

PERSONAL INFORMATION **Octavian Ionescu**



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Sex M | Nationality Romanian

WORK EXPERIENCE

March 2021 - Present

Associate Professor
Petroleum and Gas University of Ploiesti

- Delivering classes and conducting laboratory work (labs, seminary, projects) for subjects : Microcontrollers, Frequency converters,, Advanced computer architecture Electronic Technologies.
- Developed a new laboratory for Microcontrollers within the University
- Writing project proposals and articles

Feb 2020 - Present

Technical Director
Genesis Biotech

- Repowering and upgrading to 2 MW the plant from Filipestii de Padure
- Participate in the design development and star-up of a new plant 2.9 MW at Cordun Neamt,
- Obtain the Certificate of Conformity from ANRE for this plant.
- Participate in the design and development of two new plants in Almaj-Dolj and Pischia Timis, each of them 2.9 MW.

Feb 2016- Present

Researcher
National institute for microtechnologies INMT

- Design and Development of smart sensors platforms capable to communicate wireless
- Participate into microwaves programmes according to the contracts conducted by laboratory
- Technical support for the development of tests stands and interfaces for the developed sensors
- Apply for research grants and programmes in the national and European competition

Nov 2015-January 2016

Smart Sensors Architecture development

Honeywell Romania SRL (ACS Sensors development laboratory)

- Design and Development of smart sensors platforms capable to communicate wireless.
- Applied and won a two million project at Romanian Airspace Agency (lost due to the SLB closing)
- 2 US Patents applications filled (one for lion battery life prolongation one for intelligent balancing system for Lilon battery charging)
- Participate into microwaves programmes according to the contracts conducted by laboratory
- Technical support for the development of tests stands and interfaces for the developed sensors
- Implementation of testing and compensation algorithms in the new "Intelligent Sensor";
- POC for wireless based connectivity boards

Business or sector Production of smart sensors systems, microwave equipment

Feb, 2014 – Nov 2015

WBDL- AGS (Wide Band Data Link) Project Manager and Senior Developer

Elettra Communications SA (www.elettra.ro)

- Project manager for WBDL AGS NPI, production and test
- Supervise the design transfer, bills of materials, prepared the production plan, the testing plan, Quality plan.
- Design and Development of testing infrastructure for antennas (anechoic box, turning table,)
- Technical support development of tests stands and interfaces for high frequencies modules of equipment (low noise amplifier, solid state power amplifier in K Band,)
- Resource management (up to 5 electrical and mechanical engineers, and ten technicians)
- Production preparation, follow-up and reporting

Business or sector Production of communications systems and development of testing strategies, equipment for avionics.

March 2009 – present

Associate professor at Petroleum and Gas University from Ploiesti , Applied electronics Section of ACE (Automation Computers Electronics) Department

- Teaching (course, labs, seminary, projects) for subjects : Microwave, Computer Assisted Design, Electronic Technologies.
 - Developed two new laboratory for Microwaves measurements within the university.
 - Managed 3 research programmes and participated in other 7
 - In order to prove the usefulness of Internet of Things concept started the development of laboratory equipped with a wireless smart grid capable of connecting sensors, control equipment and computers
 - Participated in the management team for a POSDRU Programme
 - Delivered requests to National patents office for 5 Patents for systems developed during the research programmes
 - Wrote as main author and participated in the working team 6 ISI Articles, 12 BDI articles and 10 Projects Research reports
- **Business or sector** education and research

Jan, 2012 – Oct 2013

Technical manager in the development Programme of the first Romanian Energy Power Plant based on biogas BIO 2 Filipestii de Padure

- Prepared the conceptual design, technical specifications, RFPs,
 - Participated in the selection of equipment , acquisition, and further in the incoming inspection of all the equipment for this plant.
 - Supervised the construction, equipment installation and start up tests
 - Supervised the tuning of installation and connection to the grid
 - Obtained the certifications for obtaining the Green Certificates and Co generation incentives
- **Business or sector** Project management for Electrical power Production from renewable resources

October, 2010- Jul 2011

Logistics Officer UNITED NATIONS - DPKO , DFS

United Nations New York)

- Provided the management for the logistics in the MINURCAT mission “
- **Business or sector** Projects Mangement

May , 2009 – March 2010

Project Manager

ADEPLAST Corlatesti

- Managed the programme for building, commissioning and tuning ADEPLAST's new production factory from Corlătești/Prahova.
 - Provided the liaison between the provider of equipment and the working team which installed the equipment. Developed Engineering Change Proposals (ECPs), including design and preparation of prototype as required, and assisting in implementing Engineering Changes (ECs).
 - Verified the design for the electrical harness of facility and corrected the mistakes, supervised the installation of all the electrical and automation equipment in the facility. Supervise the operational testing of the equipment. Provide inputs for improvements of the automation software and managed the production for the first six months in order to certify that all the designed parameters are accomplished. Coordinate the logistic support for the supply with raw materials for production, spare parts for maintenance
 - Fulfilled the construction of the plant and started the production at the end of September 2008, three months before the estimated deadline.
 - Successfully finished the work for tuning the production equipment, and improving the automation software for the facility. At the end of March 2009 the plant was capable of producing at nominal parameters 800 tonnes / day.
 - Established the maintenance plan for the equipment within facility.
- **Business or sector** Project Management

