ITQ

TEAM OVERVIEW

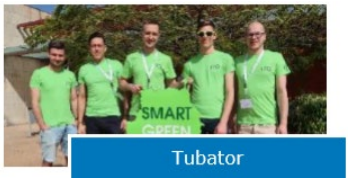
SMART GREEN ISLAND

SMART GREEN ISLAND MAKEATHON 2019

Contents

1 Smart Health (Hoffmann Neopac)

1.1 Tubator

Team Photo	Short Description
	The Tubator is a System that improves the life of elderly and handicapped people by offering a platform that automatically selects and measures suitable medicine at the right time by a notification via smartphone or by the face-recognition algorithm. More Information

1.2 PacMen

Team Photo	Short Description
	Users don't remember when they have to take the medication, how to apply it and what it is. A connected tube provides real-time data about the tube and contents through a mobile app. More Information YouTube Video

1.3 TubeTube

Team Photo	Short Description
	The TubeTube concept allows old people to get a reminder regarding their medication via a special chip device. The main information regarding the medication will be transmitted or defined by the doctor. More Information YouTube Video

1.4 Smart Tube

Team Photo	Short Description
	Smart Tube is designed to help patients who need to take medicine on a regular basis. Together with a smartphone application, it counts the drops that come out of the tube and logs the use of the product per user. The application provides a history log, audio feedback and heart rate monitoring. More Information YouTube Video

2 Smart Mobility (Scrooser)

2.1 Bätcycle

Team Photo	Short Description
 Bätcycle	The team Bätcycle focused to improve the Scrooser for the next revision, in order to archive more safety on the road and fixing some design issues the current product has. For this, they build a complete new prototype from scratch as well as a new design concept. More Information YouTube Video

2.2 Futscroo

Team Photo	Short Description
 Futscroo	The team Futscroo had the objective to improve the available scooter "Scrooser" for customers from the luxury sector and companies. Therefore, the team improved the services on the mobile "Futscroo Application", the dashboard with more functionalities and a new "Scrooser" design. More Information

2.3 ScrooDriver

Team Photo	Short Description
 Scroodriver	The team had new ideas to evolve the scooter "Scrooser" from product to service, using existing resources instead of implemented and costly new electronics as well as interactivity and connection. More Information

2.4 ScrooseX

Team Photo	Short Description
 Scroose X	The team had to identify existing problems at the old scooter model. These were the big distance between the seat and the handlebars and the inconvenient charging method. Additionally, the team had the idea to provide every user with an app to localize the Scrooser via GPS, so that every user could rent it out on the street, which enlarges the market potential.

3 Smart Energy (Honda)

3.1 United Power

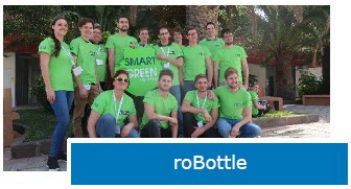
Team Photo	Short Description
	Development of a local energy management to guarantee grid stability and distribute the energy in an intelligent way. Additionally, a wall outlet, a solar wireless parking station and a smartphone application have been created. More Information

4 Smart Robotics

4.1 Soft Exoskeleton

Team Photo	Short Description
 Soft Exoskeleton	While in recent years the technical feasibility of exoskeletons has been considered, it is now necessary to optimize the user experience from an ergonomic point of view. This should give exoskeletons a wider acceptance in society. This requires, among other things, a high wearing comfort and easy handling. More Information YouTube Video

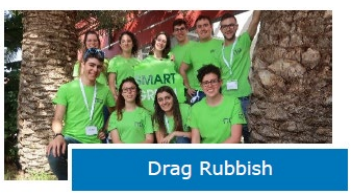
4.2 roBottle

Team Photo	Short Description
 roBottle	Plastic pollution at land and at sea is one of the biggest challenges we face in the future. At land, a new and intelligent roBOTTLE is to help scan the environment for plastic bottles and remove them in an environmentally friendly way. More Information YouTube Video

4.3 Sub Glider

Team Photo	Short Description
 Sub Glider	A deep sea explorer developed for examining the deep sea terrain, which plays a critical role in the ecosystem by determining weather patterns and ocean currents. Sub Glider is to help improve recognition of the diverse sea patterns to better predict environmental disasters. More Information YouTube Video

