



Guru Gobind Singh Foundation's

Guru Gobind Singh College of Engineering & Research Centre

Approved by AICTE, Govt. of Maharashtra & DTE Mumbai, Affiliated to Savitribai Phule Pune University (Formerly known as University of Pune)

NAAC Accreditation first cycle "B+" with CGPA 2.72 in April 2019, DNV – GL Certified for ISO 9001 : 2015 Standards



Vanderlande Hackathon 2020

Guru Gobind Singh College of Engineering & Research Centre in association with Vanderlande, Pune are jointly organizing Hackathon event for 3rd Year and Final Year Engineering Students at our campus on 20th March, 2020. Vanderlande is the global market leader for value-added logistic process, automation at airports, and in the parcel market. The company is also a leading supplier of process automation solutions for warehouses.

The Hackathon procedure:

Team Size: The teams will be of 4 Students.

Last Day of PPT Submission: 13th March 2020. (The participants need to put the architecture, technology used and advantages for ideas in presentation format with 5-6 slides).

Submission Procedure: Submit the PPT to Shriniwas.Mahindrakar@vanderlande.com and harshal.tambat@ggsf.edu.in on or before 13th March 2020

Screening Procedure: The idea to be screened by internal team and the selected ideas will be notified to the participants.

The selected participants will be asked to present the idea to judges during Hackathon Event on 20th March 2020 at our campus.

The judges will have questions/ queries and participant team need to clarify the same.

The winning teams will be awarded with cash prizes.

Winner Prize is Rs.30000/-

Runner up Prize is Rs.20000/-

Participation certification and gift will be given to all shortlisted teams.

Please Motivate Your Students to participate in Vanderlande Hackathon 2020.

PS4: Problem statement: Alarm Picker apps on PDA/mobile

In the material handling system BHS/Warehousing / Parcel the conveyors are controlled by PLC (Programable logic controller -Siemens).

PLC controls the flow of material by means of starts /stop the conveyors in the system. There PLC controls the conveyor and equipment, which follows the set of rules in material handling. The PLC also provides the status of each conveyor and equipment.

The material handling has large area and with multiple floors. These large is area is divided and each area is controlled with PLC. These PLCs are responsible to control and it has status database of these conveyors/equipment's.

The PDA/ mobile application should be able to connect all the PLC in material handling systems. The connection should be over WIFI. Application should read the status from the status database of PLC and show the alarms of PDA/Mobile.

The Alarm Picker application database shall also contain:

- The list of all PLCs with the parameters required to communicate with them
- The list of elements handled by each PLC
- The definition of the alarms per equipment.

Local Motor Starter: Wireless Control for Parameterization

The Vanderlande commissions the Warehouse and Airport Baggage handling system. These systems have many conveyors. These conveyors are controlled by local motor starters (LMS). Vanderlande uses Eaton/Nord/Siemens LMS. Most of the time LMS is located near to Motors of conveyors.

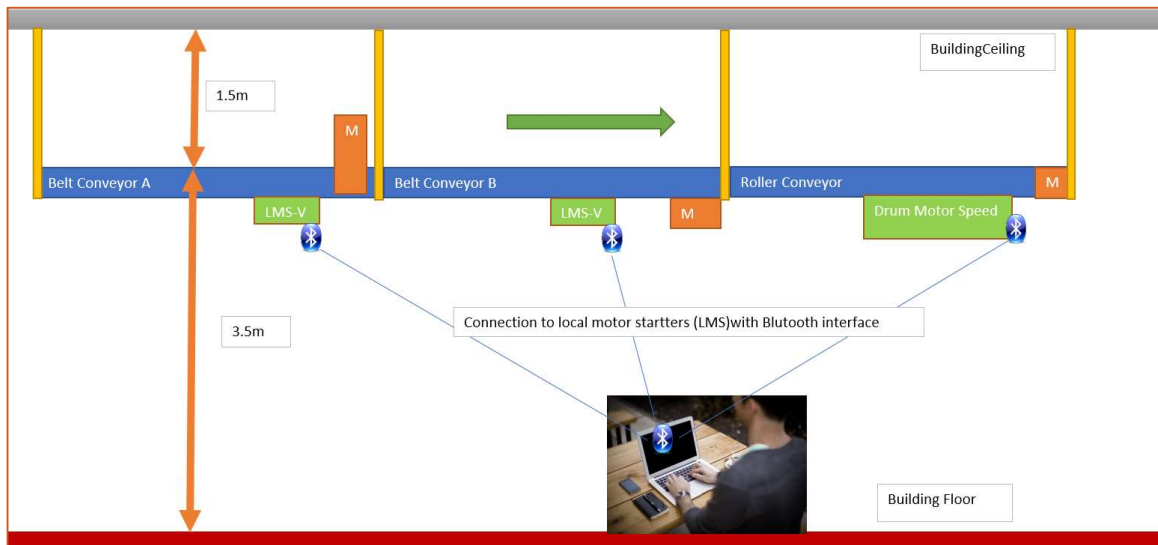
These LMS need to be parameterized. (Uploading program). After parameterization, these parameters may require changing again during fine tuning of the conveyors.

Sometimes these conveyors are not easily reachable as these are placed at heights. During commissioning it is not always feasible to take scissor lift and modify LMS program or Load the program, even if to change any parameters like speed or acceleration setting one needs to reach to LMS.

So, reaching LMS at height costs time/money and risk.

What we are looking for:

1. The parameterization of LMS is done with program from Laptop of commissioning Engineer
2. This is done through point-to-point Ethernet cable
3. We need solution to reach LMS without local Ethernet cable/ We are looking for wireless solution to parameterize the LMS
4. The solution may consist of hardware/software/use of available networks
5. Solution should be used irrespective of Make of LMS (Siemens, Eaton, Nord)



(Note: Attached image is example. Bluetooth sign is used as to denote wireless solution. Any other wireless solution is also accepted)