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USING GPS TECHNOLOGY AND DISTRIBUTED MEASUREMENT SYSTEM FOR AIR QUALITY MAPING OF REZIDENTIAL AREA

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Abstract

The project's idea is really simple: using the LabView environment, we have realized a virtual instrument able to get from the GPS the information about latitude, longitude, altitude and from a prototype data acquisition board for environmental monitoring parameters the information about air pollution factors. The perfect solution regarding the costs, the covered area and the accuracy of the measured data is the use of a glider for flight, because of its characteristics: free flights (without engine – meaning no local air polluting source), mobility (it is able to cover in one flight hundreds of kilometers) and low cost maintenance.

All the information obtained during the measurement flights are corroborate with the meteorological information obtained from the local automatic meteorological station This mapping system can be used to map the information about the air pollution factors dispersion in order to answer to the needs of residential and industrial areas expansion.

Key words: Virtual Instrumentation, Distributed Measurements, GPS, Air Quality Assurance

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