

Results report SFC Research grant 2016

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Simulation Modelling of IOT based Infrastructure in the Futuristic smart city of Hyderabad, India. Bridging the Rich and poor

Purpose of activity

Creating the Simulation model visually in UC win road software for Bridging the gap between rich and poor by application of IOT (Internet of things) based infrastructure in the futuristic smart city of Hyderabad.

KEY WORDS: Computational Simulation, Smart city, slums, Socio Economic aspects, Traffic and Transportation, Internet of Things, Infrastructure, Bottom up techniques.

METHODOLOGY

- 1) Understanding the socio-economic characteristics of the study area in the city of Hyderabad and interaction of the people with the existing transportation system
- 2) Qualitative and quantitative Analysis of human interaction with the Transportation in the city living in the study areas by household surveys, interviews with the residents, local leaders, stakeholder etc. and interpretation of data in the ArcGIS mapping.
- 3) proposal and implementation of the Internet of things based infrastructure in the study area
- 4) Eventually running the Simulation model of the implemented proposal of IOT installation in the UC win road and City engine software's.

Outcomes of the field trip:

1. Tracking the Traffic and transportation related human behavior in the study area of jubilee hills , Hyderabad city by distributing the GPS enabled Mobile phones to the people for the sampling test





2. Meeting with the Managing Director of Oompfh Info Solutions Pvt Ltd

Oompfh Info Solutions Pvt Ltd is the Swedish based IT company located in Hyderabad, I am giving the brief description about the EDGE program and about my interest of collaborating with the company under my project idea and application of IOT and business model to the core of my project. The MD appreciated the Idea of choosing Hyderabad as the heart of my study and promised me to help the technical support and agreed to serve as my project coordinator and criticizer.

3. Meeting with the Prof. Dr. Krishnan Sundara Rajan at the International Institute of Information Technology, Hyderabad.

Dr. Krishnan sundara Rajan is a Head, Lab for Spatial Informatics (LSI), scientific officer at Land Use and Land cover change (LUCC), Former associate prof, Ph.D at University of Tokyo and Joint Researcher at Research Institute for Humanity & Nature, Kyoto, Japan with area of interest at GIS, Remote Sensing, Modelling & Simulation, Regional and Global Environmental Change, Open Source Soft wares. His area of interest is very relevant to my research field of study, his valuable suggestions and inputs helped me to organize my intent of the study.



4. Meeting with Aarvee associates



Aarvee Associates is a multi-disciplinary engineering consulting company, established in 1989 and based at Hyderabad in India. They have a pan-India presence, with branch offices in all the major states across the country.

They have been working on several projects funded by various international agencies including the World Bank, the Asian Development Bank (ADB), the Department for International Development (DFID), and Japan International Cooperation Agency (JICA).

We made a formal commitment for helping me out of selling my project idea to the Investors as soon as I come up with the fruitful idea. The presence of my Academic supervisor Prof. Yasushi Ikeda all along my field visit helped me to

express my vision stronger and realistic.