LaSeKo PROJECT

Autonomous radio based documentation system for mobile machines

Based on a mobile electronic system the LaSeKo consortium is developing a technical device to connect independent network devices and machines for the collection of process data, control and diagnostic purposes. The main component of the system is a private area network (PAN) module controlled by an embedded Linux OS. Using the IEEE 802.15.4 wireless standard, the network is able to autonomously establish a network. All combines and tractors will be equipped with a communication unit. Site specific harvest data as well as other crop data can be transmitted from the LaSeKo-Box from the combine harvester to the LaSeKo-Box of the transport vehicle while transferring the crop.

Specifications of the LaSeKo - Communication Box

- 32 bit processor with embedded Linux OS
- 2x CAN bus interfaces (ISOBUS, SAE J 1939)
- 2x Radio interfaces (IEEE 802.15.4 / ZigBee)
- Ethernet
- RS232, USB Client
- GSM/GPRS Modem
- Determination of position over GPS (Sirf, NMEA)
- Display-, Sound- and Keyboard interfaces
- SD-card or SDHC-card (up to 32 GB)
- Wide range power supply (8-38V)

Project Partner

- John Deere AMS Europe
- Technische Universität Dresden, Chair of Agricultural Machinery
- Institut für Mobile Machines, Karlsruhe Institute of Technology
- LogicWay Schwerin
- Simplan AG Braunschweig
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