LECTURE PLAN

Institute/Department	UNIVERSITY INSTITUTE OF ENGINEERING (UIE)	**Program**	**Bachelor of Engineering (Computer Science and Engineering) (Hons.) (with Specialization in Artificial Intelligence and Machine Learning) (In association with IBM)(CS221)**
Master Subject Coordinator Name:	Kirti	**Master Subject Coordinator E-Code**:	**E16189**
Course Name	Security and Data Privacy Laws and Standards	**Course Code**	**21CST-433**

Lecture	Tutorial	Practical	Self Study	Credit	Subject Type
3	0	0	0	3.0	T

Course Type	Course Category	Mode of Assessment	Mode of Delivery
Major Elective	Graded (GR)	Theory Examination (ET)	Theory (TH)

Mission of the Department	M1: To provide relevant, rigorous and contemporary curriculum and aligned assessment system to ensure effective learning outcomes for engineering technologies. M2: To provide platform for industry engagement aimed at providing hands-on training on advanced technological and business skills to our students. M3: To provide opportunities for collaborative, interdisciplinary and cutting-edge research aimed at developing solutions to real life problems M4: To imbibe quest for innovation, continuous learning and zeal to pursue excellence through hard work and problem-solving approach M5: To foster skills of leadership, management, communication, team spirit and strong professional ethics in all academic and societal endeavors of our students
Vision of the Department	To be recognized as a centre of excellence for Computer Science & Engineering education and research, through effective teaching practices, hands-on training on cutting edge computing technologies and excellence in innovation, for creating globally aware competent professionals with strong work ethics whom would be proficient in implementing modern technology solutions and shall have entrepreneurial zeal to solve problems of organizations and society at large.

Program Educational Objectives(PEOs)	
PEO1	To be able to explore areas of research, technology application & innovation and make a positive impact in different types of institutional settings such as corporate entities, government bodies, NGOs, inter-government organizations, & start-ups.
PEO2	To be able to design, and implement technology and computing solutions to organizational problems, effectively deploy knowledge of engineering principles, demonstrate critical thinking skills & make the intellectual connections between quantitative and qualitative tools, theories, and context to solve the organizational problems
PEO3	To be able to work with, lead & engage big and small teams comprising diverse people in terms of gender, nationality, region, language, culture & beliefs. To understand stated and unstated differences of views, beliefs & customs in diverse & interdisciplinary team settings
PEO4	To be able to continuously learn and update one's knowledge, engage in lifelong learning habits and acquire latest knowledge to perform in current work settings
PEO5	To continuously strive for justice, ethics, equality, honesty, and integrity both in personal and professional pursuits. Able to understand and conduct in a way that is responsible and respectful.

Program Specific OutComes(PSOs)	
PSO1	1. The graduate student shall be able to analyse and make valuable contributions in the design, development, and production of computer science and related engineering applications in the areas of Artificial intelligence and Machine learning.
PSO2	2. The graduate student shall be able to use the latest software tools and technologies related to Artificial intelligence and Machine learning and ability to practice as an engineer/researcher in the evolving field of AI and ML and its allied application domains by employing project
PSO3	3. The graduate student shall be able to analyse and exhibit proficiency in Artificial Intelligence and Data Analytics for providing solutions to real-world problems in Industry and Research establishments.

Program OutComes(POs)	
PO1	Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.
PO2	Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.
PO3	Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety and the cultural, societal, and environmental considerations.
PO4	Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of the information to provide valid conclusions.
PO5	Create, select, and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
PO6	Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8	Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO11	Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as member and leader in a team, to manage projects and in multidisciplinary environments.
PO12	Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context to technological change.

