

## Project Monitoring and Steering Committee

### *To Be Added:*

1. <>
2. <>

### Selected List of Sponsored Projects in Relevant Area

- 1) **DISARM (Funded by ITRA Media Lab Asia Collaboration with IIT KGP & IIM Kolkata [2013-till continue] ):** Internet-based communication systems have been instrumental in providing day-to-day services in our life, but history has shown that natural disasters like Ayla in India, Katrina in the USA, and the recent earthquakes and tsunamis in Japan can severely impair all forms of communication, thus jeopardizing people's lives. This project aims at systematizing such chaotic situation through a series of technical innovations in the area of hybrid wireless network technologies and its applications.
- 2) **“Remote Health: “A Framework for Healthcare Services using Mobile and Sensor-Cloud Technologies”** (Sept 2013 – Sept 2016). [In collaboration with, Jadavpur University Kolkata, University of Calcutta Kolkata, IEST Shibpur, KIIT Bhubaneswar, FGIET Raibareli ]; PI: Dr. Anirban Sarkar, Information Technology Research Academy (ITRA) Ministry of Communications and Information Technology, Govt. of India., Total Outlay : INR 525.49 Lakhs, NITD Outlay: INR 42.63 Lakhs
- 3) **CityProbe (Funded by IMPRINT Collaboration with IIT KGP & IIT Bombay[2017-2020]):** To determine the health of a city, several parameters need to be considered. The proposed project aims to probe and understand two specific aspects of city health: road infrastructure and pollution-levels. We propose a city-scale pervasive sensing framework, CityProbe, which seamlessly integrates customized sensing units and mobile phone sensors. The proposed solution scales by leveraging crowd-sensed reports from customized and mobile phone sensors, to monitor air and sound pollution levels and to detect poor road conditions, in real-time. CityProbe is novel in incorporating both participatory and automated detection techniques; and in being a first-of-a-kind framework that explores causalities between road conditions and pollution levels. A dashboard depicting the derived insights from the crowd-sensed reports will be presented to city agencies for assistance in policy-making; and citizens will receive customized alerts and recommendations related to travel conditions. We will field deploy our solution in three cities: Mumbai, Durgapur and Chandigarh.
- 4) **Developing ICT-based kiosks for post-disaster situational information management using opportunistic networking framework Funded by DST West bengal [2018-2021] :**The present proposal may better be presented as a follow-up exercise of one of our previous project (DISARM) in the area of post-disaster communication infrastructure development, where we identified the utilities of crisis mapping services in the context of disaster management and disaster risk mitigation, and a necessity for felt for designing a ‘localized’ crisis mapping infrastructure that would help people at disaster site to feed crisis data seamlessly to a global crisis data repository even in absence of the conventional networking.
- 5) **Agent Based Algorithmic Approach for Modeling and Optimization of Indian Railway System (DST, Govt of India, Dr. Animesh Dutta)**

- 6) **Development of Personalized and Performance based E-Learning tool for existing E-resources** (DeitY, Govt of India, Dr. Animesh Dutta)
- 7) **EMPOWER SSE: A Linked Open Data Framework for the Empowerment of Social and Solidarity Economy Agents** (DST, Govt of India., Dr. Animesh Dutta)
- 8) **“Connected Smart Health Services for Rural India”** (Sort Listed) [In collaboration with University of Calcutta, FGIET Raibareli, JSV Consultant, kolkata]; Dr. Anirban Sarkar (Co-PI) Interdisciplinary Cyber Physical Systems (ICPS) Programme, Department of Science & Technology (DST), Govt. of India, New Delhi; Total outlay: INR 60 Lakhs; April 2018 (Tentative)
- 9) **“Design of Light weight and cost effective PUF-Enabled Secure Architecture for Authentication and FPGA based Application”**, DST West Bengal, PI – Bibhash Sen, Co-PI – Suchismita Roy, INR 8.00 Lakhs.
- 10) **“Design and Development of Electro-Hydrodynamic Inkjet Printing System”**;  
Sponsoring Agency: Department of Science & Technology (DST), New Delhi;  
Collaborating Organization: CSIR-CMERI, Durgapur; Starting Year: 2016.
- 11) **“Development of Compliant Actuators with Mechanical Impedance Variability”**;  
Sponsoring Agency: Defence Research & Development Organization (DRDO), New Delhi; Collaborating Organization: CSIR-CMERI, Durgapur; Starting Year: 2017