



Al (Alpha Impetus) Batteries is a Solmitra Power & Steel Pvt. Ltd. brand with its manufacturing facility in Bangalore, Karnataka India. Our high-tech enterprise integrates Innovative Research & Development and the Manufacturing of New Energy Products. We are equipped with State-of-the-art Precise Detection Instruments, Data Loggers and Computer Monitoring Systems. As part of our Quality & Environment Management System, we ensure effective, efficient, safe, and stable solutions for all of our customers. It is our commitment to function in harmony with the International Sustainability Development Goals.

With a comprehensive approach, we offer a wide range of lithium battery cells, packaged/designed through prismatic, pouched or cylindrical models (18650, 26650, 14500, 32700, 33140, 34140). This can range through Lithium-Ion, LiFePO4, NMC & NCA battery packs in various sizes. The battery packs can be customized according to the customer's detailed requirements and application demands. This comprehensive approach can also be customised across all the new energy product applications like EV Bikes, EV Cars, Buses, E-Cycles, ESS (Energy Storage Systems), Forklifts, Golf Carts, Solar Lights, Medical Equipments, Electronic Tools and other Devices.

In our current mode of operation, we can process 2.4 million cells. As part of this core, we also offer Smart Hardware BMS, Programmable Motor Controllers, Onboard Charging Systems (OBCs) / Off-Board Charging Systems with Power Factor Correction, and Swappable Batteries (Charging Stations). With 45,500 sq. ft. of Manufacturing Space, our Corporate Office embraces the core team of Research & Development, Sales & Marketing, Customer Service & Logistics.

#### Our Slogan

A class apart in power and energy, specially engineered for you by our finest Artisans.

#### Our Attitude

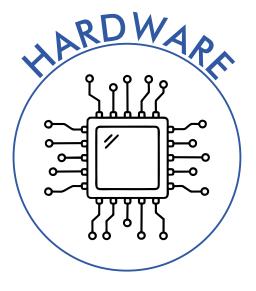
Our quantum leap is justified. Our design is obvious, transparent and empowered by a mind of candour.

#### **Our Vision**

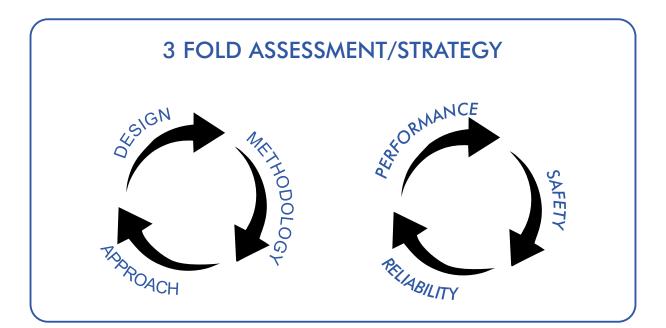
To embark on a locus in the realm of renewable energy with the spirit that doesn't stop Inventiveness & improvisation.

### **Manufacturing Unit**





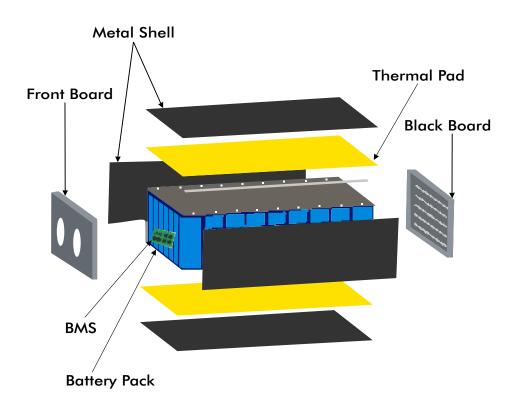






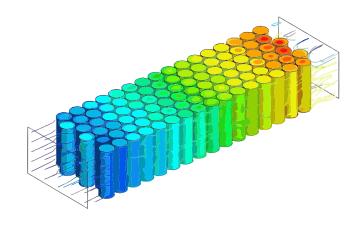


# **Battery Pack Structure**



# Thermal Management based on:

- Liquid Cooling
- **Battery Encapsulation**
- Phase Changing Material
- **Diverse Thermal Conductive Potting Materials**
- Compression Pads etc



