Mahilaratna Pushpatai Hiray Arts, Science & Commerce Mahila Mahavidyalaya, Malegaon Camp, Nashik

3rd Cycle

Assessment & Accreditation

Criterion – I

Curricular Aspects

Key Indicator- 1.3 Curriculum Enrichment

QnM – 1.3.2

Percentage of students undertaking project work / field work / internships (Data for the latest completed academic year).

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MAHATMA GANDHI VIDYAMANDIR'S

MAHILARATNA PUSHPATAI HIRAY ARTS, SCIENCE AND COMMERCE MAHILA MAHAVIDYALAYA, MALEGAON CAMP, DIST- NASHIK

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Key Indicator: 1.3 Curriculum Enrichment

1.3.2: Percentage of students undertaking project work / field work / internships (Data for the (QnM) latest completed academic year).

65.24%

1.3.2.1: Number of students undertaking project work / field work / internships.

Response: 702

Department of Mathematics

Mahilaratna Pushpatai Hiray Mahila Mahavidyalaya, Malegaon Camp, Dist. Nashik

Department of Mathematics

Academic Year 2021-22

List of Students and Title of project

Sr. No.	Name of Students	Title of Project	Guided by
1	1. Rajeshwari Khairnar 2. Sakshi Ahire 3. Divya Baviskar	MATRICES IN MATLAB	Smt. S.R. Joshi
2	1. Megha Gunjal 2. Gunjan Khairnar	MATRIX OPERATOR IN MATLAB	Aher Pallavi
3	1. Sakshi Khairnar 2. Gayatri Shunde 3. Srushti Bhawsar	MATLAB GRAPHICS	Dr. Pradnya Survase
4	1. Momin Faiqua Najam 2. Faiza Firdaus 3. Ateka Ansari	NUMERICAL INTEGRATION IN MATLAB	Saima Firdaus
5	1. Samreen Kausar 2. Momin Mudassera 3. Momin Shaffana	SOLVING SYSTEM OF LINEAR EQUATION IN MATLAB	Saima Firdaus
6	1. Komal Hiray 2. Panthi Patel 3. Priyanka Nikam	DOING CALCULUS WITH MATLAB	Smt. S.R. Joshi

Head
Dept. of Maths and Stats.
S.P.H. Mahila Mahavidyalaya,
Malegaon Camp (Nasik)

Sample Project 1

"Numerical Integration"

-A Project

Submitted to the Department of Mathematics

DBT Under Star College Scheme

Mahilaratna Pushpatai Hiray Arts, Science and Commerce Mahila Mahavidyalaya, Malegaon Camp

Affiliated to

Savitribai Phule Pune University, Pune

By TY.BSc Students

Momin Faiqua Najam Sajid Ahmed

Faiza Firdaus Aqueel Ahmed

Ateka Ansari Ashfaque Ahmed

Under the guidance of

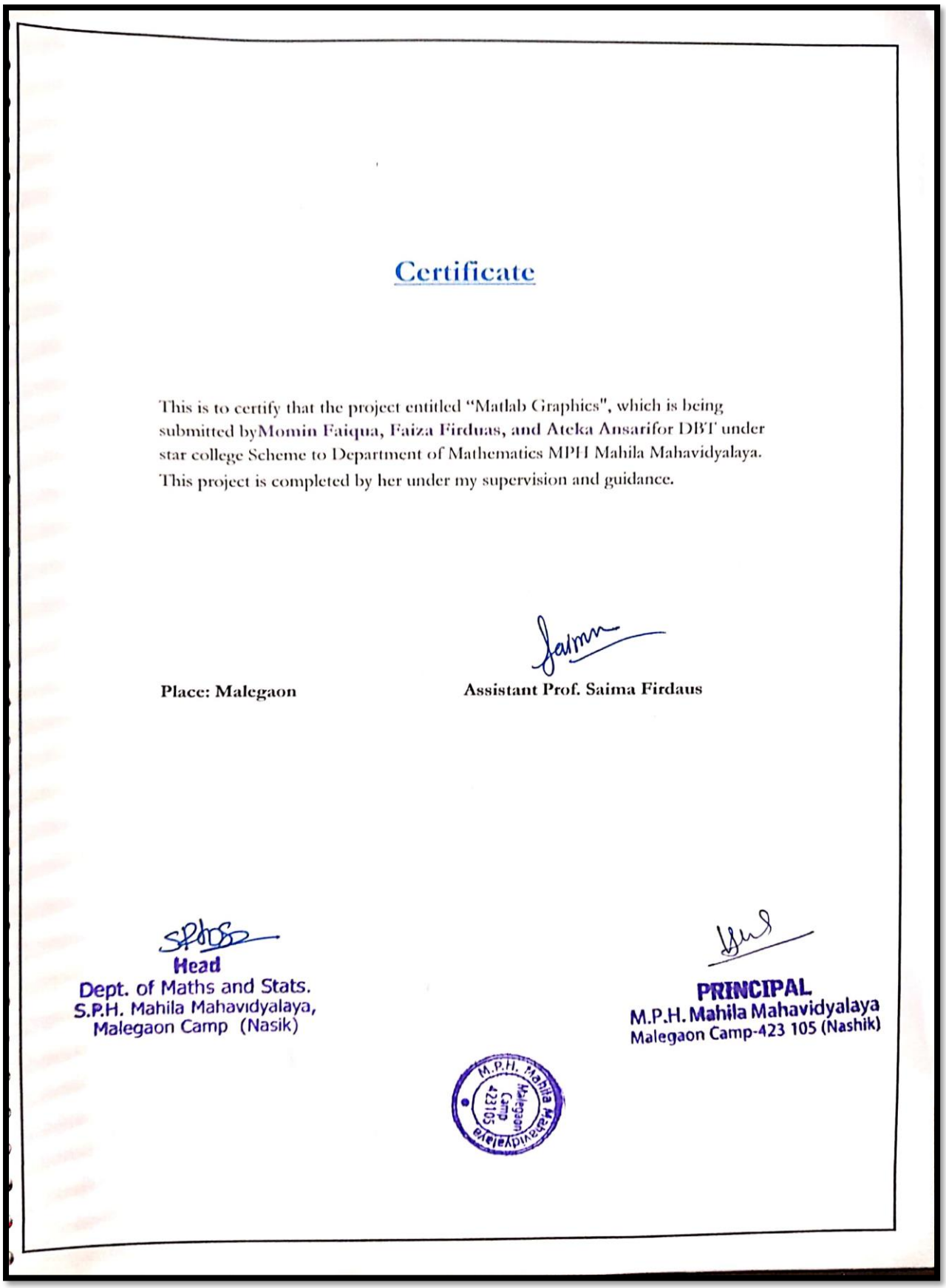
Prof. Saima Firdaus

Assistant Professor

Department of Mathematics

MPH. Mahila Mahavidyalaya, Malegaon

August-2022



Certificate

This is to certify that the project entitled "Matlab Graphics", which is being submitted byMomin Faiqua, Faiza Firduas, and Ateka Ansarifor DBT under star college Scheme to Department of Mathematics MPH Mahila Mahavidyalaya. This project is completed by her under my supervision and guidance.

Place: Malegaon

Assistant Prof. Saima Firdaus

Head
Dept. of Maths and Stats.
S.P.H. Mahila Mahavidyalaya,
Malegaon Camp (Nasik)

PRINCIPAL
M.P.H. Mahila Mahavidyalaya
Malegaon Camp-423 105 (Nashik)

M.P.H. Mahila Mahavidyalaya Malegaon Camp 423105

Index

Abstract:

To learn about MATLAB and its uses in mathematics field and how it makes our education effective, and thus solve numerical integration using MATLAB and drawing conclusion.

INTRODUCTION:

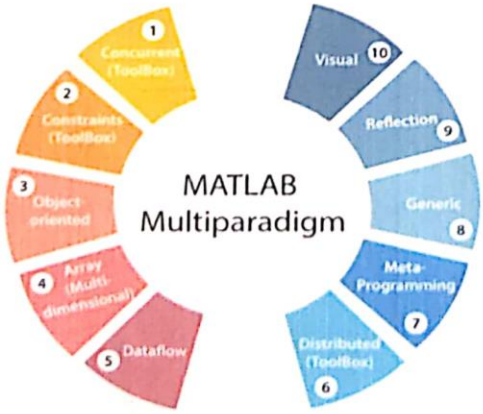
What is MATLAB?

MATLAB is a software package for high performance mathematical computation, visualization, and programming environment. It provides an interactive environment with hundreds of built-in functions for technical computing, graphics, and animations.

MATLAB stands for Matrix Laboratory. MATLAB was written initially to implement a simple approach to matrix software developed by the **LINPACK** (Linear system package) and **EISPACK** (Eigen system package) projects.

MATLAB is a modern programming language environment, and it has refined data structures, includes built-in editing and debugging tools, and supports object-oriented programming.

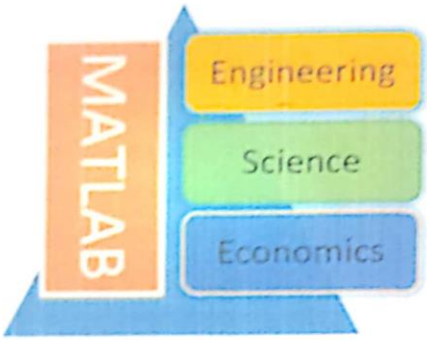
MATLAB is **Multi-paradigm**. So, it can work with multiple types of programming approaches, such as Functional, Object-Oriented, and Visual.



Besides an environment, MATLAB is also a programming language.

As its name contains the word Matrix, MATLAB does its' all computing based on mathematical matrices and arrays. MATLAB's all types of variables hold data in the form of the array only let it be an integer type, character type or String type variable.

MATLAB is used in various disciplines of engineering, science, and economics.



MATLAB allows several types of tasks, such as manipulations with matrix, algorithm implementation, data, and functions plotting, and can interact with programs written in other programming languages.

MATLAB is a dynamic and weakly typed programming language.

MATLAB environment handles tasks of the declaration of the data type of the variables and provision for an appropriate amount of storage for the variables.

History of MATLAB

The development of the MATLAB started in the late 1970s by **Cleve Moler,** the chairman of the Computer Science department at the University of New Mexico. Cleve wanted to make his students able to use LINPACK & EISPACK (software libraries for numerical computing, written in FORTRAN), and without learning FORTRAN. In 1984, Cleve Moler with Jack Little & Steve Bangert rewrote MATLAB in C and founded MathWorks. These libraries were known as JACKPAC at that time, later these were revised in 2000 for matrix manipulation and named as LAPACK.

Main Features and Capabilities of MATLAB

MATLAB's built-in functions provide excellent tools for linear algebra computations, data analysis, signal processing, optimization, numerical solution of ordinary differential equations (ODEs), quadrate, and many other types of scientific calculations.

As there are numerous features to describe, but here, we will focus on some of the key features:

- It is designed for numerical as well as symbolic computing.
- It's a high-level language used mainly for engineering and scientific computing.
- It works within a Desktop environment providing full features for iterative exploration, design, and problem-solving.
- Creation of custom plots for visualizing data and tools, with the help of built-in Graphics.
- Specific applications are designed to work with any particular type of problems, such as data classification, control system design and tuning, signal analysis.
- Provides several add-on toolboxes to build a wide range of engineering, scientific, and custom user interface applications.
- Provide interfaces to work with other programming languages such as C, C++, Java, .NET, Python, SQL, and Hadoop.

Downloading of MATLAB

MATLAB environment comes in different flavors. Different flavors mean different software for a different purpose, for example-it is available separately for students, for start-ups, for enterprises, for individual use, and all these are paid resources. But we can get it for a 30-day trial period without paying any single penny to MathWorks.

Step 1: For downloading of MATLAB, we need tovisit the official website www.mathworks.com; it may redirect you to country/language specific website or prompted to click according to your native location.

Step 2: Go to the bottom/ footer area of the webpage and click on the Trial Software link under Try or Buy section.

Step 3: A new web page opens after clicking on the Trial Software link. Enter your email id in the space provided.

Step 4: After clicking on continue, it again asks some more information to create your account with MathWorks, to get access to the products. Apart from the email id and the location you previously entered, it asks for your purpose to get the MATLAB software-select hobbyist or personal use option, and select yes for above 13 years option and click Create.

Step 5: Again, a new webpage opens, click on continue with current email option to proceed further. Now go to your email's inbox and open the email received from MathWorks. Now verify your email address by clicking on Verify your email button.

Step 6: You will be directed to a new webpage, fill up all the details about you, accept the agreement, and click on Create button.

Step 7: A new webpage opens, here your verified email id will be displayed, below it one I agree button is there, select it and click on submit button. Now we have created an account with MathWorks.

Step 8: Here you will find different types of options for add-ons, you must select one of these and click on continue.

On the next page, some option will be displayed. These all are optional. So, you can continue by selecting or without selecting these options.

Step 9: A new page opens displaying your email id & your license id, note down these details.

It will first download the installer for MATLAB, and the installer then sets up the conditions for the MATLAB environment. Here we will proceed with Windows (64-bit) option; you can go as per your operating system.

So when we click on the Windows link, a pop-up will display on the screen, click on Save File option, a binary executable file will be started downloading.

Open your Downloads folder or the folder where all your downloaded files are stored, there an icon like this  will be lying; this is the binary executable file of the installer.

MATLAB Installation

Step 1: Double click on the MATLAB icon (the binary file which we downloaded earlier). After clicking the icon, a pop-up will ask for the installer to run, click on the Run. MathWorks Installer windows will pop-up on the screen.

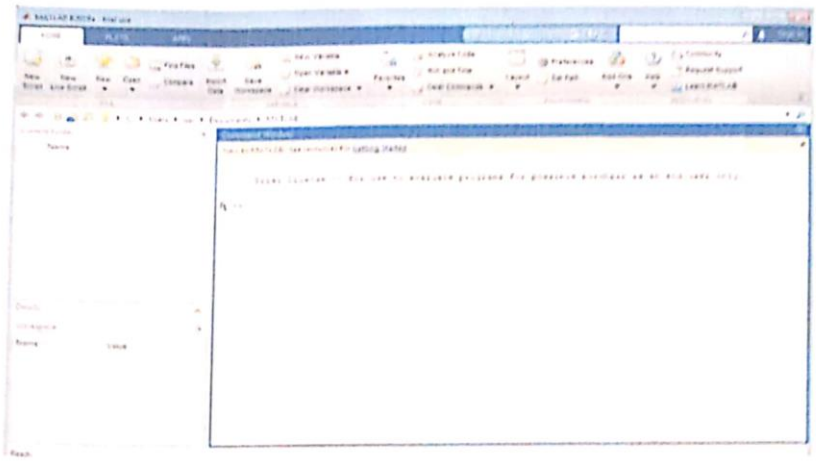
- By default, the first option, i.e., Log in with a MathWorks Account, is selected; we will proceed with this option. And do remember to check your internet connection for proper installation of the MATLAB environment. So click on Next in the bottom of the window.
- Accept the license terms by selecting yes in the next page and again click on the Next button.
- A new page appears, by default, the first option is selected, Log in to your MathWorks Account. Enter here your email id and password that we created during the creation of our account with MathWorks.

