

**Mr. Frédéric AVERTIN**

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Nationality : French

Age: 50. Marital Status: Divorced, 2 Childs.



**ELECTRONICS ENGINEER**  
**Diplôme du Conservatoire National des Arts et Métiers**

**Work experience**

UPS and VSD (variable Speed Drive) Specialist.....TOTAL EP Angola  
11/2012 to present.  
<http://www.total.com>

As an electrical method engineer onshore-based, I am involved in the maintenance level 1 to 5 of the following equipments installed on block 17 (FPSO GIRASSOL, DALIA, PAZFLOR and CLOV):

- all backup power supplies : chargers, and UPS of all brands,
- all Batteries,
- all kind of rectifiers (alternator excitation regulators, chlorination units, Impressed Current Cathodic Protection, ...),
- all kind of Variable Speed Drives,
- motor starters and SCR power controllers.

Methods Electricity Engineer .....SONANGOL  
Angola – Block 3  
Shift position (6x3) onshore  
01/2012 up to 09/2012.  
<http://www.sonangol.co.ao>

- Ensure follow up of all electrical maintenance activities (levels 1 to 3) on block 3 (PALANCA, PACASSA, COBO).
- Ensure that scheduling and execution of maintenance operations are carried out as planned and maintenance tasks undertaken are adequate to prevent unplanned equipment failure.
- Ensure that proper procedures are followed, and that all modifications are properly documented.
- Participate to maintenance optimization studies.
- Provide technical support to the site.
- Analyze cause of breakdown, relevant reports and recommendations for improvement and future preventive actions.
- Troubleshoot complex or recurring electrical problems which require technical analysis and resolution with the help of other departments, vendors or original equipment manufacturer and recommend cost effective solutions.
- Propose and justifies recommendations for the improvement of equipment availability, efficiency or maintainability.
- Maintain a daily contact with Electrical team leader's site for maintenance follow-ups and problem resolution.
- Liaise with vendors, HQ specialists and original equipment manufacturers for all queries regarding maintenance, modifications, spare parts, drawings and resolution of technical problems.
- Follow up on statutory electrical inspection of asset, integrity assurance and certifications.
- Use CMMS (Computerized Maintenance Management System).
- Ensure standardization of materials and spare parts for electrical equipment and related systems.
- Define stock management levels regarding spares parts (mini / Maxi – re-supply thresholds) by monitoring and updating materials MRP data, reviewing stock quantities, usage and consumption in order to minimize the stock value.
- Assist the Head of Maintenance and the Electrical Maintenance team in the preparation of budgets, contracts, shutdowns, modifications, warranty claims, vendor mobilization and all other support functions necessary for the efficient operation.

Electrician Specialist.....SONANGOL  
Angola – Block 3  
Shift position (4x4) offshore  
11/2009 to 09/2011.  
<http://www.sonangol.co.ao>

Under the responsibility of onshore electrical methods:

- Ensure availability and integrity of the electrical equipments on the platforms of PALANCA, PACASSA and COBO.
- Site team technical support in electrical power generation, distribution systems and networks, electrical machines and devices.
- Technical aid for other specialists, service teams and production leaders in the failure causes search and diagnosis of breakdowns.
- Failure analysis in power generation, LV and HV distribution, electrical machines and electrical safety systems.
- Technical aid for Methods / Planning in creation and modification of maintenance procedures or instructions.
- In charge of preventive and corrective maintenance operations and/or modifications, specifications for repairs/modification of equipment, technical documentation update.
- Onshore methods engineers reporting of equipments status (experience feedback, abnormal events, behavior, ageing, lifetime expectation ...).
- In charge of technical maintenance operations performed by Maintenance Contractors.
- Onshore methods assistance in preparation of modification and revamping files.
- Involved in operability / safety audits.
- Commissioning.

Project Manager .....ELTEK VALERE FRANCE  
TARBES  
07/2008 to 10/2009.  
<http://www.eltek.valere.com>

- Design and tests of industrial power electronic converters cabinets (battery chargers, UPS, DC/DC converters).
- Technical support in France.
- In charge of the design and installation of the new 48Vdc chargers, inverters, and DC/DC converters on block 3 offshore ANGOLA.

Development Engineer .....ALSTOM Transport  
SEMEAC  
01/2006 to 06/2008.

1<sup>st</sup> assignment :  
(from 01/2006 to 11/2007) : Development of an IGBT-based static switch and circuit breaker for 6600Vac medium voltage grid.

2<sup>nd</sup> assignment :  
(from 11/2007 to 06/2008) : Railenergy European Project (<http://www.railenergy.org/>) :

- Have a global view of all the various work packages.
- Synthesize essential information for the different ALSTOM TRANSPORT teams.
- Coordinate actions among the teams.
- Involved in simulation models specification and use.
- Technological development monitoring.

Power Semiconductor  
Devices Reliability Expert.....General Electric HealthCare  
BUC  
05/2005 to 12/2005.

Semiconductor devices qualification and validation for X-rays tubes high voltage generators.

## Work experience (continuation)

Semiconductor Devices  
Reliability and Technology Expert.....RENAULT  
TRAPPES  
11/2004 to 04/2005.

As an external contractor within the framework of a hybrid car pre design project, I played the role of technical expert in the selection of power semiconductor devices.

