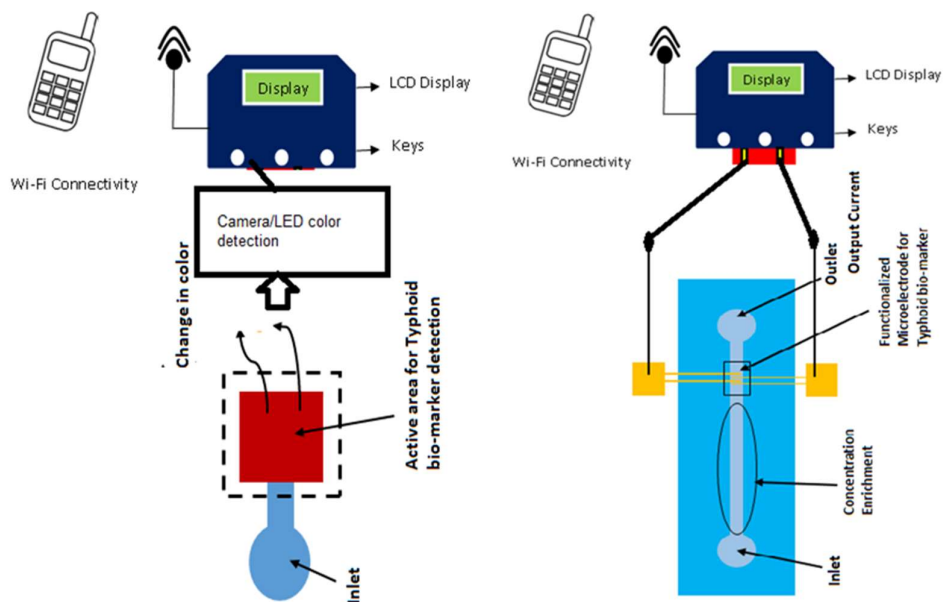


Sensors for Point-of-Care applications

Under the aegis of the national mission schemes and domains namely Swasth Bharat, Make in India and Healthcare Management-Early diagnosis, CSIR-CEERI is developing point-of-care solutions and early diagnosis solutions for infectious diseases like Typhoid and Dengue, Cardiac health management, Breast & Lungs Cancer and pre-diabetes. We are also developing a system for diabetes monitoring using non-invasive techniques. The point-of-care/ early detection systems have Nano-Micro sensors which are interfaced with read-out electronics. The bio-chemistry and surface chemistry part of the sensors are being development in collaboration with other CSIR institutes.



Schematic representation of Point-of-Care / Early Diagnostic devices and systems with IoT

Salient features:

- Microfluidic based rapid test card for Typhoid detection
- Dengue detection based on DENV detection
- Portable system for cardiac bio-marker estimation
- Multiplexed SERS based fingerprinting of Breast Tissue samples
- SERS based nano-biosensor for Lung Cancer detection
- Non-invasive breath analyser for diabetes detection
- Pre-diabetes detection based on bio-markers on CNT based sensors

CSIR-CEERI is looking forward to collaborate with industrial partners for field/ clinical trials and for the deployment of the technologies commercially.

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