#### Manuel Albano Nunes

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# Personal Information:

Date of Birth: 20.02.1948

Place of Birth: Beduído - Estarreja

Citizenship: Portuguese

Marine Engineer. - Marine Merchant Officer.

Driver's License - Cat. A1;A;B:C;BE;CE,

Coast Master License - IPTM

Radioamateur License - CT5JEX

Fiscal ID° 165615940

#### **Employment History:**

In 1963, after completing the 5th Year of the Industrial Course at the Commercial and Industrial School of Aveiro, concluded work experience as Machine and Tool Operator at Amoníaco Português de Estarreja, specializing mechanical late in turning large parts.

In 1964, after completing the work experience, joined the Infante D. Henrique School in Oporto to attend and complete the Specialization Course in Industrial Design, in the areas of Machinery design. Electrical, Electronics and Civil Construction.

In 1966 completed work experience as Mechanical, electrical and electronic equipment Planner and Project, at the Electrical Motor Factory FRAPIL in Aveiro, having designed and built other equipment for industry and the armed forces, and was co-author of the first alternator, totally fabricated in Portugal, of 10 KVA - Frapil, a machine which, due to its robustness and efficiency, is until today manufactured in the same range and far more developped than its prototype.

In 1996, interrupted this activity to join the Nautical School Infante D.Henrique, in Lisbon, to attend the course in Marine Engineering.

In 1967, fulfilled his compulsory military service at the Marines School, in Vale de Zebro, Alfeite Portuguese Navy Base.

In 1969, completed the Degree in Marine Engineering, initiating the required naval service with the National Merchant Marine and Foreign Units, to complement the mandatory military service as an officer and Marine Engineer, integrating the companies SG / CNN and others as offical member of staff, having specialized in the sailing of ships carrying hazardous materials - chemical, fuel, highly corrosive and volatile, reefer ships, general cargo and bulk carriers.

In 1978, in accumulation, teaches at the Nautical School Infante D. Henrique an Extra-curricular Course in Schematic Design and Electromagnetic Automation and Compressed Air, to the 3rd year of the Marine Engineer Courses and Complementary Courses.

In 1981, was invited to join as Technical Superintendent at the service of the Shipping Companies SG / CNN, in the fields of Fleet Management, Repair and Shipbuilding, through internal recruitment.

In 1985, with the liquidation of the National Shipping Companies, is selected to integrate a team of Marine Engineers, to establish and implement a shipping company, Portline, followed by the first Portuguese company of Shipmanagement, STEER; being responsible for ships carrying dangerous liquid cargo, solid bulk, and non-conventional ships.

During this time worked as a consultant in the company EUROTAGUS in the areas of Research and Application of Industrial Composites made of epoxy resins.

In 1987 emigrated to Canada and joined General Motors in the Automotive industry, and was later invited to join the staff at Fastners CANADA TORONTO, part of the DAVETC American Group, as Department Head of TRIMMING MACHINERY, starting the process of Manufacturing High Precision Components for Aviation with computer-aided equipment, using Easy-Cad and Auto-CAD 9 and 10 programs.

In 1991, with the outbreak of the Gulf War, the Free-trade and economic recession, returned to Portugal at the service of EUROTAGUS / Partex Ltd, part of multidisciplinary teams operating in Portuguese-speaking countries in the areas of Consulting, Technical Management of ships, Industry and Human Resources.

In 1992, at the service of the same company, was designated to direct the work of consolidating the vestment of concrete dams through injection of resin-based components, at an EDP (Portugal's principal Energy Supplier) dam in Pracana, with the objective of filling the reservoir above the river Ucreza.

Still manages the works of treating large areas in tankers and bulk carriers, tanks of large capacity for storage of toxic and highly volatile residues, at the GALP and Shell sites, also specializing in the application of self- leveling floors, waterproofing of concrete slabs and steel structures affected by corrosion.

In 1993, was invited to join the Group of Companies Salvador Caetano, as General Director in the area of Fishing, therefore moving to Porto Amboim, ANGOLA, to revitalize the Fishing Fleet and Industrial Fishing Complex - Fishing Amboim Ltd, re-launching the Electricity Production plants of Medium and High Power, the Refrigeration depot and the Scale Ice Production Towers.

In 1996, also at the service of Salvador Caetano, became Managing Director of the Companies; Atlantica - Companhia Portuguesa de Pesca; Crustacil; Sodisfrio and Amboim Pesca Lda.

In 1999, also at the service of Salvador Caetano, was appointed Director of the South Delegation of Cociga, SA; in the area of Construction, where he served cumulatively as Director of Works and Director of the companies mentioned above, until the 31<sup>st</sup> of October of 2003.