Text Books					
Sr No	Title of the Book	Author Name	Volume/Edition	Publish Hours	Years
1	Cyber Crime and Law Enforcement	V. D. Dudeja	1st Edition	Commonwealth Publishers	2003
2	IT Auditing: Using Controls to protect Information Assets	C. Davis	1st Edition	TMH	2011
3	Cybersecurity and Cyberlaw	Pavan Duggal	1st Edition	Springer	2019
4	The Data Governance Imperative: A Business Strategy for Corporate Data	Steve Sarsfield	1st Edition	IT Governance Publishing	2009
5	Guide to the General Data Protection Regulation (GDPR): A Comprehensive Guide	Maciej Gawronski	1st Edition	Kluwer Law International	2019

Reference Books					
Sr No	Title of the Book	Author Name	Volume/Edition	Publish Hours	Years
1	Data Privacy Law: A Practical Guide	G.E. Kennedy & L.S.P. Prabhu	2nd Edition	Interstice	2017
2	HIPAA: A Practical Guide to the Privacy and Security of Health Data	June M. Sullivan & Shannon B. Hartsfield	2nd Edition	American Bar Association	2020
3	Computer Security: Principles and Practice	William Stallings and Lawrie Brown	4th Edition	Pearson	2018
4	Understanding Privacy	Daniel J. Solove	1st Edition	Harvard University Press	2008

Course OutCome	
SrNo	OutCome
CO1	Describe the legal requirements for the use of trusted data, data collection, and storage
CO2	Analyze technology system vulnerabilities and related exploitations
CO3	Analyze cybercriminal and deviant behaviors from alternative theoretical perspectives and apply these perspectives to practical scenarios
CO4	Comprehend and execute risk management processes, risk treatment methods, and critical risk and performance indicators
CO5	Design and develop a security architecture for an organization

Lecture Plan Preview-Theory

Unit No	LectureNo	ChapterName	Topic	Text/ Reference Books	Pedagogical Tool**	Mapped with CO Numer (s)
1	1	Administrating Security	Introduction to Trusted System	T-Cyber Crime and Law Enforcemen	PPT	CO1
1	2	Administrating Security	Trusted Operating System Design	,T-IT Auditing: Using Controls to,R-HIPAA: A Practical Guide to th	PPT	CO1
1	3	Administrating Security	Assurance in the Trusted Operating System	,T-Cyber Crime and Law Enforcemen,R-Data Privacy Law: A Practical	PPT	CO1
1	4	Administrating Security	Essentials of Trusted Operating System	,T-IT Auditing: Using Controls to,R-HIPAA: A Practical Guide to th	PPT	CO2
1	5	Administrating Security	Essentials of Trusted Operating System	,T-Cyber Crime and Law Enforcemen,T-IT Auditing: Using Controls to,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th	Flipped Classes,PPT	CO2
1	6	Designing Trusted Operating Systems	Security Planning	,T-Cyber Crime and Law Enforcemen,R-HIPAA: A Practical Guide to th	Flipped Classes,PPT	CO3
1	7	Designing Trusted Operating Systems	Risk Analysis	,T-Cyber Crime and Law Enforcemen,T-IT Auditing: Using Controls to,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th	Case Study,PPT	CO4
1	8	Designing Trusted Operating Systems	Organization and Security Policies	,T-Cyber Crime and Law Enforcemen,T-IT Auditing: Using Controls to,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th	Flipped Classes,PPT	CO3
1	9	Designing Trusted Operating Systems	Physical Security	,T-Cyber Crime and Law Enforcemen,T-IT Auditing: Using Controls to,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th	Flipped Classes,PPT	CO2
1	10	Legal, Privacy and Ethical Issues in Computer	Protecting Programs and Data	,T-Cyber Crime and Law Enforcemen,T-IT Auditing: Using Controls to,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th	Flipped Classes,PPT	CO2
1	11	Legal, Privacy and Ethical Issues in Computer	Information and Law	,T-Cyber Crime and Law Enforcemen,T-IT Auditing: Using Controls to,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th	Flipped Classes,PPT	CO2

