



# **SNS COLLEGE OF TECHNOLOGY**

**An Autonomous Institution  
Coimbatore - 35**

Accredited by NBA – AICTE and Accredited by NACC – UGC with 'A+ Grade  
Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai.

## **DEPARTMENT OF AGRICULTURE ENGINEERING**

**19AGT203 – AUTOMATION TECHNIQUES IN AGRICULTURE ENGINEERING**

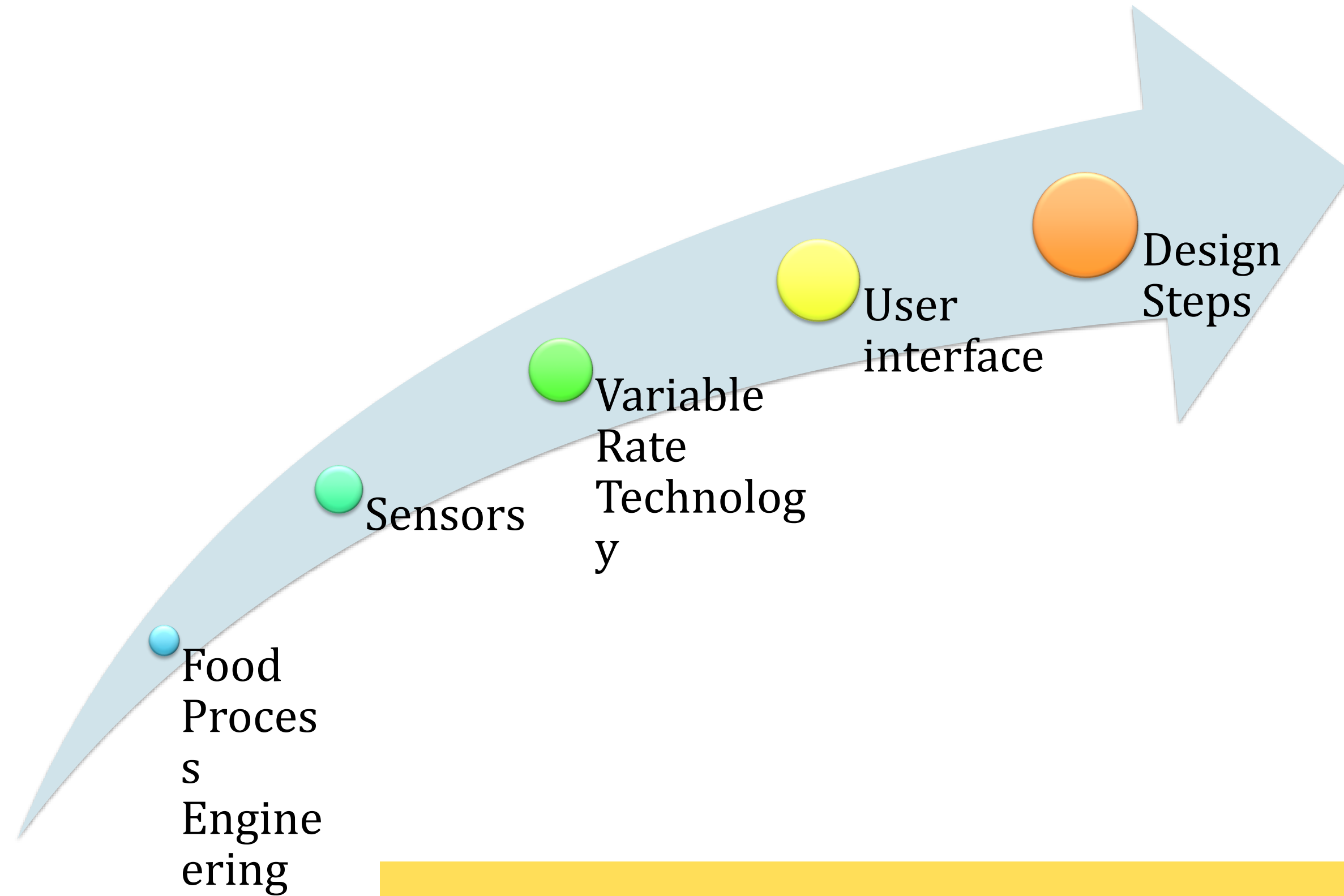
**II – YEAR IV SEMESTER**

**UNIT 4 – VARIABLE RATE TECHNOLOGY**

**TOPIC 3– Interface Design Steps and WebApp Interface Design**



# Last Class Review





# INTERFACE DESIGN STEPS !!!



- ❖ Once interface analysis has been completed, all tasks (or objects and actions) required by the end user have been identified in detail and the interface design activity commences.
- ❖ Interface design is an iterative process.
- ❖ Although many different user interface design models (e.g., have been proposed, all suggest some combination of the following steps:
  - Using information developed during interface analysis define interface objects and actions (operations).
  - Define events (user actions) that will cause the state of the user interface to change. Model this behavior.
  - Depict each interface state as it will actually look to the end user.
  - Indicate how the user interprets the state of the system from information provided through the interface.



# Applying Interface Design Steps!!!



- ❖ The definition of interface objects and the actions that are applied to them is an important step in interface design.
- ❖ To accomplish this, user scenarios are parsed.
- ❖ That is, a use case is written. Nouns (objects) and verbs (actions) are isolated to create a list of objects and actions.
- ❖ Once the objects and actions have been defined and elaborated iteratively, they are categorized by type.
- ❖ Target, source, and application objects are identified.
- ❖ A source object (e.g., a report icon) is dragged and dropped onto a target object (e.g., a printer icon).
- ❖ When you are satisfied that all important objects and actions have been defined (for one design iteration), screen layout is performed.
- ❖ Like other interface design activities, screen layout is an interactive process in which graphical design and placement of icons, definition of descriptive screen text, specification and titling for windows, and definition of major and minor menu items are conducted.



# User Interface Design Patterns



- ❖ Graphical user interfaces have become so common that a wide variety of user interface design patterns has emerged.
- ❖ As an example of a commonly encountered interface design problem, consider a situation in which a user must enter one or more calendar dates, sometimes months in advance.
- ❖ A vast array of interface design patterns has been proposed over the past decade.





# Design Issues



- ❖ As the design of a user interface evolves, four common design issues almost always surface: system response time, user help facilities, error information handling, and command labeling
  - Response time
  - Help facilities
  - Error handling
  - Menu and command labeling
  - Application accessibility
  - Internationalization





# WEBAPP INTERFACE DESIGN

- ❖ WebApp interface need to answer three primary questions for the end user:
- ❖ Where am I? The interface should (1) provide an indication of the WebApp that has been accessed and (2) inform the user of her location in the content hierarchy.
- ❖ What can I do now? The interface should always help the user understand his current options—what functions are available, what links are live, what content is relevant?
- ❖ Where have I been, where am I going? The interface must facilitate navigation. Hence, it must provide a “map” of where the user has been and what paths may be taken to move elsewhere within the WebApp. An effective WebApp interface must provide answers for each of these questions as the end user navigates through content and functionality.



# Interface Design Principles and Guidelines....

- ❖ The user interface of a WebApp is its “first impression.” Because of the sheer volume of competing WebApps in virtually every subject area, the interface must “grab” a potential user immediately.
- ❖ Effective interfaces do not concern the user with the inner workings of the system.
- ❖ Effective applications and services perform a maximum of work, while requiring a minimum of information from users.
- ❖ The designer of the WebApp should anticipate that the user might request a download of the driver and should provide navigation facilities that allow this to happen without requiring the user to search for this capability.





**See You at Next Class!!!!**