Step 2: A license Selection window will appear, a preselected license id will be highlighted with a blue background. Here you have to select your license id; this is the id which we have saved during STEP 9 of downloading of the installer (we urged to note down that id during that time) and again click on Next.

A new Folder Selection window appears, no need to change the folder location for installation of MATLAB, click on Next.

Step 3: Next is Product Selection window, the first product is MATLAB 9.6, this is mandatory to select because it is the MATLAB environment, and from other products, you can choose as many of your choices and click on Next.

- Next is the Installation Options window, select options as per your choice. Any time you feel something to change; you can go back to the previous step by clicking on the Back button.
- Next is the Confirmation window, here you no need to do anything, confirm what you are going to download in the process of the installation of MATLAB, its other Add-on products, and what is the size of the downloads; and click on Install.
- By clicking on Install, downloading of all the products will be started. It's a massive download, so you have to wait for some time to complete the download.

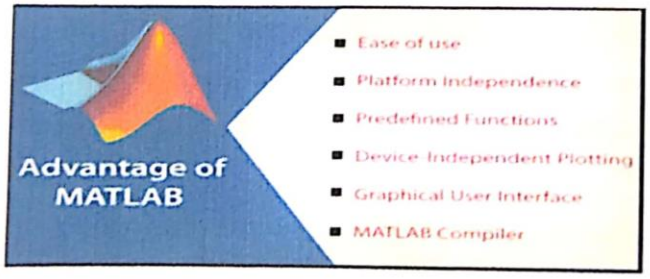


Advantages and Disadvantages of MATLAB Programming Language

In this topic, we will discuss the several advantages and disadvantages of the MATLAB programming language.

Advantage of MATLAB

There are several advantages of MATLAB programming language:



Ease of Use: The program can be used as a scratchpad to evaluate expressions typed at the command line, or it can be used to execute large prewritten programs. Applications may be written and changed with the built-in integrated development environment and debugged with the MATLAB debugger. Because the language is so simple to use, it is optimal for the fast prototyping of new applications.

This is called the general quadrature formula for numerical integration. We can obtain different integration formulae by putting n = 1, 2, 3,.... etc.

Trapezoidal Rule

Putting n = 1 in equation (1) and taking the curve y = f(x) through (x_0,y_0) and (x_0,y_0) as a polynomial of degree one so that differences of order higher than one vanish, we get trapezoidal formula

$$\int_{x_0}^{x_n} y\,dx = \frac{h}{2}[(y_0 + y_n) + 2(y_1 + y_2 + \cdots + y_{n-1})]$$

This is called trapezoidal rule.

Example of trapezoidal rule (theoretically):

Question: Compute $\int_{-3}^{3} x^4\,dx$ where h=1.

Solution: Here, a (lower limit) = -3 and b (upper limit) = 3

Therefore for N=6 we have following step length and nodal points.

h (width) = $\frac{b-a}{N} = \frac{3-(-3)}{6} = 1$

The nodes are -3, -2, -1, 0, 1, 2, and 3.

The values of the function $y = x^4$ at these nodal points are obtained as follows

x	-3	-2	--1	0	1	2	3
y = f(x)	81	16	1	0	1	16	81
	y_0	y_1	y_2	y_3	y_4	y_5	y_6

By trapezoidal rule,

$$\int_0^6 y\,dx = \frac{h}{2}[(y_0 + y_6) + 2(y_1 + y_2 + y_3 + y_4 + y_5)]$$

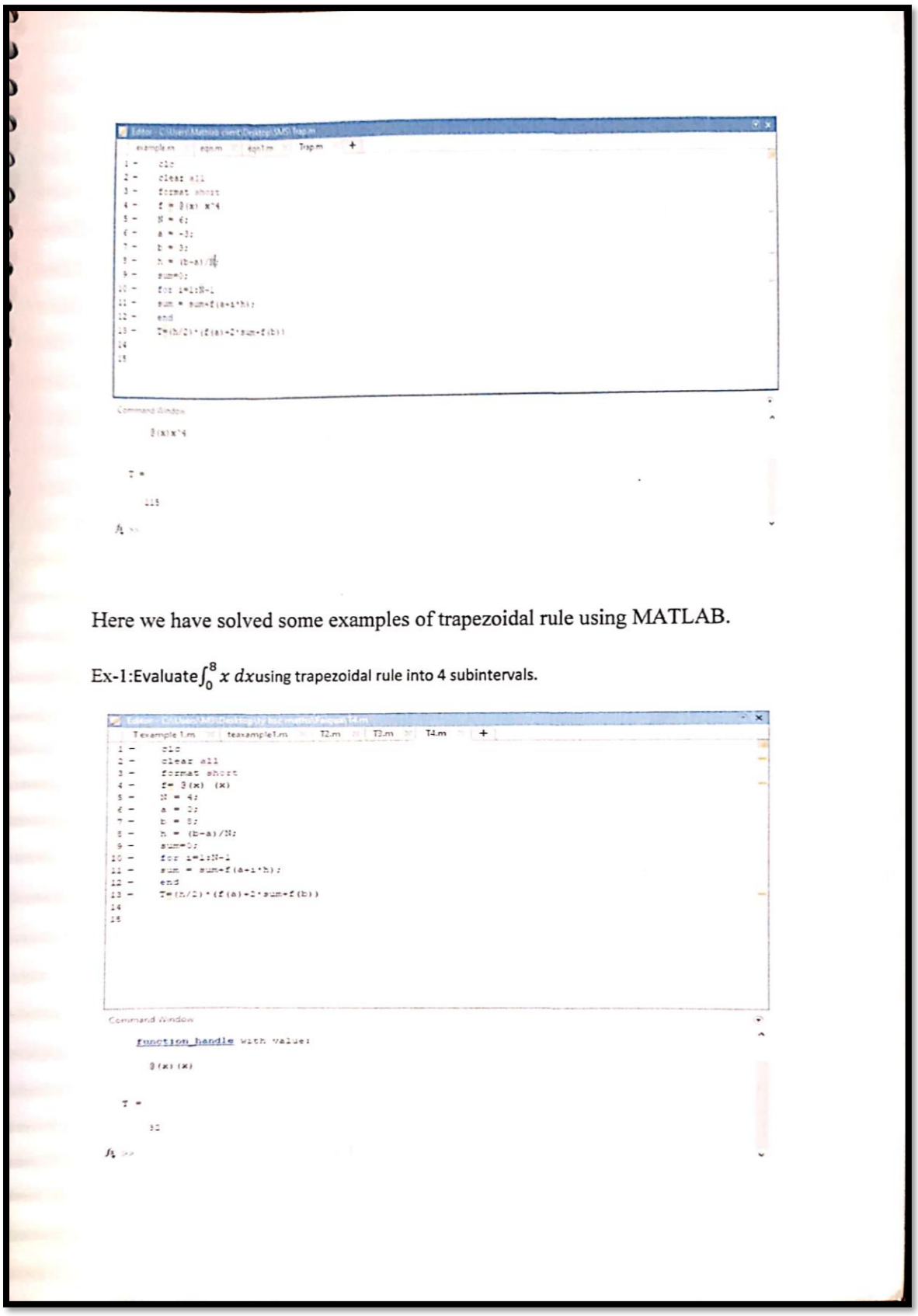
$$= \frac{1}{2}[(81 + 81) + 2(16 + 1 + 0 + 1 + 16)] = 115$$

Now, we calculate the above example in MATLAB

The general syntax of MATLAB for trapezoidal rule is;

```
clc
clear all
format short
f = @(x) (function)
N = No. of intervals;
a = lower limit;
b = upper limit;
h = (b-a)/N;
sum=0;
for i=1:N-1
 sum = sum+f(a+i*h);
end
T=(h/2)*(f(a)+2*sum+f(b))
```

Now we put values of *a*, *b* and *N* from the above example in this syntax, we get answer



```
clc
clear all
format short
f = @(x) x^4
N = 6;
a = -3;
b = 3;
h = (b-a)/N
sum=0;
for i=1:N-1
sum = sum+f(a+i*h);
end
T=(h/2)*(f(a)+2*sum+f(b))
```

```
@(x)x^4

T =

   115
```

Here we have solved some examples of trapezoidal rule using MATLAB.

Ex-1:Evaluate $\int_0^8 x\,dx$ using trapezoidal rule into 4 subintervals.

```
clc
clear all
format short
f= @(x) (x)
N = 4;
a = 0;
b = 8;
h = (b-a)/N;
sum=0;
for i=1:N-1
sum = sum+f(a+i*h);
end
T=(h/2)*(f(a)+2*sum+f(b))
```

```
function_handle with value:

    @(x) (x)

T =

    32
```

CONCLUSION:

Actual value of $\int_{-3}^{3} x^4\,dx$ is **97.2**, hence most accurate value out of those formulas is **98** via **Simpson's 1/3rd** rule. **Thus Simpson's 1/3rd rule is most accurate.**

Also when we solve $\int_{-3}^{3} x^4\,dx$, it is observed that solutions of numerical integrals done by manually or theoretically and by using MATLAB are same.

MATLAB is very useful software for solving mathematical problems. It gives almost accurate answer. We can solve lengthy and time taken problems within few minutes via MATLAB. Also coding is not that much hard if we learn it properly. But it is very costly software, so everyone can't afford it.

Reference:

Book: Numerical techniques, A Guide to MATLAB.

Blog: Reads Blog.

Website: Wikipedia, javaTpoint.com

Sample Project 2

MATLAB GRAPHICS

A project Submitted to the

Department of Mathematics

DBT Under Star College Scheme

Mahilaratna Pushpatai Hiray Arts, Science and Commerce

Mahila Mahavidyalaya, Malegaon Camp

Affiliated to

Savitribai Phule Pune University, Pune

By

Sakshi Khairnar

Gayatri Shinde

Srushti Bhavsar

Under the Guidance of

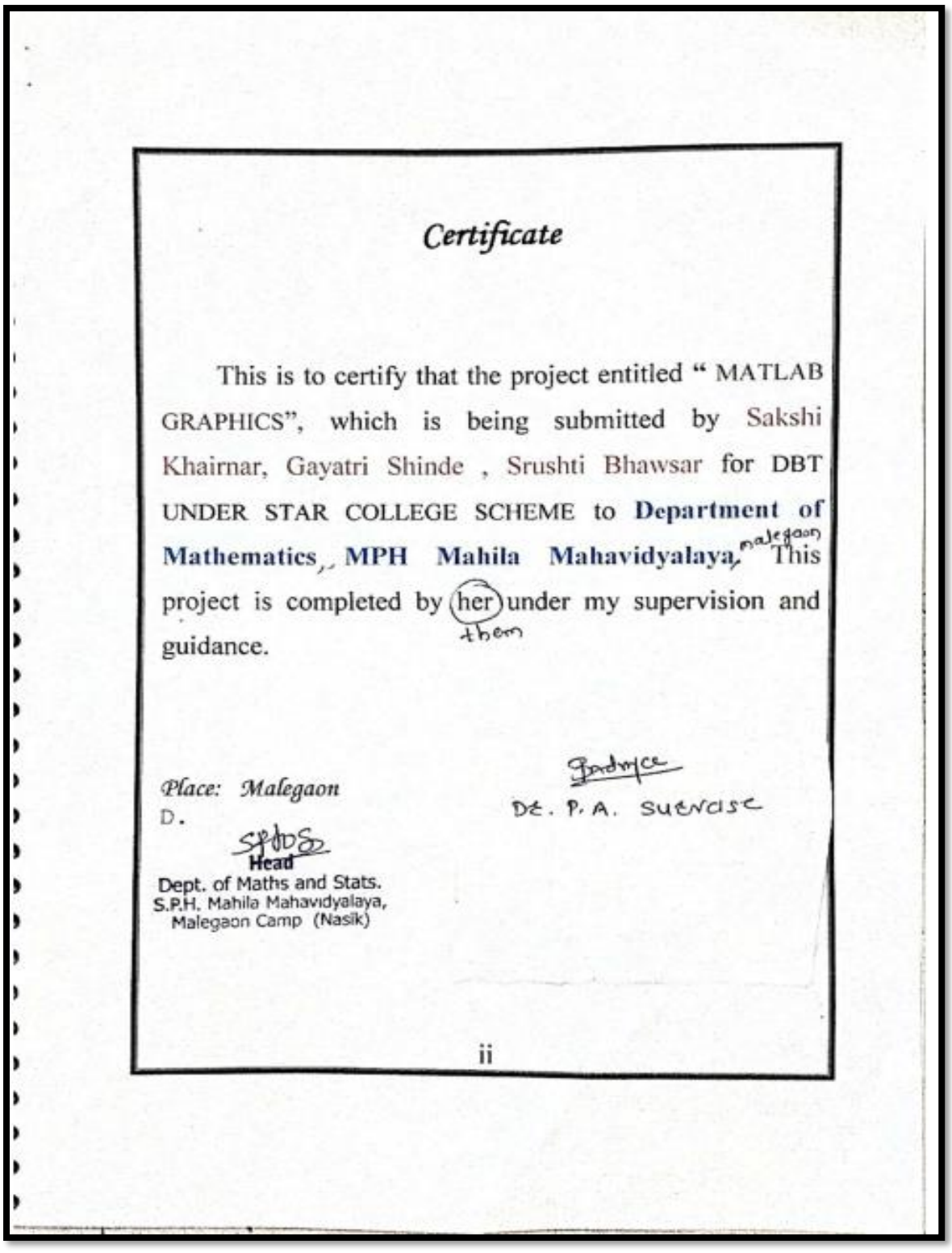
Dr. Survase Pradnya Annarao

Assistant Professor

Department of Mathematics

M.P.H. Mahila Mahavidyalaya, Malegaon

August -2022



Certificate

This is to certify that the project entitled " MATLAB GRAPHICS", which is being submitted by Sakshi Khairnar, Gayatri Shinde , Srushti Bhawsar for DBT UNDER STAR COLLEGE SCHEME to **Department of Mathematics, MPH Mahila Mahavidyalaya,** malegaon This project is completed by her/them under my supervision and guidance.

