



# CG-STAT

The outcome of an R&D project titled 'e-GUNA: An Electronics and ICT driven solution towards fermented food safety in North Eastern Food

Funded by the Ministry of Electronics and Information Technology, Govt. of India

## About CG-STAT

A high-throughput field portable miniaturized Potentiostat with stabilized enzymatic bioreceptor toward cost effective cyanogenic glycoside detection in fermented food: special reference to bamboo shoot. Cyanogenic glycosides, present in bamboo shoot may lead to acute intoxications in humans, characterized: Growth retardation and neurological symptoms resulting from tissue damage in the central nervous system (CNS). CG-STAT is equipped with stable biosensor based screen printed electrode for DPV analysis and cyanogenic glycoside quantification in real samples.

## Features

- SPE as well as three electrode system can be used.
- Mobile based operation & analysis.
- Minimum current measurement at 230 nA.
- Voltage range -2.0 V to +2.0 V.
- Voltammetry and Amperometry techniques.

## Hardware

- Single board computing module.
- High Precision A/D, D/A circuit.
- Circuit for potentiostat.
- Battery power system.
- Low battery indicator.

## Benefits

- Maintain Indian fermented food biodiversity.
- Early detection of the toxins.
- Reduction in economic loss.
- Sustainable growth of NE region.
- National nutritional safety.



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