



Ambimat Electronics

40 years of building solutions

Our Other Offerings:



Overview



Established in

1982

Employee Strength

200+

Projects Executed

240+

Clients

70+

Industries

20+

Technologies Applied

8

Full Stack Expertise

Design (Product + Architecture)

Prototyping

Development

Fabrication & QA/QC

Packaging

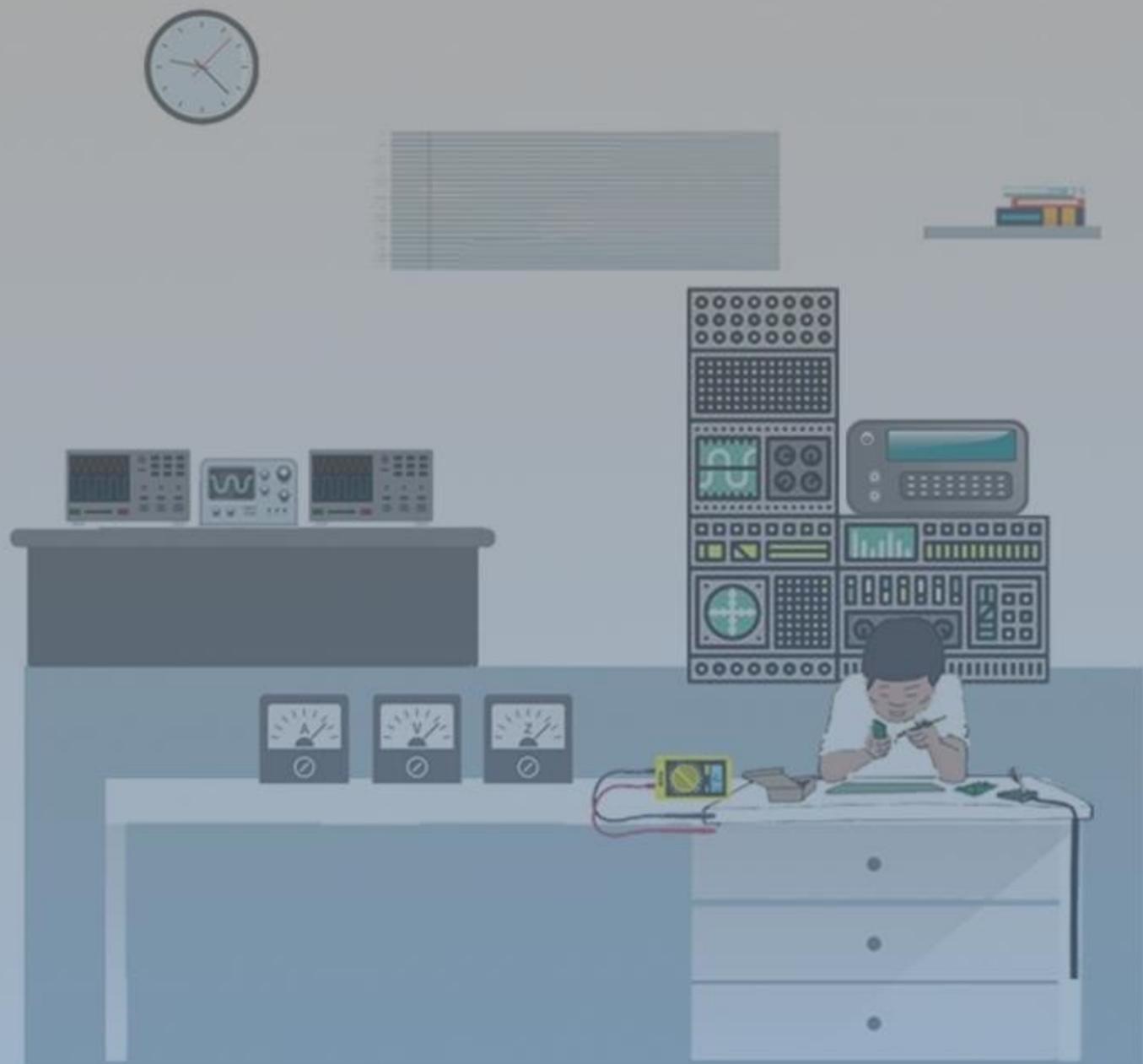
Supply-Chain

Manufacturing/Turn-Key solutions

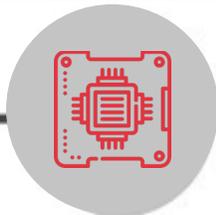
Webserver + Mobile Application Development

Certifications (FCC, PTCRB)

Our Design Services offering

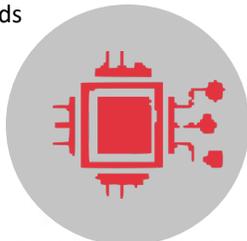


Design Services



EMS/ Contract Manufacturing

Ambimat can build single side or multi-layer flexible PCBs to double-sided boards as well as multilayer RIGID boards up to 24 Layers.



Embedded Software Services

Our expertise is on higher-level programming languages like C and C++ as well as assembly level programming for a wide range of MCUs starting from the legacy processors like 8085 to the most recent ARM Cortex M series.



Turn key design and development solution

Ambimat has a history of working on all aspects of a product thus taking concepts to production.



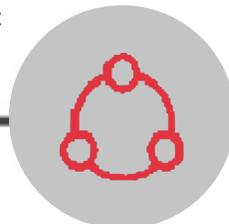
Mobile App development and cloud computing services

At Ambimat with our ecosystem of partners, we also provide Cloud-based data aggregation and enterprise cloud platform integration with the Amazon AWS, Google IoT platform etc.



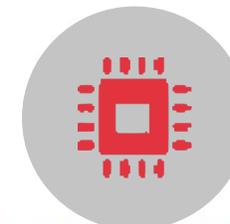