Place: Malegaon
D.

Head
Dept. of Maths and Stats.
S.P.H. Mahila Mahavidyalaya,
Malegaon Camp (Nasik)

Dr. P. A. Suryvanshi

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INTRODUCTION

WHAT IS MATLAB ?

MATLAB is a language used for technical computing. As most of us will agree, an easy to use environment is a must for integrating tasks of computing, visualizing and finally programming. MATLAB does the same by providing an environment that is not only easy to use but also, the solutions that we get are displayed in terms of mathematical notations which most of us are familiar with.

Uses of MATLAB for Computing

MATLAB is used in many different ways, following are the list where it is commonly used.

- Computation
- Development of Algorithms
- Modelling
- Simulation
- Prototyping
- Data analytics (Analysis and Visualization of data)
- Engineering & Scientific graphics
- Application development

Introduction to 2D Plots in MATLAB

I 2D Plots in Matlab is a feature that enables a user to create the two-dimensional graph for any dependent variable as a function of a depending variable. A plot can present the data in continuous, discrete, surface or volume form. The default standard function for 2D graph

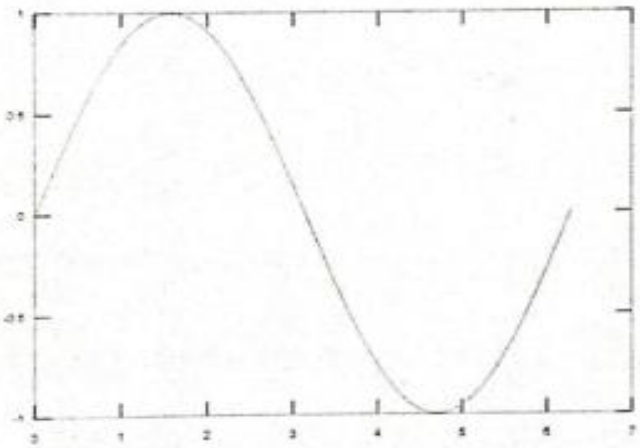
plotting is plot() function. It creates a line plot for data 'Y' with respect to its corresponding data in the 'X' axis.

For Example

Let's create 2D line plot for y=sin(x) where x ranges from 0 to 2*pi

```
x=0:pi/100:2*pi
y=sin(x)
plot(x,y)
```

Output



Attributes in 2D Plots in MATLAB

MATLAB supports customizing the appearance and detailing of any graph. Users can customize the graph by editing the following attributes for any 2D plot function.

1. **xlabel:** Generates labels along the x-axis.

2. **Ylabel:** Generates label along the y-axis.

3. **Title:** Add a title to the graph

4. **Grid on:** Enables the grid lines for the graph

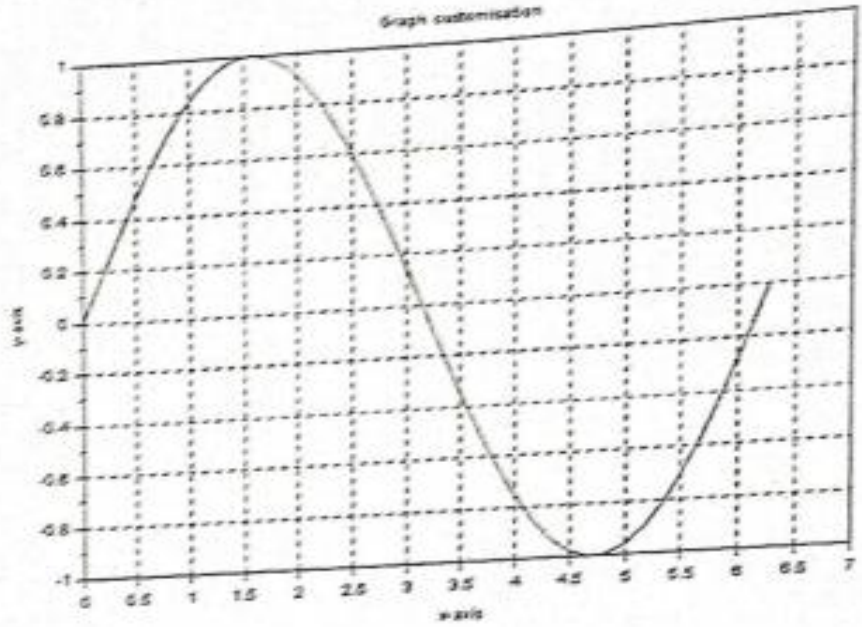
5. **Axis equal:** Enable user to create the plot with the same scale factor and spaces for both the axis

6. **Axis square:** Used to generate a square plot

Let's consider the below example where the presentation of the graph is customized by modifying the attributes discussed above.

```
x=0:pi/100:2*pi;
y=sin(x);
%Create the graph with labeling x axis as 'x-axis', 'y' axis as 'y-
axis'
%with title 'Graph customization' and makes the grid for both the axis
%visible
plot(x, y), xlabel('x-axis'), ylabel('y-axis'), title('Graph
customisation'),
grid on
```

Output:



Axis Scaling: Axis scaling is configuring limit values for axis. The command 'axis' is used to set minimum and maximum limits for the graph.

Syntax:

```
axis ( [xmin xmax ymin ymax] )
```

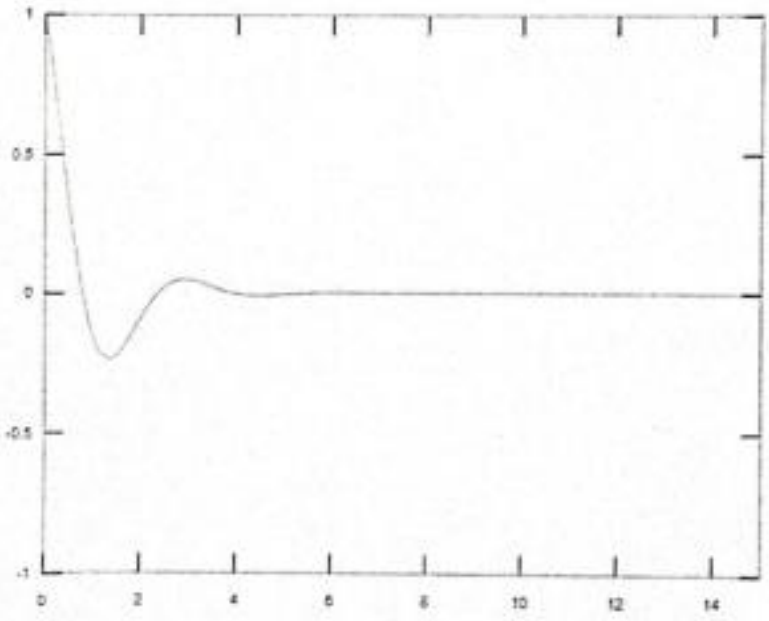
Example:

Case #1

- %The maximum value of x-axis is set to 15
- %The minimum value of x-axis is set to 0
- %The minimum value of y-axis is set to -1
- %The maximum value of y-axis is set to 1

```
x = [0 : 0.1: 20];
y = exp(-x).*cos(2*x);
plot(x, y), axis([0 15 -1 1])
```

Output:



❖ Types of 2-D Graph Plots in MATLAB

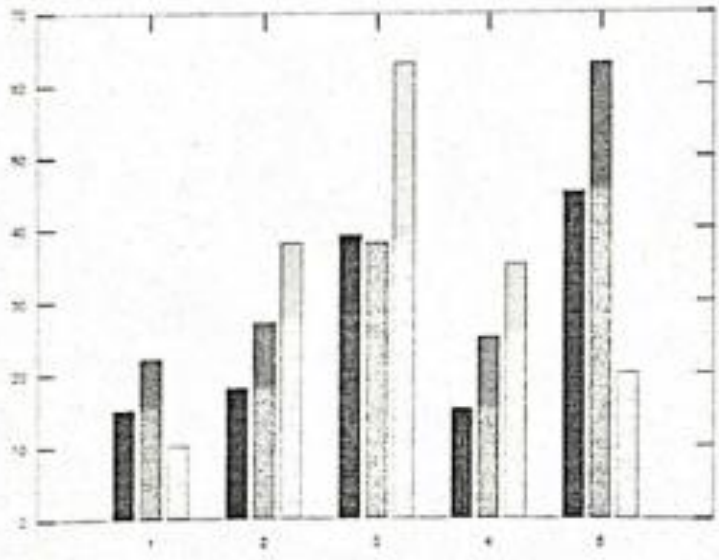
1. Bar Plot:

This is used to distribute the 'y' values along the x-axis in the form of bars. Usually, this is useful to represent the results over a period of time.

Code:

```
Y = [15,22,10    18,27,38    39,38,63    15,25,35    45,63,20];
figure
bar(Y)
```

Output:

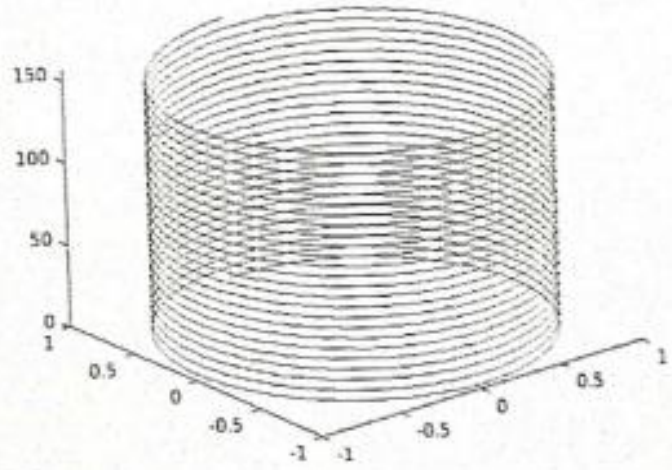


Plot3(x,y,z): If x,y,z are vectors of the same length, then this function will create a set of coordinates connected by line segments. If we specify at least one of x, y or z as vectors, it will plot multiple sets of coordinates for the same set of axes.

Code:

```
A= 0: pi/100: 50*pi;
sa= sin(a);
ca=cos(a);
plot3(sa, ca, a)
```

Output:



5.FILL3 (3D filled polygon plot):

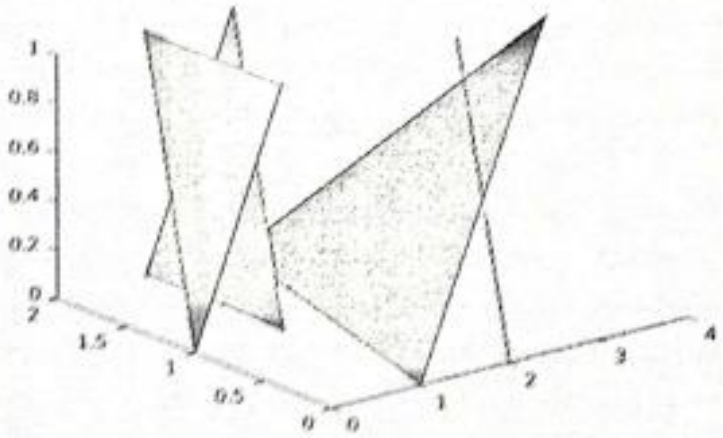
This function helps in creating flat shaped and Gouraud polygons (to get different shades of light).

fill3(X, Y, Z, C): It helps in creating filled polygons with vertices x, y, z. The x, y, z values can be number, duration, and DateTime, etc.

Code:

```
X = [1 2 3 4; 1 1 3 2; 0 1 2 1];
Y = [2 2 1 1; 1 2 1 2; 1 1 0 0];
Z = [1 1 1 1; 1 0 1 0; 0 0 0 0];
C = [0.5000 1.0000 1.0000 0.5000;
1.0000 0.5000 0.5000 0.1667;
0.3330 0.3330 0.5000 0.5000];
```

Output:



In the above figure, we can clearly see the Gouraud effect.

Conclusion – 3D Plots in MATLAB:

Data visualization becomes a very powerful technique when we have to understand how our data is behaving. It also tells us visually, how a particular function is changing when it is supplied with different values. 3 D plot in MATLAB is a tool which is very helpful in visualizing the behaviour of data.

References

Educba.com

Mathworks.com

M.P.H MAHILA MAHAVIDYALAY MALEGAON CAMP

DEPARTMENT OF ZOOLOGY

LIST OF PROJECT SUBMISSION

Year -2021-2022 T.Y.B.Sc .

1.3.3: No. Of Students Undertaking Project work

Guide Name- Smt.N.S.Desale				
Sr.No	**Name**	**Department**	**Date**	**Title of Project**
1	Chaudhari Hitakshi Umesh	Zoology	25/5/2022	Assesment of nutritional and health status of MPH mahila mahavidyalay ,students and teachers.
2	Kanada Sampada Ramesh	Zoology	25/5/2022	Assesment of health status of MPH mahila mahavidyalay teachers and students of total count of RBC
3	Ghorpade Priyanka Bhagwan	Zoology	25/5/2022	Assesment of health status of MPH mahila mahavidyalay teachers and students of total count of thyroid.
4	Khairnar Rutuja Dipak	Zoology	25/5/2022	Assesment of health status of MPH mahila mahavidyalay teachers and students of total leucocytes.
5	Bachhav Nikita	Zoology	25/5/2022	
6	Sabne Pranita Suresh	Zoology	25/5/2022	Assesment health status of MPH mahila mahavidyalay teachers and students of Serum Calcium
7	Suryavanshi Suchita Dinkar	Zoology	25/5/2022	Insects Biodiversity.
Guide Name- Smt.S.J.Salunke				
8	Patil Nisha Dipak	Zoology	25-5-2022	Water Analysis of Girana River at Bhadgaon, Dist -Jalgaon.
9	Kachave Disha Dinkar	Zoology	25-5-2022	Physicao chemical Analysis of Girna river at Dabhadi Tal.Malegaon,Dist - Nashik.
10	Rajnoar Pratiksha Dattu	Zoology	25-5-2022	Water analysis of Shakambhari River in Nandgaon, Maharashtra.
11	Khairnar Monali Bapu	Zoology	25-5-2022	Water analysis of Girana River at Pathne.Tal.Malegaon
12	Deore Dhanshri keval	Zoology	25-5-2022	Study of water analysis at Parsul River Tal-Nandgaon

13	Bhamare Urmila Sunil	Zoology	25-5-2022	Water analysis of Girana River at Malegaon . Dist Nashik
Guide Name- Smt.D.D.Jagtap				
14	Vhadgar kalpana sanjay	Zoology	25-5-2022	Milk Analysis and it's Applications
15	Deore Gayatri pravin	Zoology	25-5-2022	Difference between Indian cow Breeds and western cow Breeds
16	Mankar bhavana ravindra	Zoology	25-5-2022	Animal waste Management and its Uses in Agriculture Industry
17	Sonawane mayuri ratilal	Zoology	25-5-2022	Types of Horse Breeds and Morphological Differences Between them.
18	Shirkhe Nikita kailas	Zoology	…..	…..
19	Srushtee Sanjay Deore	Zoology	……	….
Guide Name : - Dr. Tejswini Sontakke				
20	Pawar Bhavana Jibhau	Zoology	25-5-2022	Study of free living protozoans in Mosam River
21	Pawar Mayuri Dadaji	Zoology	25-5-2022	Study of insect diversity in Saudane village
22	Khairnar Kaveri Kailas	Zoology	25-5-2022	Study Biodiversity of insect in Saudane village
23	Joshi Yashashree Digambar	Zoology	25-5-2022	Effect of water pollution on fish
24	Pawar Kishori Sanjay	Zoology	25-5-2022	Survey on fish diversity in Parsul River
25	Jadhav Vaibhavi Chandrakant	Zoology	25-5-2022	Study of free living protozoans in Soil.

