

Developing a Mobile Platform for Rugged and Dangerous Environments to Detect CO with NI CompactRIO

Cosmin-Sorin PLEȘA, Liviu VIMAN

Abstract

This paper aims at designing an intelligent mobile platform that use gas sensor to detect the CO level in possible dangerous places. The objective of this work is to display the information from sensors on a host computer using wireless communication between the controller CompactRIO and the host, and send control signals to the DC Motors of the platform. The data received from the sensors is also stored on a flash stick which is connected to the CompactRIO. The system is configured for programming in NI LabView, which can develop high-speed analog and digital acquisition data (LabView FPGA), powerful floating-point processor (LabView Real-Time) and includes sophisticated GUIs (graphical user interface).

Biography

Cosmin-Sorin Pleșa is a final year student at the Technical University of Cluj-Napoca, the Applied Electronics specialization and member of the Faculty Council. His interests are embedded systems and analog integrated circuits.

Cosmin-Sorin PLEȘA, IVth year student
Technical University of Cluj-Napoca
Faculty of Electronics, Telecommunications and Information Technology
26-28 George Barițiu Street, 400027 Cluj-Napoca, ROMANIA
E-mail: plesa_cosmin1990@yahoo.es
Manuscript received on May 14, revised on October 29, 2013