In November 2003, applied for the Retirement Fund, is currently retired but iniciated activity as an Independent Professional Engineer.

In 2003, dedicates to the study, research and development of power generation plants using sea water to produce hydrogen - with ecological and commercial purposes - studies which is still pursuing.

In January 2004 was invited by GERCO-MOTA-ENGIL Group, an Electrical and HVAC company, as Project Manager of the Electrical, HVAC, Hydraulics and Automation and Centralized Technical Management specialties, in the Azores, for the following:

- Rehabilitation and Renovation of the Micaelense Theater.
- Completion of Construction and Delivery of the Royal Garden Hotel.
  Delivery and Completion of the AVAC works of the Caloura Hotel.
- Delivery and Completion of the AVAC works of the Caloura Hotel.

  Delivery and Completion of the AVAC works at the University of the Azores
- Delivery and Completion of the Hydraulics works at the Atlântico Marina Hotel.

#### Professional activity from 2005 to 2012

Served at SCMA as an independent consultant, monitoring the supervision of ship building, at IZAR shipyards in Spain; Navalria in Aveiro; Naval Shipyards at Peniche and Zaliv in Ucrânia; activity he still holds.

# **Professional Accomplishments**

# Author of the following projects:

- Stripping machine for the interior of large pipes
- Automatic painting machine for the interior of large pipes.
- Paint roller for curved surfaces.
- Automatic untimely column system for Outboard Engines.
- Automatic vehicle break locking system on intrusion.
- Motorized cargo lift, with opening and closing of the Inter-floor trapdoor.
- Automatic painting machine for High Precision fillet screws for aviation for identifying the usage class.
- Project for dies and cutters for high precision bolts in Aviation, with sizes hitherto never produced.
- Concept design and implementation of a prototype for internal cleaning of air conditioning pipelines through computer assisted video cameras.
- Automatic robot for the diagnosis of air conditioning ducts of parallelepiped and circular chambers.
- Electric and retractable Mobile ATV with lifting platform for the maintenance of lighting systems in large buildings and metro stations.
- Hydraulic oil telescopic chair for Celestial observation with sidereal motion.
- Prototypes for Military use and Applications.

### Co-Author of the following projects:

- 10KVA alternator Frapil.
- Battery Charger CB-20A Frapil.
- Inverter Type Welding Machine Portable Frapil
- Accidental Leaking Detection System in the Vestments of Dams.
- Measurement System of water flow Remains in the Vestments of Dams.

### **Education:**

- Industrial Training Course
- Industrial Designer Training Course
- Course in Marine Engineering
- Complementary Course of Marine Engineering
- Technical Superintendent of Ships

Course in Automation Compressed Air

Course in Auto-CAD - version 4 and 2000 PRO

International Certification for the exercise of the activity as Marine Merchant Officer

# **Professional Qualifications:**

- Accounting Assistant
- Operator of high precision machinery and tools
- Construction Worker
- Construction, Mechanical and Electromechanical designer
- Marine Engineer Officer
- Technical Superintendent of Ships
- Trainer for European Social Fund Courses
- Business Manager
- Independent Expert

#### Technical and professional Specialties of Average Duration:

- Sulzer-Wintertur Apprenticeship in Manufacturing of high power engines.
- Autrónica Trondeim Norway Internship in Electronics Manufacturing Automation.
- General Motors Canada Toronto, Automotive Industry.
- Toronto Fastners Canada Toronto, Aeronautics Industry.

#### Technical and professional Specialties of Long Duration:

- Basic Course on Damage Limitation and Survival (Navy)
- Fire Extinguishing Course First Brigade of Intervention. (Navy).
- Coast Master License. (IMPT)
- First Aid Course. IMPT Navy School (2005).
- Lifeboat Driver's License.

# Interests:

- Writing.
- Reading.
- Music.
- Model airplanes, ships and helicopters.
- Development of Automation Prototyping for Military Use.
- Radio communication UHF / VHF / HF and TVA. CT5JEX.

# **Professional Memberships**;

- SEMM Sindicato dos Engenheiros da Marinha Mercante. (Marine Marchant Engineers Union)
- APET Associação Portuguesa de Engenheiros Técnicos. (Portuguese Association of Technical Engineers)
- ANET Associação Nacional dos Engenheiros Técnicos. (National Association of Technical Engineers)
- OET Ordem dos Engenheiros Técnicos.
- COMM Clube de Oficiais da Marinha Mercante. (Navy Officers Club)
- REP Rede de Emissores Portugueses. (Portuguese Transmitters Network)
- SCF Sport Clube da Freiria. (Sports Club)
- ARADO Associação de Radioamadores do Oeste Torres Vedras. (Association of Radioamateurs)

Torres Vedras, 23.05.12