

# **“Solution to digital divide and Contribution to the environment”**

Lead-acid battery is indispensable for building infrastructure for information technology and telecommunications in non-electrified regions. This presentation will introduce our efforts to minimize waste and reduce cost of lead-acid battery.

Takeshi Kawabe  
President



Japan Battery Regeneration, Inc.

# About Lead-acid battery

## 《 Major applications 》



Automobiles & trucks



Golf carts



Forklifts



Telecom tower

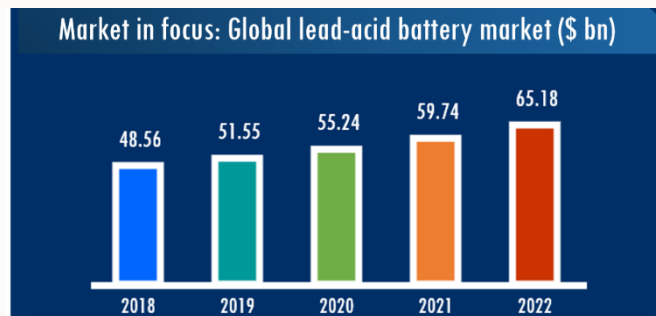


Electricity storage battery  
for Solar PV etc.

## 《 Different types of lead-acid batteries 》



## 《 Market Trend 》



# Activator for lead-acid batteries    ITE Activator Super-K



Super-K A type

We develop, manufacture and market “Super-K” activator for lead-acid batteries which lengthens battery life and is used for battery regeneration . Also, we do technical training and support for extending battery life, regeneration charging with Super-K. Patent is granted for Super-K in Japan, USA and China.

Development of Super-K was done by ***Dr. Akiya Kozawa*** as a leader, and with following team.

**【Super-K development team 】** ( Titles in parenthesis are those of development time)

- **Akiya Kozawa**                      **(Ex-Fellow, EVP at Union Carbide, Professor of Tohoku University)**
- Shigeyuki Minami                (Professor, Osaka Municipal University)
- Masamichi Yamashita        (Laureate Professor, Doshisha University)
- Atsushi Sato                      (Professor, Chubu University)
- Kazuhiro Tachibana        (Asst.Prof.YamagataUniv)
- Li Yang                              (Professor, Shanghai Jiao Tong Univ.)

# Application of the Super-K technology

1. Extend life of existing batteries
2. Collect old abandoned lead-acid batteries and regenerate them and re-use for the same equipments
3. Re-use the regenerated batteries in other equipments

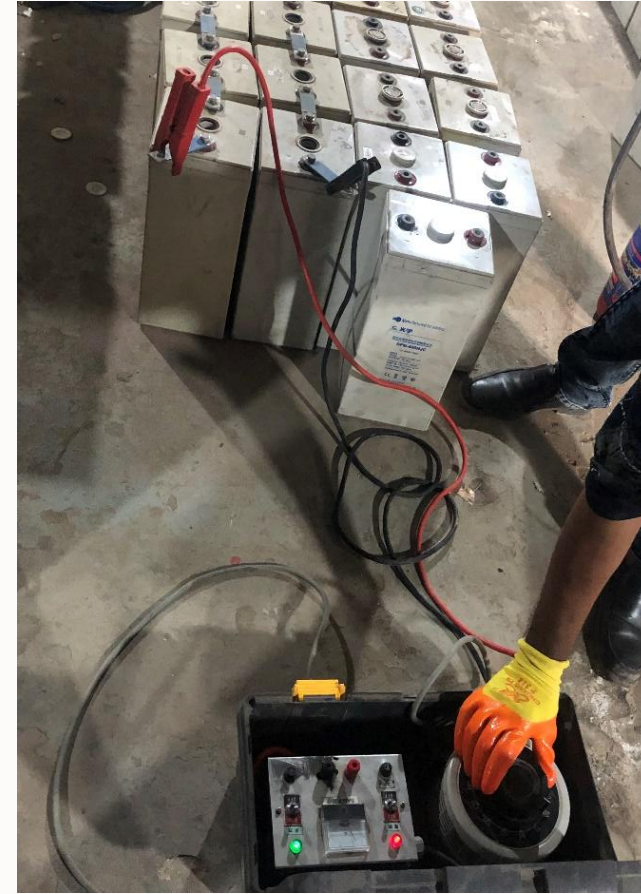
# Main features of Super-K activator

1. It works to fix the fundamental cause of battery deterioration
2. It automatically recovers charging capability of used and deteriorated batteries
3. When used up battery is recharged, it can refresh the old battery like new battery



# Battery Regeneration Factory (lead-acid batteries used for Telecommunications)

SARBS Communications Ltd., in Bangladesh (2017~)



# **For making best use of lead-acid batteries , for many people in the world**

**Chemically  
proven genuine  
technology**

**Unique and  
undeveloped  
use/market**

**Huge possibility  
in  
various fields**

**Cost reduction  
and  
Environmental  
protection**