HEAD
Department of Zoology
Smt. Pushpatai Hiray Mahila
Mahavidyalaya Malegaon Camp 423105

Sample Project 1:

"ASSESSMENT OF NUTRITIONAL AND HEALTH STATUS OF M.P.H MAHILA MAHAVIDYALAYA STUDENTS AND TEACHERS"

PROJECT SUBMITTED TO

M.P.H. Arts, Science & Commerce Mahila Mahavidyalaya
Malegoan Camp, Malegaon (Nashik)

Affiliated to,

SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE

By

Miss. Chaudhari Hitakshi Umesh
Class: T.Y. B. Sc (Zoology)

Under the Guidance of

Smt. N. S. Desale
Head
Department of Zoology
M.P.H Arts, Science & Commerce Mahila Mahavidyalaya
Malegaon Camp, (Nashik)

Year- 2021-22

CERTIFICATE

This is to Certify that projectentitled **"Study Assessment of Nutritional And Health Status Of Mahilaratna Pushpatai Hiray Mahila Mahavidyalaya"** submitted by Ms. Chaudhari Hitakshi Umesh Student of the Department of Zoology, M.P.H. Mahila College of Arts, Science & Commerce, Malegaon, Nashik 423203. Under the guidance and supervision of Smt. Navnita S. Desale, Head, Department of Zoology.

Place: Malegaon

Date:

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Department of Zoology
Smt. Pushpatai Hiray Mahila
Mahavidyalaya Malegaon Camp 423105

Index

Abstract

Anemia is usually regarded as an abnormal laboratory value, with its associated morbidity and mortality related to underlying diseases. However, increasing evidence indicates that anemia is common in the elderly population and adversely affects morbidity and mortality.2-7 The prevalence of anemia among elderly individuals and its independent impact. Lower and higher hemoglobin concentrations and anemia by World Health Organization criteria were independently associated with increased mortality. The World Health Organization criteria did not identify risk as well as a lower hemoglobin value. Additional study is needed on the clinically valid definition for and causes of anemia in the elderly and on the increased mortality at the extremes of hemoglobin concentrations.

Keywords: -Health status, Anemia, hemoglobin, World Health Organization

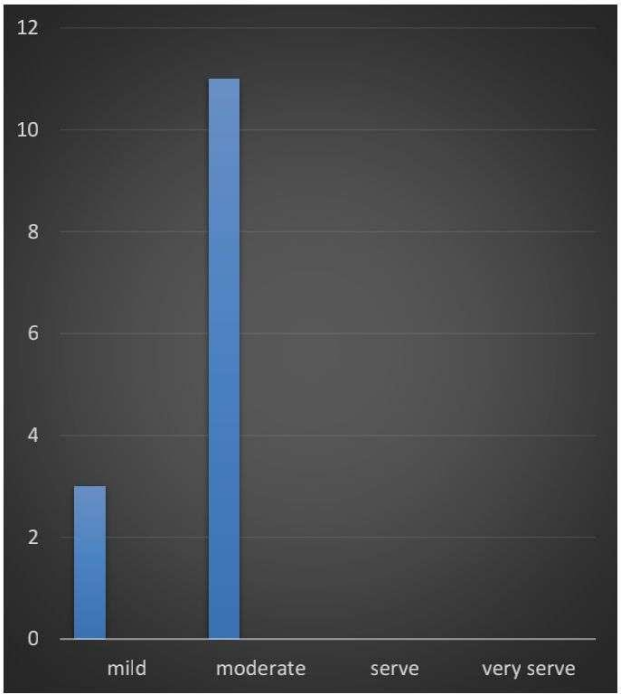
Material and Methods

In this work assessment of nutritional status of the students and teachers is carried out. The data is collected from Mahilaratna Pushpatai HirayMahila Mahavidyalaya, Malegaon Camp from Nashik district. the sample is true representative of students and teachers population. 50 samples were collected for sampling.

Haemoglobin estimation:

Haemoglobin estimation is carried out in a field laboratory established in the premise of the college during the survey. The sample was collected on 7th April 2021.

Graph: Distribution of students and teachers according to severity of anaemia.



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Sample Project 2

Assessment Of The Nutritional And Health Status Of M.P.H Mahila Mahavidyalaya,Students And Teachers

PROJECT SUBMITTED TO

M.P.H Arts, Science & Commerce Mahila Mahavidyalya

Malegaon Camp, (Nashik)

Affiliated to

SAVITRIBAI PHULE PUNE UNIVERSITY

By

Ghorpade Priyanka Bhagwan

Class: T.Y.Bsc

Under the Guidance of

Prof. N.S. Desale
Head
Department of Zoology

M.P.H Arts, Science & Commerce Mahila college
Malegaon, Camp (Nashik)

Year: 2021-22

CERTIFICATE

This is to certify that project entitled **"Assesment of nutritional and health status of mahilaratna pushpatai hiray mahila mahavidyalay"** submitted by Ms. **Ghorpade Priyanka Bhagwan** to Department of Zoology, M.P.H. Arts, Science & Commerce Mahila Mahavidyalaya , Malegoan, Nashik 423203. Under the guidance and supervision of **Smt. N.S. Desale** Head of Department of Zoology.

Date:

Place : Malegaon

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Mahavidyalaya Malegaon Camp 423105

Index

Abstract

Thyroid disease are common worldwide. In india too there is a significant burden of thyroid disease. According to a protection from various studeis on thyroid disease, it has been estimated that about 42 million people in india suffer from thyroid disease. This review will

Focus on the epidemilogy of five common tyroid disease in india 1) Hypothyroidism

2) Hypethyroidism 3) Goiter and iodine deficiency disorders 4) Hashimoto's thyroiditis and 5)Thyroids cancer. This review will also briefly cover the exciting work that is in progress to ascertain the normal reference range of thyroid hormones in india, especially in pregnancy and children.

Keywords: Health status of students and teachers.

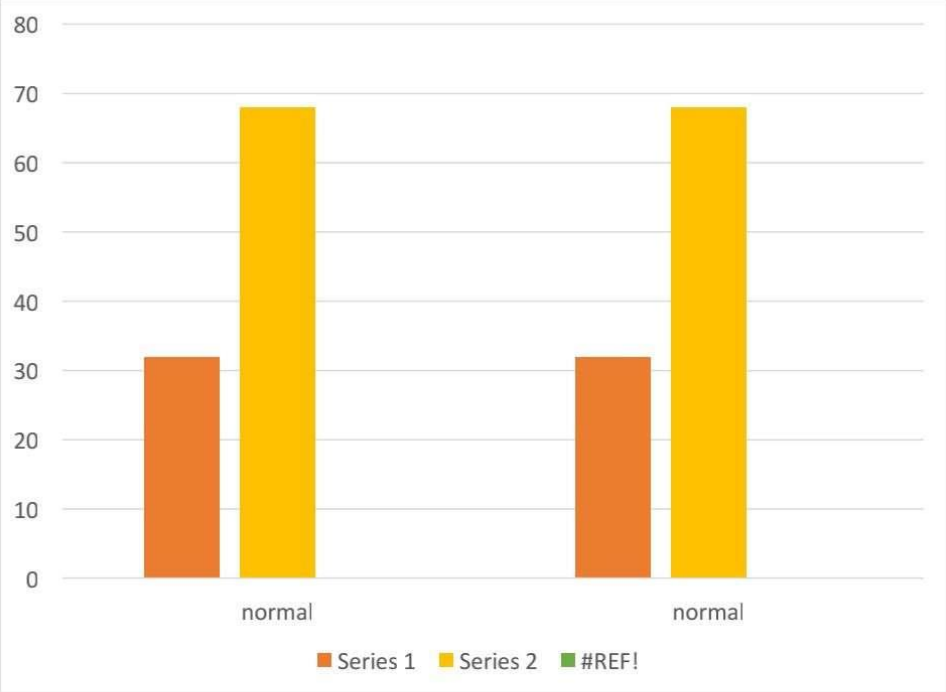
Results

1) Its normal test range is between 0.4-4.0mIU/L. If your TSH level is more than 2.0, then there is a risk of developing an underactive thyroid (hypothyroidism).

2) High Levels of TSH

TSH levels typically fall between 0.4 and 4.0 milliunits per liter (mU/L), according to the American Thyroid Association.

3) At is found out of 50 students and teachers, 14 students 32% were found to be hormones high (TSH), not found to be hormones low TSH count. 34 students 68% were found to normalrange.



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Sample Project 3

"Study of Free Living Protozoans in Mosam River"

PROJECT SUBMITTED TO

M.P.H Arts, Science & Commerce Mahila Mahavidyalya
Malegoan Camp, (Nashik)

Affiliated to

SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE

By
Miss. Pawar Bhavana Jibhau
Class : T.Y. B. Sc (Zoology)

Under the Guidance of

Dr.Tejswini A. Sontakke

Assistant Professor
Department of Zoology
M.P.H Arts, Science & Commerce Mahila Mahavidyalaya
Malegoan Camp, Malegaon (Nashik)

Year – 2021-22

CERTIFICATE

This is to certify that project entitled **"Study of free living Protozoans in Mosam river"** submitted by Ms. Bhavana Jibhau Pawar to Department of Zoology, M.P.H. Arts, Science & Commerce Mahila Mahavidyalaya , Malegoan, Nashik 423203. Under the guidance and supervision of Dr. Tejswni A. Sontakke Assist. Prof., Department of Zoology.

Place : Malegaon

Date :

Head
Department of Zoology
Malegaon Camp

Index

Introduction

Free living is the important component of aquatic fauna which serves as major component of aquatic food chain. It also maintains proper equilibrium between biotic and Abiotic components of aquatic ecosystem. In free living aquatic protozoa most of them are ciliates. Deterioration of water quality due to pollution can be studies through the indicator organism, many spaces of ciliated protozoa are use as indicator for the ecological monitoring of water quality and they can also be used in ecological studies of aquatic habitat in which mosquitoes and intermediate host of disease causing organism are breeding.

Therefore present investigation was undertaken to study of free leaving diversity of Mosam river fresh water body in Malegaon Nashik district of Maharashtra India with following objectives

1. Collection of free living from Mosam river fresh water bodies.
2. Identification of free living using standard methodology.
3. Study of diversity of free living organism in Mosam river water body.

Coleps

Coleps is a genus of ciliates in the class Prostomatea with barrel-shaped bodies surrounded by regularly arranged plates composed of calcium carbonate. *Coleps* uses toxicysts, which are organelles containing poison that it uses to capture its prey from its oral area. *Coleps* feeds on bacteria, algae, flagellates, living and dead ciliates, animal and plant tissues. commonly found in freshwater.

Classification

Domain:Eukaryota

Phylum: Ciliophora

Class: Prostomatea

Order: Prorodontida

Family: Colepidae

Genus: *Coleps*

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Department of Physics

T.Y.B.Sc.(Physics) Students Project 2021-22

Sr. No.	Name of Student	Date	Title of Project
1	Shirsath poonam vijay	25/5/2022	Fire alarm & control
2	Najm.e. Yashfeen Arshad Sufiyan	25/5/2022	Wireless Transmission
3	Borse Tejaswini Kailas	25/5/2022	Laser Light Security Alarm
4	Gangurde Vishval Rajendra	25/5/2022	Earthquake Detector
5	Ansari saneea kausar ansari zahid akhtar	25/5/2022	D.C. TO A.C. Current Inverter
6	Shinde Alisha Pradip	25/5/2022	DC Motor speed control using Thermistor
7	Shewale jayshri Rajendra	25/5/2022	Solar Water pump
8	Battise Vaishali dhanraj	25/5/2022	Small Portable vaccum cleaner
9	Momin Mariyam Mohammed Asif	25/5/2022	Gas leakage Detector
10	Patil bhagyashri sayaji	25/5/2022	Smoke Detector Alarm circuit
11	Thakare Rohini Bhagachand	25/5/2022	Solar Mobile charger
12	Mankar kalyani dilip	25/5/2022	Study of crystal structure
13	Chavan Priyanka Subhash	25/5/2022	Logic Gates

HEAD
Department of Physics
Smt. P... a Hiray Mahila
Mahavidyalaya Ma...gaon Camp 42310

Sample Project 1

MAHATMA GANDHI VIDHYAMANDIR'S

M.P.H. MAHILA ARTS, SCIENCE AND COMMERCE

COLLEGE, MALEGAON CAMP

DEPARTMENT OF PHYSICS

CERTIFICATE

This is to certify that **Miss. GANGURDE VISHVAL RAJENDRA** the student of **M.P.H. Mahila College** of Class **T.Y. Bsc (Physics)** has satisfactory completed the project work titled **"Earthquake Detector"** Monitoring during the Academic Year 2021-2022.

Prof. J. P. Dixit
(Project Guide)

Prof. J. P. Dixit
(Head of Department)

25/5/2022
Internal Examinor

25052022
External Examinor

ACKNOWLEDGEMENT

I express my deep sense of gratitude to respected guide **Prof. J. P. Dixit** sir for his valuable help and guidance, I am thankful to him for the encouragement he has given me for the completion of the final year project.

I would like to express my special thanks of gratitude to respected **Prof. M. S. Sonawane** mam who gave me the golden opportunity to do this wonderful project on the topic **"Earthquake Detector".**

Lastly, I would like to express my deep appreciation towards my classmates and to my parents for providing me the moral support and encouragement.

