

**The 2nd international Workshop  
on innovative Smart city technologies 2020**  
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**Call for Innovative Experiences For Smart Cities**

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**Prototype title:**

Open Phytotron: A New IoT Device for Home Gardening

**Author(s) name(s)**

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**Keywords:**

phytotron, growth chamber, smart home, smart agriculture, cloud computing, Internet of Things, Home Assistant, openHAB, Node-Red

**Description of prototype (approx. 200 words).**

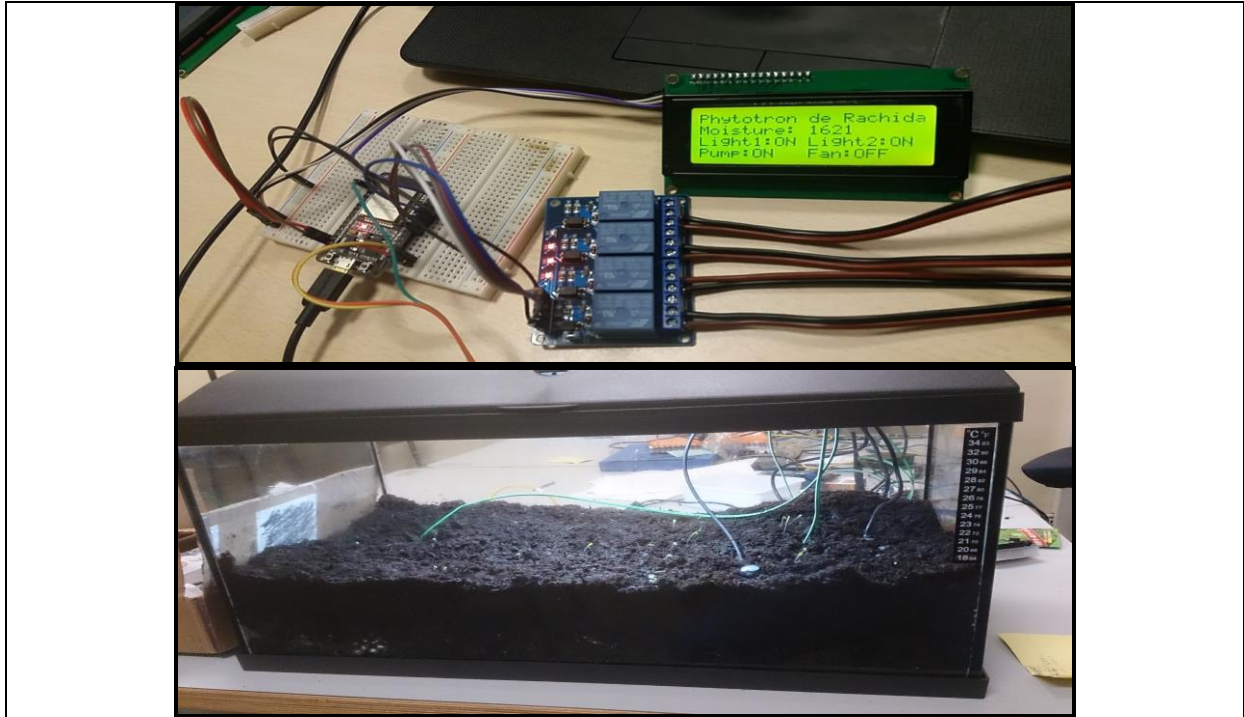
Phytotron also called growth chambers are research installations where environmental parameters such as temperature, humidity, irrigation, conductivity, lighting, and CO2 are finely controlled. This kind of installation allows us on one hand to measure the impact of environment change and on the other hand to optimize the natural grow of plants. With the democratization of the materials, cloud computing and new possibilities offered by Internet of Things (IoT). Therefore, it is possible to develop a low-cost personal phytotron. In this Prototype, we propose to use connected things to develop a personal growth chamber with the aim to produce fresh vegetable in urban context.

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**Prototype pictures:**

2-3 pictures of the prototype (at least 300 dpi)



**Name of presenter:**

Rachida AIT ABDELOUAHID

**Description of presentation** or how will you present your prototype and how much space do you need?

I will make a video presentation which shows the functioning of the prototype included in a PPT presentation.

**Material needed during presentation** or what do we need to foresee so that you can present your prototype in an optimal way? (we assume you bring your own laptop if needed):

will need the data show  
 a cable for the power supply  
 Table to present the prototype

**Author(s) Affiliation University/project/company**

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