



## Electrical Engineer

Victoria, BC

On behalf of our client, **Forest Technology Systems (FTS)** a member of **Advanced Environmental Monitoring (AEM)**, we have a terrific opportunity for a results-driven **Electrical Engineer** to join their growing **Victoria**-based company. The Electrical Engineer will continue to build and manage new and existing hardware data-loggers and high-end environmental sensors. The electrical engineer is responsible to design and deliver high-quality products within the product development lifecycle.

If you are an Electrical Engineer looking for challenges in designing low-power electronics for remote sensor, data acquisition and telemetry equipment, that leverages solar charging capabilities while sampling environmental conditions with high accuracy, we encourage you to consider this unique opportunity.

With climate change on world-leaders minds, FTS is uniquely poised to help such leaders measure and provide the data to help shape society's interaction with the environment around them. Join FTS and be a part of the a leading edge environmental monitoring technology company, supporting wildfire and hydrological command centres with real-time data that saves lives, property and ultimately the environment.

### Responsibilities of the Electrical Engineer include:

- Strong understanding of electrical engineering concepts and the tooling used to design, build and debug electronic systems.
- Design, Prototype, Develop and Debug PCBs and PCAs.
- Work with contract manufacturing houses to fabricate and build custom hardware.
- Researching and obtaining first-articles of hardware for use in FTS products.
- Bill of materials (BOM) creation and maintenance.
- Documentation and Design within standard design repositories.

To find out more about the role, be sure to review the Job Description at [www.TallSky.ca](http://www.TallSky.ca)

**Advanced Environmental Monitoring (AEM)** is combining global leaders to provide reliable and innovative environmental monitoring and analysis solutions. Our family of innovators offer world-class technologies and services, including sensors, dataloggers, telemetry, and software that provide advanced analytics and prediction. These technologies enable decision makers to improve their reaction time to weather and environmental events, helping to protect communities, people, and infrastructure.

As part of the AEM family of innovators, FTS helps build resilient communities by reducing the impact of extreme weather events through reliable, secure, and innovative situational awareness. For over 40 years, FTS has been designing solutions for mission-critical applications all over the world.

### Our ideal Electrical Engineer brings:

- Minimum 3-year industry experience creating embedded systems, including schematic design and PCB layouts

- Strong experience with creation of PCB/PCAs from scratch.
- Demonstrated aptitude for development and debugging analog and digital electronic products
- Familiarity with electronics systems that are low power and are powered via solar power.
- Experience designing modern low power consumption surface mount PCAs as well as tooling to measure and monitor power consumption
- Experience with Altium Designer, version control systems for software and CAD systems
- Experience managing external partners to help accelerate product development
- B.Sc. or M.S. in Electrical Engineering, Computer Engineering, or related discipline
- Ability to work well in a group and coordinate development efforts with electrical, mechanical, and software engineers.

### **How to Apply:**

After reviewing the full Job Description at [www.TallSky.ca](http://www.TallSky.ca) qualified applicants for the role of Hardware Team Manager are encouraged to apply in confidence to [TallSky Consulting](#) with a resume and covering letter that indicates how your education and experience meet the requirements of this position.

*We thank all candidates who apply; however after initial acknowledgement of application, only those selected for further consideration will be contacted.*

## Position Description

**Title:** Electrical Engineer  
**Reports To:** Hardware Manager  
**Position Type:** Full time  
**Department:** Engineering  
**Location:** Victoria, British Columbia  
**Date Prepared:** January 2021

### BACKGROUND

Advanced Environmental Monitoring ([AEM](#)) is a network of global leaders that provide reliable and innovative environmental monitoring and analysis solutions. AEM offers world-class technologies and services; including sensors, dataloggers, telemetry, and software that provide advanced analytics and prediction. These technologies enable decision makers to improve their reaction time to weather and environmental events, helping to protect communities, people, and infrastructure.

As part of the AEM family, Forest Technology Systems ([FTS](#)) helps build resilient communities by reducing the impact of extreme weather events through reliable and secure situational awareness. For over 40 years, FTS has been designing solutions for mission-critical applications all over the world.

### PRIMARY JOB OBJECTIVE

As an Electrical Engineer, you will work as a member of the product development team to design robust, high-quality products. You will continue to build on the FTS platform of weather monitoring hardware; activities will include designing, validating, and testing PCAs.

The key to your success will be your ability to drive designs and find solutions for the complexity of problems involving low-power data-logger products and the extreme accuracy of environmental sensors.

### DUTIES AND RESPONSIBILITIES

- Responsible for the completion of development or design tasks with high quality, in a timely fashion as assigned by the hardware manager.
- Creation of (design, prototype, development, or debug) robust electronic circuits while being mindful of cost and other constraints
- Documentation of design and development processes in accordance with ISO:9000 standards
- Conducting and participating in design reviews
- Researching and obtaining first-articles of hardware from off-the-shelf providers as well as custom manufacturing facilities
- Bill of materials (BOM) creation and maintenance
- Provide support to various organizations inside of FTS including production and service departments

### QUALIFICATIONS AND EXPERIENCE

#### Required Qualifications

- Minimum 3-year industry experience creating mixed analog and digital embedded systems, including schematic design and PCB layouts.
- Strong understanding of electrical engineering concepts and the capability to be self-guided on electronic projects.
- Experience with creation of PCBs and PCAs from scratch
- Demonstrated aptitude for development and debugging electronic products



- Familiarity with electronic systems that are low power and powered by solar panels.
- Experience designing modern low power consumption surface mount PCAs as well as tooling to measure and monitor power consumption
- Experience with Altium Designer, version control systems for software and CAD systems
- Experience managing external partners to help accelerate product development
- B.Sc. or M.S. in Electrical Engineering, Computer Engineering, or related discipline
- Ability to work well in a group and coordinate development efforts with electrical, mechanical, and software engineers.

### **Bonus Qualifications**

- Experience with international regulatory certification requirements and testing including EMC/EMI compliance, electrical safety, and environmental testing.
- Experience with RF and communications electronics
- Experience with Ethernet, Bluetooth, WiFi and 2G/3G/M2M wireless.
- Experience in environmental monitoring and sensing.
- Experience with remote telemetry, cellular and satellite systems including GPS, Iridium, GOES, BGAN and Star-link

### **PERSONAL CHARACTERISTICS**

- Results driven.
- Excellent written and oral communication skills.
- Strong analytic and problem-solving skills.
- Meticulous attention to detail.

### **QUALITY**

It is each employee's responsibility to comply with FTS quality program. It is the employee's responsibility to identify non-conformity and initiate appropriate corrective actions.

### **DISCLAIMER CLAUSE**

The above statements are intended to describe the general nature and level of the work being performed by the employee assigned to this position. There are no exhaustive lists of all duties and responsibilities, knowledge, skills, abilities, physical job demands and working conditions associated with this position.