Hashir khan (1001837203)​

Shruti Devani (1002026192)​

Harsh Thakkar (1001996152)​

Shashwat Chauhan (1002034494)​

1. **Research paper:** Indicate the full **title of the research paper**, its **authors,** and **conference/journal paper name** where it was published             ​

**Title:**

Waste Management and Prediction of Air Pollutants  
Using IoT and Machine Learning Approach

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  ​

This "Waste Management and Prediction of Air Pollutants Using IoT and Machine Learning Approach" is published in ,​

* 1. Researchgate.com​

A Hussain, U Draz, T Ali, S Tariq, M Irfan, A Glowacz… - researchgate.net​

* 2. econpapers.repec.org ​

A Hussain, U Draz, T Ali, S Tariq, M Irfan… - Energies, 2020 - econpapers.repec.org​

* 3. riunet.upv.es​

A Hussain, U Draz, T Ali, S Tariq, A Glowacz, M Irfan… - Energies, 2020 - riunet.upv.es​

* 4. academia.edu​

A Hussain, U Draz, T Ali, S Tariq, M Irfan, A Glowacz… - academia.edu​

* 5. search.ebscohost.com​

A Hussain, U Draz, T Ali, S Tariq, M Irfan… - Energies …, 2020 - search.ebscohost.com​

* 6. ideas.repec.org​

A Hussain, U Draz, T Ali, S Tariq, M Irfan, A Glowacz… - Energies, 2020 - ideas.repec.org​

* 7. This research paper is also published by IEEE.​

**Reference Paper**

**Title:**

On field calibration of an electronic nose for benzene estimation in an urban pollution monitoring scenario

**Authors:**

S. De Vito a, E. Massera a, M. Piga b, L. Martinotto b, G. Di Francia

**The conference/journal paper name where it was published:**

www.sciencedirect.com

1. **Dataset**:

The dataset has been referred from the article below which can be accessed(limited) on <https://www.sciencedirect.com/science/article/pii/S0925400507007691?via%3Dihub>

As the above link doesn’t provide access to the whole document outside of UTA network, below is the pdf attached for the same.



1. **Code**

* Pseudo code used in research paper is as follows-

Theorem 1. Prediction Algorithm to Determine Bin Status  
Input: Trash level, weight, and time slot in CSV file  
Output: Prediction of bin status: un-predicted, un-filled, half-filled, or filled  
Time slot = 1 h  
Prediction = un-filled  
For all sensor data in a time slot  
Extract features based on weight level and trash level  
Write to CSV file  
End For  
Initialize the prediction interval  
Model = the trained bin status model  
for instance in prediction interval do  
label = Model.classifyInstance(Instance)  
If (label = un-known) them  
label = posteriorModel.classifyInstance(Instance)  
prediction =label  
else  
prediction =label  
end if  
end for  
return prediction

* A relatable source code for Air quality predictions. ​

<https://www.nature.com/articles/s41598-022-13579-2/figures/8>