

Student engineer project: Field logger

Are you looking for a project for engineer internship or a final thesis/project? – Here is your opportunity!

Project: Field logger

Background

Lodam products are used in many different applications around the world. This means that the same product may see very different operation patterns and be exposed to various climatic conditions in the field. To continue making reliable and robust products it is important to make an accurate mission profile for the product. Part of making the profile is to obtain real life data from as many different sources as possible.

With the objective to obtain these data, this project should develop a field logger, which can be mounted inside the cabinet in various Lodam products and log environmental data and optional operation data retrieved from the system.

Project description

- Hardware design of compact and low-cost field logger module comprising:
 - Low power microcontroller design
 - Sensor technology – temperature, humidity, shock and vibration
 - Coin cell battery
 - Communication Interface, e.g. UART, USB, Bluetooth LE or LORA
 - Memory for data log

The hardware design will be challenged by extreme environmental operating conditions, low power and compact design.

- Optional embedded software development for above described field logger module with special attention on reuse of Lodam's standard software components, low power and algorithms for data compression.
- Optional IOT concept design comprising communication module to upload data to a central server. This communication module may be a separate module based on a standard hardware platform and will only be deployed on a very limited number of products.

The extend of the project is expected to be more than one student project. Therefore, the scope and main focus of the student project can to some extent be adjusted to fit interest and competences of the student.

Further information

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Lodam – A Great Place to Work

Lodam has since 2010 constantly been voted as one of Denmark's best places to work on the Great Place to Work® Institute's list of the best work-places in Denmark. In 2014 we were also nominated for the Great Place to Work® Institute's Work-Life Balance Award.



Lodam in short

Lodam electronics a/s develops and produces electronic control solutions for the HVAC&R markets worldwide, and our solutions support our customers' goals for energy efficiency and less environmental impact. Lodam is a semi-large company with more than 100 dedicated employees.

Lodam is part of the BITZER Group, a worldwide leading manufacturer of refrigeration compressors, with more than 3,500 employees worldwide. Lodam is located in Sønderborg in the southern part of Jutland in Denmark.

Read more at www.lodam.com

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