A Project Report on

**Petroleum Efficiency Model**

Submitted in partial fulfillment of the requirements for the award of the degree of

**Bachelor of Engineering**

in

**Computer Engineering**

by

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This Project Report entitled ***“Petroleum Efficiency Model”*** Submitted by ***“Arafaat Chaudhary”(16102009),“Sailee Angane”(16102024),“Rajat Bopalkar ”(16102021),***is approved for the partial fulfillment of the requirement for the award of the degree of ***Bachelor of Engineering*** in ***Computers*** from ***University of Mumbai*** .

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This is to certify that the project entitled ***“Petroleum”*** submitted by ***“Arafaat Chaudhary” (16102009),“Sailee Angane” (16102024),“Rajat Bopalkar” (16102021),***for the partial fulfillment of the requirement for award of a degree ***Bachelor of Engineering*** in ***Computer Department*** ,to the University of Mumbai,is a bonafide work carried out during academic year 2018-2019.

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We declare that this written submission represents our ideas in our own words and where others’ ideas or words have been included, We have adequately cited and referenced the orig- inal sources. We also declare that We have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in our submission. We understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

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### Abstract

This Model is a planning tool that helps management in its attempts to cope with the uncertainty of the future, relying mainly on data from the past and present and analysis of trends. It starts with certain assumptions based on the management's experience, knowledge, and judgment. These estimates are projected into the coming months or years using one or more techniques. Since any error in the assumptions will result in a similar or magnified error in the model, the technique of sensitivity analysis is used which assigns a range of values to theuncertain factors (variables)

**1 Introduction** 1

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### Publication

**Chapter 1 Introduction**

This model is useful for finding new energy sources. Analyzing minerals in the ground. Predicting refinery sensor failure. Stream lining oil distribution to make it more efficient and cost-effective. The number of machine learning use cases for this industry is vast – and still expanding.

## The Tuples that are used

## 

## Total Steam

## Crude Feed

## Crude Density

## Crude Temperature

## LFP

**Problem Statement**

Here we are having 4 attributes / entities which are the various entities or properties of petroleum and using that 4 attributes , the model is going to predict the value of the 5th attribute i.e the most important attribute on which the quality of the petroleum depends.

More the accuracy, more better is the quality of the petroleum and is useable.

**Solution to the problem**

So, we keep a record of the data of the above attributes for e.g a year and the data keeps changing according to the changes in petroleum because of the changes in the climate and other changes in environment. According to that we must ensure that the quality of the petroleum must be of top quality despite of the changing environment. So if the predicted LFP value has good accuracy then we get to know that the quality is maintained.

**Result**

This model will help user to predict the LFE of any petrol and which helps in verifying the quality standard of the particular petrol and verifies the acceptance for usage.

**Conclusions and Future Scope**

Thus using this model, we can predict the “LFE” value of petroleum, a factor which is used to determine whether the petroleum oil will be useable or not, this was implemented using various other factors of the oil like crude feed, crude density, total steam,crude temperature and it was under different conditions/Natural changes as well so the data changed according to that as well. This will help big oil corporations to determine whether the petroleum which is to be used for commercial/Industrial purposes is totally pure & usable or not.

[1] Stackoverflow.com

[2] geekforgeeks.com

[3] Wikipedia.com

[4] Google.com

**Appendix-A: NS2 Download and Installation**

1. Download ns-allinone-2.35.tar.gz from <http://sourceforge.net/projects/nsnam/>
2. Place ns-allinone-2.35.tar in your desired directory; like /home/vishal.
3. Go to terminal and do as following commands

### sudo apt-get update

### sudo apt-get install automake autoconf libxmu-dev build-essential

1. Extract ns-allinone-2.35 and after extracting go to folder ns-allinone-2.35 from Termi- nal as

### $cd ns-allinone-2.35

### $./install

1. Path Setting

### $ gedit .bashrc

This command will open an existing file in editor. Just put the following path which is given bellow. [Remember that our ns-allinone path is /home/vishal. we will change this path according to our ns-allinone folder’s path]

export PATH=$PATH:/home/vishal/ns-allinone-2.35/bin:/home/vishal/ns-allinone-2.35/tcl8.5.10/ unix/home/vishal/ns-allinone-2.35/tk8.5.10/unix

export LD LIBRARY PATH=$LD LIBRARY PATH:/home/vishal/ns-allinone- 2.35/otcl-1.14:/home/ vishal/ns-allinone-2.35/lib

export TCL LIRARY PATH=$TCL LIBRARY PATH:/home/vishal/ns-allinone-2.35/tcl8.5.10/library

After this save and exit.

1. Now type in terminal to check that, is all command we entered in .bashrc is correct or not? And To take the effect immediately

### $source .bashrc

1. Then perform the validation test using this command.

### $ ./validate

1. Run ns2 using this command

$**ns**

We will get % prompt in our terminal. Now ns2 has been installed.

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**Publication**

Paper entitled **“Paper Title”** is presented at **“International Conference/Journal Name”**

### by “Author Name”.

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