

# **Smart Campus- Case Study USM Campus**

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## **TABLE OF CONTENT**

For the development of our project and to be able to make the experimentation, analysis and make the writing of the report clear and concise it has been determined that the following will be the table of contents of our article

1. Introduction
2. Current works
3. Electrical distribution systems
4. State of the distribution system in the USM
5. Proposed architecture for the USM
6. Evaluation of OPNET at the USM
7. Analysis of results
8. Conclusions and future work
9. Bibliography

## **WORK RELATED**

In the first work we analyze how the generation of input data is automated in programs to simulate electrical distribution systems, this type of programs allows us to analyze voltage, harmonics, abnormal behaviors, and that can be of great help in order to raise and evaluate different distribution architectures in intelligent nodes.(Tadokoro et al., 2018)

Besides that for the approach of these topics you have to do simulations we also find a job in which you evaluate the high performance of the communications architecture in an electricity distribution system oriented to developing countries, this is very interesting and Chile currently by the G20 is considered a country on the road to development, and this article assesses some items such as quality of service (QoS) and the impact of migrogrid on the type of communications architecture that should be chosen.V(Devidas, Ramesh, & Rangan, 2018)

We take as the main point of departure the following article where an EPCON architecture is implemented for the communication of an electrical distribution system, taking this article as a reference it is interesting to analyze the form of evaluation of the impact and performance and whose results can be compared with those obtained in the next proposal. (Ahmed & Kim, 2019)

One of the main factors leading to this type of studies is the introduction of electric vehicles, and the need that these lead to the communes to charge their batteries, in the following work some methods of optimization are proposed. Inclusion of EVs in the grid (V2G). (Hussain, Brandauer, & Lee, 2018)

In addition, it is necessary to analyze the configuration of the electrical systems, the novelties that can be implemented to focus on the communication systems and be able to make an evaluation of the results obtained, these systems should be chosen taking as reference the efficiency and stability of the system. (Kim, Cho, & Shin, 2013)

Finally, we will analyze specific case studies, in this case of the Dholera city in India, where they propose the types of distribution systems and their interconnection to communication systems in order to meet the technological requirements of an intelligent city, and where some of the theories related to the communication connection topology that you want to use in this work are confirmed. (Pandya, Velani, & Karvat, 2018)

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