



December 2022

### Who we are

#### **Profile**

Name: Batkon

Foundation: 2011

Co. Type: R&D

Parent-co: AIM Energy Inc.

Within: ITU Technopark



#### **R&D Projects and Product Development**

2013 - 48V Lithium Battery System

2014 - EV Battery Management System

2016 - Nuclear Reactor Control System

2018 – Telco Battery Management System

2019 – i-Pack Portable Energy Storage System

2020 - Megatron Large Scale Lithium BESS

2021 - IoT Supported Wireless Sensor Platform

2022 - Modular Lithium Battery Mng. System







#### **Activities**

**Designing Battery Management Systems** 

Modernization of ITU Nuclear Research Reactor Systems (2014)

Raising up the Battery Technology Department

Restructuring as an R&D innovation company

Founding a new company called BATKON (2017)

Ever upgrading our products and increasing the numbers

Producing joint projects with the leader foundations

Receiving project incentives from TÜBİTAK and KOSGEB

Receiving investment from RHEA venture-capital which is

quoted on BIST (2021)



## Management Team



Türker ŞAHİN

Co-Founder, CIO

İTÜ Physics Eng. B.Sc. and
Energy Eng. M.Sc. Graduated
Yapı Kredi Bank, Yapı Kredi Insurance,
Erdemsoft etc.
Embedded and Cloud Software Designer
25+ years



ilker AYDIN
Founder, CEO
iTÜ Electronics M.Sc. Graduated
Professional background: Nortel
Networks, Ericsson, Gen-Pa
32+ years engineering experience.
Technology Entrepreneur since 2000
eVolP, Ericom, AIM Energy and BATKON



Aydın TUNALI
CTO
İTÜ Electronics B.Sc. Graduated
Beko R&D, AIM Energy
Professional background.
Hardware Designer 35+ years



Akın GÜNDÜZ Partner





## Market Requirement

## **Problems**

Reliable and scalable Lithium Battery Management



Monitoring for VRLA Batteries
VRLA (Lead Acid) monitoring
system to protect them and
alert before a battery fault

**BESS for kWh to MWh** 

**IoT Cloud Platform** 

Several type of sensors located telecom sites, data centers, Industrial facilities and we need a remote monitoring and management software platform located at cloud



### **Batkon Solutions**

Solutions

**BMSLion**: Modular/scalable Lithium BMS

**LiCh**: Smart Lithium Charger

**MEGATRON** is containerized BESS;

**LAR-24**: Lithium battery + Rectifier DC UPS for Electricity Distribution Transformer Sites



**wBIS**: Wireless Battery Inspection System for VRLA batteries

**Telco BMS**: VRLA Battery management Telecom Base station sites

**ReMon:** IoT Cloud software

platform

### **Batkon Product Portfolio**

#### Click to product for more information on web



Megatron
Large Scale Lithium BESS



LAR-24
Smart 24V DC UPS for Electricity
Distribution Transformer Sites



BMSLion

Modular Lithium Battery

Manager (BMS)



