

# JEFFREY SOUSSANA

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## EDUCATION

B.Eng., Mechanical Engineering (Propulsion Option)  
Concordia University, 1993

## ASSOCIATIONS

*L'ordre des ingénieurs du Québec* (No. 111316)

## EXPERIENCE – PROFESSIONAL

**2009 – Present**

**MUXLAB / Montreal, Quebec**

POSITION: Technical Writer & Design Engineer (contractual basis)

SUMMARY: MuxLab is a leading designer and manufacturer of connectivity solutions that allow CCTV and audio-video equipment to be connected in a structured cabling environment via cost-efficient Cat 5e/6 twisted pair cables. I began proofreading and correcting manuals on a contractual basis for MuxLab, and my work has recently expanded to include the conception and design of a new mechanical enclosure, complete with PCB.

FUNCTIONS:

- Writing, proofreading, and correcting of technical manuals and installation guides
- Conception and design of mechanical enclosure and PCB
- Preparation of detail drawings

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**2008 – 2009**

**MITEC TELECOM / Montreal, Quebec**

POSITION: Design Engineer / Wireless Telecommunications Group (contractual basis)

SUMMARY: Mitec Telecom is a global designer and provider of telecommunication products and solutions. Mitec focuses on two areas of operation: Wireless Telecommunications (Telecom) and Satellite Telecommunications (Satcom). I was hired for two 6-month contracts to drive the design of Mitec's first off-the-shelf product for the wireless telecommunications industry and other wireless products.

FUNCTIONS:

- Conception and design of a wireless DAS (Distributed Antenna System)
- Preparation of assembly instructions, detail drawings, and part lists
- Writing of ECNs and driving of products into production

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**2000 – Present**

**SABER DESIGN / Brossard, Quebec**

POSITION: Inventor and Designer (2000 – 2007)

SUMMARY: Saber Design is a home-based business, the primary goal of which was the commercialization of a device targeted at the automotive industry. This device, for which three working prototypes were built, was designed to enhance driving safety.

FUNCTIONS:

- Conception, modeling, testing and analysis of various working designs
- Preparation of assembly & detail drawings, including BOMs
- Outsourcing for parts purchasing and manufacturing
- Patent research and technical writing

POSITION: Translator and English Writer (2002 – Present)

SUMMARY: In parallel with the development of a commercial invention, Saber Design undertook a contract with a Paris-based firm to translate French documents into English, thereby supporting the R&D costs associated with the invention process.

FUNCTIONS:

- Translation of French documents into English
- Source checking, proof-reading, and final editing

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## **SUMMER 2006**

### **MITEC TELECOM / Montreal, Quebec**

POSITION: Design Engineer / Satellite Communications Group

SUMMARY: Hired on a 3-month contractual basis to create a new line of KU-Band Hub Mount SSPA (Solid State Power Amplifier) and other products.

FUNCTIONS:

- Conception and parametric design of RF amplifiers and rack-mounted systems
- Preparation of assembly and detail drawings
- Assembly of prototypes

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## **2001 – 2002**

### **NHC COMMUNICATIONS / Montreal, Quebec**

POSITION: Technical Writer

SUMMARY: NHC Communications was a provider of carrier class test access and deployment solutions for the copper-based telecommunications and Internet access markets.

FUNCTIONS:

- Drafting, writing, proof-reading & compilation of technical documents and manuals
- Creation of indices using RoboHelp

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## **1998 – 1999**

### **WAVESAT TELECOM / Montreal, Quebec**

POSITION: Head of Mechanical Engineering Department

SUMMARY: Wavesat Telecom is a manufacturer of high-tech wireless technology for the telecommunications industry. Established in 1993, Wavesat secured a reputable position in the industry within only five years, leading in the development and commercialization of high-power RF and microwave solid-state amplifiers.

Hired to establish a mechanical engineering department at Wavesat, I interviewed, hired, and trained a team of mechanical engineers, as well as implementing a design process that incorporated a parametric 3D CAD system.

FUNCTIONS:

- Management of the Mechanical Engineering Department
- Interviewing, screening and hiring of mechanical engineers and draft-people
- Design and design overview of solid-state amplifiers and waveguides
- Liaison between Wavesat and machine shops
- Design testing and troubleshooting
- "Crisis" management

MILESTONES:

- Establishment of the Mechanical Engineering Department
- Establishment of Pro/ENGINEER as primary design tool
- Design of new family of rackmount-based products
- Design of roughly a dozen new amplifier systems
- Institution of procedures between departments
- Institution of thermal analysis protocols

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## **1994 – 1997**

### **MODULAR VISIONS SYSTEMS / Montreal, Quebec**

POSITION: Project Manager & Design Engineer

SUMMARY: Modular Visions Systems (MVS) was a high-tech firm located in St. Laurent's industrial park. Primarily involved in machine vision products, MVS worked to develop three major product lines:

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- (1) Welding Quality Control Sensors
- (2) Microchip Lead Inspection Devices
- (3) Coordinate Measuring Machines (CMMs)

My role in the company touched on all three of these products, initially redesigning and correcting older mechanisms, then conceiving and designing optical and mechanical systems from the ground up, and finally culminating as project manager for a new laser-based welding sensor, sold to Honda Japan.

## FUNCTIONS:

- Project Manager, MVS 5 Welding Sensor
- Envisioning and implementing problem-to-solution work strategies
- Design of new mechanical, optical, & pneumatic mechanisms for R&D projects
- Preparation of complete assembly and technical drawings
- Design testing and troubleshooting
- Parts list documentation
- "Crisis" engineering

## MILESTONES:

- Electrical and thermal insulation of laser diodes in welding sensors
- Design of an optical sensor to detect misalignment of parts
- Redesign of automation unit for microchip Scanner
- Design of Marking Inspection Unit
- Design of Lead Frame Holder

## EXPERIENCE – UNIVERSITY

1992

### **PROGRAMMER: TURBOJET ROTOR BLADE SIMULATION**

#### SUMMARY:

Designed computer program to simulate gas flow through a multistage jet engine compressor. The object of this simulation was to determine the 3D shape of turbofan blades through the use of the Radial Equilibrium Equation.

#### FUNCTIONS:

- Program conception and construction
- Writing of final report (50 pages)
- Design and analysis
- Troubleshooting

## LANGUAGES

English  
French (Fluent)

## COMPUTER SKILLS

- CATIA V5
- AutoCAD
- Excel
- Word
- FORTRAN
- Pro/Engineer
- SolidWorks
- Quattro Pro
- WordPerfect
- C

## REFERENCES

1. Wolfgang Blach – President, Servotron Inc. (WBlach@Servotron.com)
2. Michel Michaud – Professor, Concordia University (Htgmicm@videotron.ca)