PROJECT SPECIFICATIONS

HUMAN COMPUTER INTERACTION course (UNITN)

TOPIC

Sustainable mobility refers to the use of either non-polluting travel methods (e.g., walking or cycling), collective travel methods (e.g., bus, train, or car-pooling) or low-pollution travel means (e.g., electrical cars).

The goal of this project is to **design a mid-fidelity prototype** of a system that would encourage people to increase their use of sustainable mobility options.

Possible methods include resorting to game mechanics (gamification) or using a persuasive technology approach.

PROCEDURE

The project will be organized around Requirements elicitation, Design and Evaluation.

1. **Analysis of existing products**: the students will collect and analyze examples of interactive devices aimed to facilitate sustainable mobility. These examples will be evaluated by an analytic procedure and used to create a design library (2 weeks)
2. **Ideation**: based on result of step 1 the group will engage in a number of ideas generation and brainstorming section to identify the space of the design they want to address. This phase will give rise to initial design directions which will then be iteratively tested and modified during the project (1 week)
3. **PACT ANALYSIS**. Each group will identify stakeholders, context of use, and the set of activities they wish to support with their project, broadly defining the interaction technology required. Once the stakeholders have been identified, each user member will conduct 5 contextual interviews following a methodology defined by the group to elicit user requirements. It is recommended that the interviews be recorded. Notes from the interviews will be prepared by each student and collectively analysed using affinity analysis. The analysis of the context and activities will also be supported by observation (supported by videos and pictures whenever possible) and task analysis (2 weeks)
4. **Design phase**. Each person will implement different prototypes of the framework emerging from the PACT analysis producing scenarios, personas, and story board etc. The group will consolidate and internally evaluate the different proposals consolidating a smaller set of alternatives
5. **Evaluation phase**. Each student will evaluate selected design in user testing with at least 5 participants. Data will be analysed by the group
6. **Phase III and IV** are to be iterated at least **twice** (time for entire design iteration 6 weeks)
7. **Report writing**. The group will produce a 10 pages (max) report of the project and a prototype of the service. Report writing is both an individual and a group activity. All

members are expected to contribute but it will be marked as a group deliverable not as a collection of chapters (2 weeks). The report is composed of:

- Executive summary (1 page)
- Analysis of existing products and ideas generation
- PACT analysis (rich description of requirements with implications for design)
- Design methodology
- Prototype description (justification of main design choices)
- Evaluation Results (final user study)
- Conclusion

MARKING SCHEME

- Presentation (10%)
- Validity and reliability of user testing (30%)
- Analysis of results (30%)
- Quality of design (20%)
- Suggestions for future work (10%)