INNOVATION-DRIVEN SERVICES, VALUE-DRIVEN PARTNERSHIPS!

ambit™
innovation and beyond

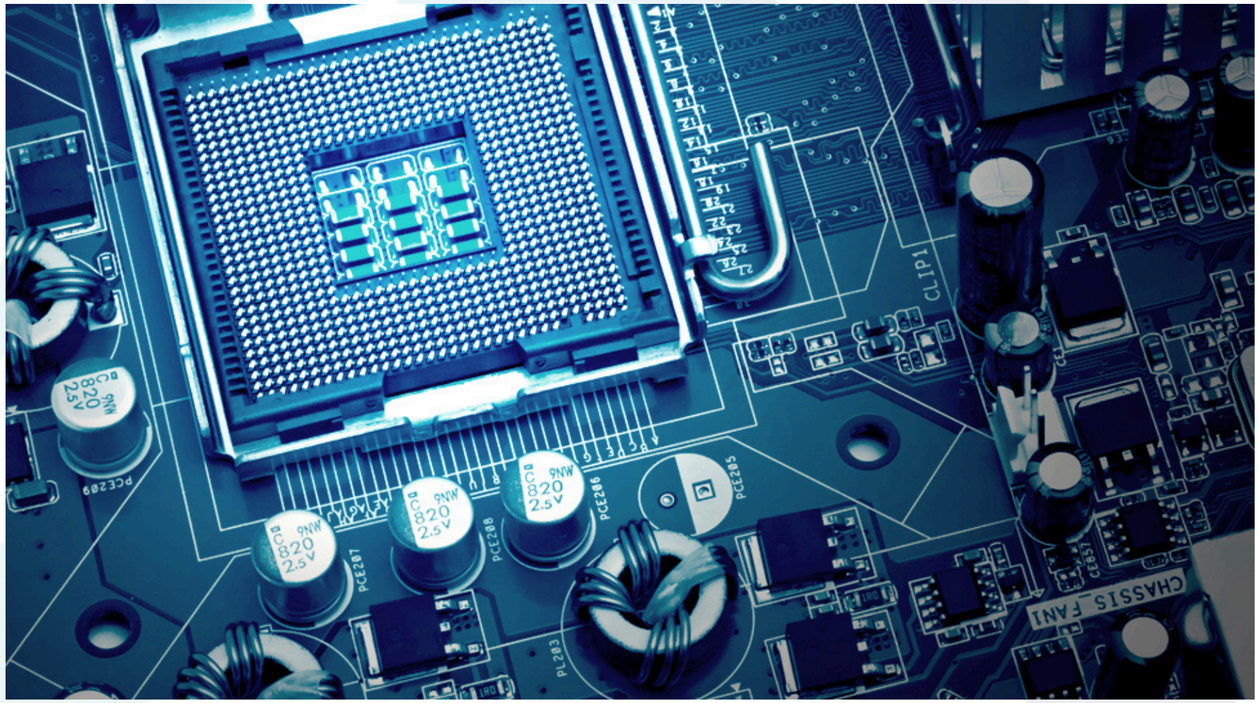
Ambit Semiconductors Pvt. Ltd.
www.ambitsemi.com

AGENDA

- COMPANY OVERVIEW & VISION
- DIFFERENTIATORS & VALUE PROPOSITION
- GLOBAL PRESENCE
- CORE ENGINEERING CAPABILITIES
- VLSI & EMBEDDED SOLUTIONS PORTFOLIO
- SUCCESS STORIES & CLIENT TESTIMONIALS
- SCALABILITY AND ENGAGEMENT MODELS
- CLIENTELE
- CONTACT AND NEXT STEPS

About Ambit

AMBIT s an innovation-driven semiconductor design and IP services company. Founded by visionary entrepreneurs, we specialize in VLSI, embedded systems, and ASIC design. Our agile, forward-thinking approach enables us to deliver cutting-edge solutions and build lasting partnerships across the global semiconductor ecosystem.



