


<b>Elstan Anthony Fernandez</b> MD CEO and Founder – Xiotas Technologies – <a href="http://xiotas.com">xiotas.com</a> and <a href="http://e-dolphins.com">e-dolphins.com</a> Member of the Executive Council – Promising Indians Society – <a href="http://promisingindians.com">promisingindians.com</a> Advisor – JS Enviro – <a href="http://jsenviro.org">jsenviro.org</a> Electrical Officer and Faculty – Samundra Institute of Maritime Studies – <a href="http://samundra.com">samundra.com</a>		 Date of Birth: 18/09/1962
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Memberships and Professional Associations	
October 2015	Chartered Engineer - Institution of Engineers (India)
October 2015	Fellow of the Institution of Engineers (India) (No. F-120191-5)
June 2015	Member of the Institution of Engineering and Technology, UK (No. 1100398006)
May 2015	Founder Member of Indian Authors Association (No. IAAF1117)
January 2017	Member of Leaders Excellence at Harvard Square, Indian Chapter (No. 2087)
February 2018	Distinguished Member – Promising Indians Society

### Summary of Experience as on 01 Mar 2018

- Managerial Experience with 5 successful start-ups (~ 19 years – including 2 greenfield projects)
- Teaching in the Maritime Industry (~ 19 years as a Certified Trainer)
- Author of six technical books (~ 26 years – including 4 international editions for the past 16 years)
- ISO 9000 Quality Management System implementation and auditing (~ 10 years)
- Operation and Maintenance of Marine Electrical and Control Systems (~ 28 years)
- Global Command Center Management for Solid Oxide Fuel Cell Energy Servers (~ 5.5 years)
- Webmaster and founder of [marine-electricity.com](http://marine-electricity.com) (hosting it for ~ 12 years)

### Summary of International Experience (in reverse chronological order)

- California - Between 2009 and 2013:  
*About 4 months (3 visits) for Solid Oxide Fuel Cell product training and various business requirements - as a Senior Manager and subsequently as an Assistant General Manager, Bloom Energy Corp., USA.*
- Manila and all major ports in the Philippines - 2008:  
*About 6 months as an Electrical Officer and Faculty for Marine Engineering cadets from 7 nations - onboard the Training Ship Spirit of MOL, Mitsui OSK Lines, Japan.*
- Shanghai - 2004 - 2005:  
*About 5 Months' deputation as a Foreign Expert at Shanghai Maritime University's Merchant Marine College (visited Beijing, Zhangjiakou, Wuzhen and Suzhou during my stay in China).*
- Riga - 1987 - 1988:  
*13 Months' Higher Study / Specialization in Electrical, Instrumentation and Control Systems for conventional submarines (Visited Minsk and Moscow during the course at Riga).*
- Mombasa, Dar Es Salaam and Diego Suarez - 1981  
*Goodwill visits to these ports in the 5<sup>th</sup> Semester of the 4-year Program in the Indian Navy*
- Bangkok, Dubai, Cairo, Frankfurt, Hong Kong, Jordan, London, Melbourne, New York and Sydney (in transit during various journeys / on holiday).

## Current Full-time Appointment

Organisation: Samundra Institute of Maritime Studies (Apr 2014 to Present ~ 4 years)

Designation: Electrical Officer and Faculty

Primary Responsibilities:

- Conducting a value-added / conversion program in Ship's Electrical Systems for Marine Engineers (Conducted more than 110 programs and trained over 1000 Marine Engineers - from the rank of Fourth Engineer to Chief Engineer and Electrical Officers since April 2014).
- Conducting Electro Technical Officer Courses since October 2017 – 2<sup>nd</sup> course in progress.
- Faculty for B Tech Marine Engineering (Third Year and Fourth Year) Students – Marine Electrical Technology and Advanced Marine Control and Automation.
- Project guide for B Tech (final year students).
- Need-based technical support for the fleet of ships managed by the parent organisation (Executive Ship Management, Singapore).

## Past Employment History (in reverse chronological order)

### Appointed as *Pro Bono* CEO

#### Energy Excess (Part of Non-Conventional Power Devices Private Limited)

From : 25<sup>th</sup> Dec 2016

To : 24<sup>th</sup> Nov 2017

(1 Year)

Responsibilities:

- Business Development for LED and Solar projects across multiple states
- Facilitated the initiation of 34 projects with a business outlay of about 8000 Crores
- Coordinated with consultants, EPCs, customers, investors and served on the Board of Directors

### Appointed as Senior Manager and then promoted to Assistant General Manager Technology Support

#### Bloom Energy (India) Pvt. Ltd. (Part of Bloom Energy Corporation, USA)

From : 6<sup>th</sup> Oct 2008

To : 31<sup>st</sup> Mar 2014

(~ 5.5 Years)

Responsibilities:

- India Head of the Global Remote Monitoring and Command Center
- Served as Deputy Head of Mumbai Operations and managed Mumbai Operations with a staff of about 100 highly skilled engineers and technicians in the absence of the GM Mumbai Operations.
- A member of the Collaborative Leadership Team at Mumbai that was entrusted to sustain and enhance operations, plan and manage CapEx and OpEx budgets, optimize resources and mentor teams to globally align with the organization's priorities and vision.

