USABILITY ENGINEERING

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INTENDED AUDIENCE : B.Tech, B.Des, BCA, M.Tech, M.Des, MCA.
INDUSTRIES APPLICABLE TO : All software industries, Robotics Industries, Industrial Design Industries,MSME

COURSE OUTLINE :
Rapid growth of Information and Communication technologies has given opportunities to various startups, to introduce smart products/applications in our ecosystem. In the era of globalization, competition across startups, specifically products are huge and if any start up or product fails to attract loyal consumer base, it is doomed to collapse. In order to ensure enhanced consumer interaction and their loyalty, aspects of human factors need to be engineered into these products. This is where Usability Engineering comes into existence. Usability focuses on qualitative and quantitative aspects of effectiveness, efficiency and satisfaction with which specified users achieve specified goals in particular environments. This is a detailed basic level course that would focus on users psycho social and cognitive parameters, frameworks to capture and identify consumer/users individual parameters and ways to design and conceptualize functional products around them.

ABOUT INSTRUCTOR :
Prof. Debayan Dhar is currently an Assistant Professor at the Department of Design and is associated with the Usability Engineering and HCI Lab. Dr. Debayan Dhar specializes in the area of Usability Engineering and Human Computer Interaction Design. His current research focuses on Psychological Studies in Design, Creativity and Innovation, Design Methods, Instructional design, individual differences in technology adoption, Social cognition, web semantics, Application of AI and ML in Design and Design frameworks.

COURSE PLAN :

Week 1: Introduction to Usability Engineering

Week 2: Usability in Software Development

Week 3: User Centered design processes

Week 4: Requirement Analysis-I

Week 5: Requirement Analysis-II

Week 6: Requirement Analysis- III

Week 7: Cognitive issues

Week 8: Competitive Analysis and Preparing for Design Briefing

Week 9: Conceptualization and Prototyping-I

Week 10: Conceptualization and Prototyping-II

Week 11: Usability Heuristics and Testing-I

Week 12: Usability Heuristics and Testing-II