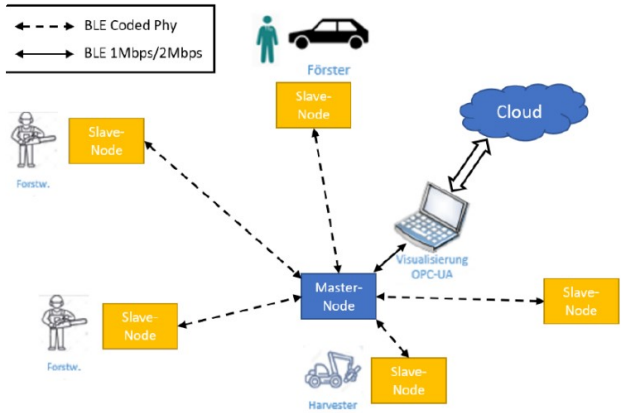
Co-worker safety 4.0 | Work safety improvement system for forest operations



Improvement of work safety through a new IT solution. A sensor node network connects to anyone involved (carrying such a node) and provides information about current danger situation over license-free band using Bluetooth low energy (BLE) .

Improved work safety through a sensor node network which connects to anyone carrying such a node and provides information about the current danger situation over a license-free band using Bluetooth low energy (BLE). For example: in a tree felling operation with a harvester which is supported by a forest worker, any person with such a little IT-device in his / her pocket (such as supervision personal, field forester, …) will get information about the position of the harvester and the work the harvester is doing. On the other hand, also the harvester has the information about these people. Risk alert warnings are sent to actors automatically, risk zones and risk status can be retrieved from actors, offenses of critical overlaps in risk safety zones are identified. The system is using u-Blox M8N GPS modules and map visualization on screens. The information gets translated to a danger situation depending on the individual work-situation (for example larger danger area when the harvester is cutting a tree than while driving). Communication of 150 - 700m, up to 9 slave nodes and battery allows 50h usage. GPS accuracy around 2.5m under forest conditions. The system may connect to a Cloud. This opens further data processing options, such as inclusion of passers-by via GSM-net or team-oriented data analysis for work-safety education needs.

VIŠE DETALJA

IZAZOV

4. Osiguranje dobro obučene radne snage kroz razvoj i obrazovanje u atraktivnim vještinama

DOMENA

Nepovoljni prirodni uvjeti, rizici, odgovor na katastrofe

Proizvodi, tržišta, razmjena

Sječa, infrastrutura, logistika

VRSTA RJEŠENJA

Pametni strojevi, oprema

KLJUČNE RIJEČI

Sensor node; BLE; work safety

DIGITALNO RJEŠENJE

Da

INOVACIJA

Da

ZEMLJA PODRIJETLA

Švicarska

PODRUČJE PRIMJENE

Nacionalna

POČETAK I KRAJ GODINE

--

KONTAKT PODATCI

VLASNIK ILI AUTOR

BFH Bern University of Applied Sciences

Martin Ziesak

martin.ziesak@bfh.ch

https://www.wh40.ch/interview-rosset-ziesak/

IZVJESTITELJ

BFH Berne University of Applied Sciences

Moritz Dreher

moritzkaspar.dreher@bfh.ch

LOGO PRIMJERA DOBRE PRAKSE

LOGO GLAVNE ORGANIZACIJE

Berner Fachhochschule
Haute école spécialisée bernoise
Bern University of Applied Sciences

PROJEKT U OKVIRU KOJEG JE INFORMATIVNI LIST KREIRAN

Rosewood 4.0

DATUM UNOSA

12 kol 2021

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 862681

Link to Rosewood 4.0

A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY

Centro de Servicios y Promoción Forestal y de su Industria de Castilla y León