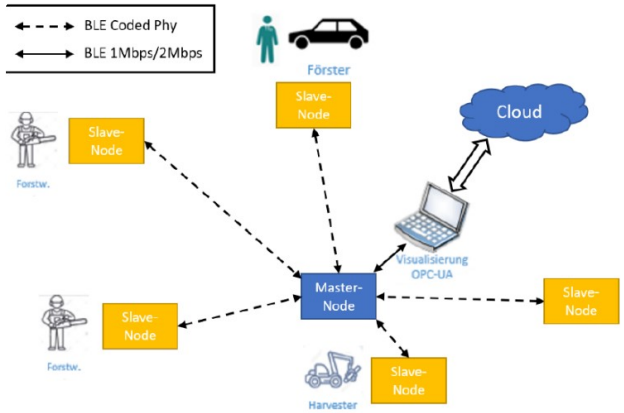
Co-worker safety 4.0 | Work safety improvement system for forest operations



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.

VEČ PODROBNOSTI

IZZIV

4. Zagotovitev usposobljene delovne sile s pomočjo privlačnih programov izobraževanj

DOMENA

Motnje, tveganja, odziv na naravne nesreče

Izdelki, trg, prodaja

Sečnja in spravilo, infrastruktura, logistika

TIP REŠITVE

Pametni stroji, oprema

KLJUČNE BESEDE

Sensor node; BLE; work safety

DIGITALNE REŠITVE

Da

INOVACIJA

Da

IZVORNA DRŽAVA

Švica

OBSEG UPORABE

Nacionalni

ZAČETNO IN KONČNO LETO

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Haute école spécialisée bernoise
Bern University of Applied Sciences

PROJEKT, V OKVIRU KATEREGA SO BILI ZBRANI OSNOVNI PODATKI

Rosewood 4.0

DATUM OBJAVE

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY

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