Gangurde Vishval Rajendra

ABSTRACT

An earthquake (also known as a tremor or temblor) is the result of a sudden release of energy in the Earth's crust that creates seismic waves. Earthquakes are recorded with a seismometer, also known as a seismograph. The moment magnitude of an earthquake is conventionally reported, or the related and mostly obsolete Richter magnitude, with magnitude 3 or lower earthquakes being mostly imperceptible and magnitude 7 causing serious damage over large areas. Intensity of shaking is measured on the modified Mercalli scale. Here we are presenting arduino based An Earthquake Detection using Sensing Element to reduce its destructive losses.

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Savitribai Phule Pune University
S.P.H. Mahila College of Arts, Science & Commerce,
Camp Malegaon (Nashik)

A Project Report On
Solar Mobile Charger

Submitted By: Thakare Rohini Bhagchand
Roll No.:

Guide Name: Prof. J.P. Dixit.

T.Y.B.Sc (Physics) Department of Physics

2021-2022

Savitribai Phule Pune University
S.P.H. Mahila College of Arts, Science & Commerce,
Camp Malegaon (Nashik)

DEPARTMENT OF PHYSICS

CERTIFICATE

This Certified This is to certify that Mr./Miss... Thakare Rohini Bhagchand... Roll No: ....academic year 2021-2022 of Bachelor of Science in Physics from the Department of Physics, M.P.H. Mahila College of Arts, Science & Commerce, Malegaon Camp has completed a project entitled

"Solar Mobile Charger." Successfully...

Project Guide 24/5/2022
Prof. J.P. Dixit.

Head of Department
Prof. J.P. Dixit.

25/5/2022
Internal Examiner

25/05/2022
External Examiner

ACKNOWLEDGEMENT

I would like to thank respected Prof. J.P. Dixit. for giving me such a wonderful opportunity to expand my knowledge for my own branch and giving me guidelines to present a seminar report. It helped me a lot to realize of what we study for.

Secondly, i would like to thank my parents who patiently helped me as i went through my work and helped to modify and eliminate some of the irrelevant or un-necessary stuffs.

Thirdly, i would like to thank my friends who helped me to make my work more organized and well-stacked till the end.

Next, i would thank Microsoft for developing such a wonderful tool like MS word. It helped my work a lot to remain error-free.

Last but clearly not the least, i would thank the almighty for giving me strength to complete my report on time.

CONCLUSION

- To make sure we have plenty of energy in the future, it's up to all of us to use energywisely.
- We must all conserve energy and use it efficiently. It's also up to those who will createthe new energy technologies of the future.
- All energy sources have an impact on the environment. Concerns about the greenhouseeffect and global warming, air pollution, and energy security have led to increasing interest and more development in renewable energy sources such as solar, wind, geothermal, wave power and hydrogen
- In solar mobile charger ripples will not be there as we use DC power directly to chargethe mobile.
- Battery life is more as high voltages are not developed.
- Versatility of Solar mobile charger is high.
- Life of the battery will be high as we use solar mobile charger.
- Adaptability is high.

REFERENCES

- www.google.com
- www.wikipedia.com
- www.studymafia.org

DEPARTMENT OF PHYSICS

CERTIFICATE

This Certified This is to certify that Mr./Miss... Borse Tejaswini Kailas...

Roll/Seat No:.....academic year 2021-2022 of Bachelor of Science in Physics from the Department of Physics, M.P.H. Mahila College of Arts, Science & Commerce, Malegaon Camp has completed a project entitled

"Laser Light Security Alarm." Successfully...

24.5.22
Project Guide
PROF.M.S.SONAWANE.

24/5/2
Head of Department
PROF.J.P.DIXIT

Internal Examiner

25052022
External Examiner

Savitribai Phule Pune University
S.P.H. Mahila College of Arts, Science & Commerce,
Camp Malegaon (Nashik)

A Project Report On
"Laser Light Security Alarm"

Submitted By: Miss Borse Tejaswini Kailas
Roll No.:

Guide Name: Prof. M.S.Sonawane.

T.Y.B.Sc (Physics) Department of Physics

2021-2022
Savitribai Phule Pune University

S.P.H. Mahila College of Arts, Science & Commerce,
Malegaon Camp Malegaon (Nashik)

Index

Principle:-

There are three essential component to a laser security system a laser a detector and sensing circuit. The laser is a concentrate light sources that puts out a straight line, pencil beam, of light of a single colours. The detector is connected to the sensing circuit. When the laser leam is interrupted and cannot reach the detector its voltage output changes and the circuit sense the change and put out a warning signal.

Working:-

First, the Op– Amp circuit acts as a comparator i.e. It compares the voltages at the inverting and non – inverting terminals and produces an output accordingly. The LDR, resistor Voltage divider is connected to the non – inverting terminal of Op – Amp and a potentiometer is connected to the inverting terminal. Assume, the laser pointer is placed directly in line of sight to the LDR and the light from the laser is continuously being incident on LDR. In this situation, the resistance of LDR falls down to few Ohms and as a result, the voltage at the non– inverting terminal will be less than that at the inverting voltage. The output of the Op– Amp is low and the transistor is OFF. If the laser light is blocked by an intruder from falling on the LDR (even for a small duration), the resistance of the LDR goes to few hundreds of Ohms and as a result, the output of the Op – Amp will be HIGH. This will turn on the Transistor. As the output of the transistor is connected to the Trigger Pin (Pin 2) of the 555 Timer IC, if the transistor is ON, the trigger pin gets a short low pulse and as a result, the output of the 555 becomes HIGH. This will activate the alarm by turning ON the buzzer. Since, the 555 Timer IC is configured as a Bi – Stable Multi vibrator, a small active low trigger pulse at the trigger pin will set its output to HIGH and in order to reset it a person need to push the reset button. Until the reset push button is pushed, the alarm will stay on hence; place the reset button at a secret locations that only the owner can disable the alarm.

Conclusion:

Laser security system provides us the security against any crime, theft in our day to day life and so people are installing them in order to stay safe, secure and sound. Various electronic security systems can be used at home and other important working places for security and safety purposes. It is a great opportunity and source of saving man power contributing no wastage of electricity. The "Laser Security System" is an important helping system. Using this system robbery, thefts & crime can be avoided to large extend. Avoiding thieves results in the safety of our financial assets and thereby this system provides us protection against all. The Laser & LDR system is highly sensitive with a great range of working. The system senses the light emitted by the Laser falling over the LDR connected with the circuit. Whenever the beam of light is interrupted by any means, it triggers the alarm or siren. This highly reactive approach has low computational requirement, therefore it is well suited to surveillance, industrial application and smart environments.

M.G. Vidyamandir's

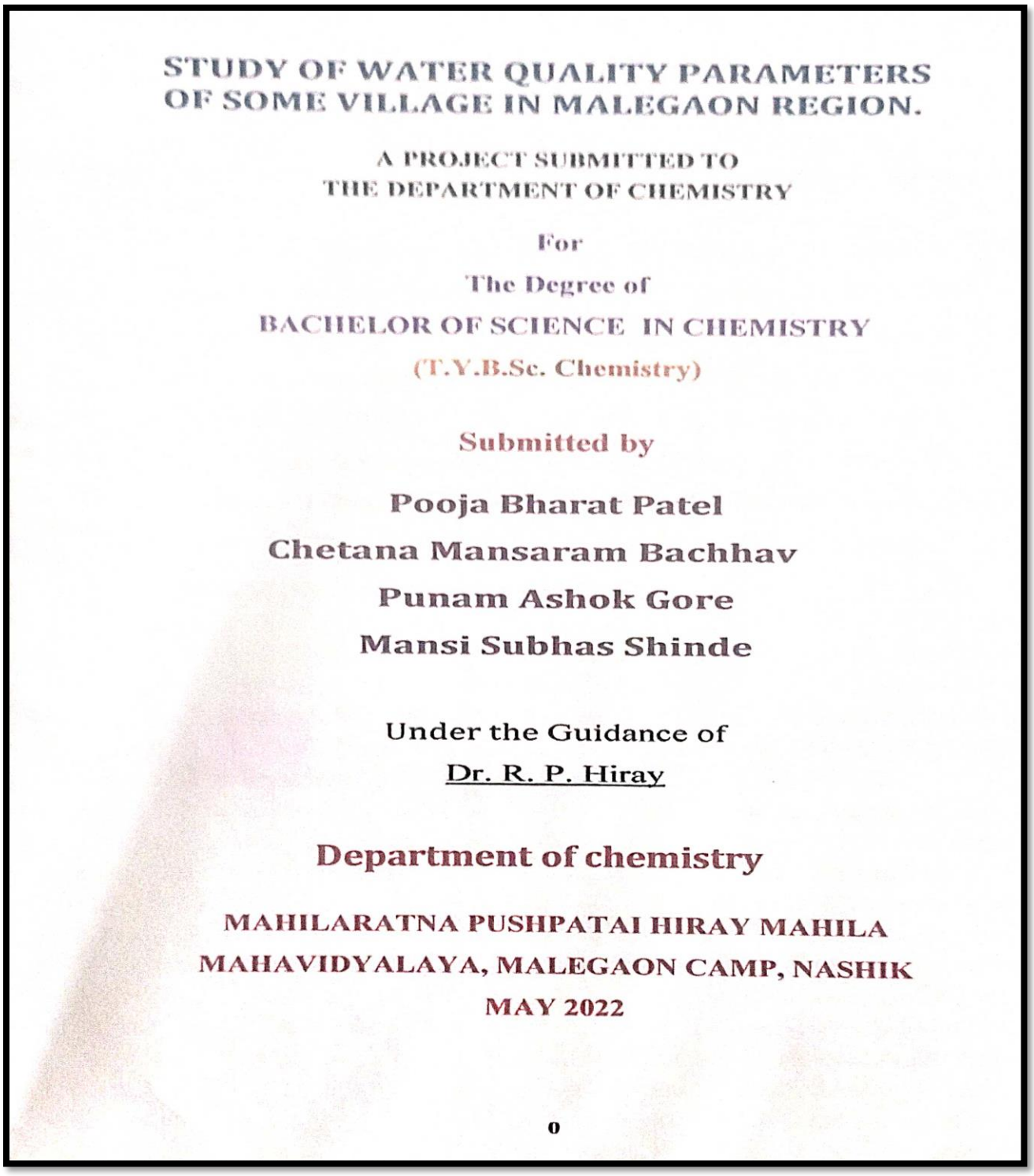
M.P.H. Arts, Science and Comm. Mahila Mahavidyalaya, Malegaon camp

Department of Chemistry

Topics and Name of the project students

Sr. No.	Name of the students	Project title	Guided By
1	1) Yamini Rajendra Pawar 2) Pooja Shivaji Nikam 3) Hrutuja Dipak Desale	PRELIMINARY PHYTOCHEMICAL ANALYSIS OF IN VIVO *EUPHORBIA HETEROPHYLLA* LEAF, STEM AND ROOT WATER EXTRACT	Smt. S.S. Kapadnis
2	1) Priti Sham Patil 2) Dipali Manohar Jadhav 3) Nikita Uddhav Pawar 4) Jayashree Rajendra More	ANALYSIS OF SOIL SAMPLES FROM VARIOUS AREAS OF MALEGAON REGION	Dr. R.B. Sawant
3	1) Pooja Bharat Patel 2) Chetana Mansaram Bachhav 3) Punam Ashok Gore 4) Manshi Subhash Shinde	STUDY OF WATER QUALITY PARAMETERS OF SOME VILLAGES IN MALEGAON REGION	Dr. R.P. Hiray
4	1) Vidya Sakaram Hiray 2) Ashwini Sudhakar Shelar 3) Komal Gangadhar Vyalij	QUALITATIVE ANALYSIS OF PHYTOCHEMICAL CONTENTS IN *CHENOPODIUM ALBUM* LINN	Dr. A.S. Kale

Sample Project 1



STUDY OF WATER QUALITY PARAMETERS OF SOME VILLAGE IN MALEGAON REGION.

A PROJECT SUBMITTED TO
THE DEPARTMENT OF CHEMISTRY

For

The Degree of

BACHELOR OF SCIENCE IN CHEMISTRY

(T.Y.B.Sc. Chemistry)

Submitted by

Pooja Bharat Patel
Chetana Mansaram Bachhav
Punam Ashok Gore
Mansi Subhas Shinde

Under the Guidance of
Dr. R. P. Hiray

Department of chemistry

MAHILARATNA PUSHPATAI HIRAY MAHILA MAHAVIDYALAYA, MALEGAON CAMP, NASHIK

MAY 2022

o

CERTIFICATE

It is hereby to certify that, the original and genuine investigation work has been carried out to investigate about the subject matter and the related data collection and investigation has been completed solely, sincerely and satisfactorily by Patel Pooja Bharat , Bachhav Chetana Mansaram , Gore Punam Ashok and Shinde Mansi Suhas (T.Y.B.Sc. Chemistry) Mahilaratna Pushpatai Hiray, Mahila Mahavidyalaya, Malegaon camp, regarding his project titled "Study of water quality parameters of more village in Malegaon region".

R B Sawant

Head

Head
Dept. of Chemistry
S. P. H. Mahila College,
Malegaon Camp.

Project Guide

Dr. Hiray R. P.

1

Acknowledgement

It would be my greatest pleasure to express my sincere thanks to My Chemistry Teacher Dr. R. P. Hiray in providing a helping hand in this project. Their valuable guidance, support and supervision all through this project titled **"Study of water quality parameters of some village in Malegaon region"**, are responsible for attaining its present form.

I would like to thank to Dr. Ujjwala Deore, Principal, M.P.H. Mahila College, Malegaon camp, for providing me the facilities in my work.

I am especially thankful to Smt. B.V. Shewale, Dr. R. B. Sawant, Dr. A.S. Kale and S. S. Kapadnis for their inspiring guidance, critical supervision and frank accommodative discussion.

CONTENTS

INTRODUCTION

Water is one of the most important of all natural resources known on earth. It is important to all living organism, most ecological system, human health, food production and economic development.

The Safety of drinking water is an going concern with in the global village. Many congenital diseases such as goiter and cancer have been associated with presence of high concentration of a chemical or its inadequate supply in water. Low concentration of iodine in human body results in goiter disease. Infants have been considered as a potential high risk group to the toxic effects of sodium from drinking water. Currently about 20% of the world's population lacks access to safe drinking water and more than 5 millions people die annually from illness associated with safe drinking water or inadequate sanitation. The safety of drinking water is increasingly recognized as a challenge.

It is a fact that treated drinking water has a natural and microbial load and a reasonable number of nutrients when it enters the water distribution system (WDS). During water distribution, biological and physico-chemical process take place which results in degradation of water quality reaching, consumers in relation to the original quality of the treated water in its treatment facilities. Finally, Suggestions are provided towards the developments of a reliable water distribution system (WDS) to consumers including the efficient and effective early identification of risks and the proposal of crisis response solutions.

Literature Review

Exploration of the marcellus shale may pose water resource and water supply challenges to the gas industry operating in the Appalachain Basin water used for drilling and hydrallic fracturing normally comes form surface water, groundwater, municipal potable water supplies or use of flow back waters or from some other water source.

Surface Water

Currently, the preferred source of hydraulic fracturing water is surface water which may be transported to the site by pipeline or truck on average for each horizontal well drilled in marcellus, three to five million gallons of water ore needed to drill and hydraulically fracture the well, only about 10% to 40% of this water is recovered and it typically contain high concentration of total dissolve solids (TDS). The remaining water, stages in information due to the amount of water loss, amounts of new make up water are required to develop each new gas well. Depending on the number of horizontal wells that may be drilled and hydraulically Fractional in the given basic, water demand may become a critical issue particularly during the latter half of the year when stream levels are lowest.

MATERIAL AND METHOD

Study Area -

Various Villages in the Malegaon region like – Dabhadi, Aghar, Pimpalgaon, Vajirkhede, Nimgaon, etc.

Sample Collection –

All of the drinking water samples were taken from the tap water, boar well and wells from different places in Malegaon region.

Laboratory Methods –

Physico – chemical parameters life pH of water, Conductivity, flame Photometer (Sodium, Potassium, Calcium) were analyzed by standard method.

6

RESULT AND DISCUSSION-

Sr. No.	Place	pH	Conductivity	Sodium	Calcium
1.	Dabhadi (Well)	6.49	0.946	22	17
2.	Aghar	7.05	0.889	188	73
3.	Pimpalgaon	7.12	1.523	86	46
4.	Ajang	7.09	0.764	27	15
5.	Vajirkhede	6.70	1.688	73	44
6.	Nimgaon	6.41	0.925	35	22
7.	Hatane	6.68	0.688	14	13
8.	Malegaon	6.39	0.946	20	24
9.	Sherul	6.74	0.720	06	15
10.	Dyane	6.88	1.401	45	39
11.	Karajghavan	7.41	0.469	35	13
12.	Tembhe	6.70	1.039	50	27
13.	Dabhadi (Tap)	7.25	0.565	22	11
14.	Tingri	6.89	0.889	32	17
15	Dabali	6.29	0.886	62	36

- **pH –**

pH value of given sample are measured by pH meter. The pH value of the different sample are list in the table. A pH range of 6 to 7 is generally most favorable. Our pH reading are within a range, but the pH is less than 7 water become acidic, which affect to human health. It

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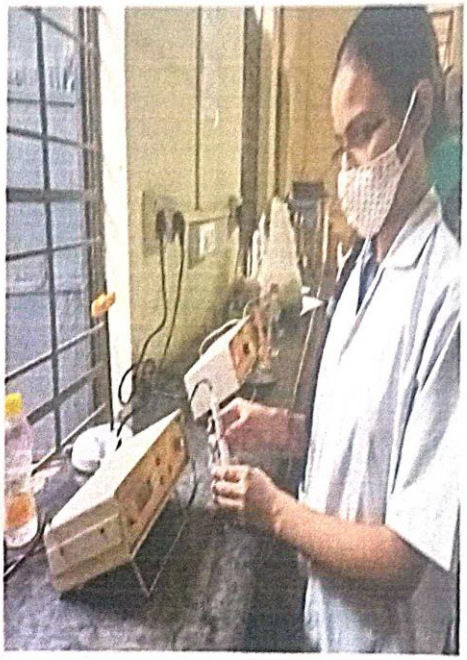

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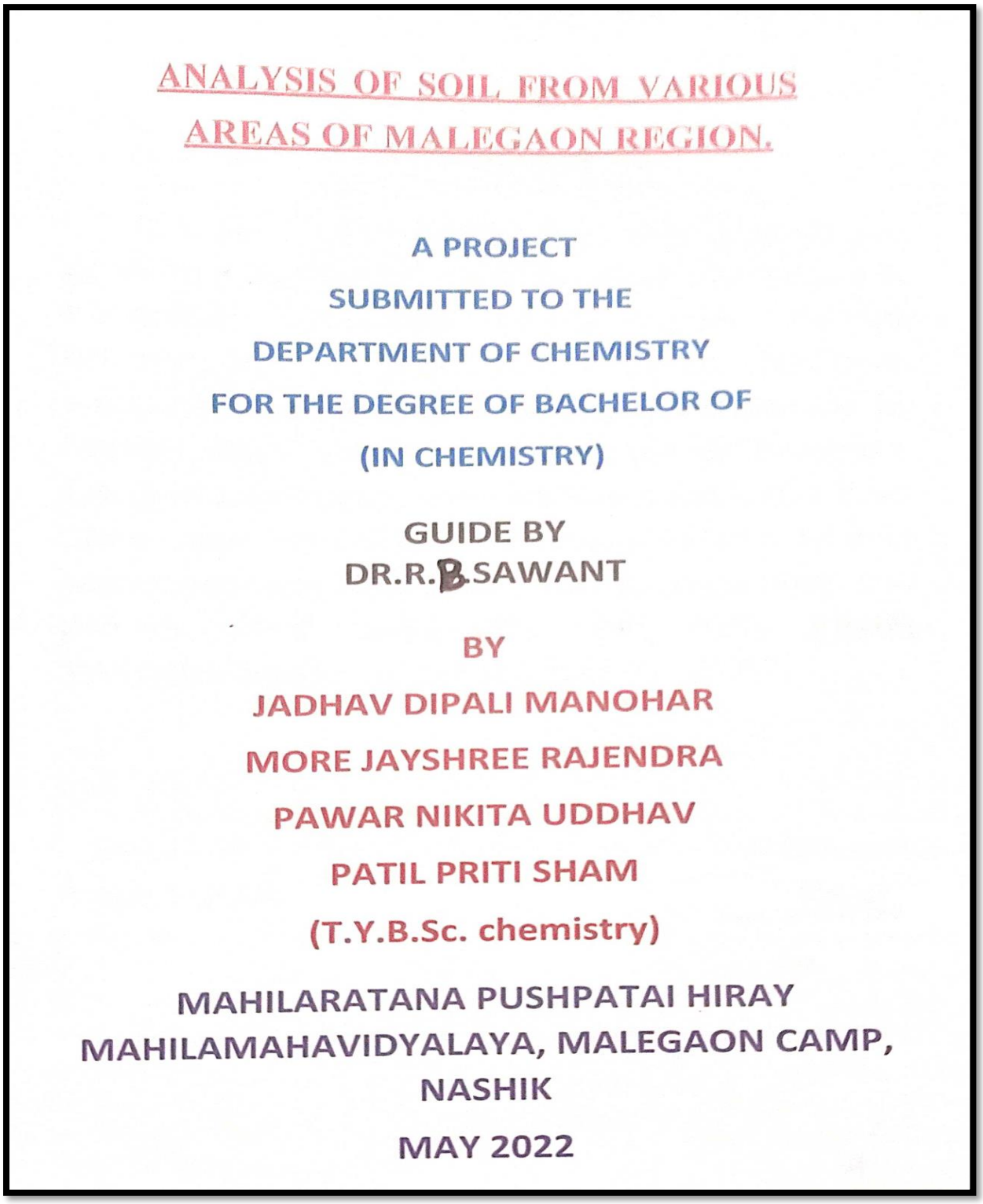
Sample Project 2



ANALYSIS OF SOIL FROM VARIOUS AREAS OF MALEGAON REGION.

A PROJECT

SUBMITTED TO THE

DEPARTMENT OF CHEMISTRY

FOR THE DEGREE OF BACHELOR OF

(IN CHEMISTRY)

GUIDE BY

DR.R.B.SAWANT

BY

JADHAV DIPALI MANOHAR

MORE JAYSHREE RAJENDRA

PAWAR NIKITA UDDHAV

PATIL PRITI SHAM

(T.Y.B.Sc. chemistry)

MAHILARATANA PUSHPATAI HIRAY
MAHILAMAHAVIDYALAYA, MALEGAON CAMP,
NASHIK

MAY 2022

CERTIFICATE

It is hereby to certify that, the original and genuine investigation work has been carried out to investigate about the subject matter and the related data collection and investigation has been completed solely, sincerely and satisfactorily by Jadhav Dipali Manohar, More Jayshree Rajendra, Pawar Nikita Uddav, and Priti Sham Patil. (T.Y.B.Sc. Chemistry) Mahilaratana Pushpatai Hiray, Mahila Mahavidyalaya, Malegaon camp, regarding the project titled **"ANALYSIS OF SOIL FROM VARIOUS AREAS OF MALEGAON REGION".**

P.B.Sawant.

Project Guide

(Dr. Rajashri B. Sawant)

P.B.Sawant

Head

Dept. of Chemistry

S. P. H. Mahila College

Malegaon Camp.

ACKNOWLEDGEMENT

It would be my greatest pleasure to express my sincere thanks to My Chemistry Teachers Dr. R.B. Sawant, in providing a helping hand in this project. Their valuable guidance, support and supervision all through this project titled "**Analysis Of Soil From Various Areas Of Malegaon Region**" are responsible for attaining its present form.

I would like to thank to Dr. Ujjwala Deore, Principal, M.P.H. Mahila Collage, Malegaon camp, for providing me the facilities in my work.

I am especially thankful to Dr. R.B. Sawant, Smt. B.V. Shewale, Dr. R.P. Hiray, Dr. A.S. Kale for their inspiring guidance, critical supervision and frank accommodative discussion.

CONTENTS

ABSTRACT

Soil is a natural body of minerals and organic materials differentiate into harizons. Which differ among themselves as well as underflying material in their morphology phsical make – up chemical composition and biological characteristics.

This physio – chemical study of soil is based on various parameters like ph, electrical conductivity. This information will help farmers to decided the problems related to soil nutrients amount of fertillizers to be added to soil to make production economic.

MATERIAL AND METHOD

STUDY AREA :

Various Villages in the Malegaon region.

15 surface soil from 10 different regions of Malegaon Taluka of Maharashtra state. Composite surface soil samples were collected at a minimum distance at a depth of 0.15 cm from 10 different villages in Malegaon region. The Samples were air dried ground in a pestles mortor and passed through a 2 mm stainless sieve for determining various physico – chemical properties if soils of Malegaon Tahasil

SAMPLE COLLECTION :

Soil is taken from 10 different places. Digram a V shape pit in the ground which is 15 cm deep Take soil sample from 1 side of it clean it the samples by removing any garbage.

LABORATORY METHOD:

Samples were collecting in sampling bags and brought to the laboratory for further analysis. The physio – chemical parameters like ph electrical conductivity and sodium were analyzed by standard method.

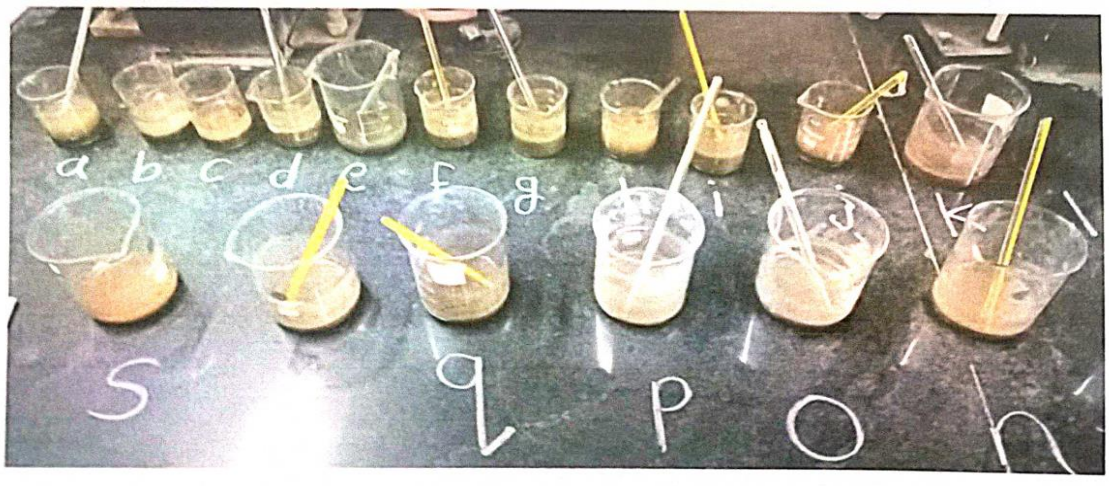
PROCEDURE :

1)20 gram of sieved , dry soil sample is weight and transferred to the 100 ml beaker. 50 ml distilled water is added to it and stirred it for about 30 minuts.

2)The beaker with soil solution is kept under the electrode and immersed the electrode in the soil solution. After passing the current through the suspension reading is note.

3)All the samples are taken in the beaker one by one.

4) Record the P^H of all sample using P^H meter.



RESULT AND DISCUSSION

The results of soil parameters are indicates in table 1.

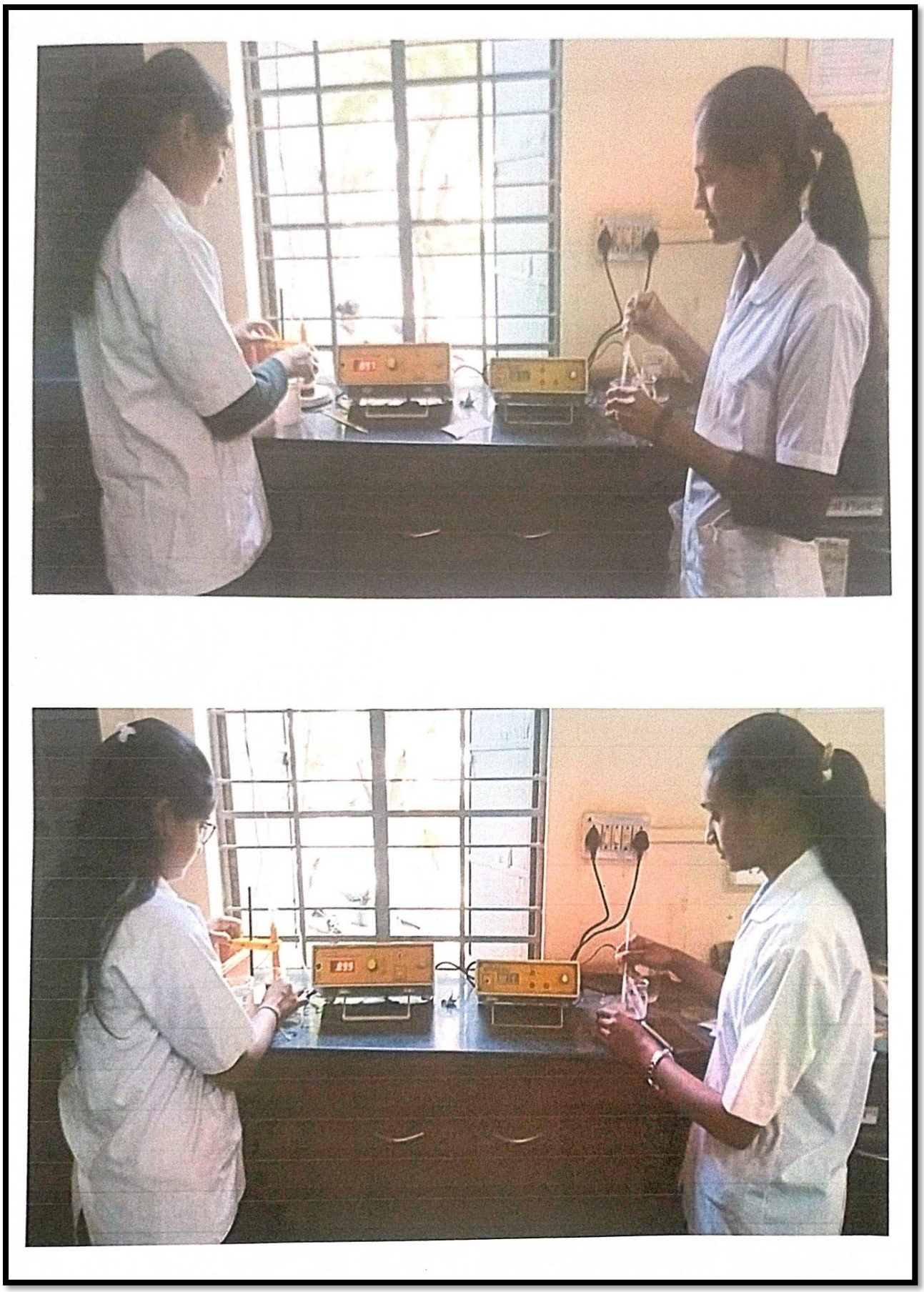
P^H :

This measurment indicates the slightly acidicity or medium alkalinality of soil. A rading 7 is indicates is consider to be neutral. Reading below 7 indicates the acidic condition, while above 7 indicates the alkaline or basic condition of soil. Soil p^H effects the amount of nutrients and chemical that are soluble in soil water and therefore.

The amount of nutrients available to plants from our research study it is conclude that near about all soil samples p^H range is normal.

ELECTRICAL CONDUCTIVITY:

Soil EC is measure of amount of salt in soil. It is an important indicator of soil health.



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Sample Project 3

PRELIMINARY PHYTOCHEMICAL ANALYSIS OF *EUPHORBIA HETEROPHYLLA* L. LEAF, STEM AND ROOT IN WATER AND METHANOL EXTRACT

A PROJECT

SUBMITTED TO THE
DEPARTMENT OF CHEMISTRY
FOR THE DEGREE OF BACHELOR OF SCIENCE
(IN CHEMISTRY)

BY

PAWAR YAMINI RAJENDRA
NIKAM POOJA SHIVAJI
DESALE HRUTUJA DIPAK
(T.Y.B.Sc. Chemistry)

MAHILARATNA PUSHPATAI HIRAY MAHILA
MAHAVIDYALAYA, MALEGAON CAMP, NASHIK

MAY 2022

0

CERTIFICATE

It is hereby to certify that, the original and genuine investigation work has been carried out to investigate about the subject matter and the related data collection and investigation has been completed solely, sincerely and satisfactorily by Pawar Yamini Rajendra, Nikam Pooja Shivaji and Desale Hrutuja Dipak (T.Y.B.Sc. Chemistry) Mahilaratna Pushpatai Hiray, Mahila Mahavidyalaya, Malegaon camp, regarding their project titled "Preliminary phytochemical analysis of *Euphorbia Heterophylla* L. leaf, stem and root in water and methanol extract".

PRINCIPAL
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Head
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Project Guide
Smt. S. S. Kapadnis

Dr. R. P. Hiray

Dr. A. S. Kale

I

Acknowledgement

It would be my greatest pleasure to express my sincere thanks to My Chemistry Teachers Smt. S.S. Kapadnis in providing a helping hand in this project. Their valuable guidance, support and supervision all through this project titled **"Preliminary phytochemical analysis of *Euphorbia Heterophylla* L. leaf, stem and root in water and methanol extract"**, are responsible for attaining its present form.

I would like to thank to Dr. Ujjwala Deore, Principal, M.P.H. Mahila College, Malegaon camp, for providing me the facilities in my work.

I am especially thankful to Dr. R.B. Sawant, Smt. B.V. Shewale, Dr. R.P. Hiray, Dr. A.S. Kale for their inspiring guidance, critical supervision and frank accommodative discussion.

CONTENTS

INTRODUCTION

Medicinal plants are of great importance to the health of Individuals and communities in general. The medicinal value of plants lies in some chemical substances that produce a definite physiological action on the human body. The most important of these bioactive Constituents of plants are alkaloids, tannins, flavonoids and phenolic compounds [1, 2].

Euphorbia heterophylla L. leaves is used in traditional medical practices as laxative, antigonorrheal, migraine and waste cures. The plant lattices have been used as fish poison, insecticide and ordeal poisons [3].

Medicinal plants play a significant role in providing primary, health - care services to rural people and are used by about 80% of the marginal communities in the world [4-6]. Each medicinal plant has its own nutrient constituents along with the phytochemical constituents. For the physiological functions of the human body, the nutrients are essential. Such nutrients and biochemical such as carbohydrates, fats, and proteins, play an important role in satisfying human wants and need for energy and other life processes [7-9].

Over the past few decades, medicinal plants have widely been studied for the purpose of the mitigation and the treatment of various infectious diseases because microbial resistances against conventionally used synthesis antimicrobial agents are increasing at an alarming rate [10, 11]. Each and every community has its own system of traditional medicine and they utilize natural resources around their habitats for various medicinal purposes [12]. Many medicinal plants are used by marginal communities to cure various diseases [2] as diverse medicinal plant species are used either in the form of extract or decoction by the local people in different regions.

MATERIAL AND METHOD

Collection and identification of plant material

Fresh parts of medicinal plant, *Euphorbia Heterophylla* (Leaves, Stem and Root) were collected from different regions of Dabhadi, Tal-Malegaon, Dist - Nashik (Maharashtra). The plant materials were taxonomically identified and authenticated by The Department of Botony, M.P.H. Mahila college, Malegaon camp.

Preparation of plant extract:

The plant materials were shade dried until all the water molecules evaporated and plants became well dried for grinding. After drying, the plant materials were ground well using mechanical blender into fine powder and transferred into airtight containers with proper labeling for future use.

The medicinal value of water and methanol extract of each sample was prepared by of these plants lies in some chemical substances soaking 10g dried powder samples in 100ml of that produce a definite physiological action on the water and methanol for 24 hrs. The extracts were filtered and filtered extract of the selected plant samples were taken and used for further phytochemical analysis.

Plant of Euphorbia Heterophylla

CONCLUSION

In the present study we studied the preliminary phytochemical analysis of *Euphorbia heterophylla* L. plant leaves, stems and roots in water and methanol extract. The selected medicinal plants were found to contain phenols and tannins, sapanins, glycosides, protein, amino acids and steroids. The presence of Saponins & Alkaloids has been reported to be responsible for various pharmacological properties by exerting toxic effects against cells of foreign organisms. In general *Euphorbia heterophylla* L. latex extracts was found to be more potent than the standard drugs which were used against both the bacterial and fungal strains. The chemical composition of this species has not been extensively studied so far.

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Mahilaratna Pushpatai Hiray, Arts, Science and Commerce Mahila Mahavidyalaya, Malegaon camp, Dist.- Nashik

Department of Economics

Subject: - Business Management (Research Project Record)

Academic Year: - 2021-22

Sr.No.	Name of the student	Title of the Project
1	Durga Yellanna Gavali	Study of Shreeram Milk Dairy and its production
2	Mapari Mamrata Dilip	Successful Business Woman, "Namita Thapar"
3	Suryawanshi Monali Bhagwan	Milk and Milk Product
4	Varsha Tanaji Gavali	A Study of Papad Industry
5	Priya Dhanaraj Jadhav	A Study of Medical Store
6	Yogita Jeetendra Ghule	A Study of PICKLE home Industry
7	Pragati Vithtal Salunkhe	A Study of Self-Help Group
8	Diksha Maheshrao Mahale	Study Of MUKESH AMBANI as a Successfu Businessman
9	Nikita Vishwas Pawar	Maharashtra State Agri Business and Rura Transformation Smart Project
10	Priyanka Sunil Tupe	Banking Business
11	Pallavi Yuvraj Kakulate	Cake shop Business
12	Gangurde Diksha Daval	A study of Poultry Business

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Date :
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&
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Page No. Date :

Name :- Durgd yallanna gawali

Class :- T.Y.B.A

Roll No :- 60

Sub :- Business management

Page No. 1 Date :

Title :— दुध डेअरी आणी मिठाई दुकान

मालेगावातील शहरातील दुध डेअरी आणी मिठाई चे प्रमुख दुकान म्हणजे श्री राम डेअरी येथे मिठाई आणी दुध या दोघाचा व्यवसाय केला जातो तीथे भेट दिल्या नंतर त्या दुकानाचे मालक श्री राजु वाणी याना भेट देऊन दुधाचे व्यवसाय आणी मिठाई व्यवसाय कसे करावे व दुकानाला व्यवस्थापन कसे करावे हे त्यानी आपल्या काही शब्दात त्यानी माहिती सांगितली.

मिठाई दुकानाचा पत्ता :— श्री राम दुध डेअरी आणी मिठाई दुकान मोसम फुल कोर्ट समोर मालेगाव.

* मिठाई चे प्रकार

1) पेढा
2) गुलाब जामुन
3) मलाई बर्फी
4) काजु कतली
5) बासुन्दी
6) खस मलाई

Page No. 2 Date :

हे सर्व मिठाई त्या दुकानात परशेन ताजा माल तयार होता हे त्या दुकानातल्या वेगवेगळ्या प्रकार च्या मिठाई आहेत.

* डेअरीतले वस्तु

i) तुप
ii) दही
iii) पनीर
iv) दुध
v) मसाला दुध

* दुकानासाठी लागणारा कच्चा माल :—

i) दुध
ii) साखर
iii) इलायची
iv) कस्टर पावडर
v) इतर काही लागणारे वस्तु

माझी दुकानासाठी सगळ्यात महत्वाचे म्हणजे दुध हे वेगवेगळ्या शेतकऱ्याकडुन होतात जातो त्या दुकानाच दुधाची किंमत साधारण पेक्षा कमीच असेल कारण डेअरी वर मिठाई च्या दुकानात दुकानावर शेजच्या ५०० ते १०० लीटर दुधाचा व्यापार असतो त्यासाठी त्या दुकादाराकाही दुधाचे

Page No. 16 Date :

कठीण काम असते तथापि जर तुम्हाला तुमचे कष्टाचे पैसे योग्य प्रकारे गुंतवायचे असतील तर तुम्हाला सावकाश जोव लागेल कारण एखादा विकास करण्यासाठी कोणतेही शॉर्टकट नाही यशस्वी व्यवसाय तयार करणे ही एक चरण वर-चरण प्रक्रिया आहे आणि ग्राहक आणि स्पर्धका सह तुमचा स्वतः चा अनुभव तुम्ही मार्गावर जाताना आर्थिक माहिती देईल म्हणून वर नमुद केलेल्या पायऱ्या ही एक यशस्वी मिठाई दुकान व्यवसाय सुरु करण्यासाठी प्रारंभिक परंतु प्रभावी तयारी आहे याचा ज्याचा तुम्हाला दीर्घकाळ फायदा आहे आम्हाला आशा आहे की ही माहिती तुमचा व्यवसाय आत्मविश्वासाने सुरु करण्यास मदत होईल.

* नवीन व्यवसाय सुरु करताना :—

i) प्रतिस्पर्ध्यांची स्पर्धा
ii) प्रतिभावान कर्मचारी नियुक्ती करणे
iii) ग्राहकामध्ये विश्वास निर्माण करणे
iv) आर्थिक उदिष्टे विकसित करणे
v) व्यवसायासाठी भांडवल वाढवणे
vi) बदलत्या ट्रेंडशी सुसंगत राहणे.

colors

Topic Page No. Date

नाव :- सूर्यवंशी मोनाली भगवान

कॉलेजचे नाव - महिलारत्न पुण्यार्ह हिरे महिला महाविद्यालय मालेगाव कॅम्प

वर्ग - TY BA

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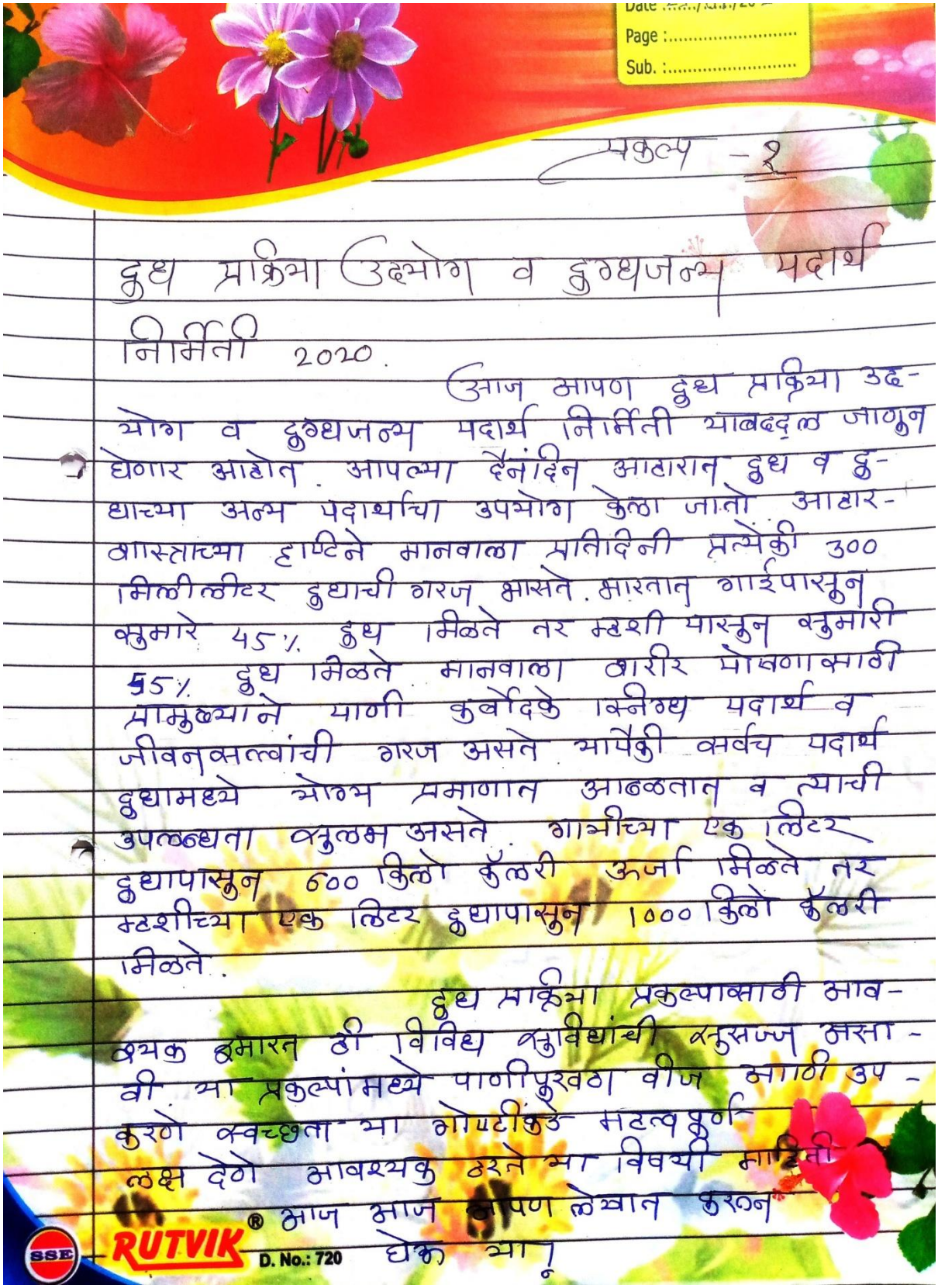

प्रकल्प - १

दुध प्रक्रिया उद्योग व दुग्धजन्य पदार्थ निर्मिती 2020.

आज आपण दुध प्रक्रिया उद्योग व दुग्धजन्य पदार्थ निर्मिती याबद्दल जाणुन घेणार आहोत. आपल्या दैनंदिन आहारात दुध व दुधाच्या अन्य पदार्थाचा उपयोग केला जातो. आहारशास्त्राच्या दृष्टिने मानवाला प्रतिदिनी प्रत्येकी 300 मिलीलीटर दुधाची गरज भासते. भारतात गाईपासुन कुमारे 45% दुध मिळते तर म्हशी पासुन कुमारी 55% दुध मिळते. मानवाला शारीर पोषणासाठी सामुल्याने याणी कुर्बोदके स्निग्ध पदार्थ व जीवनसत्वांची गरज असते. सर्वेकी सर्वच पदार्थ दुधामध्ये योग्य प्रमाणात आढळतात व त्याची उपलब्धता कुलभ असते. गायीच्या एक लिटर दुधापासुन 600 किलो कॅलरी ऊर्जा मिळते तर म्हशीच्या एक लिटर दुधापासुन 1000 किलो कॅलरी मिळते.

दुध प्रक्रिया प्रकल्पासाठी आवश्यक इमारत ही विविध सुविधांची सुसज्ज असावी. या प्रकल्पांमध्ये पाणीपुरवठा वीज साठी उपकरणे स्वच्छता या गोष्टींकडे महत्वपुर्ण लक्ष देणे आवश्यक असते या विषयी माहिती आज आज आपण लेखात करुन घेऊ या.

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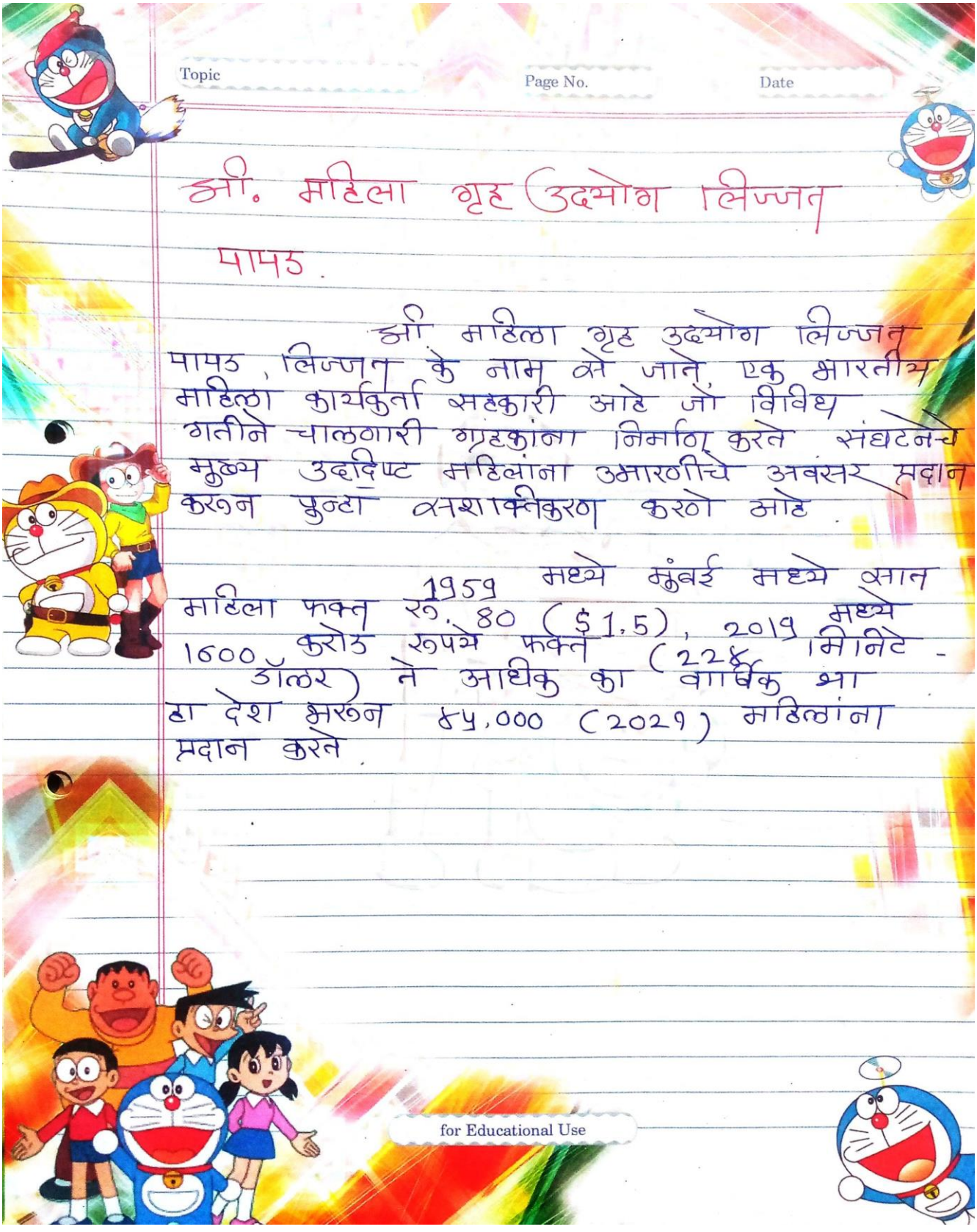
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श्री. महिला गृह उद्योग लिज्जत पापड.
श्री महिला गृह उद्योग लिज्जत पापड, लिज्जत के नाम से जाने, एक भारतीय महिला कार्यकुर्ता सहकारी आहे जो विविध गतीने चालणारी गृहकांना निर्माण करते संघटनेचे मुख्य उद्दिष्ट महिलांना उभारणीचे अवसर प्रदान करुन पुन्हा वनशाक्तीकरण करणे आहे.
1959 मध्ये मुंबई मध्ये सात महिला फक्त रु. 80 ($1.5), 2019 मध्ये 1600 करोड रुपये फक्त (22 मिनिटे - डॉलर) ने आधिक का वार्षिक भा हा देश भरुन 84,000 (2021) महिलांना प्रदान करते.
for Educational Use

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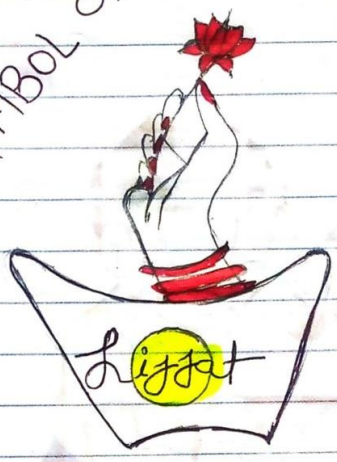
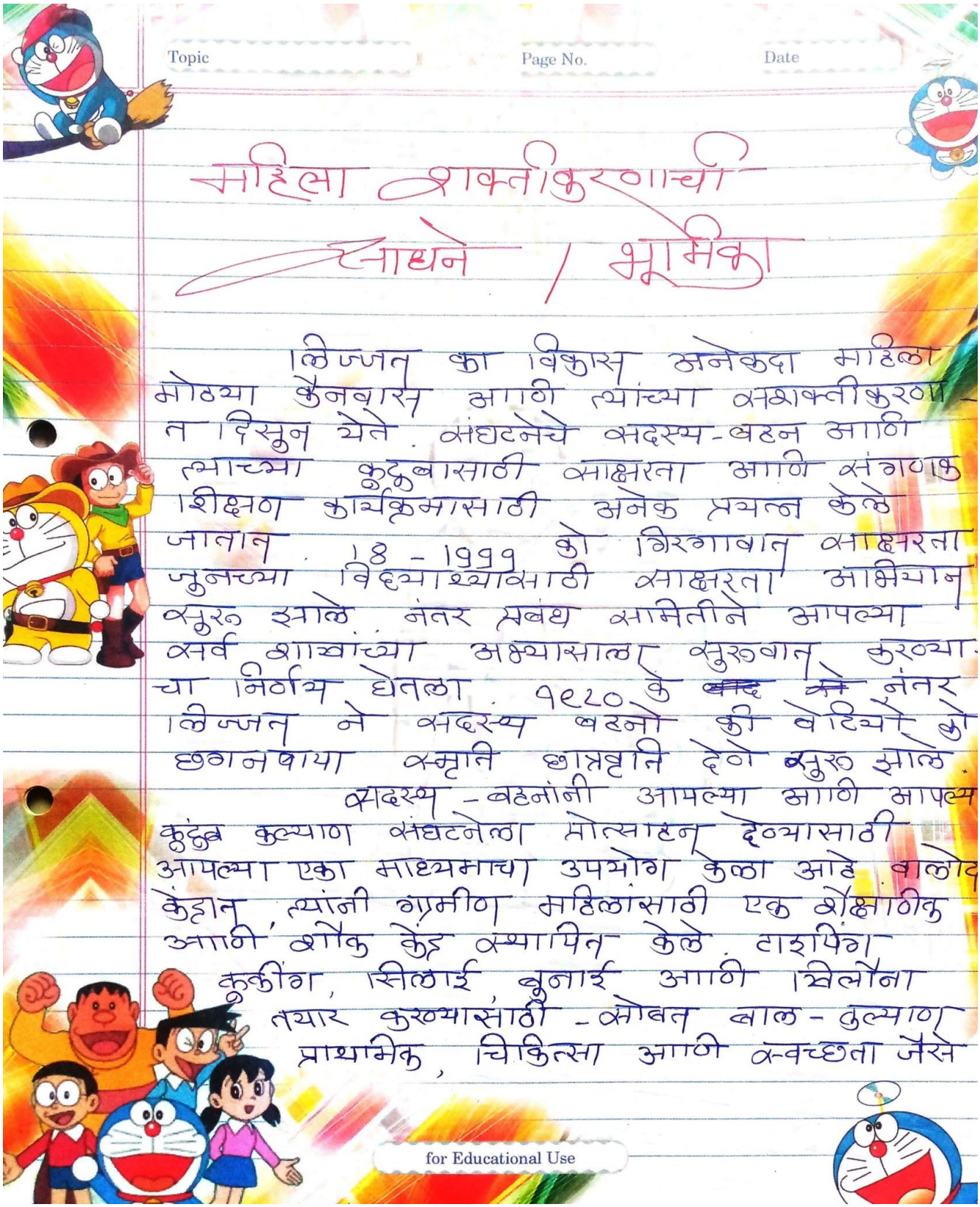
डी. महिला गृह उद्योग लिज्जत पापड़

SYMBOL OF WOMAN'S STRENGTH



1959 से लिज्जत पापड़ का

लोगो



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महिला शक्तीकरणाची साधने / भूमिका

लिज्जत का विकास अनेकदा महिला मोठ्या कॅनवास आणि त्यांच्या सशक्तीकरणा - त दिसून येते. संघटनेचे सदस्य-बहन आणि त्याच्या कुटुंबासाठी साक्षरता आणि संगणक शिक्षण कार्यक्रमासाठी अनेक प्रयत्न केले जातात. 18 - 1999 ला गिरगावात साक्षरता जुनच्या विद्यार्थ्यांसाठी साक्षरता अभियान सुरु झाले. नंतर सर्व समितीने आपल्या सर्व शाखांच्या अभ्यासाला सुरुवात करण्या - चा निर्णय घेतला. १९८० के ~~बाद~~ ~~के~~ नंतर लिज्जत ने सदस्य बहनों की बेटियों को छगनबापा स्मृति छात्रवृत्ति देने सुरु झाले.

सदस्य - बहनांनी आपल्या आणि आपल्या कुटुंब कल्याण संघटनेला प्रोत्साहन देण्यासाठी आपल्या एका माध्यमाचा उपयोग केला आहे. बालोद केंद्रात, त्यांनी ग्रामीण महिलांसाठी एक शैक्षणिक आणि शौक केंद्र स्थापित केले. ताइपिंग, कुकींग, सिलाई, बुनाई आणि खेलोना तयार करण्यासाठी - सोबत बाल - कल्याण प्राथमिक, चिकित्सा आणि स्वच्छता जैसे