

Experiment No.05

A.1 Aim:

Design an interface for any machine which you found troublesome to use and want to change its interface like automatic washing machine, microwave oven etc.

A.2 Prerequisite:

1. Knowledge about your client and his various characteristics.
2. Knowledge of user interface and various parameters of user interface

A.3 Outcome:

After successful completion of this experiment students will be able to

1. analyze existing complex interface designs and suggest modifications based on user centric interfaces
2. Apply HMI Principles to design good GUI.

A.4 Theory:-

▪ Things to focus for UI design:

To achieve effective interface design, a designer must first gain an in-depth understanding of the target user, as well as the goals of using the machine or product. The best interface designers take time to gain an understanding of not only the identity of the user but also user skill level, possible environmental effects on the machine, and the most important primary and secondary functions for the user.

The interface must be easy to learn and operate for the end user, as well as consistent. This is one of the most challenging aspects of interface design for engineers. One of the most important things about interface design to remember throughout the design and engineering process is that the interface should be simple to understand and easy to use on the first use with minimal training and onboarding

It's also important to avoid defining the target user group too broadly. This often leads to missing the distinct needs of various subgroups who are likely to use the machine. Always consider the distinct nuances and

variations among these end user subgroups, as well as how each target end user will use the product. Aim to make key functions as intuitive as possible for each of these users.

A.5 Procedure:

1. All the machine interfaces are designed by manufacturer. All users are not comfortable with them.
2. Think of any trouble some machine which you experienced or found across through some one
3. List out the troubles faced by the user in operating particular machine interface
4. Design an interface for the same machine to improve operability of the machine

5. Example:

Interface for washing machine



PART B

Roll No.: A43	Name: Shruti N. Rathod
Class: BE-A	Batch: A3
Date of Experiment:	Date of Submission:
Grade:	

B.1 Machine selected for the interface design:

Washing Machine.



B.2 Choice of User Interface Elements:

(List of various UI elements used.)

Radio buttons

Buttons

Label

B.3 User Interface Designs:



B.4 Comparison:

- The interface is easy to learn and operate for the end user, as well as consistent
- The timer differentiates between the minutes and seconds properly.

B.5 Explain the importance of Human Centered Design?

With human-centered design, people are involved in the design of products and services right from the start. The human-centered design process ensures the product is based on human-centric design solutions to problems, provides optimum user experiences, effortless interaction, and ultimately, business benefits.

Sometimes called “participatory design,” human-centered design focuses on people’s everyday thinking, emotions, and behavior.

B.6 Conclusion:

We have understood that how to Design an interface for any machine which you found troublesome to use.

*****End*****