Outsourcing R&D and design partnerships

Ambimat supports customers who already have a design team and want an extra helping hand on specific parts of the design like taking a schematic design to a Gerber release or converting POCs into full-fledged products that can pass regulatory compliances on RF and Power supply front.



Supply chain management

Our Supply chain management wing has special rates with various local as well as global vendors from countries like Singapore, Taiwan, Malaysia, China, United States etc.



Hardware design, Manufacturing, Assembly and Testing

Ambimat has successfully realized projects for PCB design, layout, and fabrication of Multi-Layer PCBs ranging from two layers to twelve layers.

Expertise across Protocols & Stacks

Open and Proprietary Protocols implemented across multiple projects



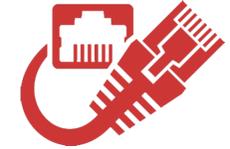
Bluetooth
(Low Energy)
With Mesh



Machine-to-Machine
(GPS, GPRS, NB-IoT, CAT-
M1)



NFC/UHF/RFID
(NXP-MiFare)



Ethernet



WiFi



LoRa & Sigfox



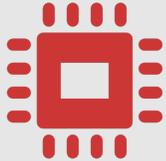
Sound



Zigbee
(with Mesh)

Clients - (Across India, EU, US, Australia)

Across sectors – Education, Industrial Automation, Aerospace, etc.



Start-ups



ciright



Robo Bionics
Never Feel Broken

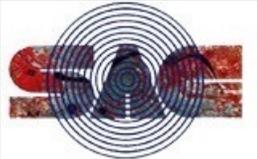
ensurity



Aerospace



Physical Research Laboratory



And many more...

Note: Only a subset of actual clients. Most prefer non-disclosure.

Clients Locations

Across geographies – India, US, UK, Europe, Canada, etc.