Oct, 202 – March 2009

Technical Analyst

United Nations New York

- Analyzed available information regarding industrial production activities in the area of delivery systems such as ballistic missile, cruise missiles and unmanned aerial vehicles. Prepared reports and briefing material for senior staff of UNMOVIC, College of Commissioners and Security Council.
- Analyzed declared capabilities of production plants, research facilities and universities for electronic, electro-mechanical, mechanical equipment. Established their capabilities to be used for producing components for military use and especially for production of delivery systems.
- Member of technical panel that studied and developed an improved monitoring system for machine tools capable to produce military equipment. The developed system presented a complete new approach by using optical, vibration, proximity / frequency, infrared and laser sensors. All those sensors were integrated in a secure wireless network, linked through satellite channel with the Headquarter and thus providing real time remote monitoring of supervised area.
- Coordinated a research team which had the task to develop and implement a tracking system for supervised equipment. The system developed was based on RFIDs (radio frequency Identification Devices); comparing with the GPDS based system the newly developed system provide high reliability, is protected to jamming, and has accessible costs in regard with its production and maintenance.
- Lectured in training courses for UNMOVIC roster of experts. Prepared and delivered courses concerning new electronic and electro mechanic technologies and equipment with capabilities to be used in aeronautics and aero-spatial area.
- Prepared technical assessments and evaluation of several delivery systems produced by a monitored country. A list of those books is presented in the section Articles and Publications

Business or sector Technical Verifications

Oct, 1999 – Jul 2005

Major engineer, Romanian Ministry of Defense- Air Force Headquarter, Air Defense Logistics Division

Air force Head-quarter Bucuresti, Romania)

- Coordinated activities of 14 subordinated logistic offices. Coordinated the education of technical specialists, certified and approved training programs, curriculum, instructors. Coordinated the refurbishment, maintenance and supply with spare parts and materials for the air defence equipment at national level. Drafted technical instructions for maintenance, calibration and shelf life extension for electronic and electromechanical equipment. Planned and coordinated the budget for equipment maintenance and the supply with key spare parts.
- From 1999 to 2002 supervised maintenance activities for electronic and electro-mechanical equipment; all equipment was fully operational and ready to fulfill all the operative tasks.
- Managed research activities and implemented programmes for shelf-life extension for electronic and electromechanical equipment.
- Planned and supervised the development of a new maintenance facility capability for the maintenance of electronic and electromechanical equipment. Prepared technical documentation, maintenance instruction, lectured in the process of training technical experts for this new mission. Participated in the design and production of verification and calibration stands. From 2000 to 2004 were saved over 10 million dollars by using this facility.
- Participated in the process of testing and acceptance for various equipment acquired by SMAFA. Prepared technical analysis and presentations regarding that equipment, participated in the installation and start up the exploitation.
- Developed a comprehensive database of missiles, related ground support equipment, radars, power supply stations, fueling equipment at the level of headquarters.

Business or sector Management of Logistics

Sep 1991-Oct1999

Manager of the section of maintenance and production of air defence systems within Electromecanica SA Ploiesti, Romania

Electromecanica SA Ploiesti

- Managed in an effective manner, specific activities of section for production and maintenance of electronic, electro-mechanical equipment (2 technical officers, 17 NGO's, 100 civilian specialists).
- Coordinated the development and implementation of new technologies, diversified area of services provided by the section and introduced new types of equipment for production, maintenance and calibration. Designed and produced test and calibration stands, technical instructions for troubleshooting, verification and calibration. From 1990 to 1994, over 20 new types of equipment were maintained. In 1994 undertook the implementation of the production line for a missile launcher; between 1994 -1998 were produced 30 launchers with a value of over 50 million USD. In parallel, cooperated with Military Research Institute for the development of an automated launching version of the system. The prototype was fully operational in October 1998 and was presented to the Ministry of Defense.
- Developed a laboratory for microwave equipment measurements and calibration.
- Participated in the acceptance testing for various types of electronic and electro-mechanical equipment imported between 1990 and 1998.
- Member of the research team that developed and implemented a safety system for launching medium range missile in the national firing range. The system was developed, awarded with a patent and saved over 50 millions of USD for the Romanian MOD.
- Managed the quality control system within the managed section. Prepared technical documentation and supervised the implementation of ISO 9001- 9007 quality control system; in 1997 the section was certified ISO 9001/ 9002.
- Managed the safety and security activities within the managed section teaching (labs, seminary, projects) for subjects: Electrical measurements, Electrical and electronics measurements, Measurements and transducers