### Some Achievements at Bloom Energy - Oct 2008 to Mar 2014

- Established the world's first Overseas Command Center for Solid Oxide Fuel Cell Operations (at Mumbai) in Feb '09. *The center that conforms to International Standards and requirements, caters to secure Technology Support and Remote Operations in the US and Japan. Each Energy Server™ is an on-site power generation system that utilizes an innovative and new solid oxide fuel cell technology, with its roots in NASA's Mars program.*
- Supported the scale-up of customer fleet operations from 325 kW at 2 beta sites to about 125 MW at more than 150 locations in the US and 1 in Japan, with optimized infrastructure and resources.
- Led the team that grew from passive monitoring of the product to being capable of:
  - a. Remotely monitoring and controlling of the entire (rapidly growing) customer fleet on a 24 x 7 x 365 basis.
  - b. Remotely overseeing final integration and testing of the finished product (prior to installation).
  - c. Carrying-out analysis of failures at the system and sub-system level.
  - d. Guiding field service engineers for problem resolution and training other teams.
  - e. Contributing to system reliability improvements.
  - f. Participating in product development activities.
  - g. Participating in the development and optimization of software tools.
- Conducted technical induction programs for new hires and staff in other departments.
- Managed team budgets, hiring, administrative activities and knowledge base development.
- Participated in Product Development activities at the Global PD Managers' level
- Led cross-functional activities with multiple teams at Mumbai's R&D facility - to maintain continuous operation of the customer fleet and to also enhance product development/ testing methods.

## Electrical Officer and Faculty

### Training Ship Spirit of MOL, Mitsui O.S.K. Lines, Japan

From : 10<sup>th</sup>Apr 2008  
To : 30<sup>th</sup>Sep 2008  
(~ 6 Months)

#### Responsibilities:

- Operational readiness and maintenance on the ship's electrical systems
- Faculty – Electrical Systems and Sensors for multinational Engine Cadets
- Administrator for the Seagull CBT System on board the ship

*T/S Spirit of MOL was the only independent training ship for Mitsui OSK Lines, Japan. This ship had a capacity of up to 240 cadets who came in from seven nations (China, India, Indonesia, Philippines, Russia, Ukraine and Vietnam).*

## Faculty, Electrical Officer and Superintendent of Laboratories

### The Great Eastern Institute of Maritime Studies, Lonavala

From : 10<sup>th</sup>Mar 2006  
To : 9<sup>th</sup>Apr 2008  
(2 Years 1 Month)

#### Responsibilities:

- Faculty (Electrical Engineering) for Graduate Marine Engineers (GME), Trainee Electrical Officers (TEO) and Diploma in Nautical Science (DNS) Cadets. As Course In-charge, this involved course design, knowledge transfer, assessment and evaluation, feedback and follow-up for the following subjects:
  - a. Marine Electrical Technology for GME and TEO Cadets
  - b. Marine Control Systems for GME and TEO Cadets
  - c. Basic Electricity - for DNS Cadets
  - d. Computer Basics - for DNS and TEO Cadets
  - e. Practical sessions for Electricity, Electronics, Control Systems and Computers for all batches.
- Electrical Officer and Superintendent of Laboratories  
Member of the greenfield project team. Responsibilities included liaison with vendors, contractors and consultants while coordinating the installation, commissioning, operation and maintenance of the following:
  - a. Main Power Supply and Distribution System (22kV / 415V, 750 kVA)
  - b. Back-up generators and their associated equipment
  - c. Computer and Communication Networks including the Wi-Fi System
  - d. Campus Support Facilities like Freshwater, Sewage Treatment plants, Kitchen Equipment, zone-based HVAC systems and other auxiliaries.
  - e. AV Equipment and the Digital Theatre
  - f. Transas Full Mission 2400 Ship Handling Simulator
  - g. Workshops' Electrical Equipment and ergonomically designed laboratories for Electricity, Electronics, Computers and Applied Sciences

**Assistant Lecturer to Senior Lecturer, Department of Electrical Engineering**

**Tolani Maritime Institute, Induri**

From : 2<sup>nd</sup>Sep 1998  
To : 9<sup>th</sup>Mar 2006  
(7.5 Years)

Responsibilities:

- Member of the greenfield project team that setup the country's first privately owned and managed Maritime Institute to educate about Marine Engineer Officer and Nautical Officer cadets (with a current capacity of about 3000).
- On the core team that set up 6 laboratories ranging from Basic Electricity and Electronics to Machines and Marine Electrical Systems for the department.
- Part of the QMS team that obtained and maintained the ISO 9001 certification for the organisation
- Course In-charge for the following subjects (this involved course design, knowledge transfer, assessment and evaluation, feedback and follow-up):
  - a. Applied Electricity
  - b. Electrical Measurements and Instrumentation
  - c. Marine Electrical Technology
- Also part of the Faculty Team for the following subjects:
  - a. Emergency Power Supply Systems (as part of the Command Course for Masters and Chief Officers
  - b. Electronics (part of the Course Digital Electronics)
  - c. Marine Control Engineering (Applications onboard ships)

*During this period I was invited to teach for one semester (Sep 2004 to Jan 2005) at The Merchant Marine College, Shanghai Maritime University, Shanghai, China. It was the first overseas appointment by a faculty member at TMI and I was the first Indian resident faculty at SMU.*

**Joined as an Electrical Artificer Apprentice**  
**Retired as a Master Chief Electrical Artificer (Power)**  
**Indian Navy**

From: 2<sup>nd</sup> Aug 1979  
To : 31<sup>st</sup> Aug 1998  
(19 Years, 1 month)

**Responsibilities:**

- Served in the Submarine Arm of the Indian Navy for 15 Years. The job also involved departmental administration and mid-level management.
- Installation, commissioning, operations, maintenance, repairs and modification for the following systems:
  1. Main Propulsion Systems and Thrusters
  2. Main Batteries (very large capacity units)
  3. Gyrocompasses and Navigational Aids
  4. Power Generation, Distribution and Auxiliary Systems – both AC and DC
  5. Automatically and Remotely Controlled Systems and their Electronic Instrumentation namely:
    - a. Digital Flow Meters
    - b. Trim and List Indicators
    - c. Level Sensors and Transducers
    - d. Temperature Monitoring and Control Equipment
    - e. Fluid Pressure Monitoring and Control Equipment
    - f. Auto Pilot, Depth and Trim Control Systems
    - g. AC and DC Insulation Monitoring Equipment
    - h. Overall Automatic and Remote Control System as on UMS ships
    - i. Main Diesel Engine's Automatic and Remote Control System
    - j. Automatically and Remotely Controlled Fire-fighting Systems
- Course In-charge for a period of about 5.5 years for the following subjects (involving course design, knowledge transfer, assessment and evaluation, feedback and follow-up):
  1. Submarine Automatic and Remotely Controlled Systems
  2. Power Generation and Distribution Systems
  3. Submarine Batteries and auxiliaries
- Designed, set-up and introduced training facilities like laboratories, working models and training aids (including technical manuals / docketts) in the course of transferring technology to all cadres in the Submarine Arm.

*Retired as Master Chief Electrical Artificer Power with an unblemished record of service.*

**Education (in chronological order)****Basic Qualifications**

Aug 1983	Qualification: Diploma in Electrical Engineering (4 years) – First Class Institution: Indian Navy
Nov 1994	Qualification: Equivalent Bachelor's Degree in Electrical Engineering Institution: Indian Navy (Gazette of Government of India Notification)

**Teaching Certification Courses Attended**

May 1992	Methods Course Institution: Naval Institute of Education and Training Technology (Indian Navy), Kochi. Subjects: Educational Psychology, Teaching Techniques, Education and Training Technology, Assessment Techniques
Feb 1999	Training for Trainers and Assessors Institution: The Shipping Corporation of India Ltd., Maritime Training Institute, Mumbai (Branch of World Maritime University)
Nov 2006	Emotional Intelligence – Mapping and Developing Emotional Intelligence at Work Dr. Mala Kapadia, Mumbai.
June 2006	Instructor for Transas (Navitrainer Vis 4000) Full Mission Ship Handling (Bridge) Simulator Organisation: Elcome Marine, Mumbai

**Technical Value-added Courses Attended**

Mar 1982	Nuclear, Biological, Chemical Defence and Damage Control including Fire-fighting (NBCD School, INS Shivaji, Lonavala, Pune)
Oct 1984	Qualified Basic Submarine Course
Oct 1988	Specialized in Instrumentation and Automation for Submarines 13 months' course at the erstwhile Soviet Naval Training Centre, Riga, Latvia)
Jun 1989	Chief Electrical Artificer's Course (Electrical Engineering Training Establishment, INS Valsura, Jamnagar)
Dec 1991	Electronic Data Processing Instructor's Course INEDP School, INS Hamla, Mumbai
Jul 2003	Industrial Automation Training Course (PLC, Data Acquisition and SCADA) (Prolific Systems and Technologies Pvt. Ltd, Mumbai)
Feb 2005	Requirement of System and Equipment Earthing (Larsen and Toubro Switchgear Training Centre, Pune)
May 2005	Marine Automation (Instrumentation and PLC) (Honeywell, Pune)
Jun 2005	Reefer Container Operation and Maintenance (Operational Level) (Ocean Education and Research Centre, Mumbai)