Registered vendor on the DRDO/GEM. ISO certified.

Ambit Overview (a global perspective)

- Total engineering strength – 150+ engineers
- Locations: Bangalore (India), Hyderabad (India), Austin (USA)

Ambit Group

Ambit Semiconductors Pvt Ltd (2017)
- VLSI design services
- ASIC turnkeys

Ambit Semiconductors Inc (2023)
- VLSI
- Embedded

Ambit Innovations Pvt Ltd (2024)
- Embedded design services
- Product development

Domains

VLSI

PD, Layout, RTL, DV

Embedded

EEG, CPR, ICP

ASIC

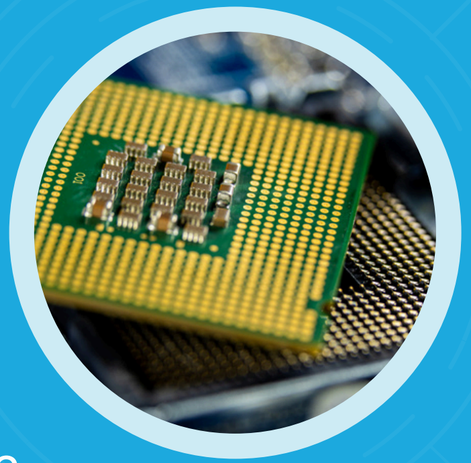
Readout IC for MEMS

Company Overview

Leading Innovation in Semiconductor Design and Embedded Solutions

01 **Founded Date**
November 2017

05 **Headquarter**
Bangalore, India



02 **Team Size**
170+ employee

04 **Certifications**
ISO 9001:2015 &
ISO/IEC 27001:2022

03 **Industry Focus**
Specializes in
Semiconductor

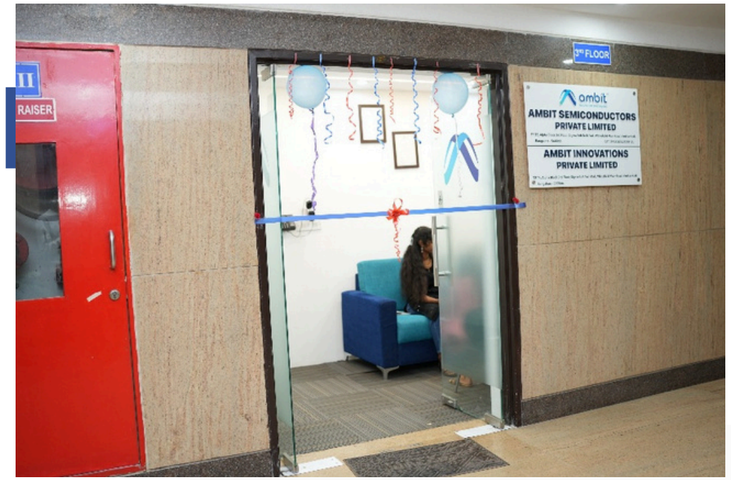
Vision

To pioneer transformative solutions for a connected world

Mission

Empowering progress through innovative semiconductor solutions

COMPANY OFFICE



India Regd. Office:

T1-T2, 3rd Main Road, Varthur Kodi, Bfloor, Alpha Block, Sigma Soft Tech Park, Whitefield angalore - 560066.
Phone : +91 80 47933341

Plot No.188, Ground Floor,
Prasashan Nagar Road No. 21A, Jubilee Hills,
Road No. 72, Hyderabad - 500096.
Phone: +91 8867518866

US Regd. Office:

12370 Alameda Trace Circle
Austin Tx 78727
HR/Sales : +1 (512) 621-9737

Core Values

Trust - Trust is the bedrock on which our business model has been laid out. We work towards enhancing the trust factor with our clients.