Australia



US



Europe



UK



Russia



Canada

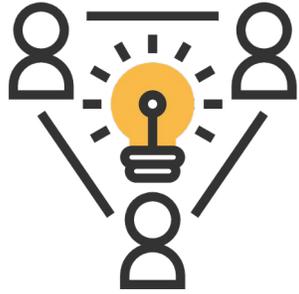


India

Across sectors – Education, Industrial, Aerospace, Defense, Consumer, Startups

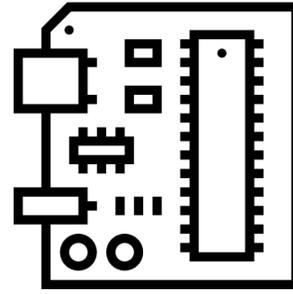
And many more...

Our Process



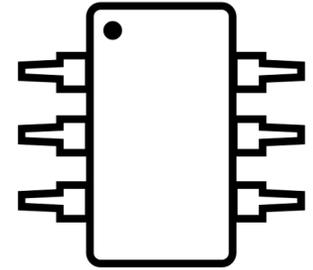
01

Ideation



02

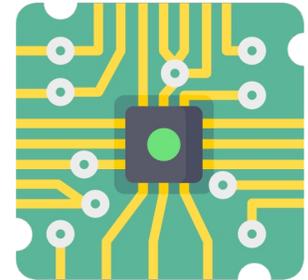
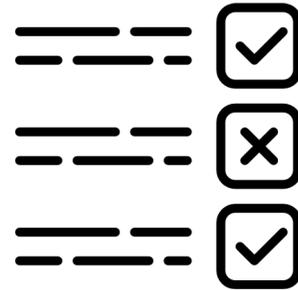
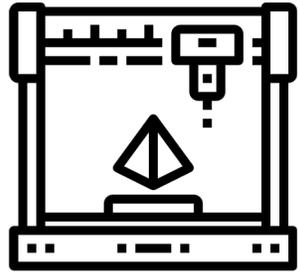
Proof of Concept



03

Prototype

Our Process



04

Industrial
Design

05

Testing

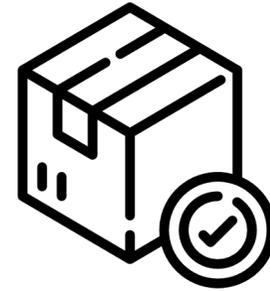
06

Design for
Manufacturability

Our Process



FCC / CE



07

Certifications

08

Packaging

AmbiloT

Smart Watches



Music



Medicals



Pubs And Brewery



Robotics



Smart Homes





AmbiloT



ROBOTICS

We recently worked on this project in 2019 for an Indian start-up. One of our first project in Robotics where Ambimat developed the control system for the robotic arm to be used by an upper limb amputee. The device passed through ISO 13485 pre-certification testing in the first attempt

One of Ambilot's first project from 2015 where we designed the electronics of a bluetooth based wearable for effective gym exercise recognition and rep counting.



SMART WATCHES



PUBS AND BREWERY

In 2016 AmbiloT designed the hardware for a product that could sense the movement of a beer tap and could recognise if the beer was being poured in a mug or a pitcher and provide real time updates to a remote server over Bluetooth

In 2010 AmbiloT designed an in-house product for automating the lights and fans of a home using Bluetooth, Ethernet as well as Wi-Fi. Furthermore in 2018 and in 2020 AmbiloT offered design as a service to two other Indian customers.



SMART HOMES



MUSIC

In 2017, Ambilol designed a bluetooth mesh network of devices which could sense the thumbing of people on a dance floor and provide feedback to the DJ on the music that was being played.



MEDICALS

In 2019 AmbiloT designed the hardware for a Multi-therapeutic Wound Healing Device for an Indian Start-up. The device passed through ISO 13485 pre-certification testing in the first attempt.