<b>Management and Non-Technical Courses Attended</b>	
Aug 1989	Advanced Leadership and Management Course (School of Leadership and Management, INS Agrani, Coimbatore)
May 1999	Quality Management System Audit Appreciation Program (Indian Register of Shipping, Mumbai)
Jun 2000	Quality Management Systems Internal Auditor Training Course (Lloyd's Register Quality Assurance Training Service)
Feb 2002	ISO 9000-2000 Transition Training Course (Indian Register of Shipping, Mumbai)
May 2002	ISO 9000-2000 for Educational Institutions (Indian Institute of Quality Management, Jaipur)
Oct 2008	Green Belt in Six Sigma (Indian Statistical Institute, Mumbai)

## **Publications**

<b>Restricted / Confidential Publications for the Indian Navy (in chronological order)</b>	
From: Jan 1991 To: May 1995	Title of the Book: Automatic and Remote Controlled Systems for Submarines (400 pages) Title of the Book: Maintenance and Troubleshooting of Automatic and Remote Controlled Systems for Submarines ( <i>a supporting document for the above book</i> ) – 200 Pages)

<b>International Publications and Web Portal Details</b>	
From: Aug 2002 onwards ~ 16 Years	Title of the Book: Marine Electrical Technology <ul style="list-style-type: none"> <li>9<sup>th</sup> International Edition published in April 2017</li> <li>Accepted as a text book in Marine Engineering Institutions and by the Marine Engineering fraternity worldwide (available in about 200 countries and in all currencies).</li> </ul> Publisher: Shroff Publishers and Distributors ( <a href="http://www.shroffpublishers.com">www.shroffpublishers.com</a> ) <ul style="list-style-type: none"> <li>10<sup>th</sup> Edition in progress</li> </ul>
From: May 2007 onwards ~ 11 Years	Title of the Book: Marine Control Technology Co-author: Mr. J. Majumder <ul style="list-style-type: none"> <li>3<sup>rd</sup> International Edition published in March 2018. Accepted as a text book in Marine Engineering Institutions and by the Marine Engineering fraternity worldwide.</li> </ul> Publisher: Shroff Publishers and Distributors ( <a href="http://www.shroffpublishers.com">www.shroffpublishers.com</a> ) <ul style="list-style-type: none"> <li>4<sup>th</sup> Edition in progress</li> </ul>



### International Publications and Web Portal Details (Continued)

From: July 2015 ~ 3 Years	Title of the Book: Competency in Marine Electrical Engineering Co-author: Mr. J. Majumder <ul style="list-style-type: none"><li>• 2<sup>nd</sup> International Edition published in August 2016</li><li>• Intended to be used as a text book by Marine Engineers and Ship's Electro Technical Officers who are preparing for Certificate of Competency Examinations as per STCW 2010 guidelines.</li></ul> Publisher: Shroff Publishers and Distributors ( <a href="http://www.shroffpublishers.com">www.shroffpublishers.com</a> )
From: March 2018	Title of the Book: Marine High Voltage Technology Co-authors: Mr. Jagabandhu Majumder and Mr. Lakshman Singh Yadav <ul style="list-style-type: none"><li>• 1<sup>st</sup> International Edition published in March 2018</li><li>• Intended to be used as a text book by Marine Engineers and Ship's Electro Technical Officers who attend High Voltage Courses as per STCW 2010 guidelines.</li></ul> Publisher: Sterling Book House ( <a href="http://www.sterlingbookhouse.com">www.sterlingbookhouse.com</a> )
From: 24 Feb 2006 onwards > 12 Years	Elstan's Marine Electrical Technology Guide ( <a href="http://www.marine-electricity.com">www.marine-electricity.com</a> ) <ul style="list-style-type: none"><li>• A free website for students and professionals of the maritime industry.</li><li>• Ranked No. 1 by most popular search engines in the "marine electricity" keyword search category</li></ul>

### Awards and Recommendations for technical achievements and dedication to duty in the Indian Navy

1990	Commendation by the Flag-Officer Commanding-in-Chief, Eastern Naval Command
1992 to 1995	Twice nominated for Gold Medal (Commendation) by the Chief of Naval Staff
1996	Proficiency Award by the Commanding Officer, INS Satavahana, Indian Navy

### Multilingual Proficiency

- English (Mother Tongue)
- Hindi (verbal communication, limited reading and writing capabilities)
- Tamil (verbal communication, limited reading and writing capabilities)
- Telugu and Marathi – (very basic verbal communication)
- Russian (limited working proficiency)
- Mandarin (Pinyin) (studied basics during my stay in China)