1	12	Legal, Privacy and Ethical Issues in Computer	Rights of Employer Security	,T-Cyber Crime and Law Enforcemen,T-IT Auditing: Using Controls to,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th	PPT	CO2
1	13	Legal, Privacy and Ethical Issues in Computer	Rights of Employer Security	,T-Cyber Crime and Law Enforcemen,T-IT Auditing: Using Controls to,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th	Flipped Classes,PPT	CO2
1	14	Legal, Privacy and Ethical Issues in Computer	Case Study Ethics (DOS Attack) D-DOS	,T-Cyber Crime and Law Enforcemen,T-Cybersecurity and Cyberlaw,T-Guide to the General Data Prot,T-IT Auditing: Using Controls to,T-The Data Governance Imperative,R-Computer Security: Principles ,R-Data Privacy Law: A Practical	Case Study	CO3
1	15	Legal, Privacy and Ethical Issues in Computer	Case Study Ethics (Security)	,T-Cybersecurity and Cyberlaw,T-IT Auditing: Using Controls to,R-Computer Security: Principles ,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th	Case Study,Flipped Classes,PPT	CO3
2	16	Cyber Fraud and Electronic Misuse	Introduction to Cyber Fraud	,T-Cyber Crime and Law Enforcemen,T-Cybersecurity and Cyberlaw,T-Guide to the General Data Prot,T-IT Auditing: Using Controls to,T-The Data Governance Imperative,R-Computer Security: Principles ,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th,R-Understanding Privacy	PPT	CO3
2	17	Cyber Fraud and Electronic Misuse	Cyber Fraud and Electronics Misuse	,T-Cyber Crime and Law Enforcemen,T-Cybersecurity and Cyberlaw,T-Guide to the General Data Prot,T-IT Auditing: Using Controls to,T-The Data Governance Imperative,R-Computer Security: Principles ,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th,R-Understanding Privacy	PPT	CO3
2	18	Cyber Fraud and Electronic Misuse	Other Technologies for Hiding Evidence	,T-Cyber Crime and Law Enforcemen,T-Cybersecurity and Cyberlaw,T-Guide to the General Data Prot,T-IT Auditing: Using Controls to,T-The Data Governance Imperative,R-Computer Security: Principles ,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th,R-Understanding Privacy	PPT	CO3
2	19	Cyber Fraud and Electronic Misuse	Concealing Crimes Through Anonymity	,T-Cyber Crime and Law Enforcemen,T-Cybersecurity and Cyberlaw,T-Guide to the General Data Prot,T-IT Auditing: Using Controls to,T-The Data Governance Imperative,R-Computer Security: Principles ,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th,R-Understanding Privacy	PPT	CO3

2	20	Data protection for system designers	Evaluation Criteria and Security Testing	,T-Cyber Crime and Law Enforcemen,T-Cybersecurity and Cyberlaw,T-Guide to the General Data Prot,T-IT Auditing: Using Controls to,T-The Data Governance Imperative,R-Computer Security: Principles ,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th,R-Understanding Privacy	PPT	CO4
2	21	Data protection for system designers	Analysis and Logging	,T-Cyber Crime and Law Enforcemen,T-IT Auditing: Using Controls to,R-Computer Security: Principles ,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th,R-Understanding Privacy	PPT	CO3
2	22	Data protection for system designers	Security Policy Development	,T-Cyber Crime and Law Enforcemen,T-Cybersecurity and Cyberlaw,T-Guide to the General Data Prot,T-IT Auditing: Using Controls to,T-The Data Governance Imperative,R-Computer Security: Principles ,R-Data Privacy Law: A Practical	PPT	CO3
2	23	Security Models	Framework	,T-Cyber Crime and Law Enforcemen,T-Cybersecurity and Cyberlaw,T-Guide to the General Data Prot,T-IT Auditing: Using Controls to,T-The Data Governance Imperative,R-Computer Security: Principles ,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th,R-Understanding Privacy	PPT	CO4
2	24	Security Models	Security Standards	,T-Cyber Crime and Law Enforcemen,T-Cybersecurity and Cyberlaw,T-Guide to the General Data Prot,T-IT Auditing: Using Controls to,T-The Data Governance Imperative,R-Computer Security: Principles ,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th,R-Understanding Privacy	PPT	CO4
2	25	Security Models	Security Certification	,T-Cyber Crime and Law Enforcemen,T-Cybersecurity and Cyberlaw,T-Guide to the General Data Prot,T-IT Auditing: Using Controls to,T-The Data Governance Imperative,R-Computer Security: Principles ,R-Data Privacy Law: A Practical	PPT	CO3
2	26	Security Models	System Security Engineering Capability Maturity Model	,T-Cyber Crime and Law Enforcemen,T-Cybersecurity and Cyberlaw,T-Guide to the General Data Prot,T-IT Auditing: Using Controls to,T-The Data Governance Imperative,R-Computer Security: Principles ,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th,R-Understanding Privacy	PPT	CO5