Our Solutions



AmbiPay



Internet Of Things



AmbiSecure



Ambi Automation



AmbiPower

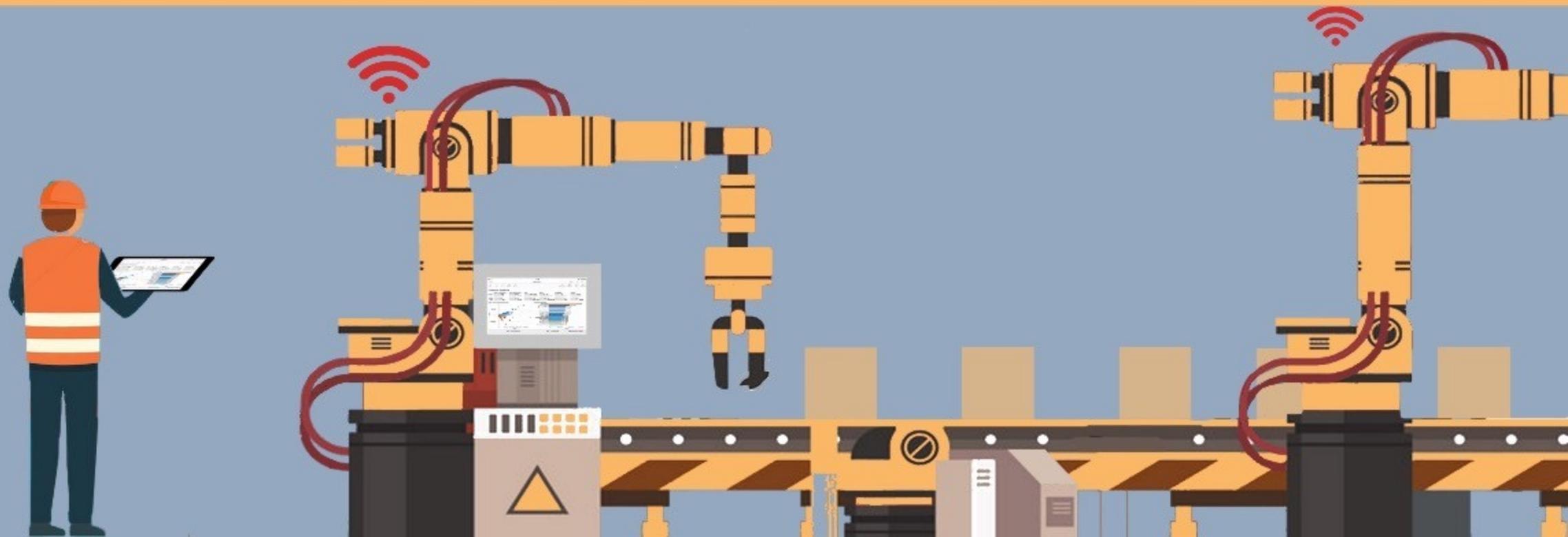


AmbiCon



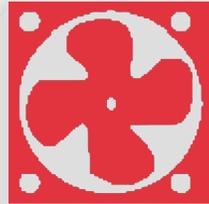
AmbiSense

AmbiAutomation





AmbiAutomation



HVAC (Heating Ventilation and Air Conditioning)

In 2018 AmbiAutomation designed and developed a device which is able to communicate over BACnet, MODBUS and other proprietary protocols with Building Automation devices like Chillers, VRVS, VAVS etc and monitor the vitals of the building network for preventive care and maintenance