## **Production Line**

### **Cell Level**

**Multi-Cell Grading Machine** 



**IR Tester Manual** 



IR Tester mechanised with Hioki Tester (Japan)



Cell Grouping / Stacking



# **Production Line**

## **Battery Pack Level**

**Mylar Paper** 



**Spot Welding** 



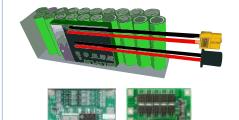
Nickel Strip



Wire Soldering



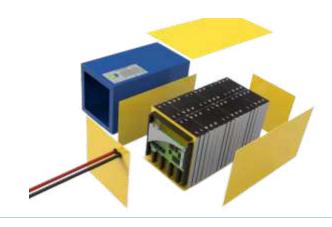
**Battery Management System** 



Aging (Capacity) **Test** 



**Epoxy Casing** 



**Enclosure (Packaging)** 



## **Our Products**

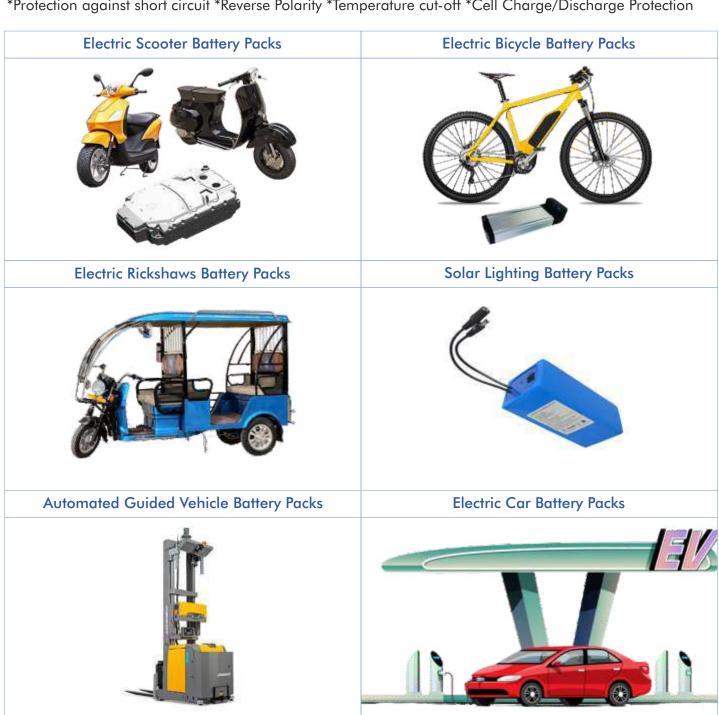
#### 1) Battery Packs

(We customize to your needs)

Key Features:

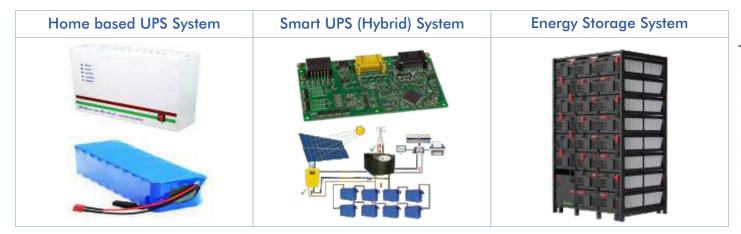
- 1) Eco-friendly and safe batteries.
- 2) Quick Charge with Portable chargers
- 3) BMS with Maximum Protection.
- 4) Increased life cycle with high energy density.

\*Protection against short circuit \*Reverse Polarity \*Temperature cut-off \*Cell Charge/Discharge Protection



### 2) UPS Systems

(We customize to your needs)



### 3) Automotive Lead-acid Replacement Startup Batteries

(Customized / Standardized)



### 4) Independent Products

(We customize to your needs)

Battery Management System	Battery Charger	On Board Charger
	E P	
MPPT Controller	IGBT Power Modules	Inverter Board

# **Applications**



# **Applications**























## **Our Customers**





































































(A Solmitra Power & Steel Pvt Ltd Brand)

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