

INDIAN INSTITUTE OF TECHNOLOGY TIRUPATI भारतीय प्रौद्योगिकी संस्थान तिरुपति

Yerpedu-Venkatagiri Road, Yerpedu Post, Tirupati District, Andhra Pradesh - 517 619

1.	Title of the course	Responsible Computing for Society
2.	Course number	CS545L
3.	Structure of credits (L-T-P-C)	1-0-0-1
4.	New course/modification to	New
5.	To be offered by	Computer Science and Engineering
6.	Proposed by	SRIDHAR CHIMALAKONDA
7.	Prerequisite	СоТ
8.	Course Objective(s): To discuss the current state, opportunities and challenges of computing research for society and to prototype innovative software solutions for societal challenges.	
9.	Course Content: Societal challenges from the lens of computing research; Case studies of artificial intelligence (AI) and software for social impact; Pitfalls of computing research and technologies for society; Framing societal challenges as computing problems; Domain analysis; Overview of AI and Non-AI approaches focusing on their strengths and weaknesses in the context of societal challenges; Ethics; DPDP Act; Prototyping and evaluation.	
10.	Textbook(s): 1. Dodhia R, AI for Social Good: Using Artificial Intelligence to Save the World, John Wiley & Sons (2024).	
11.	Reference(s): 1. Winters T, Manshreck T and Wright H, Software Engineering at Google: Lessons Learned From Programming Over Time, O'Reilly Media (2020). 2. Coeckelbergh M, AI Ethics, MIT Press (2020).	