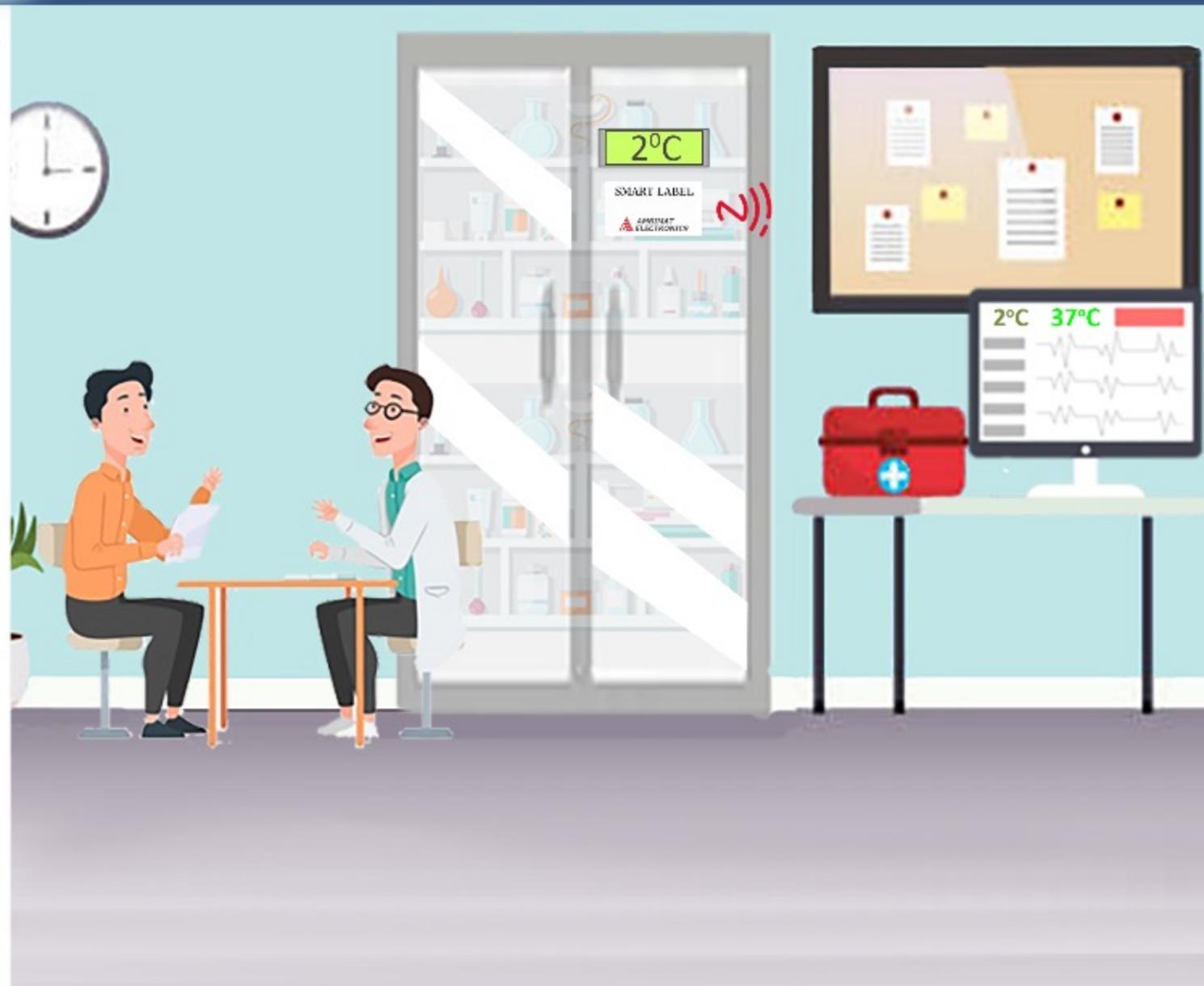


Industrial Automation

In 2019 AmbiAutomation added another product to monitor the productivity of machines and humans interacting with machines with a device that can check on the output of the machines with respect to the time it has been running from. The preventive care as well as the maintenance of the machine was also a feature added to the same device.



AmbiSense





AmbiSense



AS 300

AS-300 is a contactless temperature monitor with re-transmittable output, It is Ideal for access control at any premise and Connected solution with centralized dashboards/reports. AS-300 is calibrated, battery operated and an Ergonomic design.



