TIF21-31-48

Human Computer Interaction

Interaksi Manusia dan Komputer

BASIC INFORMATION

Course Credit	3 / 150 minutes per Week
Course Type	Required
Course Classification	Engineering Topics
Prerequisites	-

STUDENT AND LEARNING OUTCOMES

Covered Student Outcomes

Development of Engineering Solution (b)	Knowledge Contemporary and Issues (f)
Engineering Design (c)	Engineering Awareness and Society (j)

Learning Outcomes

LO1 Able to distinguish between interactive and passive applications, as well as the historical context of the emergence of the scientific field of human and computer interaction.

LO2 Understand the different types of interfaces and types of interactions that can be done with those interfaces, as well as the research challenges faced by different types of interfaces.

LO3 Understand the basics of behavioral research-based research.

LO4 Understand the methods of qualitative and quantitative analysis for user behavior-based research.

LO5 Student able to collaborate to execute experimental research and design.

COURSE DESCRIPTION

Understanding the concept of human and computer interaction through a variety of interfaces and factors that affect the interaction (human factor).

TOPICS

1. History and introduction of human and computer interaction.
2. Human factors that affect human and computer interactions (human factors).
3. 3D interface (3D user interfaces), virtual technology and augmented reality and implementation.
4. Experimental research (experimental research) and experimental design
5. Qualitative and quantitative analysis methods for human and computer interaction research.

REFERENCES

[1] I.S. MacKenzie, *Human-Computer Interaction: An Empirical Research Perspective*, Morgan Kaufmann, Massachussets, 2013.

[2] I. Poupyrev, J. J. LaViola Jr., E. Kruijff, D. A. Bowman, *3D User Interfaces: Theory and Practices*, Addison-Wesley, Massachussets, 2004.

[3] J. Lazar, J. Feng, H. Hochheiser, R*esearch Methods in Human-Computer Interaction*, Wiley, West Sussex, 2004.