenges, decision logs, utilizing industry standards like IFC (Industry Foundation Classes) ensuring smooth progress and maintaining compliance with basics of ISO 19650-1,2 and COBie (Construction Operations Building Information Exchange).
- Coordinated a small team of BIM modelers (up to 4 members), offering leadership, guidance, and support to resolve modelling challenges as needed.
- Contributed my expertise in US based BIM MEP Projects such as,
 - META Data Centre, Indiana
 - Pike Elementary School, Indiana
 - University of Louisville, Kentucky
 - GCCS Charlestown Elementary School, Kentucky
 - Aquatic Gymnasium Centre, Kentucky
 - Parkwood Elementary School, Indiana

Glass Maestro Industries LLC, Dubai, UAE (On-Site)

Health and Safety Engineer – Factory Initiation

[Feb 2023 – July 2023]

- Designed overall factory floor mapping & preliminary 5S layout plans using tools like AutoCAD during factory erection, installation and commissioning.
- Implemented risk assessments, work method statements & incident reporting procedures to eliminate or reduce workplace injuries and hazards before commencing the factory operations.
- Designed factory safety protocols, emergency preparedness, fire and mock drill procedures.
- Advised & instructed in critical and heavy lifting of loads under highly critical and challenging work environments by adhering to standards of Lifting Equipment Engineers Association (LEEA).
- Implemented Point of Work Risk Assessment (POWRA) in the production flow including cutting, CNC machining, drilling, sandblasting, tempering, double-glazing and autoclave processes referred to Glass and Glazing Federation standards, UK.
- Trained workers and staffs in safe handling and transportation of various types of glasses like annealed glass, notched, tempered, double-glazed, laminated, ceramic & digitally printed glasses.
- Developed an efficient waste management procedure with the company's operations and administration department.
- Coordinated with Dubai Municipality (DM) and Dubai Civil Defence (DCD) for factory infrastructure design with structural norms and adherence of the same.
- Maintained zero Lost Time Incidents (LTIs) with strategic cooperation of department managers.

SAKA Group of Companies, Abu Dhabi, UAE (On-Site)

HSE Engineer – Civil & MEP Projects

[May 2022 – Feb 2023]

- Assisted in MEP design & Revit models upgradation for ADNOC (Abu Dhabi National Oil Company) Headquarters & ADNOC Business Centre DLP projects, Louvre Museum Abu Dhabi, OCS, Sinyar Properties, Sheikh Shakhboub Medical City (SSMC), Ejadah Facility Management, Bani-Yas Facility Management & Morganti projects.
- Updated and implemented existing programs, policies, Method Statement Risk Assessment (MSRA) and Personal Protective Equipment (PPE) management to reduce workplace injuries and hazards as per OSHA & NEBOSH UK standards.
- Monitored and assisted HVAC system installations as per ASHRAE & SMACNA, armour cables routings, fire pumps and chilled water piping systems installation and testing, retrofitting completion, etc.
- Assessed heating and cooling loads and monitored AHU, FAHU & VAV air-flow levels under supervision using Balometer capture hoods as per zone-analysis design.
- Inspected & maintained worksites and SWM documents on height works, excavations, confined spaces and overhead power lines as per Abu Dhabi Distribution Company (ADDC) standards.
- Studied and assessed smoke (VESDA system), heat and flame detectors as per design documents.
- Specially trained workers on Ammonia industrial refrigeration in NOON's Warehouse, Dubai, for proper storage and handling of Refrigerants like R-22, R-410A and its respective emergency procedures.
- Instructed and trained workers in installation of panels, motors, cable trays, conduits, cables, lighting fixtures, and safe use of high voltages (up to 11KVA) with PPE (Personal Protective Equipment).
- Led the team in safe usage of Hi-pot, Megger, Amp-Clamp, and Cable Avoidance Tool (CAT) to identify grounded electrical components and leakage using Lock-Out Tag-Out procedures (LOTO).
- Managed and adhered to Heat Stress safety guidelines during exhausting middle-east summers (June - October) as outlined by Ministry of Human Resources and Emiratisation (MOHRE), UAE.