Smart Label

AmbiSense's time-temperature indicator is a paper thin label stickable on any surface to monitor the temperature, log the temperature along with a time stamp as well as communicate the data over NFC to a smart phone



AMBIPAY - AFC MODULE





AmbiPay



PAYMENTS

AmbiPay offers a one-stop integrated system for managing tickets as contactless cards issued to the commuters. Such tickets can be used for public transport networks like buses, trains, metros etc. Whether contact or contactless, you can always enjoy complete peace of mind with our completely safe and secure payment gateways.



AmbiPay Bio offers a one-stop solution to companies developing applications on Biometric Cards for Access control, closed loop payments, Cyber security offerings adding additional layers of biometric security in the lives of their customers. All our solutions are completely **MADE IN INDIA**



AmbiPower





AmbiPower



AmbiPower UDR app

Ambipower offers you a utility a mobile application based solution for reading meters from the meter's optical port and transmit the data directly to the billing engine or the head end system.



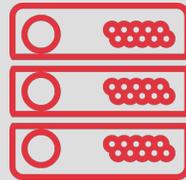
Data Extraction and Storage Unit (DESU)

Ambipower Data Extraction and Storage Unit (DESU) collects data from field devices via a number of communication buses at regular intervals. Then it pushes all the data to the SCADA cloud over LAN or a cellular network.





AmbiPower



Remote terminal units

Amipower's Remote Terminal Units, solution helps in establishing connection between digital and analog devices back to the in-house SCADA system.



RST Device

RST device will help in monitoring of IT rack and RTU along with remote reset function. The solution captures ambient temperature of the IT rack and provide real time reports on the working condition of the routers and shall able to rest the power supply circuit of IT rack and RTU through SMS as well as LAN.





AmbiPower



Workforce Management App

Ambipower's Workforce Management App can be used to Optimize Business Processes & Address utility needs for installation as well as replacement of power meters in the field.

