

**INNOVATION IN QUALIFICATION: THE COLLECTION, TRANSFER AND  
RECOVERY OF TEMPERATURE AND HUMIDITY DATA ON A MOBILE  
APPLICATION, FOR THE QUALIFICATION OF CLIMATIC AND  
THERMOSTATIC CHAMBERS ACCORDING TO  
STANDARD NF X 15-140**

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**ABSTRACT**

Environmental controls, especially for temperature and humidity, are essential to maintaining the safety, purity, and effectiveness of drugs. The measurement of humidity can be particularly difficult and important in climatic and thermostatic chambers (warehouses, ovens, cold rooms, fridges, drying rooms, insulated boxes, etc.).

The old method of monitoring and qualification of climatic and thermostatic chambers requires placing a defined number of recorders, then programming and store them. After that, to examine the values recorded to revolve the status of the climatic and thermostatic chambers, if they are compliant or non-compliant at any time, so all that goes to waste time and efficiency of values.

We can do the monitoring and qualification of climatic and thermostatic chambers, we can verify the status of our chambers compliant or non-compliant, and this in favor of an original system that we developed.

Our system can be used to allow staff to qualify and receive warnings or to autonomously regulate our physical quantities when environmental parameters do not meet specifications.

Our work consists of 3 distinct steps

- Collecting data from the sensors;
- The transfer of these data to a database;
- Data recovery through the mobile application.

**KEYWORDS:** Wireless Sensor Network, Temperature, Humidity, Qualification, Climatic and Thermostatic Chambers  
NF X 15-140