**LiCh**Smart Lithium
Battery Charger



Telecom VRLA Battery Manager



WBIS
Telecom & UPS VRLA
Battery Inspector



<u>i-Pack</u> Portable Energy Storage



BattLion
Telecom & UPS Lithium
Battery Pack with BMS

## History

#### TRIGA Nuclear Research Reactor Control System designed







**BMSLion** 



LAR-24

wBIS



Sandy BMS



2011

2014

2016

2017

2018

2019



2021

2022





Telco BMS



Megatron

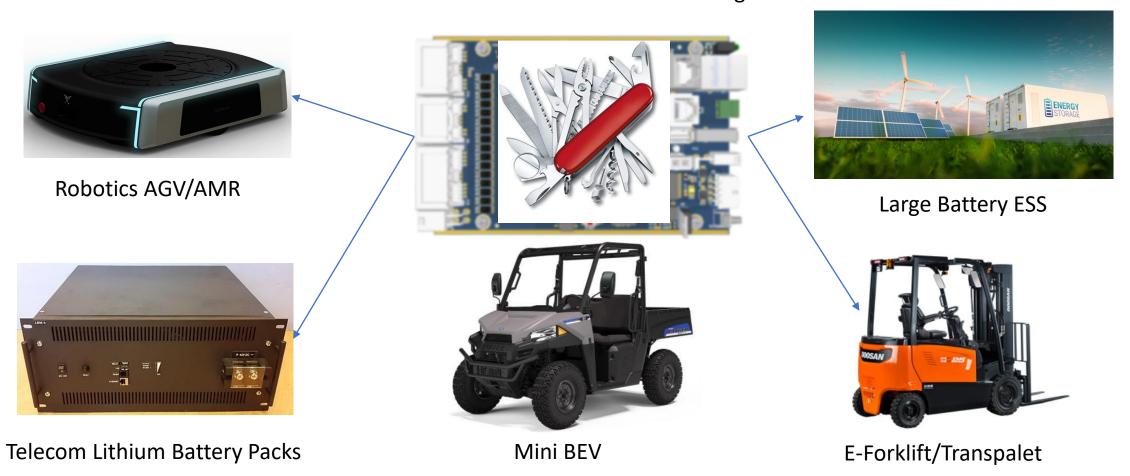


LiCh



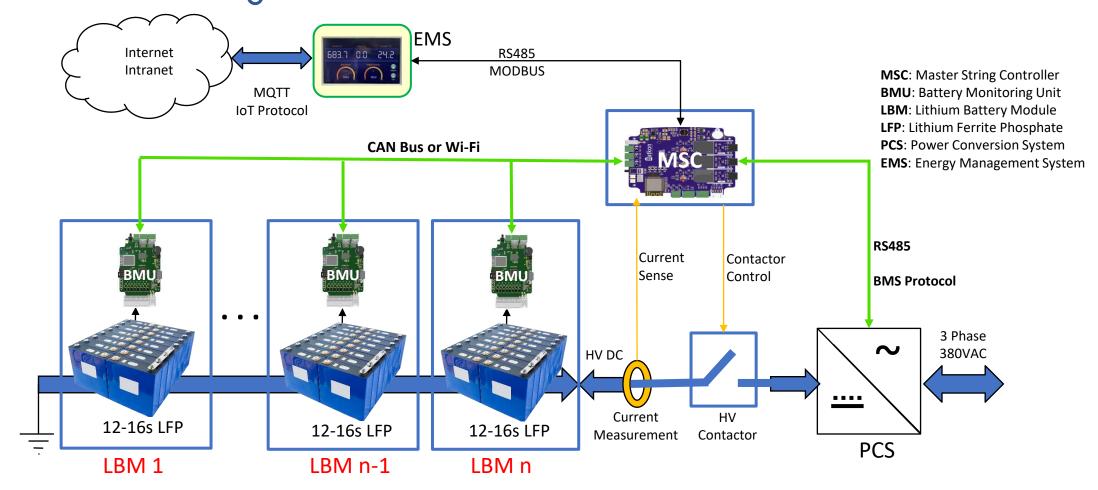
# Smart BMS like a **Swiss Army Knife**

Batkon's BMS is modular-scalable and connectivity rich solution for various vertical market segments





## **MEGATRON** Block Diagram



BATKON has critical know-how on modular High Voltage DC lithium battery string management.



# MEGATRON Battery Energy Storage System (BESS)











# LAR-24 24VDC Lithium Battery UPS

- 300W...1000 W AC->DC Power
- 12-24 Ah Lithium Battery
- 7-8s Lithium BMS
- 4.3 inch TFT Touch LCD
- 8 ports Dry-contact Alarm outputs
- Ethernet or Wi-Fi TCP/IP
- Optional RS485 Modbus-RTU





# LiCh Smart Lithium Battery Charging System





48/24/12VDC adjustable Lithium battery pack 1-3 kW power charger.

