VELAMMAL COLLEGE OF ENGINEERING & TECHNOLOGY, MADURAI-625 009
(Autonomous)
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
2023-2024 ODD SEMESTER

COURSE PLAN

Degree	B.E-CSE
Course Code-Title	21PCS25 -ETHICS AND ARTIFICIAL INTELLIGENCE
Batch	2021-2025
Year/Semester/section	III/V/ B
Course Component	Professional Elective
Name of the Instructor	Ms.J.Shanthalakshmi Revathy

Session No	Topics to be covered	Text/Reference Book Page No.	Mode of Delivery	Teaching Aid	No. of Hours	Cumulative No. of Hours
UNIT I INTRODUCTION TO ETHICS AND AI
	Dissemination and Explanation of vision, Mission(Institute & Dept),PEO,PO,Course Objective,CO					
1.	Role of Artificial Intelligence in Human Life	T1(3-26)	L+D	BB	1	1
2.	Understanding Ethics	T1(27-52),W1	L+D	BB	1	2
3.	Why Ethics in AI	T2(1-4) R1(6-20),W1	L+D	BB,LCD	1	3
4.	Ethical Considerations of AI		L+D	BB	1	5
5.	Current Initiatives in AI and Ethics		L+D	BB,LCD	1	7
6.	Ethical Issues with our relationship with artificial Entities	T1(53-76)	L+D	BB	1	9
UNIT II FRAMEWORK AND MODELS
7.	AI Governance by Human-right centered design	T1(77-106)	L+D	BB	3	12
8.	Normative models	T1(125-140)	L+D	BB	2	14
9.	Role of professional norms	T1(141-162)	L+D	BB	2	16
10.	Teaching Machines to be Moral.	T1(163-180)	L+D	BB	2	18
UNIT III CONCEPTS AND ISSUES
11.	Accountability in Computer Systems	T1(181-196)	L+D	BB	2	20
12.	Transparency	T1(197-214)	L+D	BB	1	21

13.	Responsibility and AI	T1(215-232)	L+D	BB	2	23
14.	Race and Gender	T1(253-270)	L+D	BB	2	25
15.	AI as a moral right-holder.	T1(289-306)	L+D	BB	2	27
UNIT IV PERSPECTIVES AND APPROACHES						
16.	Perspectives on Ethics of AI	T1(421-442)	L+D	BB,LCD	1	28
17.	Integrating ethical values and economic value	T1(475-492)	L+D	BB,LCD	2	30
18.	Automating origination	T1(521-538)	L+D	BB,LCD	1	31
19.	AI a Binary approach	T3(327-341) R2(4-20)	L+D	BB,LCD	2	33
20.	Machine learning values	T3(413-438)	L+D	BB,LCD	2	35
21.	Artificial Moral Agents.	T3(480-504)	L+D	BB,LCD	1	36
UNIT V CASES AND APPLICATION						
22.	Ethics of Artificial Intelligence in Transport	T1(669-684)	L+D	BB, LCD	1	37
23.	Ethical AI in Military	T1(685-702)	L+D	BB, LCD	1	38
24.	Biomedical research	T11(703-718)	L+D	BB, LCD	1	39
25.	Patient Care		L+D	BB, LCD	1	40
26.	Public Health		L+D	BB, LCD	1	41
27.	Robot Teaching	T1(789-804) R3(50-70)	L+D	BB, LCD	1	42
28.	Pedagogy		L+D	BB, LCD	1	43
29.	Policy		L+D	BB, LCD	1	44
30.	Smart City Ethics	T1(823-840)	L+D	BB, LCD	1	45

TEXT BOOK(S):

T1. Markus D. Dubber, Frank Pasquale, Sunit Das, "The Oxford Handbook of Ethics of AI", 1st Edition, Oxford University Press, 2020

T2. Paula Boddington, "Towards a Code of Ethics for Artificial Intelligence", 1st Edition, Springer, 2018

T3. S. Matthew Liao, "Ethics of Artificial Intelligence", 1st Edition, Oxford University Press, 2020

REFERENCES:

R1. N. Bostrom and E. Yudkowsky. "The ethics of artificial intelligence". In W. M. Ramsey and K. Frankish, editors, The Cambridge Handbook of Artificial Intelligence. Cambridge University Press, Cambridge, 2014.

R2. Wallach, W., & Allen, C, "Moral machines: Teaching Robots right from wrong". 1st Edition, Oxford University Press, 2010.

R3. Mark Coeckelbergh, "AI Ethics", 1st Edition, MIT Press, 2020

WEB MATERIALS:

W1: https://www.kaggle.com/learn/intro-to-ai-ethics

Course In charge/Course Coordinator

Module Coordinator

HoD/CSE