

Mr. Frédéric AVERTIN's Competences Record

fred@chez-fred.net

<http://www.chez-fred.net/>

<http://fr.linkedin.com/pub/frederic-avertin/38/a66/1a5/en>

Last significant employment _____

Electrician Specialist on offshore oil rigs in Angola

Mains realizations:

- Design, supervision of the replacement and commissioning of 48Vdc chargers (ELTEK-SFEE) on 8 sites. Reduction in loss of production to 1 hour.
- Involved in the replacement of former protection relays (CEE) by SEPAM. Protection settings optimization.
- PCB transformers replacement up to 5MVA (AREVA, France Transfo, OCREV...).
- Control and excitation cabinet replacement for 9MW turbo-generators with gas turbine. Supervision of all the electrical performance tests as well as GPC (DEIF) optimization settings.
- Reliability improvement for all homopolar protection devices.
- Realization and set up of new preventive plans with excel sheets for motors, transformers, chargers and battery with automatic plots of critical parameters versus time.

Competence area _____

Electricity:

- Networks and equipments up to 11kV,
- Rotating machines,
- Maintenance,
- Safety.

Electronics:

- Power electronics (charger, inverter, UPS),
- Physics, manufacturing, application, test and reliability of high power semiconductor devices (IGBT, Thyristors, Bipolar and Unipolar Transistors, Diodes).

Computer science:

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

Languages:

- French: Fluent,
- English: Fluent,
- Spanish: Basic.

Work experience

Electrician Specialist at Global Petroprojects Services AG

November 2009 - September 2011 (1 year 10 months)

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.
- Commissioning.
- Involved in operability / safety audits.

Project Manager at ELTEK VALERE FRANCE

July 2008 - October 2009 (1 year 4 months)

- Design and tests of industrial power electronic converters (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 at ALSTOM Transport

February 2006 - June 2008 (2 years 5 months)

1st assignment (from 02/2006 to 11/2007):

- Development of an IGBT-based static switch and circuit breaker for 6600Vac medium voltage grid.

2nd 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 at General Electric HealthCare

May 2005 - December 2005 (8 months)

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

Semiconductor Devices Reliability and Technology Expert at Renault

November 2004 - April 2005 (6 months)

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 at AL TAIF

January 2003 - June 2004 (1 year 6 months)

In the KING FAHD CULTURAL CENTER, I was in charge of the 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 at DYNEX Semiconductor Ltd

August 1998 - August 2002 (4 years 1 month)

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 at MITEL Semiconductor S.A.

August 1996 - August 1998 (2 years 1 month)

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

Trainee for the preparation of C.N.A.M. thesis at ALPHATEST

October 1995 - August 1996 (11 months)

Design and construction of a close looped surge generator 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 at MARCONI Electronic Devices

September 1993 - September 1995 (2 years 1 month)

Maintenance and calibration on fast power semiconductor testing devices.

Electronics Technician at Saft Power Systems

October 1991 - September 1993 (2 years)

I was in charge of tests in plant, installation and troubleshooting for high power UPS systems all over the world.

Publications

Ratings of High Power IGBT Modules for PWM Inverters for Traction Applications.
PCIM Europe 2000 June 1, 2000

Authors: Frédéric AVERTIN, Dinesh Chamund, Bill Findlay.

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

Education

Conservatoire National des Arts et Métiers

Engineer, Electronics, 1991 - 1996

I.U.T. Génie Electrique et Informatique Industrielle de TOURS

D.U.T., Electrical Engineering and Applied Computer Studies, 1989 - 1990

Lycée Grandmont de TOURS

Baccalauréat, Electrotechnics, 1987 - 1988

LEP de Grandmont TOURS

C.A.P., Electrical Construction Draftsmanship, 1985 - 1986

Advanced Training courses

- SAP Training "Systems, Applications, and Products for data processing"
Angola, 02/2000.
- 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:
http://www.chez-fred.net/CV/training_PCIM2000.pdf
- 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 here:
http://www.chez-fred.net/CV/Rapport_CNAM.pdf
- 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.
TOURS, 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.
- Industrial training period E.D.F.
TOURS 05 to 06/1990.

Distinction_____

Best publication and Poster/Dialog Session of the PCIM EUROPE 2000 conference.

The paper can be downloaded at:

http://www.chez-fred.net/CV/pcim_2000_Europe_paper.pdf

Habilitations_____

- Falck Nutec Rotterdam : HUET Plus, Helicopter Underwater Escape Training (Valid until Aug 2013).
- Falck Nutec Rotterdam : BOSIET Basic Safety Induction and Emergency Training (Valid until Aug 2013).
- Falck Nutec Rotterdam : H2S Induction (NOGEPa 0.8) (Valid until Aug 2013).
- APAVE : Professional Electrical certificate BR-B2V-H2V-BC-HC (Jan 2010).