

Abhay D Purandare

M.Eng (FPE), FIFireE, FIFE, PMSFPE

Mobile : +91-9978473816

Email: abhay.purandare@gmail.com

www.abhaypurandare.com

PERSONAL INFORMATION :

Full Name Abhay Devidas Purandare
Date of Birth 10th June, 1967
Nationality Indian (Passport No – J7417581)
Mailing Address A-10, Chanakyapuri, New Sama Road,
Vadodara – 390 024. INDIA



EDUCATIONAL & PROFESSIONAL QUALIFICATIONS :

Educational

Qualification	Institution	Year	Important Subjects/Modules
Bachelor of Engg (Electronics)	M.S. University, Vadodara, India	1988	Control System Engg, Industrial Electronics, Microprocessor Systems, Optical Fibres
Master of Engg (Fire Prot Engg)	University of Maryland [USA]	2012	Fire modeling, Performance Based Design, Human Response to Fire, Advanced Fire Suppression, Advanced Fire Dynamics, Smoke Detection & Management, Analytical Procedures of Structural Fire Protection, Advanced Fire Risk Modeling, Forensic Fire Analysis, Fire Assessment Methods

Professional

Grade	Exams/Upgrade	Year	Exam Subjects/Details
<u>Institution of Fire Engineers (UK)</u>			
Graduate (GIFireE)	Passed Graduateship Exams	1994	Fire Safety, Fire Engg Science, Fire Service Operations, Mgmt & Admn
Member (MIFireE)	Passed Membership Exams	1995	Fire Safety, Fire Engg Science, Fixed Installations, Building Construction
Fellow (FIFireE)	Awarded Fellowship	2013	Approved by IFE Assessment Panel
<u>Society of Fire Protection Engineers (USA)</u>			
Associate		2013	
Member (MSFPE)	Upgrade from Associate	2015	
Prof. Member (PMSFPE)	Upgrade from Member	2015	Approved by SFPE Qualifications Board

WORK/ PROFESSIONAL EXPERIENCE :

May 2015 – present : Consultant – Fire & Life Safety, Vadodara/Ahmedabad, India

- Freelance consultant providing fire engineering and life safety related advice/services to clients on assignment basis (India/UAE/Oman), both in Industrial and Building sectors.
- Carrying out review of Fire & Life safety strategy reports & plans, fire detection/protection, smoke management drawings and advising on related technical matters. Providing expert/ performance based solutions for non-compliant/complex issues related to Fire & Life safety.
- Fire Safety Audits/ Fire Risk Assessments of industrial and non-industrial facilities, including high hazard occupancies. Testing and compliance services for all types of Fire protection systems.
- Specialized and tailor-made training programmes on fire & life safety codes/practices, fire protection trends/practices, fire prevention, performance based design, etc.
- Fire investigation/Fire scene reconstruction for fire incidents, with comprehensive reports covering hypothesis, calculations/modeling, etc.
- Testing, design and development of new firefighting products for client, such as fixed/ portable foam equipment (nozzles, generators) and remote controlled water/ foam monitors. Designing/ setting up of testing facilities for Fire fighting equipment, and ensuring performance of equipment to meet certification/ listing requirements.

Apr 2014 – May 2015 : Sr. Fire Consultant – Butler Engineering (Middle East), Dubai

- Providing fire engineering and life safety consulting to clients on building and industrial projects, within UAE and other GCC countries.
- Responsible for deliverables related to fire and life safety such as strategy reports and drawings. Peer review and shop drawing review of project fire & life safety drawings/reports. Conduct field inspection and testing/ commissioning of fire protection systems during construction/ handing over. Provide advice and solutions for issues related to design non-compliances/ problems.
- Working on multiple projects which include residential, hotel, healthcare, mercantile and industrial occupancies. Provided timely and suitable solutions for long delayed projects in order to close out design issues, obtain AHJ approval and ensure progress. Also involved in preparing manpower estimates for projects, reviewing and providing inputs for proposals.

