CLAIMS:

1. An TIME VARIANT GEOGRAPHICAL INFORMATION SYSTEM, which provides time variant geographic information system to at least one mobile vehicle, the system comprises:

a plurality of image capturing apparatus, in which at least a part of them are installed at locations higher than the vehicle, with each of the image capturing apparatus aiming at different road segment, and the capability to output information with precise time stamp;

at least one monitoring host for receiving image data having the time stamp that including: a synchronization processor, a processing device and a database, wherein the synchronization processor that operates on at least part of the image data, and the database stores the geographic information of the fixed objects in at least part of the three-dimensional space, and the database also stores the time variant location information of the moving objects;

at least one time variant geographical information acquisition system installed on a vehicle, wherein the data capture device includes: a wireless communication unit for connecting to the image capturing apparatus and/or the monitoring host; a timing unit used for operating conjunctively with the wireless communication unit to output a timing signal; a memory module storing the geographic information corresponding to at least the mobile objects in the three-dimensional space; and a traffic scenario output interface for jointly displaying the geographic information and the mobile object information;

wherein the processing device from the monitoring host, based on the time difference between the received signal from the timing unit and the time stamp, generates a new, time base corrected, predicted moving object location for the time variant geographical information system and transmit to the vehicle.

2. The TIME VARIANT GEOGRAPHICAL INFORMATION SYSTEM according to Claim 1, the image capturing apparatus is located at a street lamp post or the post supporting traffic signaling equipment, a pedestrian footbridge, or a corner of a building.

3. The TIME VARIANT GEOGRAPHICAL INFORMATION SYSTEM according to Claim 1, the traffic scenario output interface further includes a warning device that sends a warning signal when the processing device determines that the road condition detection information exceeding a prescribed limit.

4. The TIME VARIANT GEOGRAPHICAL INFORMATION SYSTEM according to Claim 1, the traffic scenario output interface is video based.

5. The TIME VARIANT GEOGRAPHICAL INFORMATION SYSTEM according to Claim 4, the traffic scenario output is an augmented reality head-up display.

6. The TIME VARIANT GEOGRAPHICAL INFORMATION SYSTEM according to Claim 1 further comprises: a communication device used for connecting to the image capturing apparatus and/or monitoring host to the wireless communication unit.