

Borrum Energy Solutions Inc.

Position: R&D Electrical Engineering or Computer Science Full Time

Location: Region of Waterloo

Salary: Commensurate with Experience and skills

Start date: September 13th, 2021

Duration: Permanent



Background:

Borrum Energy Solutions (WWW.BorrumEnergySolutions.ca), designs microgeneration wind turbine and associated tower. BES's engineers design everything from the tip of the blades to the guyed wire tilt tower foundations. The design supports "some assembly required by the end customer" reducing installation costs.

The targeted markets include:

- Single dwellings in Northern communities to reduce their dependency on diesel generation and reduce associated energy costs.
- Tiny houses to reduce their dependencies on grid electricity
- Cottages to reduce electricity costs.

The electricity generated is off grid, behind the meter and can power space heaters, water heater elements or charge batteries. In summary, we offer our target markets the opportunity to generate clean renewable energy to reduce their carbon footprint and total electricity costs.

Research activities take place in close collaboration with local universities. The R&D engineering team is progressing on the design for a 3.4kWh microgeneration turbine for military and residential use.

We are looking for a recent university graduate in electrical engineering or computer science to develop the software and hardware for an electromagnetic turbine speed control system to complement the existing mechanical furling system. The net result is higher energy generation.

Responsibilities / R&D

The successful candidate will be responsible for the following in relation to the electromagnetic turbine speed control system:

- Circuit design and simulation
- Control system algorithm design, development and simulation
- HW circuit development (with the help of a technician)
- Control system prototyping and lab testing
- Field testing oversight and analysis
- Productization

Qualifications:

- Recent graduate in electrical engineering or computer science.
- Masc. or M.Eng. would be an additional asset

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- Self-starter,
- Driven individual,
- Work well with others,
- Project driven,
- Experience with
 - Circuit simulation
 - HW circuit board design

Work Environment

Borrum Energy Solutions' offices are in Kitchener. The office is served by public transit including LRT. Engineers have access various software packages including SOLIDWORKS, SOLIDWORKS Simulation, ANSYS, PSIM as well MATLAB. A 3D printer provides for prototyping capabilities. This set up allows for quick prototyping post 3D computer simulation and rapid design cycles. Canadian citizens or permanent residents only need to apply due to the federal government grant policy requirements.

For more information, please contact us at employment@borrumenergysolutions.ca