June 2012 – March 2014 : Consultant – Fire Protection

- Working as a consultant, providing technical advice/services to Fire protection equipment companies as well as Engineering consultants, on project/ assignment basis (in India & Middle East). Recent engagements/ assignments include :

June 2012 to Sept 2012 & May 2013 to March 2014: Consultant, India

- Advising Fire protection equipment/ system companies on technical/ business development issues. Scrutiny of major tender documents (from O&G companies) on behalf of clients, and advising on related technical and commercial aspects. Also involved in resolving issues/ problems related to execution of major P.O.s from O&G companies.
- Providing services related to design and development of new firefighting products for clients, such as fixed/ portable foam equipment and remote controlled monitors. Ensuring proper performance testing of these equipments. Instrumental in the successfully testing and UL listing of aforementioned equipment for clients.

Oct 2012 – Apr 2013 : Sr. Fire Engineer (Ramboll Middle East), Dubai

- Worked with a leading engineering consultancy (on assignment basis) in Dubai for their fire engineering division (based at Doha & Abu Dhabi). Involved in an Oil & Gas project with a loss prevention role, providing services related to fire safety engineering.
- Responsible for deliverables related to fire protection of project buildings. This involved preparation of engineering deliverables such as Fire & Safety philosophy, Fire fighting calculations, Fire & Gas philosophy, Fire fighting equipment/ system specifications and data sheets, fire protection and life safety related layouts.
- Joined the project at a very critical stage and made significant contribution in ensuring timely delivery of quality deliverables, & meeting project deadlines/ targets. Project – FEED for Port & Berth Infrastructure 2, Ras Laffan Port Expansion Project, Qatar Petroleum, Qatar.

Feb 2009 – March 2012 : Lecturer (Fire Safety Engg/ Mgmt), International College of Engg & Mgmt (formerly Fire Safety Engg College), Oman

- Delivery of Fire Safety Engineering & Mgmt courses at ICEM (one of its kind institution in the Middle East, providing vocational and higher education courses related to Fire safety Engg/ Mgmt, HSE & Well Engg, and affiliated to the University of Central Lancashire, UK).
- Tutoring and coaching of students studying for a B.Sc (Bachelor of Science) – Fire Safety (Engg/ Mgmt) & HSEM degrees. Module tutor for Year 3 modules, such as Fire & Smoke Control in Buildings, Design for Fire Safety, Safety in Oil & Gas, Risk Assessment & Management, etc. Students include those from Oman as well as other GCC countries, such as Qatar, UAE and Saudi Arabia.
- Other activities include revision/ improvement of course modules, quality control process for module delivery, liaisoning with industry, coaching/assisting students for employment.

April 2007 – Dec 2008: Sr. HSE Engineer, Mott MacDonald, Oil & Gas Div, Abu Dhabi.

- Working with a leading engineering consultancy firm in Abu Dhabi, providing engineering services for offshore /onshore Oil & Gas projects in U.A.E. and other GCC countries. As part of HSE Engineering Dept, involved in fire and safety related engineering support for such projects.
- Preparation of engineering documents such as HSE Philosophy & Plan, Fire protection philosophy, Fire & Gas philosophy, Firewater adequacy calculations. Designing and preparing specifications for fixed Fire extinguishing systems, Fire & Gas detection systems, Firewater system, Safety & Fire fighting equipment, Passive fire protection (Fireproofing) requirements.
- Generating fire and safety drawings such as Fire & Gas detection layouts, Cause and Effect diagrams, Fire/ Safety equipment layouts, Hazardous area classification schedule & drawings, Evacuation and Escape layouts. Assisting the lead engineer in other HSE related studies such as Escape and Evacuation Route analysis, QRA, HAZOP, HAZID. Carrying out consequence analysis using modelling softwares.
- Providing inputs to other disciplines with respect to HSE issues. Scrutinizing tender documents for evaluating HSE deliverables and preparing manhour estimates for proposals. Preparing specifications for Fire protection / safety equipment and PPE, Vendor document Review, and Technical bid evaluation.
- Amongst major projects handled - Qatar Petroleum (Strategic Gas Transmission Project), ADCO (various Engineering PMFs), ZADCO (Gas Injection Top sides for Well Head Tower Platforms).