Transparency - Be transparent in all tasks and transactions thereby enhancing the integrity of the company

Employee-Centric - Ambit strives to be an employee-centric organization, valuing the importance of employees in building successful organizations

Value to Client - Understanding the clients' requirements, being flexible to changes as well as agile in responding to ever changing business scenarios

WHY AMBIT

1. Ability to provide competitive and suitable engineering resources
2. Taking the ownership of assigned tasks
3. On-time project deliverables
4. Goal to reach 300+ by 2026
5. Competitive pricing

COMPANY AWARDS and ACHIEVEMENTS

1. **2016**: Founder's Journey
2. **2018**: All India Achiever's Award

   T HUB member
3. **2020**: Top 10 most Promising Companies (SiliconIndia)
4. **2022**: Indian Economic Development Award (IEDRA)

   Product Development
5. **2025**: ISO certification

   Registered as MNC with USA entity

SERVICES OFFERING

VLSI FE Design

- RTL
- Constraints generation
- CDC/LINT
- Synthesis
- Pre-Layout Timing
- DFT
- Design Verification
- LEC

VLSI BE Design

- Full chip & Block Level Floor planning
- Place & Route
- Power Analysis (IR/EM analysis)
- Timing Analysis & Closure
- Final Signoff Checks
- PD Flow automation

Custom Layout Design

- Analog/IO/RF/Digital AMS Circuit Design
- Behavioral/Spice/ IBIS Modeling
- Characterization
- Layout: Analog/IO/Memory/ RF&MS
- Complete Library Development

Embedded Design

- Product prototyping and manufacturing
- Circuit design
- Firmware/Software design
- PCB Design
- Testing/Validation
- Simulations

Expertise in Fabs: Saseendra J.

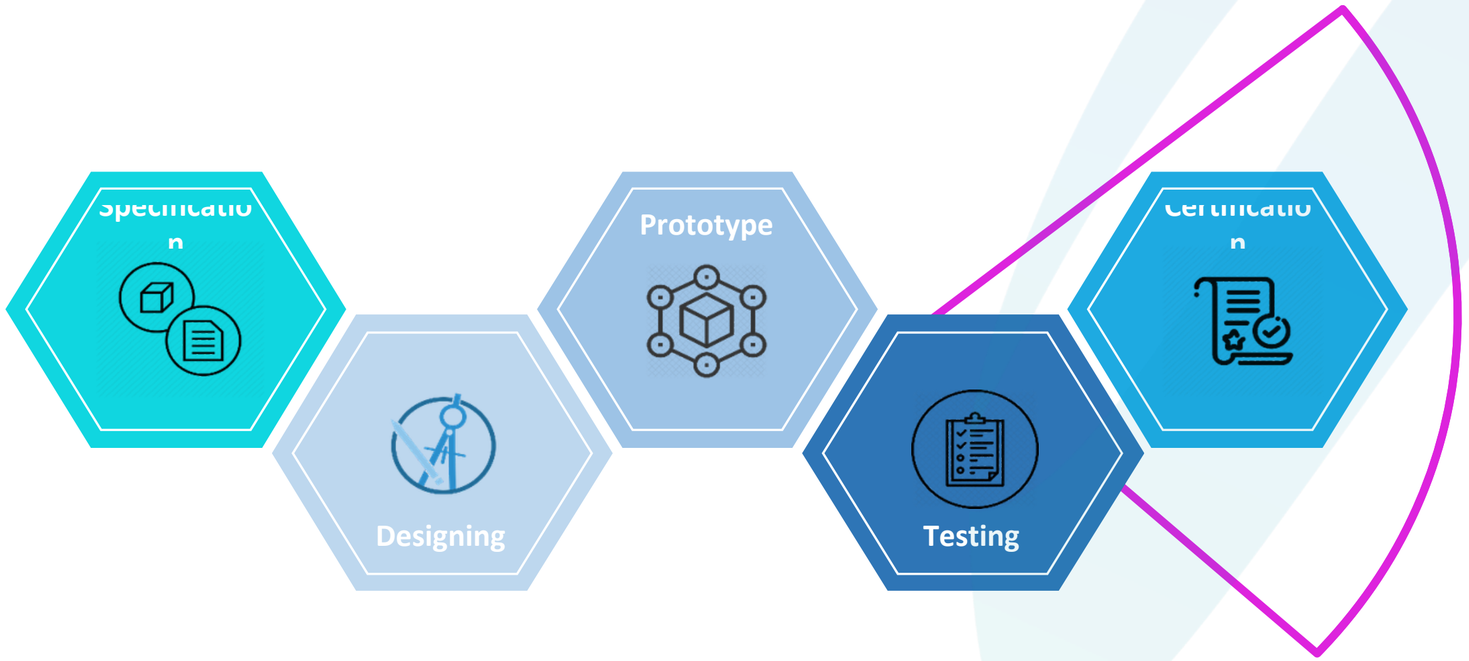
DRDO labs:

- Worked in **GAETEC, Hyderabad** for 5 years as MMIC design and fabrication of GaAs (III-V compound semiconductor)
- Worked in **RCI, Hyderabad** for 1 year in MEMS fab making Pressure sensors, accelerometers etc.

Fabs:

- Worked in **GLOBAL FOUNDRIES, Singapore** as Fab Engineer in 300mm fab facility for 5 years
- Expertise in designing products in cutting edge technology nodes in **AMD, Qualcomm, Synopsys, Intel** etc.

Embedded Cycle



- ✓ Hardware Designing
- ✓ Firmware Development
- ✓ PCB Designing & Prototyping
- ✓ Prototype Testing
- ✓ Manufacturing Support

Engineering Capabilities

Hardware

- FPGA / DSP / MCU-MPU board development, battery management system, GNSS
- NB-IoT, LTE, LPWAN, ARM cortex-M0,M3,M4,A8,A9,A11, High speed ADC
- Feasibility study, PCB layout design, Hardware design and development, prototyping

Firmware

- RTOS, embedded Linux, YOCTO, Build root, ARM firmware development, Embedded-C
- Python, Device driver development, socket programming

Software

- Web application – PHP, Perl, Java, HTML5, CSS3, Node-JS, cloud computing, Python
- Mobile application – Android, iOS, Hybrid application development

Expertise: Product Eco syste

The team has end-to-end experience:

- Proof of concept
- Architect and Schematic design and validation
- PCB/Board design
- Software/Firmware coding and testing
- Product prototyping and bulk manufacturing
- WiFi, BT, NFC, GPS IP designs and board integration
- Collaboration with Academic/DRDO R&D units
- Our Products under certification
  - Medical devices (EEG, Electrolarynx)
  - ICP module
  - CPR Training with VR based experience

Intracranial Pressure Sensor

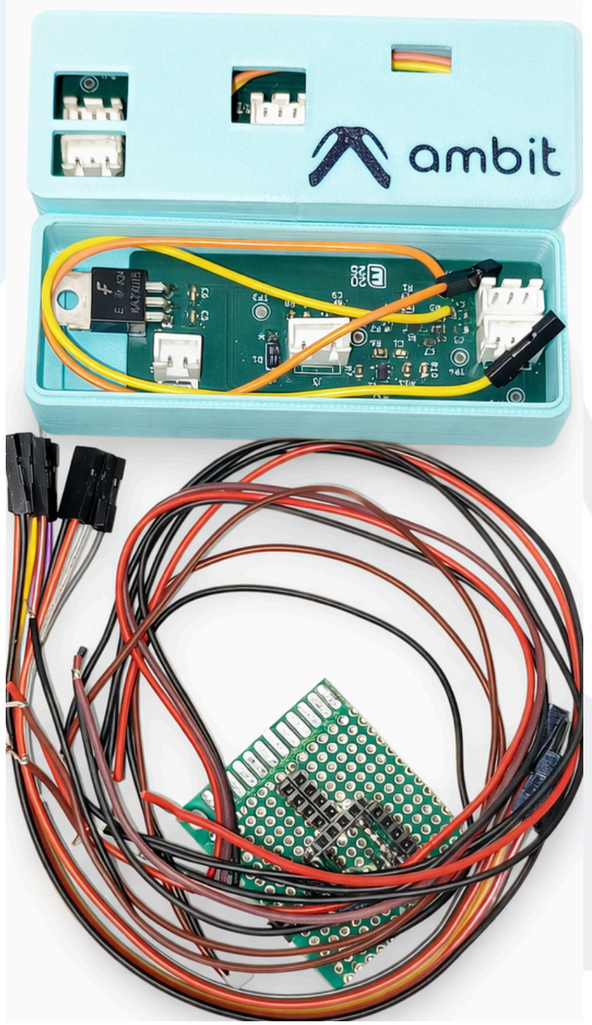
- **Project Overview**
- The ICP project focuses on the design and development of a system to monitor **intracranial pressure**, a critical parameter in patients suffering from traumatic brain injury, hydrocephalus, or other neurological conditions. Elevated ICP can be life-threatening, so accurate and continuous monitoring is essential.