CARBURE Activated Carbon Private Limited, Coimbatore, India (On-Site)

Fire and Environmental Safety Officer

[May 2021 – Apr 2022]

- Inspected warehouse buildings, offices, exits, Piping & Instrumentation Drawing (PID) to locate unsafe conditions and fire code violations, accumulations of combustible material, defective electrical wiring and inadequate or non-functional fire exits.
- Managed occupational risk in the process of Pyrolysis within heating chambers and high temperature processing using QRA (Quantitative Risk Assessment) and FRA (Fire Risk Assessment) in the granule collection bay.

- Inspected physical condition of automatic sprinklers, arranged and monitored replacement of faulty fire safety system, hydrant & sprinkler systems and fire extinguishers.
- Coordinated in development of fire prevention programs, fire inspections and internal audits, hazardous and waste materials management with local contractors and vendors.
- Initiated safe maintenance and housekeeping procedures for transformers, LV panels and DG rooms.
- Assessed and advised engineers in handling equipment breakdowns to identify defects with needed rectifications.
- Monitored installation of fire safety systems for electrical distribution components such as MCBs, ELCBs, RCDs, GFCIs and panel board terminal connections.

G. Ramamoorthi Constructions India Private Limited, Coimbatore, India (On-Site)

Construction Safety Officer – Civil Projects

[June 2018 – May 2019]

- Deployed as a construction safety officer at Srivari Ekantam (4,16,250 sq.ft) and Casagrand Verdant (3,92,040 sq.ft) under a well-established team of engineers for almost 250 construction workers of different trades.
- Ensured compliance with national and local safety regulations and standards, such as the Factories Act 1948, Building and Other Construction Workers (BOCW) Act and Indian Green Building Council (IGBC).
- Conducted risk assessment & site safety planning, regular safety briefings, orientation, and workshops on topics like hazard communication, fire safety, PPE, and first aid.
- Conducted regular safety inspections to identify and rectify hazards (e.g., unsafe scaffolding, electrical hazards, and lack of fall protection). Ensured that proper safety measures like fall arrest systems, fire extinguishers, and first aid kits are inspected, functional and readily available.
- Documented and maintained safety records like Incident Reporting & Investigation forms, training logs, incident reports, safety inspections, Walkthrough checklists and Corrective Action Preventive Action (CAPA) plans.
- Provided assistance in 2D drafting of modified Electrical and Fire Protection systems for apartments, aligned with Indian standards - BOCW & IGBC codes.
- Used safety management tools like HIRA (Hazard Identification and Risk Assessment), Job Safety Analysis (JSA), incident tracking and reporting systems, such as 'iAuditor' for daily, weekly, and monthly safety inspections.
- Ensured the isolation of power supply and security systems (Fail-safe & Trip Mechanism) with CAPA during crane movements, uneven grounds and harsh weather conditions.
- Monitored the compliance of IS10160: 1982 - Code of Practice for Safety in Building Construction, ISO 45001 - Occupational Health and Safety Management Systems (OHSMS), IS3764:1992 - Safety Code for Excavation Work, company's internal Permit-to-Work (PTW) policy and labour camp welfare.
- Responsible for making Single Line Drawings (SLD) circuit modifications, sprinkler design schematics and Piping Instrumentation Drawings (PID) in Sewage Treatment Plant (STP) and vehicle parking areas.
- Assisted and supported in Quantity surveying, estimation, costing and sub-contracts billing process.

SUPPLEMENTARY EXPERIENCE

ZION Electrical and Plumbing Solutions, Coimbatore, India (Hybrid)

Electrical & Plumbing Consultant and Designer - Freelance

[Aug 2021 – Present]

- Supervised a team of electricians and plumbers in project completion (5,00,000 sq.ft. approx.) including Chil-Sez IT park, Orbis Hotels, GKNM Hospital, JC Industries, FORCE Autos and Swan Filaments.
- Assisted in residential electrical and plumbing template, pressured piping, conduit, cable-tray routing and LV room layout preparations.
- Prepared detailed electrical and plumbing estimates, quotations, and contract documents, as well as client invoices and billing statements.

SOFTWARE PROFICIENCY

Autodesk REVIT | Navisworks | AutoCAD | Revizto | BIMTrack | PROCORE Construction | Autodesk Construction Cloud | BIM360 | PyroSIM | Share-point | SAP | Wondershare EDRAW-Max | BlueBeam | Adobe Photoshop | MS-365

ACHIEVEMENTS

- Participated and provided my expertise in a successful research project on ‘Applications of BIM - Fire System rescue process during Building Operation and Maintenance’ for Student, Ms. Xiaowen Xu (MSc in Construction Management 2023-2024) under chief investigator Prof. Xianhai Meng from Queen’s University Belfast, UK.
- Rewarded 650 USD for best overall performance by CMLC Consulting LLC (Nov 2024).
- Underwent Indian Army managed training on disaster management, last-minute rescue plan at Kovai Defence Academy conducted by Retired Lt. Colonel CS Jayavel.
- Placed gold for Poster Presentation on Futuristic Electrical Technology in Light Fidelity (Li-Fi) during Diploma Electrical & Electronics Engineering – 2019.

CERTIFICATIONS & LICENCES

- Autodesk Revit MEP
- Software Tools & Schema Integration into BIM to FSE Workflows (Society of Fire Protection Engineers - SFPE)
- Sustainable & Fire Resilient Building Environment (Society of Fire Protection Engineers - SFPE)
- Fire Protection Design
- NEBOSH - IGC UK
- IELTS Academic - Overall Band 8
- SAP - EHS
- Safety in Utility Industry - University at Buffalo, USA
- Electrodynamics: Electric & Magnetic Fields - Korean Advanced Institute of Science & Technology (KAIST)
- ISO 45001:2018 - OHSMS
- ISO 14001:2015 - EMS
- Electrical Safety Interactive – ROSPA
- Association for Project Management (APM) – Student Member
- The Chartered Institute of Building (CIOB) – Student Member

ACADEMIC PROJECTS

Undergrad Project Title: ‘Safety in Construction Works’

- Outlined the best practices, safe work methods of both local and international safety codes and safety framework for different trades and work environments.
- Solved the constraints and shortcomings of administrative safety and management roles in Construction sector.

Diploma Engineering Project Title: ‘EMP - Jammer System for Defence’

- Designed and built a Magnetron-powered voltage multiplier and high frequency induction module that resulted in short burst of very high frequency current surges towards the targeted devices.
- Implemented the awareness concepts of EMI (Electromagnetic Interference) and EMC (Electromagnetic Compatibility) for sustainable buildings.

SKILLS & INTERESTS

3D MEPF Design & Modeling | Project Design Analytics | Building Energy Models | ISO 19650 (Basics) | Zone-Analysis | LOPA | HIRA | Project Management | 5S & 5E | Acoustic Guitarist | Chess | Photography & Video Editing

CO-CURRICULAR ACTIVITIES AND CONTRIBUTIONS

- Advised the Electrical Team (11 members) for VELOCITA Racing as an Electrical Safety Consultant in development of a Racing Car for Formula Bharat 2020.
- Underwent training in steel structure framing (Scaffolding) construction, real-time firefighting techniques and confined space rescue methods at Hindustan Shipyard, Vizag, India.
- Designed electrical & fire safety layout, building structural inspection, fire-pump (hydrant and sprinklers) monitoring and supervision at KGISL Tech Park, Coimbatore, India.
- Participated in a 2-Day Workshop at National Level Technical Symposium ‘YUKTA - 2020’ at Siemens Industrial Automation Laboratory.