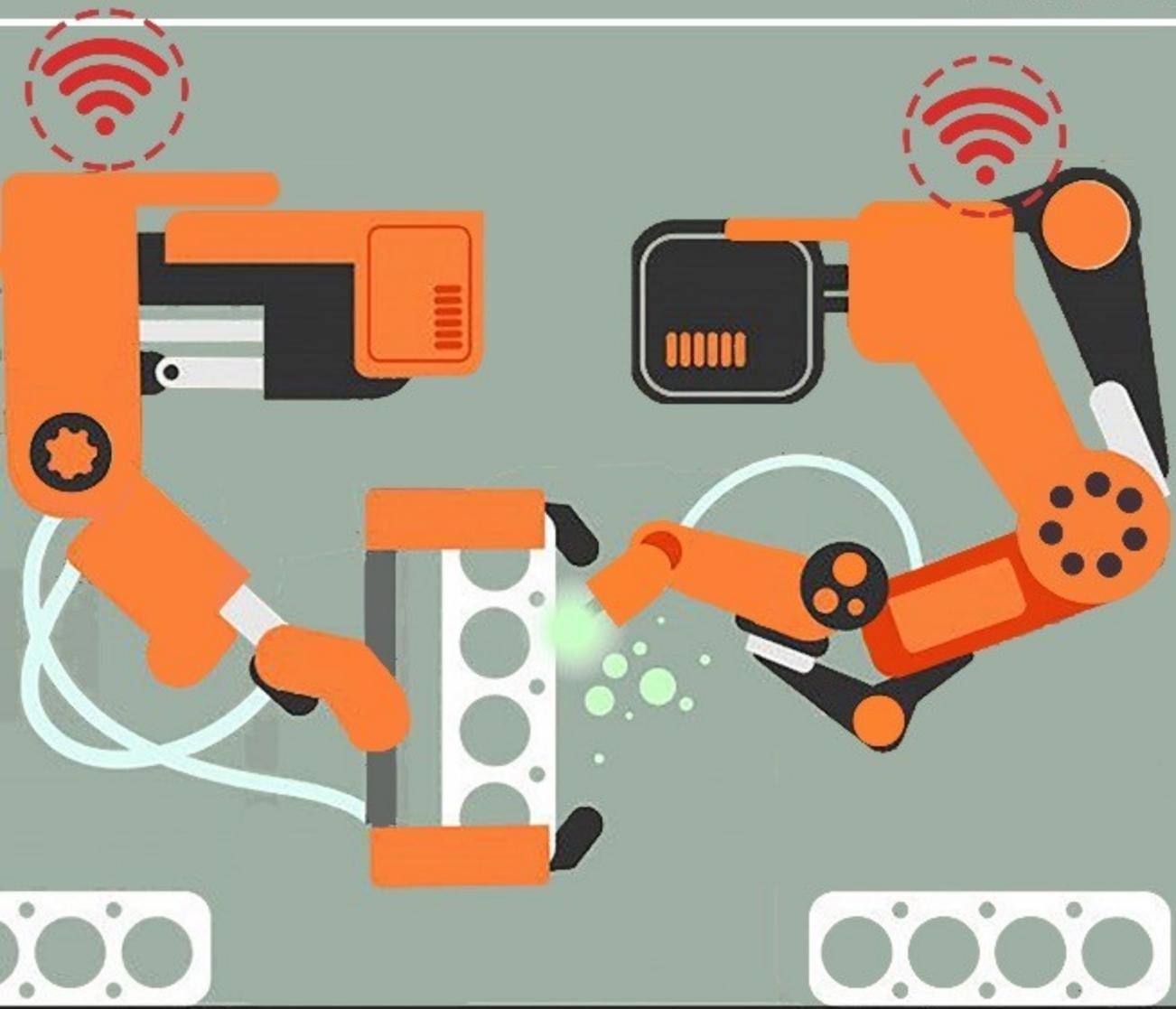


Ambipower's Consumer app

Ambipower's consumer app offers Utilities the perfect channel to directly communicate and engage with the communities they serve.



AmbiSecure





AmbiSecure



AmbiSecure Key

The AmbiSecure USB key is a portable USB based security solution, compliant with FIDO2 protocols. AmbiSecure key helps you to keep all credentials secure & safe for your digital accounts, which significantly reduce password & locked account queries, hence increasing your efficiency.



AmbiSecure Card

The AmbiSecure card is a portable designed security solution, compliant with FIDO2 protocols. It influences organizations & individuals to go passwordless and secure credentials with the support of FIDO2 compliance. The AmbiSecure Card solution also helps to pave the way to eliminate phishing attacks and account takeovers.





AmbiSecure



AmbiSecure's Validation server

AmbiSecure Validation server functions of FIDO protocols which helps to protect user's privacy. AmbiSecure's server can be easily integrated with all leading platforms with the help of simple JavaScript API which makes it a scalable & convenient solution for the users.



PIV Smart card

PIV Smart card is a one stop solution for authentication, encryption, and digital signing. PIV is a security standard detailed in NIST FIPS 201-2 that creates a framework for multi-factor authentication (MFA) on a smart card.





AmbiSecure



Smart Card door access control system

AmbiSecure Access Control solution is embedded with a best-in-class cryptography for data and privacy protection. The solution is customizable, can be customized as per customer preferences.



Smart wallet for payments

The Ambisecure smart wallet solution offers you the flexibility of paying for small value items with a pre-paid wallet stored inside your employee ID card. No expensive hardware setups required and easy connectivity to your existing billing system can be achieved.





AmbiSecure



Business Card

AmbiSecure Business Card solution changes the whole conventional fashion of exchanging contacts & other vital information about your organization or individual. Just tap the business card over any NFC enabled devices to share details. Works on iPhones as well as Android phones



AmbiCon





AmbiCon



Beacon Technology

The AmbiCon is a Bluetooth Low Energy device that can transmit user-defined data over to a mobile phone within a specific proximity. Due to these wireless capabilities, the AmbiCon can be utilized for many purposes, including geolocation, targeted messaging, and user analytics. It is a direct, real-time communication mechanism.





Thank You.

business.development@ambimat.com

Our Other Offerings:

