**SOLAR BIKE SHARING DEMAND PREDICTION SYSTEM**

**ABSTRACT**

Solar vehicles(SV) have limited energy storage capacity and the maximum autonomy range is strongly dependent of the driver's behaviour. Due to the fact of that batteries cannot be recharged quickly during a journey, it is essential that a precise range prediction is available to the driver of the solar vehicle. With this information, it is possible to check if the desirable destination is achievable without a stop to charge the batteries or, if to reach the destination it is necessary to perform an optimized driving. The outcome of this project work is the development of the solar vehicle assistant(SVA). This is an application for mobile devices that will help users to take efficient decisions about route planning, charge management and energy efficiency. Therefore it will contribute to foster SVs adoption as a new paradigm in the transportation.