SANJIVANI: Compression Only Life Support Assist Gadget for Resuscitation of Cardiac Arrest victim by Common men

COMPANY NAME	INNOVATOR	INTELLECTUAL PROPERTY
Inofinity Research and Development Pvt Ltd	Dr. Ashok Kumar Badamali	**Indian Patent No.** 202431058254 202431058254 PCT/IN2024/052315

APPLICATION

The device can be used for victims of cardiac arrest due to Heart attack, Electrocution, Lightening injury, Drowning, Choking / food& drug allergies, Suffocation by fire / Chemical smoke

PROBLEM ADDRESSED

Out-of-hospital cardiac arrest (OHCA) and sudden cardiac arrest (SCA), characterized by abrupt cardiac failure, have a survival rate of less than 10%, with 88% of cases occurring at home.

Early CPR by bystanders or EMS can double or triple survival chances, yet significant barriers persist.

Current methods lack real-time feedback, cause rescuer fatigue, and are often inaccessible to minimally trained individuals. Delays in activating emergency services and hesitation to perform mouth-to-mouth resuscitation further hinder response efforts. An innovative solution is needed to enhance CPR effectiveness, accessibility, and adherence to resuscitation guidelines, improving survival outcomes.

PRODUCT IMAGE

ABOUT THE TECHNOLOGY

The CPR Assist Device is a compact, ergonomically designed tool that helps laypersons deliver high-quality chest compressions during cardiac arrest before medical help arrives. It provides real-time auditory and visual feedback aligned with AHA BLS 2020 guidelines (100–120/min rate, ≥5 cm depth, full recoil).A built-in metronome and multilingual voice prompts ensure proper rhythm, while the ergonomic handle reduces fatigue and improves compression consistency.Integrated sensors track compression depth, recoil, and rate, and the base platform supports charging, connectivity (SIM/Wi-Fi/LoRa), and automatic GPS-based alerts to nearby ambulances or hospitals.

Orissa TODAY

THE PEOPLE'S VOICE

KIMS Doctor Develops Easy-to-Use 'Sanjivani' Gadget To Save Cardiac Arrest Victims

USP

- Handheld CPR assist gadget with audio-visual feedback in multiple regional Indian languages.
- Ergonomic design with wider upper diameter ensuring parallel arm alignment, preventing elbow bending and loss of vector force.
- Tri-color LED indicators (Green: Good Job, Red: Low Rate, Yellow: No Recoil) with real-time guidance.
- Built-in metronome at 100/min for optimal compression rate.
- Sensor-based precision with external light reference stand for depth and recoil accuracy.
- Automated emergency alerts via base platform with dual SIM/Wi-Fi/LoRa connectivity.
- Cost-effective, accessible solution for layperson use in out-of-hospital cardiac arrest.
- Scalable ecosystem component integrating with ambulances, hospitals, and drone surveillance.

End User

Common men (2%) Indians, Apartment-(65000) Ambulances (24000), Hotels/malls/Community Centers, Bus Stop/railway station/ airport (3000+8000+449), Hospitals, School, College, Industries., Army

Supported by: DST, DBT-BIRAC, PONTAQ VC (UK), MEITY, Start-up Odisha

Dr . Amaresh Panda
Lead, Technology Transfer Office, KIIT-TBI
amaresh@kiitincubator.in | +91-9819053408

Mr. Biswajit Biswal
Manager, Technology Transfer Office, KIIT-TBI
biswajit@kiitincubator.in | +91-9011104125

tbi@kiitincubator.in