Maintenance Manager .....AL TAIF  
KING FAHD CULTURAL CENTER  
RIYADH, Kingdom of Saudi Arabia  
01/2003 to 06/2004.

Management of the electronic team in order to ensure optimal operation of all the electronic equipments (stage machinery, planetarium, Audio/Video equipments, fire detection installations, telephone installations, computers...).

Senior Engineer R&D .....DYNEX Semiconductor Ltd  
<http://www.dynexsemi.com>  
LINCOLN (UK)  
08/1998 to 08/2002.

High Power IGBT modules development. I acted as an interface between silicon designers and application engineers and provided a technical support with regard to ratings and electrical tests performed in production.

Maintenance and Calibration Technician .....MITELEL Semiconductor S.A.  
CHAMBRAY lès TOURS  
08/1996 to 07/1998.

In the MITELEL Semiconductor company, (formerly MARCONI Electronic Devices of the GEC PLESSEY Semiconductors group), I dealt with maintenance and calibration on fast power semiconductor testing benches.

Trainee for the preparation of C.N.A.M. thesis .....ALPHATEST  
LARCAY  
10/1995 to 08/1996.

Assignment: Design and construction of a close looped surge generator test bench for crowbar devices. This equipment was PC-controlled via Windows 3.11. The dissertation in French can be downloaded at: <http://www.chez-fred.net/CV/memoire.zip>

Maintenance and Calibration Technician .....MARCONI ELECTRONIC DEVICES  
CHAMBRAY lès TOURS  
09/1993 to 09/1995.

In the MARCONI company, subsidiary of the GEC PLESSEY Semiconductors group, I dealt with maintenance and calibration on fast power semiconductor testing benches.

Electronics Technician.....SAFT Power Systems.  
CHAMBRAY lès TOURS  
10/1991 to 09/1993.

Tests in plant, installation and troubleshooting for high power UPS systems all over the world.

## Advanced Training courses

ATEX AT/B001 training certificate .....	APAVE Angola, 07/2015.
Behavioural Average Modelling and SPICE Simulation of PWM and Resonant Converters .....	PCIM 2000 Seminar Nuremberg, 06/2000.
The contents of this training can be downloaded here: <a href="http://chez-fred.net/CV/training_PCIM2000.pdf">http://chez-fred.net/CV/training_PCIM2000.pdf</a>	
Presentation of a technical report .....	C.N.A.M. oral examination Stated on 09/1995 at the C.N.A.M. of TOURS.
Subject:	Limits and performances for high power thyristors in switching mode operation. This subject has been dealt with a semiconductor physics point of view. The report in French can be downloaded at: <a href="http://www.chez-fred.net/CV/Rapport_CNAM.pdf">http://www.chez-fred.net/CV/Rapport_CNAM.pdf</a>
Microsoft ACCESS master level .....	ADHARA INFORMATIQUE 05/1995, 36 hours.
Quality, Safety, nuclear plant service supplier .....	E.D.F. Paris 06 to 07/1993, 35 hours.
Electromagnetic compatibility .....	A.E.M.C. 12/1992, 32 hours.
Microprocessors, microcontrollers.....	G.R.E.T.A. TOURAINE 01 to 05/1992,60 hours.
Industrial training period .....	E.D.F. TOURS 05 to 06/1990.
Assignment:	Program development in advanced language (Pascal) for active protections for medium voltage transformers.

## Education

Electronics Engineer Diploma with honours Diplôme du Conservatoire National des arts et Métiers.....	C.N.A.M. of TOURS 1996.
D.E.S.T Measurement and Industrial Controls .....	C.N.A.M. of TOURS 1995.
D.U.T. Electrical Engineering and Applied Computer Studies .....	I.U.T. of TOURS 1990.
Baccalauréat F3 with honours (Electro technology).....	Lycée Grandmont of TOURS 1988.

## Skills

Languages :      French: Fluent                                  English: Fluent                                  Spanish: Basic

Computer science :

Operating Systems	Languages	Packages
all Windows, MsDos (all versions). A smattering of UNIX.	C, C++, Visual Basic, HTML. Assembler x86 and 68HC11	Microsoft Office, Visio, ACCESS, Publisher. PSPICE, IFS, SAP.

Self-taught.

## **PUBLICATIONS :**

Ratings of High Power IGBT Modules  
for PWM Inverters for Traction Applications.

*Frédéric Avertin, Dinesh Chamund, Bill Findlay*.....International Conference  
Power Conversion / Intelligent  
Motion / Power Quality  
Nuremberg, 06/2000

This paper I presented during the conference has been voted best publication and presentation of the PCIM EUROPE 2000 conference by the chairman committee.

The paper can be downloaded at: [http://www.chez-fred.net/CV/pcim\\_2000\\_Europe\\_paper.pdf](http://www.chez-fred.net/CV/pcim_2000_Europe_paper.pdf)

## **Hobbies & Interests**

Tennis, Music (passed with distinction Grade 5 Theory of Music of *The Associated Board of the Royal Schools of Music*), Piano playing, Internet.

Curious and inquisitive about how things work.

## **References**

**Eric Fanouillaire**

M&I Superintendent

TOTAL E&P ANGOLA

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