Application Form of EASTS IRG

1. Name of IRG:

Mobile Millennium Asia: Mobile Productivity and Utility Tools for Inclusive Urban Mobility

2. List of research members (Confirmed members)

1) a) Name of representative: **Dr. Francis Aldrine A. Uy**
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3. Name of contact person other than representative:

None

4. Keywords (Maximum: 5 words)

mobile application, productivity, utility tool, mobility, intelligent transportation

5. Purpose and Mission of IRG:

The purpose of IRG is to:
5.1 Promote the development of mobile applications for urban mobility and efficiency in transportation;
5.2 Promote the development of mobile productivity and utility tools for all types of trip makers and

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*for secretariat use

purposes;

5.3 Promote the integration and use of mobile application to travel and traffic management systems;

5.4 Design and create back-end systems that shall collect data from mobile applications for processing and generation of travel demand, behavior and traffic information.

The mission of the IRG is to demonstrate the impact and benefits of integrating mobile application with transportation information systems that shall aid in efficient management. This project shall take advantage of the penetration of smart phones in urban communities and make it a source for essential data that can be used in transportation operation and management. Each mobile phone may represent an individual and could automatically feed our system with essential data on trip demand and behavior. The collection and processing of mobile data feeds may automate travel demand estimation, prediction and bring forth an opportunity to study complex behaviors.

Data shall be acquired through a mobile application platform that shall integrate various transportation related applications. Individual data such as trip diary, preference and GPS location can be acquired through the mobile application. Privacy and security shall be addressed in the design. A mobile application can be launched simultaneously in participating countries. The data coming from the mobile application shall be processed by a back-end computing system capable of generating traffic information.

The key for the patronage of the mobile application is mutual benefit. Individual mobile application user shall patronize the application if it will be useful to them. In return, transportation related information that results from processing of data, shall be provided thru the application. In the future other tools like ticketing service and parking reservations can be introduced in the mobile application.

6. Target year for completion (Research period is suitable within four years.):

Year 2017

7. Research plan:

(Oct, 2013 - Sep, 2014)
Survey and evaluation of existing transportation related mobile applications existing or available in participating countries.

Analysis of available data acquired through existing mobile applications.
Determine impact and effect of these mobile applications in the current state of travel demand behavior and traffic.

(Oct, 2014 - Sep, 2015)
Design of a mobile application platform that shall integrate selected existing and future mobile applications with the end goal of providing an inclusive mobile app for intelligent trip makers.

Design a central back-end system that shall filter and process mobile data feeds and conduct estimation and prediction.

(Oct, 2015 - Sep, 2016)
Pilot-testing of the Mobile Millennium Asia mobile application and back-end system in at least 2

participating countries.

(Oct. 2016 – Sep, 2017)
Improvement of the mobile application and information system.

Documentation and publication of results.

Official launching of Mobile Millennium Asia Urban Mobility Center.

8. Expected research funds (ex. ICRA (Research grant of EASTS), etc.

ICRA (Research grant of EASTS)

Department of Science and Technology (DOST) of the Philippines

Philippine-California Research Institutes (PCARI) of the Commission for Higher Education (CHED)

All applications are to be delivered to:
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