APPLICATION FORM: GLOBAL TRAINING PROGRAMME 2017-2018 – INTERNSHIP INFORMATION

CORPORATIVE INFORMATION				
Name of the company		**eologix sensor technology gmbh**		
Contact Person		**DI Dr. Thomas Schlegl**	**Email:**	
Location	**Country**	Austria		
	City	Graz		
	Address	Kratkystraße 2		
Sector		**Mechatronics (Sector Renewables)**		

PROPOSED INTERNHISP INFORMATION		
Number of trainees to host		**1**
Extension time (extra months and salary) OPTIONAL SEE DOCUMENT: *"FORM 2_Global Training 2017 extension preliminary agreement"*	Extra months	Si al finalizar los 6 primeros meses la empresa y el becario desean prorrogar la estancia, la empresa ofrece la posibilidad de prorrogar la estancia hasta 6 meses
	Monthly payment for extra months (between 0-1358€/month)	Si al finalizar los 6 primeros meses la empresa y el becario desean prorrogar la estancia, la empresa ofrece la posibilidad de prorrogar la estancia hasta 6 meses con la siguiente mensualidad: 1358€ / months

INTERNSHIP/PLACEMENT INFORMATION	
Department (in case you want more than 1 trainee, indicate the different departments where they will work)	Electronic & Mechatronic Engineering, Software Development
Description of project/activities (in case you want more than 1 trainee, indicate the different projects/activities on which they will work)	Electronic & Mechatronic Engineering: • design, development, test and production of different electronic circuits and sensors Software Development: • design, development, and testing of different programs for microcontrollers (programming language C) • testing and improvement of different scripts (programming language: Python, C, mongoDB – C++, JSON)
COMPETENCES, SKILLS and EXPERIENCE REQUIREMENTS	
Requested profile(s) information (Studies, previous experience, language skills, other skills…)	Electrical & Mechatronic Engineering: • Experience in uC-programming (language C), PCB design, general mechanic understanding and experience Software Development: • Experiences in different programming languages (C, C++, Python, JSON, mongoDB) Other skills: **Good** level of English, Willing to learn German.
Other commentaries	

INFORMATION ABOUT THE COMPANY/INSTITUTION

LOGO	eologix sensor technology
WEBSITE	www.eologix.com
INFORMATION ABOUT THE CITY AND THE AREA WHERE THE COMPANY/ISTITUTION IS LOCATED (General information about SECURITY, ACCOMODATION, PUBLIC TRANSPORT…)	Graz (https://de.wikipedia.org/wiki/Graz) Best city in Austria ☺ , very good connections to Vienna, Salzburg but also to neighbouring countries like Germany, Hungary, Slovenia, etc.
GENERAL INFORMATION ABOUT THE COMPANY/INSTITUTION	eologix introduces an easily retrofittable sensor system for all types of wind turbines. The system consists of one single receiving unit per turbine plus number of sensing units which are distributed over the blades' surface. The sensing units can easily mounted, e.g. during regular inspection of the blades. a
MAIN ACTIVITY OF THE COMPANY/INSTITUTION	Design, development and production of a new generation of flexible wireless sensors.
A BRIEF EXPLANATION OF MAIN PROJECTS	Ice detection on windturbine rotor blades. As eologix is a startup founded in 2014 the ice detection is our main focus up to now. Nevertheless, other applications e.g. in the aircraft industry or intralogistics are investigated.
PREVIOUS COLLABORATION IN INTERNSHIP/TRAINING PROGRAMMES?	
OTHER COMMENTARIES	

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eologix
sensor technology

wireless temperature and icing sensor system for rotor blades

eologix.com

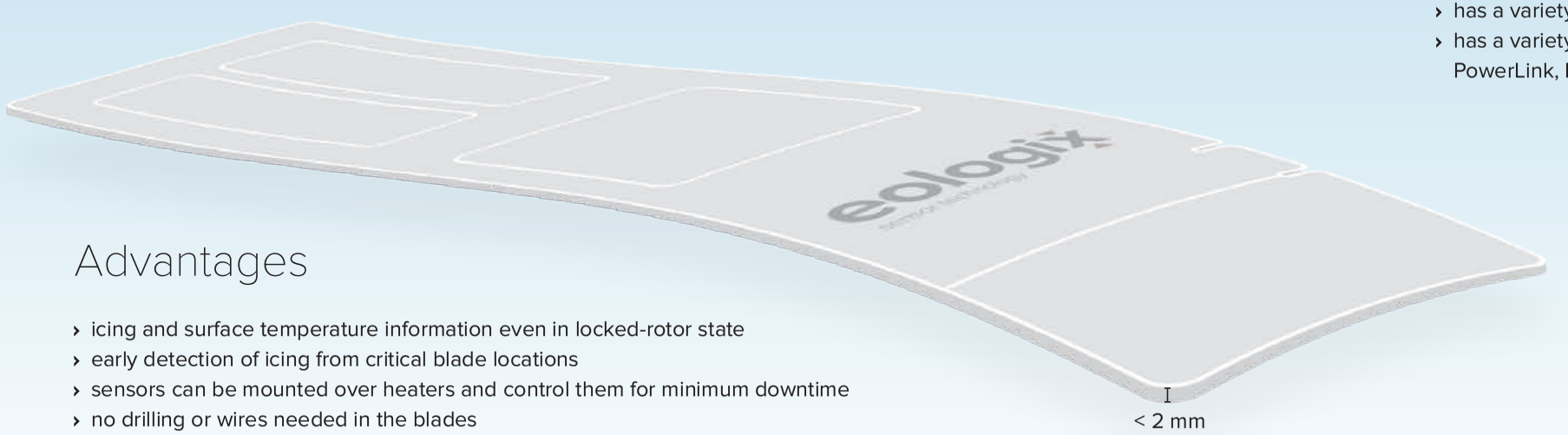
Icing and Temperature Monitoring

Icing of rotor blades is a common issue in cold climates:

- changes in power curve lead to loss of revenue
- additional load on drive train leads to higher maintenance effort
- ice throw is a safety hazard

Eologix introduces an easily retrofittable sensor system for all types of wind turbines. The system consists of one single receiving unit per turbine plus a number of sensing units which are distributed over the blades' surface. The sensing units can be easily mounted, e.g., during regular inspection of the blades.

- **receive blade icing information exactly from where it occurs**
- **monitor the efficiency of your anti-icing or de-icing solution**



Advantages

- icing and surface temperature information even in locked-rotor state
- early detection of icing from critical blade locations
- sensors can be mounted over heaters and control them for minimum downtime
- no drilling or wires needed in the blades
- no additional lightning issues
- unlimited number of sensors per turbine
- easily retrofittable

Sensing Units

- are completely wireless smart sensors
- are supplied by stored solar energy for unlimited energy supply
- measure temperature with a resolution of ± 0.25°C
- can detect icing at local thicknesses below 1 mm*
- are small, flexible and thin (below 2 mm)
- can be mounted to any position on the blade, also on nacelle or tower
- are delivered on a patch of erosion protection tape and mounted within minutes

* evaluated in icing wind tunnel laboratory tests

Receiving Unit (Base Station)

- collects the data transmitted by the sensing units
- can be placed on ground, nacelle, spinner, hub, blade root or tower (only one base station is required per turbine)
- can be integrated into current SCADA or control systems
- has a variety of available interfaces (WiFi, Web Server, Ethernet, RS485, GSM)
- has a variety of optional interfaces (Modbus TCP/RTU, CANopen, EtherCAT, PowerLink, Profibus, Satellite etc.)