



National Institute of Technology Meghalaya

An Institute of National Importance

CURRICULUM

	National Institute of Technology Meghalaya An Institute of National Importance	CURRICULUM														
Programme	Bachelor of Technology in Computer Science and Engineering	Academic Year of Regulation 2018-19														
Department	Computer Science and Engineering	Semester VIII														
Course Code	Course Name	Credit Structure	Marks Distribution													
		L	T	P	C	INT	MID	END	Total							
CS430	Human Computer Interaction	3	0	0	3	50	50	100	200							
Course Objectives	This course introduces the concept of human computer interaction.	Course Outcomes	CO1	Able to acquire knowledge about the basic concept on human computer interaction.												
	This course illustrates the various software process and design of human computer interaction.		CO2	Able to acquire knowledge about the design of human computer interaction and its software process.												
	This course describes the various existing models of interacting human with computer.		CO3	Able to acquire knowledge about the various models and theories on human computer interaction.												
	This course explains the designing of human computer interaction using mobile and web interface.		CO4	Able to design the human computer interaction using the mobile platforms.												
			CO5	Able to design the human computer interaction in web interface.												
No.	COs	Mapping with Program Outcomes (POs)												Mapping with PSOs		
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	CO1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	1
2	CO2	3	3	-	-	-	-	-	-	2	-	-	-	3	3	1
3	CO3	3	3	2	1	1	1	-	-	2	-	-	-	3	3	2
4	CO4	3	3	2	2	1	2	2	-	2	-	-	1	3	3	2
5	CO5	3	3	2	2	1	2	2	-	2	-	-	1	3	3	3
SYLLABUS																
No.	Content													Hours	COs	
I	Introduction The Human: I/O channels – Memory – Reasoning and problem solving; The computer: Devices – Memory – processing and networks; Interaction: Models – frameworks – Ergonomics – styles – elements – interactivity- Paradigms.													06	CO1	
II	Design of Human Computer Interaction and the Software Process Interactive Design basics – process – scenarios – navigation – screen design – Iteration and prototyping. HCI in software process – software life cycle – usability engineering – Prototyping in practice – design rationale. Design rules – principles, standards, guidelines, rules. Evaluation Techniques – Universal Design													07	CO2	
III	Models and Theories Cognitive models –Socio-Organizational issues and stake holder requirements – Communication and collaboration models-Hypertext, Multimedia and WWW.													07	CO3	
IV	Mobile Human Computer Interaction Mobile system: Platforms, Application frameworks- Types of Mobile Applications: Widgets, Applications, Games- Mobile Information Architecture, Mobile 2.0, Mobile Design: Elements of Mobile Design, Tools.													08	CO4	
V	Web Interface Design Designing Web Interfaces – Drag & Drop, Direct Selection, Contextual Tools, Overlays, Inlays and Virtual Pages, Process Flow. Case Studies.													08	CO5	
Total Hours													36			
Essential Readings																
1. Alan Dix, Janet Finlay, Gregory Abowd, Russell Beale, “Human Computer Interaction”, 3 rd Edition, Pearson Education, 2004																
2. Brian Fling, “Mobile Design and Development”, 1 st Edition , O’Reilly Media Inc., 2009																
3. Bill Scott and Theresa Neil, “Designing Web Interfaces”, 1 st Edition, O’Reilly, 2009																
Supplementary Readings																
1. K. Meena and R. Sivakumar, “Human-Computer Interaction”,Prentice Hall India, 1 st Edition,2014																
2. Mike van Drongelen, Adam Dennis, Richard Garabedian, Alberto Gonzalez, Aravind Krishnaswamy “Lean Mobile App Development”, O’Reilly 1 st Edition, 2017.																
3. Jenifer Tidwell, Charles Brewer, Aynne Valencia, “Designing Interfaces”, O’Reilly Media, Inc., 3 rd Edition, 2020																