The 2017 Hilti IoT Competition

Call for Submission

Internet of Things @ Hilti

Join Hilti's IoT Competition and help elevate Hilti's digital experience

The **Hilti IT Competition** is an annual management initiative aimed at generating new and innovative technology ideas from students and graduates. **The 2017 Hilti IT Competition** focuses on **Internet of Things** design ideas that will enhance the digital experience of Hilti customers and employees.

As digitization capabilities extend, virtually every aspect of life is captured and stored in some digital form, and we move closer towards the networked interconnection of everyday objects. The impact of this is a real-time global exchange of information between multiple connected devices.

At Hilti, customers interact through multiple channels and irrespective of time, place, device or medium, they expect consistency. As a result, Hilti must constantly evolve its support models to accommodate this ever-changing landscape. The key objective is to drive consumer acquisition, retention and loyalty through services. Internet of Things play a vital role in supporting employee productivity and customer service. For customers, the user-centric Hilti IT solutions aim to provide a platform for simple, immediate access to on-the-spot information on Hilti products and services. An example is Hilti's asset management solution https://www.us.hilti.com/ontrack.

This document is available in English only.

Objectives

1. To allow students to show innovation and creativity in designing and developing tailor-made IoT prototype solutions that will enhance the digital experience of Hilti employees and customers.
2. To identify talented individuals, among the competition finalists, for possible internships and permanent positions with Hilti in the future.

Target group

The main target group is students (from both universities and technical colleges) and graduates. The participation of interdisciplinary teams is highly desired.

Topics

Hilti Group headquarters are located in Schaan, Liechtenstein where the company was founded in 1941. Hilti develops and manufactures systems and services that feature leading-edge technology and provide the construction and energy sectors with outstanding added value. Please choose one of the following challenge that best fits your interest and skills.

Topic 1: Digitalization of Customer Interaction

Some two-thirds of Hilti's more than 23,000 worldwide employees work directly on behalf of customers in Hilti sales organizations and technical service units. They generate more than 200,000 daily interactions with customers, creating the basis for the ongoing development of new products and services. Your task: Design and develop an IoT solution prototype incorporating innovative ideas to realize digitalization of customer interaction.

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Topic 2: Implementation of IoT in Construction Industry

Hilti provides premium products, systems and services to construction professionals. The company regularly sets the standard in the construction and building maintenance industries by developing and providing innovative solutions and internationally-renowned products. <u>Your task</u>: Design and develop an IoT solution that supports and enhances Hilti products and services for the construction industry.

Condition: Please make the necessary assumptions. You may include the usage of prototype boards (e.g. Raspberry Pi) or alternatively, find means to simulate your prototype. You may use any open-source communication protocol (e.g. HTTP, MQTT) and mobile app or cloud platform. You are also free to use any hardware, programming language, database, or platform services of your choice.

Please decide the scope of your topics (the idea, front end, back end, any special algorithm(s), etc.). For more details on Hilti, the relevant processes, products and services go to Hilti Online (https://www.hilti.com).

Important dates

*Participants are encouraged to register early to be eligible for our competition webinar in October!

Registration opens:	August 22, 2016
Submission deadline:	December 31, 2016
Semifinals:	January 16, 2017
Final round invitation:	January 20, 2017
Final competition:	March 13-16, 2017

Prizes

1st place: a once-in-a-lifetime trip. The winning team of up to five people will receive air fare and a five-night stay at one of Hilti's strategic IT locations: Kuala Lumpur, Malaysia; Plano or Tulsa, USA or Schaan, Liechtenstein. The trip will be arranged on the basis of the winning team's home country. The team members will have the opportunity to learn about Hilti IT services and to build their Hilti network.

2nd and 3rd place: a piece of Hilti. Each 2nd and 3rd place team member will be awarded a Hilti power tool.

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All finalists: internships. Each finalist will have access to a fast-track application process to a paid internship. The internship provides finalists with the chance to further develop their idea and to bring it to life at Hilti.

Conditions of participation

This is a competition that allows students and graduates to develop a prototype incorporating IoT solutions aimed at enhancing Hilti's core business.

Participation: Submissions are welcome from individual participants as well as from teams of up to five people. Team size is not relevant to the evaluation criteria. Participants must read and accept the conditions of participation. Students and graduates of universities and technical schools, from IT, business, engineering and all other disciplines are welcome to participate. A detailed technical knowledge of the construction industry is not necessarily required to participate.

Registration: Participating teams must register via e-mail with every team member contact details (full name, contact number, e-mail, university, country, nationality, and lecturer (if applicable)) to **iot-competition@hilti.com**.

Industrial visit: Industrial visits and discussion sessions with Hilti experts can be arranged as needed. For this purpose, the participating teams must e-mail contact details (name, contact number, e-mail) to iot-competition@hilti.com.

Submission: Participants should submit their prototype with a presentation document by **December 31, 2016**. Your presentation document should explain the purpose of your idea and how it supports Hilti and our customers. Use an illustrative and attractive way to present typical application situations, a proposal for the design and the benefits your idea will bring Hilti. Feel free to make reasonable assumptions about the technical requirements as needed.

Semifinals: The selection event will be conducted via video conferencing. Further arrangements will be shared with the participants.

Final Competition: The selected finalists will be invited to an on-site workshop at Hilti Asia IT Services Sdn. Bhd. at Level 5, Brunsfield Oasis Tower 3, No. 2, Jalan PJU 1A/7A Oasis Square, Oasis Damansara, 47301 Petaling Jaya, Selangor, Malaysia. The workshop will give teams the chance to further develop their ideas and learn more about the Hilti business while networking with a group of highly creative individuals. Submissions will be reviewed, and the winners selected, by an international panel of experts that will make the corresponding announcement. All finalists will be invited to an awards ceremony where their accomplishments will be recognized by a member of Hilti's Top Management team and by the competition's jury. Participation at this event is mandatory for prize eligibility.

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Prototype: Develop a prototype of your idea and include a brief description (a maximum of five pages) of the major functionalities and key benefits.

Evaluation criteria: Submissions will be judged based on innovation, design, quality of code, complexity, expected benefits for Hilti and our customers, technical feasibility, preparation and presentation of the solution.

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If you have any questions, please contact us at

iot-competition@hilti.com
www.hilti.com/it-IoT-competition-2017
https://www.facebook.com/HiltiGroup

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