Business or sector Missile maintenance and production

EDUCATION AND TRAINING

- 2015-2017 **Master in Electrical engineering (Modern methods for production and delivery electrical power)**
- July . 2005 **PHD Diploma in Technical Sciences, Automation**

Petroleum and Gas University Faculty of Automation, Computers and Electronic, Ploiesti (Romania)

“Development of an expert system for GMA Welding using the image of droplet transfer”

1986-1990 **MS-BS**

Electronics, Military Technical Academy Bucharest

Thesis title “Homing head for infrared guided missile”

ANRE Licence A2/B2

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
	Replace with name of language certificate. Enter level if known.				
French	B2	B2	B2	B2	B2
	Replace with name of language certificate. Enter level if known.				

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Computer skills

- Proficiency in using PCB computer assisted design and test software packages such as TARGET 2001, CADENCE ORCAD, Circuit Maker
- Proficiency in using LabView software package
- Proficiency in using COMSOL Multiphysics® development and simulation software package
- Proficiency in using Mathlab -Symulink software ,
- Basic knowledge in using C++
- Good knowledge in using MS OFFICE, preparing presentations in Power Point, using the Excell datasheets etc

Communication skills

- Good communication skills gained through project manager experience and experience as university associate professor, relationship with university

Organisational / managerial skills

- leadership (currently responsible for a team of 13 people) also experience as university associate professor

Job-related skills

- Expertise in design, production and maintenance for electronic, electrical and electro-mechanic equipment; including planning the logistic support for highly complex electronic and electromechanical systems.
- Expertise in smart green development as well as good knowledge of Internet of Things conceptual design
- Expertise in the management of production and maintenance facilities.
- Expertise in operating, troubleshooting / maintenance for radio and wire communication equipment.
- Expertise in image acquisition, analysis and pattern recognition.
- Proficiency in electro magnetic wave measurements.
- Expertise in troubleshooting and maintenance of computer hardware.

- Other skills
 - Good knowledge in operating and assessing results for X-Ray equipment, Ultrasound measurement equipment. Certified to operate and maintain the portable GSMS (Gas Chromatograph and Mass Spectrometer) produced by Inficon.
 - Good knowledge on European, African and Middle East culture and history.
 - Good Writing and Presentation Skills

Driving licence ▪ Category B

ADDITIONAL INFORMATION

Books:

- Compendium of Iraq's Proscribed Weapons Programmes in the Chemical, Biological and Missile area,.2007, UNMOVIC webpage
- Al Samoud 2 report UNMOVIC classified
- Al Fatah report, UNMOVIC classified
- Iraq's guidance and control programmes, UNMOVIC classified
- Dumitrescu I., Bucur. C., Ionescu. O., s.a., Electrical measurements, Editura AGIR, Bucuresti, ISBN 973-8130-48-4, 2001.
- Instructions for SA-2 5la 23 surface to air missile life- extension,Romanian MoD, classified
- Maintenance and calibration instructions for SA-6,3m9m3e missile homing head,Romanian MoD, classified
- Maintenance and calibration instructions for the 3m9m3e missile, mobile testing facility, Romanian MoD, classified
- Maintenance and calibration instructions for the SA-3 2V27D missile, mobile testing facility, Romanian MoD, classified

Articles

- O. Ionescu, I. Dumitrescu, G. Ionescu – The use of optical sensors in GMAW welding processes automation. Welding Journal nr.2/2005, pag.16-20.
- Octavian Ionescu, Ioan Dumitrescu, Gabriela Ionescu – Study on using the electric arc light in the assessment of the GMAW-P quality control, The Annual Symposium of Solid Mechanics, SISOM 2005, București, Mai 19-20.
- Ionescu, O., Dumitrescu, I., Ionescu, G. - Expert system for GMAW OPOD adaptive control based on weight associative rule processor, 5th International Conference "Research and development in mechanical industry", RaDMI 2005, 04 - 07 Septembrie,2005, Serbia and Montenegro.
- O.N. Ionescu, G.C. Ionescu – Study on the use of GMAW welding process recorded image for maintaining a constant length of the electrical arc , Lucrările celui de-al XI-lea Simpozion național de Mecanica ruperii, 21-22 Octombrie 2005, Ploiești, pag. 219-224.
- Gabriela Ionescu, Octavian Ionescu – Improvements in control of thermal spray coating, SISOM, 2006, pag. 446-450.

Awarded Patents:

- Safety system for using medium range missiles in the small dimensions firing ranges
- System for airports protection against terrorist attacks by using MANPADS

Filled patents:

- Life prolongation for Lithium Ion Batteries by using microwave radiation
- Intelligent adaptive balancing system for Lilon batteries

ANNEXES