4.4 Drag Rubbish

Team Photo	Short Description
 Drag Rubbish	Clean the rubbish from the sea as plastic bottles or objects that float on the sea. The source of the power comes from solar energy. The prototype is made by recycled material so it is low cost. More Information

5 Climate Change

5.1 Wind Ambulance

Team Photo	Short Description
 Wind Ambulance	Our goal was to connect a downsized model of wind turbine to a server to predict maintenance based on the sent data from the wind turbine. The project consists of three elements: collecting data with Infineon 3DSense sensor, communication with ThingSpeak and last but not least controlling the wind turbine from mentioned server with TalkBack app. More Information

5.2 Ocean´s 5

Team Photo	Short Description
 Ocean´s 5	With rapidly growing information streams and constant struggle to have everything perfectly planned, the last thing you would want during your vacation is an overcrowded beach on a beautiful day. That is where Ocean's 5 comes in - a beach crowdedness measuring system. More Information

5.3 Smart RF

Team Photo	Short Description
 Smart RF	The main goal of the project was a smart real-time rainfall through the detection from satellite communication links system. More Information

6 Green Energy

6.1 Flex-E-Bility

Team Photo	Short Description
 Flex-E-Bility	In interdisciplinary teamwork, we built an energy-flexible electrical manufacturing system that consists of different supplying systems, such as wind turbines and solar panels. These suppliers are connected to a storage system and are controlled by an Energy Management System. More Information YouTube Video

6.2 TIDERGY 1

Team Photo	Short Description
 TYDERGY 1	Team TIDERGY 1 has built two task forces in order to work faster and more efficient. Therefore, Team TIDERGY 1 (Data Analytics) had to measure the tide and to predict the next tides for the future. More Information

6.3 TIDERGY 2

Team Photo	Short Description
 TYDERGY 2	Team TIDGERGY 2 has split up into a software architecture department and a hardware department to build a model. The software team has created data sources for wind, water and tide energy, also for energy consumption. We used machine learning to predict the distribution of the energy. More Information

6.4 Team Faust

Team Photo	Short Description
 Team Faust	The main aim is achieving a Smart Road Energy Harvesting. The motivation is tackling problems like an overall loss of energy while breaking or a lack of charging flexibility. More Information

7 Smart Production

7.1 The Saver

Team Photo	Short Description
 The Saver	The project consists of a smart life jacket that can detect whether the person wearing it is in danger. It is connected to a smart watch that can help extracting different parameters like location, arterial pressure and heartbeat. According to these extracted values, it sends an alert to his family/friends' mobile application, and the jacket inflates automatically to save the person from drowning. More Information

7.2 Predictive Maintenance

Team Photo	Short Description
 Predictive Maintenance	Taking Predictive Maintenance to the next level. The aim is to monitor the production line via cloud and getting notifications before a critical event. More Information YouTube Video

7.3 Intelligent Table Query

Team Photo	Short Description
 Intelligent Table Query	Have you ever been tired of adjusting your workplace each and every time? The project “Intelligent Table Query” have the solution for it. An intelligent table query which automatically adjusts itself to its user and environment. More Information YouTube Video

7.4 Smart Order

Team Photo	Short Description
 Smart Order	To avoid long searching time and material waste during the production, the team has developed a “Smart Order App”. The application is very user friendly. More Information YouTube Video

8 Smart Mobility

8.1 SUAP

Team Photo	Short Description
 SUAP	The main goal was to develop a new method for Autonomous Parking. Therefore, the project team developed an application for Smart Urban Autonomous Parking. More Information

8.2 DAM SD

Team Photo	Short Description
 DAM SD	The main goal of this project was to control a small electrical car by voice recognition. Therefore, the team developed a „Speech Application“. More Information

9 Smart Farming

9.1 GardenBot

Team Photo	Short Description
 GardenBot	The main goal is to make professional farming possible at home. Therefore the project team developed the „GardenBot“, which simply takes over the production process of vegetables and fruits for everyone – „Grow your own“. More Information YouTube Video