Charger «talks» to Lithium BMS and coordinates charging regime

• **CAN**: CanOpen, SAE J1939, CAN 2.0b

R\$485 : MODBUS-Serial

 Wi-Fi :MODBUS-TCP, MQTT, HTTP/JSON, Embedded WEB

Designed for Forklift/transpalet, AGV/AMR lithium battery packs



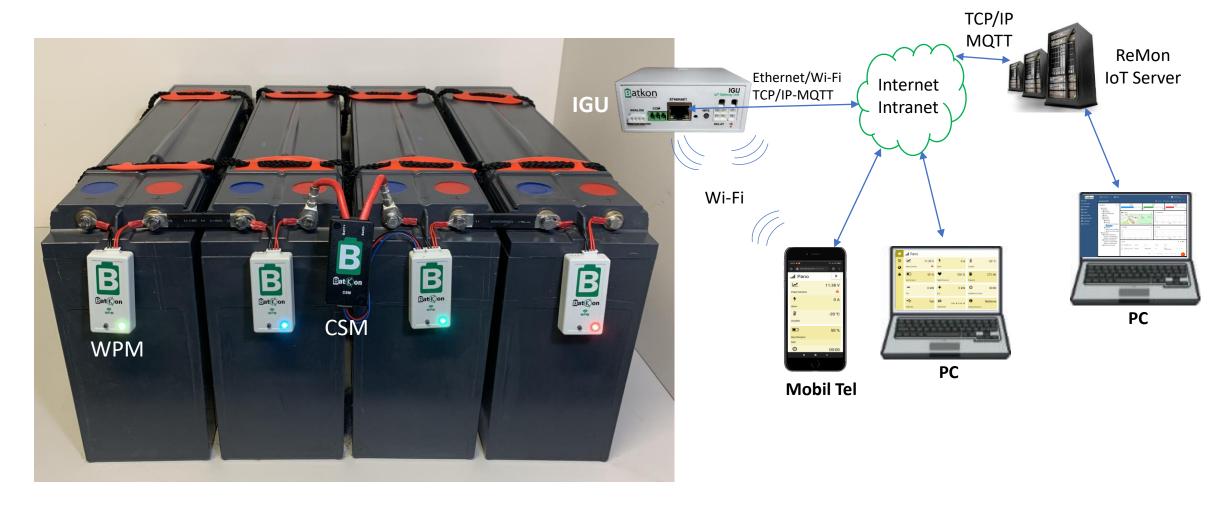
# i-Pack Portable Emergency Energy Storage System



- Quieter and lighter alternative of Diesel Generators
- Lithium battery can be charged at warehouse
- 2 person can carry to emergency site
- i-Pack can supply 230 VAC power for emergency and first-aid equipment
- Different storage and power capacity versions are available compatible with emergency authorities requirement



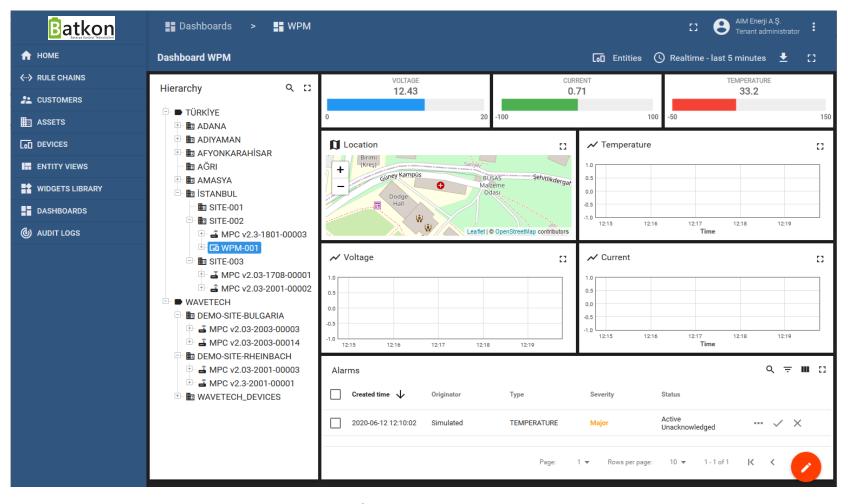
# wBIS Wireless Battery Inspection System



IoT (MQTT) protocol supported Wireless Inspection system for Lead Acid (VRLA) batteries



## ReMon IoT Cloud Server



All BATKON products has IoT suport over TCP/IP networks. **ReMon** software can collect data from devices and evaluate for actions.



### Contact



## For Smarter Batteries

www.en.batkon.com

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