MCA-479 Designing Interactions (3 Credit Hours)

Course Objectives

1. In order to design interactive technologies, it is necessary to understand how people interact with, understand and experience technologies, and how people relate to each other through and with technologies. This course will give student extensive practical and theoretical understanding of designing for human interaction with interactive systems. Students will investigate practical interaction with technology in a variety of contexts; with robots; with the internet of things; in developing countries; in game and leisure environments; in health and therapy environments; in service and work environments, in public and mobile environments etc. By studying, applying theory and prototyping a design in these contexts, students will learn to build their own theory and course of practical action for design in emerging technology environments.

Learning Outcomes

2. On completion of this unit, students should be able to:
    a. Understand existing theoretical frameworks for studying people and technology in context.
    b. Develop your own design method to suit a particular context.
    c. Develop a theory of action and a technology design concept to suit a particular context.
    d. Develop a way to evaluate your theory and your design for a particular context.
    e. Understand in detail the terms utility, usability, user-centred design and user experience within the context of interaction design and be aware of the ways in which application of these terms influences interaction design processes.

3. **Contents**
    a. Introduction to interaction and experience design.
    b. Theories and concepts of human-computer interaction (HCI) and computer-supported cooperative work (CSCW).
    c. Knowledge of basic principles of usability, user-centred design and prototyping.
    d. Refined and advanced understandings of interaction and participation will be developed through reading, contextual study, design and evaluation.

e. Advanced and exploratory fieldwork methods will be investigated.
f. Current and emerging interaction paradigms are discussed, including the internet of things, human-robot interaction, embodied interaction, participatory design in developing countries, cultural perspectives.

References

1. Randall, David, Richard Harper, and Mark Rouncefield. Fieldwork for Design: Theory and Practice. Springer, 2007.
2. lirisku, S., & Buur, J. (2007). Designing with Video. Springer-Verlag London Limited.
   Paul Dourish. Where the Action is: The Foundations of Embodied Interaction. MIT press, 2004.
   Dourish, Paul, and Genevieve Bell. Divining a Digital Future: Mess and Mythology in Ubiquitous Computing. Mit Press, 2011.
3. oggridge, Bill, and Gillian Crampton Smith. Designing Interactions. Vol. 17. Cambridge: MIT press, 2007.

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