

# Certificate Program in User Experience Design and Testing

## Module 1: Principles of Usability

- Understanding the User and the Domain
- Detailing information on the User Environment
- Defining the User Persona and characteristics
- User Tasks and Scenarios for completion of work

## Module 2: Data and its display

- Sources of Data and its authenticity
- Data security and validation
- Display methods – charts, maps, dashboards
- Multimode, Multi dimension displays and when to use what

## Module 3: Nature of data and Information Architecture

- Treating data as organic and planning for its growth
- Evaluation of data growth and planning for performance
- Scalability plan considerations
- Preparing an overall information flow and architecture

## Module 4: Colors, Words and Workflows

- Theory of colors and Human Factors in Interaction Design
- Typefaces and Letter dimensions for display
- Data display decision making: input control, slicing data, drills, charting, reports
- Status,Alert indicators and Notifications
- System support notifications – tool tips, mouse over, scroll bar displays etc
- Preparing for future workflows with pervasive Internet of Things (IoT)

## Module 5 : Need analysis of the audience

- Stated and unstated needs of the target user
- Validating needs by early usability testing
- Testing via the web and in situ

## Module 6: Interpreting usefulness of information

- Sifting information received from users
- Translating user information to clear instructions for product developers and testers
- Learning to balance user information with technology constraints
- Methods to convert user need to UI screens and workflows
- Identifying possible error conditions and how to communicate the same via pop ups, status lines, icons etc

## Module 7: Analyzing user psychology and physiology

- Traits of a typical target user – mindset, experience
- Human factors - how the sense organs respond to stimulus
- Design incorporating human physiology
- Aberrations in human physiology based on handicap and age and how to address in design

#### Module 8: Identify functionality and design flaws

- Techniques to validate functionality – review and testing methods
- Identifying root causes for misalignment of user experience and product design
- Learning from mistakes and incorporating lessons to enable better design
- Internationalization by design

#### Module 9: Application of Learning into Practice

- Typical user persona in the target industry
- Usability audit of existing products
- Preparation of contextual user scenarios and diagrams using SDK and or prototyping tools
- Preparation of Usability Test Scripts and Sample prototypes to conduct such tests

#### Module 10: Project work in Industry