

JULIEN NOEL

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OBJECTIVE

A position as Research Engineer

HIGHLIGHTS OF QUALIFICATIONS

- 5 years of experience in the design and fabrication of nano/microelectromechanical (N/MEM) systems for space based and biosensor applications
- Expertise in RF engineering, solid states devices, superconductivity, and photonics
- PhD in Electrical and Computer Engineering
- Strong skills in semiconductor fabrication techniques including photolithography, pulsed laser deposition, RF/DC magnetron sputtering, evaporation and reactive ion etching under ultra high vacuum conditions
- Excellent at using instruments such as scanning electron microscopy (SEM), atomic force microscopy (AFM) and X-Ray diffraction for thin film characterization
- Proficient in Sonnet, LASI, AutoCAD, Orcad-PSpice, MathCAD, Adobe Illustrator\Photoshop, Microsoft Office, GanttProject
- Publication of scientific papers on RF Engineering and Superconductivity
- Trilingual: English, French and Spanish

PROFESSIONAL EXPERIENCE

Research Engineer

2006 – 2007

Future Aerospace Science & Technology Center, Florida International University, USA

- Engaged in the development, design, simulation and testing of the state of the art RF MEMS devices for cryogenic applications
- Prepared systems operating specifications, testing procedures and performed analysis to determined the fabrication and operation yield of devices
- Developed conceptual ideas and designed prototypes for new communications devices
- Prepared projects presentations, schedules, specifications proposals and coordinated maintenance program for laboratory equipment and machinery
- Coordinated materials characterization and device development activities
- Installed the first world wide μ PG101 table top maskless laser patterning system from Heidelberg Instruments

Research Engineer/Lab Manager

2005 – 2006

Nanophotonics Research Group, Florida International University, USA

- Conceived, created prototype and submitted patent for a new waveguide coupling probe for optical characterization
- Evaluated advanced technologies for microfluidic systems and lab on chip development for DNA, chemical substances and selected drugs detection
- Instructed, assisted and supervised users in proper cleanroom protocol at the Motorola Nanofabrication Research Facility

Research Assistant 2002 – 2005

Future Aerospace Science & Technology Center, Florida International University, USA

- Developed, optimized, fabricated and tested high temperature superconducting RF MEMS switches for space and communication applications
- Simulated High temperature Superconductors (HTS) microwave devices such as high-Q resonators and filters using Genesys and Sonnet Suites software
- Managed safety programs for the use of ultra high vacuum deposition systems and procured lab equipment and superior quality chemical materials
- Supervised undergraduate students on research projects for nano/micro devices design and implementation

Junior Project Analyst 1997 – 1999

Schneider Electric, Metz, France

- Managed projects for the replacement of old hardware and wiring of a hydroelectric plant renovation including schedules, budget and manufacturing costs
- Evaluated analysis results and prepared written reports including recommendations and suggested improvements and met customers at their sites to review and identify their needs
- Generated electrical and power layouts and system diagrams using AutoCAD software
- Performed PLC programming and control system design

EDUCATION**Doctor of Philosophy (PhD.)** in Electrical and Computer Engineering 2007

Florida International University, USA

Master of Science degree in Electrical and Computer Engineering 2004

Florida International University, USA

Bachelor of Science degree in Electrical and Computer Engineering 2001

Florida International University, USA

PROFESSIONAL DEVELOPMENT**Responsible Conduct of Research Program** 2006

Florida International University, USA

Laser, Radiation, Laboratory Safety, Hazwoper Awareness, Personal Protective Equipment, Chemical Fume Hood Safety, Fire Safety Orientation 2005

Florida International University, USA

MEMBERSHIPS AND AFFILIATIONS

Professional Engineer Ontario (PEO), 2007 (applicant)

Member, Institute of Electrical and Electronics Engineers (IEEE), 2001-2007

Lifetime Member, Electrical Engineering Honor Society, Eta Kappa Nu, (HKN), 2001

INTERESTS

Traveling, Soccer and Photography

REFERENCES AND PUBLICATIONS AVAILABLE UPON REQUEST