- **Purpose and Objective**
- The primary objective of the ICP Monitoring System is to provide a reliable and efficient platform for continuous **intracranial pressure** monitoring in patients with neurological disorders or head injuries.
- Key goals include:
- - Detecting abnormal pressure levels within the skull to prevent complications like brain damage or death.
- - Providing real-time data to medical professionals for timely diagnosis and intervention.
- **Technologies Used**
- - **STM32 Microcontroller:** Signal acquisition and processing using embedded C/C++.
- - **Differential Amplifier:** Amplifies low-level voltage signals from the sensor.
- - **ADC:** Converts analog signals to digital using external ADC.
- - **Pressure Sensor Interface:** Senses ICP and connects to amplifier input.

MEMS Accelerometer Read-out IC

Project Overview
Capacitance to Voltage converter using embedded components.

Purpose and Objective
This is a Proof Of Concept for an ASIC which senses capacitive MEMS.



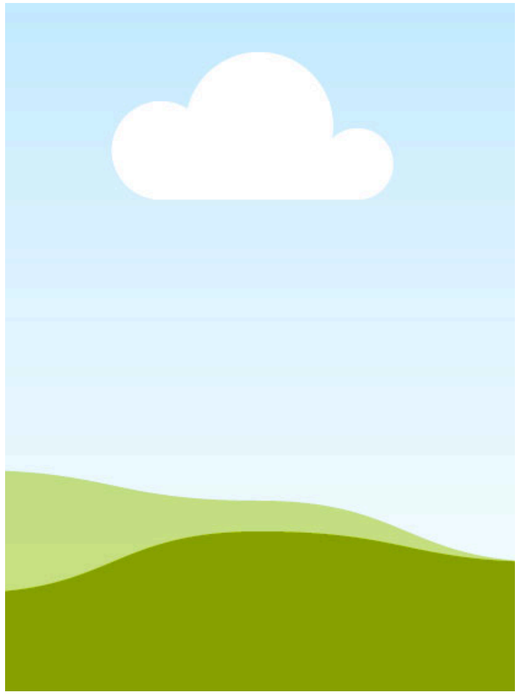
VR based CPR Training Kit

- **Project Overview**
- CPR - cardiopulmonary resuscitation is an emergency procedure that combines chest compressions and rescue breathing to keep blood flowing to the brain and other vital organs. It is a life-saving technique used in situations like cardiac arrest or drowning and it can significantly increase a person's chances of survival until professional medical help arrives.
- Successfully developed and validated a VR-based CPR demo kit, combining hardware and immersive simulation for realistic training - achieving product success

EEG- Non-invasive test

Project Overview

An EEG-electroencephalogram is a safe, non-invasive test that records the electrical activity of your brain. It’s
commonly used to help neurologists understand what’s happening in your brain when you’re experiencing
symptoms like seizures, unexplained fainting, or memory issues.



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DRDO
DEFENCE R&D ORGANISATION
MINISTRY OF DEFENCE
SSPL

INSPIRED BY LIFE

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Thank you.

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