July 2002 – March 2007: Technical consultant (Fire Protection), India

- Worked as Technical consultant/ Adviser (on retainership basis) to M/s. Shah Bhogilal Jethalal & Bros, Ahmedabad, a leading fire fighting equipment manufacturing company in India, supplying products to major Oil, Petrochemical and other projects.
- Responsible for, and successfully developed different products for the company, significantly boosting its market presence and business. Amongst new products developed were Fixed and Portable Foam equipment, Water and Foam Monitors & Nozzles, Handline nozzles & firefighting accessories.
- Set up the complete testing arrangements and procedures for various fire fighting equipment. Planned for & successfully implemented the UL listing of Foam monitors/ branches/ inductors.
- Responsible for development of all technical documentation i.e. product data sheets, technical brochures, catalogues and drawings, for the full range of fire fighting products.
- Scrutinizing specifications of major tender documents for the company, advising on related aspects, technical discussions with clients, and site inspections/ visits, where required. Organizations interacted with, include almost all major Oil & Gas companies in India, such as Indian Oil Co Ltd. (Panipat Refinery, Gujarat Refinery, Marketing Divisions), Bharat Petroleum Co Ltd. (Kochi Refinery), Gas Authority of India Ltd. (U.P. Petrochemical Complex), Indian Petrochemical Corp. Ltd. (Baroda and Nagothane Petrochemical Complex), etc

July 1996- Jun 2002: Fire Safety Consultant - Purandare & Associates, India

- Worked as Fire Safety consultant for clients all over the country, planning and implementing services such as Project consultancy, Training programmes, audits & inspections for industrial clients, mainly from the hydrocarbon/ chemical sector.
- Project consultancy for industrial clients from Oil/ chemical sector. Activity included basic design/ specifications of Fire protection systems/ equipment, scrutinizing vendor documents, technical discussions on behalf of client, and overseeing commissioning and handover. Major projects handled- large Chemical Port Terminal - GCPTCL, Bharuch, 655 MW Combined Cycle Power Plant- GPEC Bharuch
- Carried out Fire safety adequacy audits for Petrochemical/ chemical units. Amongst major audits carried out were large Chemical complexes – Gujarat Alkalies & Chemicals Ltd. Vadodara & Bharuch, Naphtha Tank farm – Nagarjuna Fertilisers & Chemicals Ltd, Kakinada.
- Conducted large number of fire prevention and fire fighting training programmes, for all major Oil and Petrochemical companies in the country. Having specialised knowledge of industrial Fire safety topics such as Fire hazards in O&G/ Petrochemicals, Fire protection systems employed, Explosion concepts & theory, etc.

Apr 1990 - Jun 1996: Engineer (Fire protection systems) – Vivek Engineering Corp., India

- Worked with franchisee of M/s. New Fire Engineers. Pvt Ltd., India's leading Fire protection systems consultants and contractors, for southern region. Bootstrapped the department and raised the fledgling division from a one-man operation to a profit centre.
- Dealt with all activities concerning fixed fire protection systems such as basic design, tendering, installation, commissioning and maintenance of fire alarm and automatic CO2/ Halon extinguishing systems.
- Amongst major sites handled - TATA Power Co, Unit No. 6, 150 MW (Fire Alarm System), Trombay, Mumbai, Vishakhapatnam Steel Plant (Fire Alarm and CO2 systems), BHEL, Trichy (CO2 system – GT enclosure), BEML Mysore (Halon System).

Apr 1989 - Mar 1990 : Sales Executive – HCL Limited, India

- Joined a new division aimed at introducing Computer support accessories and products such as Power conditioning equipment, i.e. UPSs, Stabilizers, Storage media, etc.
- Interacted with and successfully handled highly diverse clients such as large corporate clients and first-time computer users.

ADDITIONAL INFORMATION :

- Advisory Member to Fire Fighting Unit's sub-committee CED 22:1, of the Bureau of Indian Standards. Major contributor to ISI standards revision/upgradation (on behalf of client). Also familiar with International standards NFPA, BS, UL as well as API, SHELL, BP documents.
- Member of course delivery team for 'Short course on Building Design for Fire & Life Safety', conducted at IIT Gandhinagar, 26-29 June, 2019.
- Conduct a short term (1 week) course on 'Fire & Life Safety in Buildings – Fundamentals & Practice' at the Summer Winter School (May, Dec) at CEPT University, Ahmedabad for Building Design/Building Technology/Architecture Graduates & Post Graduates.
- Very good communication skills & an excellent trainer.
- Excellent written and spoken English. Other languages known - Hindi, Marathi & very basic knowledge of spoken Arabic
- Exposed to and having operating knowledge of different modeling softwares used in fire/ safety engineering applications, which include CFAST, FDS, BRANZFIRE, CONTAM, SHELL FRED, etc.

TRAINING/ WORKSHOPS :

- NFPA101 Life Safety Code Certificate Program, Dubai (2014)
- Workshop on Fire Safety, IIT Gandhinagar, India, March 2013 & Jan 2017
- International Workshop of Fire Safety Engg and Management, Oman, Feb 2011
- ISO 9001, ISO 14001, OHSAS 18001 Internal Auditor training (2008)
- Environmental Impact assessment training (2008)

PUBLICATIONS :

Co-author of '**Handbook on Industrial Fire Safety**', a book on fundamentals and concepts of industrial fire safety (1st edition - 2006, reprint - 2011).

Has contributed articles on topics connected with Fire Safety to leading national/ international Fire and Safety journals, among them :

- Featured in the **FSAI Journal** [India], '*Takshashila Arcade Fire at Surat – A Technical Analysis*', May-June 2019, '*Smart Cities & Smart Firefighting – Ramifications for the Fire Services*' Special Issue 2018
- Featured in the **Fire Engineers Journal** [UK], '*Fire Safety Engineering in the Third World – Challenges to Acceptance & Growth*' Nov 2018, '*Fire Services in Developing Countries*' May 2000
- Featured in '**Fire Engineer**' [India] : *NBC Part 4 – Challenges to Acceptance & Implementation*' July-Sept 2017, '*Estimating Human Response Parameters for Application in Performance Based Design*' July-Sept 2016, '*The Escalating Fire Hazards of Modern Homes*' Jan-Mar 2016, '*Buncefield & Beyond– Important Lessons for Developing Countries*' Oct-Dec 2006, '*Firefighting Handline Nozzles – Jetting through the Fog!*' July-Sept 2006, '*Firefighting Foam – Unveiling the Big Issues*' Jan-Mar 2005, '*Fire Safety Training– An Effective Means of Risk Reduction & Control*' Apr-Jun 1999

- Featured in the '*LPA Journal (Loss Prevention News)*' [India] : '*Correct Interpretation of Fire Hazard Properties for Flammable Liquids and Gases*' Oct 1999, '*Fixed Foam Extinguishing Systems for Storage Tanks*' October 1998
- '*Firefighting Foam – Myths and Trends*' Aviation Fire Journal (e-journal) (USA)

Presented papers/talks on Fire Safety related issues at various Conferences/ Seminars :

- *Fire Safety Engg & Prescriptive Codes–Conflicting or Complementary?* Fire India 2019, New Delhi, India
- *Exit Design, Calculation and Safe Evacuation – Fact or Fantasy*' at Seminar on 'Rising Structures – Emerging Life Risk' by IFE (UK) Chennai Branch, June 2018, Chennai
- *A look at Oil storage tank incidents in the recent past - major factors and trends*, FPAI Technical Conclave on Industrial Safety, 6 Jan 2018, Mumbai
- *NBC Part 4 – Challenges to Acceptance & Implementation*, Fire India 2017, Mumbai, India
- *Evaluating Visibility and Toxicity Effects of Indoor Fires on Occupants' Escape Ability*, International Conference on Safety 2017, IIT Gandhinagar, India
- *Estimating Human Response Parameters for Application in Performance Based Egress Design*, Fire India 2016, Chennai, India
- *Fire Safety Challenges for Skyscrapers* – CII Summit, 2015, Vadodara, India
- *Improving & Maintaining Performance of Fixed Fire Protection Systems* - Fire India 2013, Mumbai, India
- *Firefighting foam – forte or frailty?* - Fire India 2004, Mumbai, India
- '*Risk Assessment for the Fire Services*' FireTech India 2003, Goa, India
- *Fire Service Challenges Post 9-11 – A global view*' (with David Hutchinson) Fire India 2002, New Delhi, India
- '*The Need for Performance Based Fire Protection Systems*' - India Oil & Gas Review Symposium, Mumbai, India, Sept 2001
- *Fire Services in Developing Countries* - Worldfire 2000, Germany, 2000 (cancelled)
- '*Fire accidents involving transport systems – are developing countries adequately prepared?*' Eurofire 99, Belgium, 1999
- *Hazards of Smoke & Smoke Movement* - Fire Safety in High rise & Special Type of Buildings, Vadodara, India, 1998