INDU : Making everyone more aware, more responsible towards Global Warming

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ABSTRACT

Indu is a conceptual NFC based mobile application that allows individuals to track their carbon footprint for activities. Capability to track mode of transits such as public transportation, ride-share, driving, walking, biking or flying enables it to measure the energy consumption at individual level. With such a close awareness of individual carbon footprint, we emphasize through this paper how it can enable individuals to being more aware and contribute to problem of global warming.

1. INTRODUCTION

Climate change and global warming are topics now well discussed across various nations and a topic that we as humans require to care and be responsible. The special groups like [3, 2] and research [5] has already highlighted enough of why climate change and global warming should be our major concern for next decades. The government agencies and power leaders are already focusing and investing [1] in the issue by supporting industries to go green, promoting carpools with tax benefits.

However, addressing such a global issue cannot be a single person or an agency responsibility. We all require to come forward and identify our responsibility in this noble fight for climate change to make Earth more safe and healthy for future generations. Each one of us together can influence a bigger cause and contribute effectively. It is not a surprise that there are many individuals already contributing by building communities of carpoolers [4] or who bike or use public transportation for their commute. But unfortunately these small contributions are not well tracked and we fail to credit these individual contributors in the community. With Indu, we can change that.

2. INDU

We propose here a conceptual design of Indu [1], a NFC

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[1] means a bright drop in *Sanskrit*

enabled mobile application poised to primarily measure and track the carbon footprint. The pervasive presence of mobiles makes them the most adequate smart technology closer to users. The aim is to utilize this pervasive presence of smart technology around humans to build something that can motivate them to address the concerns of global warming while motivating about money savings using tax benefits [1]. Following are some exciting use cases: (the architectural and implementation details are not shown in interest of space)

- Public Transportation: With an NFC enabled receiver on buses (or trains) and GPS on mobiles it can allow users to register their use of public transit and calculate carbon footprint based on miles traveled.

- CarPooling: When sharing a ride, a NFC based interaction between mobiles can track the each individual sharing activity automatically adjusting for the energy consumption compared to driving by own.

- Biking/Walking: GPS on mobile can help track number of miles (similar to RunKeeper, Endomondo etc) and energy savings in doing so instead of driving.

- House: Connected with WiFi at home, the application can identify when you are home and given the information of square foot area, number of members (provided manually) and temperature (can be determined) to calculate the energy demand in the house.

2.1 Impact

With better awareness of own carbon emission each individual can participate in a noble cause of climate change. More awareness of carbon emission will motivate people for ridesharing, biking etc. With support of government agencies, these carbon footprints can directly be converted into tax savings creating more aware, more responsible, more greener citizens.

3. REFERENCES

[1] News Article: Tax Amendements for Mass Transit. `http://bit.ly/14i3Sl0`. [Online].

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[5] D. MacKay. *Sustainable Energy-without the hot air*. UIT Cambridge, 2008.