2	27	Security Models	Laws and Legal Framework for Information Security	,T-Cyber Crime and Law Enforcemen,T-Cybersecurity and Cyberlaw,T-Guide to the General Data Prot,T-IT Auditing: Using Controls to,T-The Data Governance Imperative,R-Computer Security: Principles ,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th,R-Understanding Privacy	PPT	CO3
2	28	Security Models	Recovery and Risk Analysis	,T-Cybersecurity and Cyberlaw,T-IT Auditing: Using Controls to,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th	PPT	CO3
2	29	Security Models	Operating System Application-Specific Auditing	,T-Cyber Crime and Law Enforcemen,T-Cybersecurity and Cyberlaw,T-Guide to the General Data Prot,T-IT Auditing: Using Controls to,T-The Data Governance Imperative,R-Computer Security: Principles ,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th,R-Understanding Privacy	PPT	CO3
2	30	Security Models	Operating System Application-Specific Auditing	,T-Cyber Crime and Law Enforcemen,T-Cybersecurity and Cyberlaw,T-Guide to the General Data Prot,T-IT Auditing: Using Controls to,T-The Data Governance Imperative,R-Computer Security: Principles ,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th,R-Understanding Privacy	Flipped Classes,PPT	CO3
3	31	IT Act 2000 & IT Amendment Act 2008	Introduction to Digital Signature	,T-Cyber Crime and Law Enforcemen,T-Cybersecurity and Cyberlaw,T-Guide to the General Data Prot,T-IT Auditing: Using Controls to,T-The Data Governance Imperative,R-Computer Security: Principles ,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th,R-Understanding Privacy	PPT	CO3
3	32	IT Act 2000 & IT Amendment Act 2008	Secure Electronic Records and Secure Digital Signatures	,T-Cyber Crime and Law Enforcemen,T-Cybersecurity and Cyberlaw,T-Guide to the General Data Prot,T-IT Auditing: Using Controls to,T-The Data Governance Imperative,R-Computer Security: Principles ,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th,R-Understanding Privacy	PPT	CO3
3	33	IT Act 2000 & IT Amendment Act 2008	Digital Signature Certificates	,T-Cyber Crime and Law Enforcemen,T-IT Auditing: Using Controls to,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th	PPT	CO3
3	34	IT Act 2000 & IT Amendment Act 2008	Offences Covered Under IT Act 2000	,T-Cyber Crime and Law Enforcemen,T-IT Auditing: Using Controls to,R-Computer Security: Principles ,R-Data Privacy Law: A Practical	PPT	CO4

3	35	IT Act 2000 & IT Amendment Act 2008	Offences Covered Under IT Act 2000	,T-Cyber Crime and Law Enforcemen,T-Cybersecurity and Cyberlaw,T-Guide to the General Data Prot,T-IT Auditing: Using Controls to,T-The Data Governance Imperative,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th	PPT	CO4
3	36	IT Act 2000 & IT Amendment Act 2008	Major Amendments in IT Act	,T-Cybersecurity and Cyberlaw,T-IT Auditing: Using Controls to,R-Computer Security: Principles ,R-HIPAA: A Practical Guide to th	PPT	CO3
3	37	Understanding Copy Right in Information Technology	Understanding the Technology of Software	,T-Cyber Crime and Law Enforcemen,T-Cybersecurity and Cyberlaw,T-Guide to the General Data Prot,T-IT Auditing: Using Controls to,T-The Data Governance Imperative,R-Computer Security: Principles ,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th,R-Understanding Privacy	PPT	CO3
3	38	Understanding Copy Right in Information Technology	Software-Copyright vs Patent debate authorship	,T-Cyber Crime and Law Enforcemen,T-Cybersecurity and Cyberlaw,T-Guide to the General Data Prot,T-IT Auditing: Using Controls to,T-The Data Governance Imperative,R-Computer Security: Principles ,R-Understanding Privacy	PPT	CO3
3	39	Understanding Copy Right in Information Technology	Assignment issues commissioned work	,T-Guide to the General Data Prot,T-The Data Governance Imperative,R-Computer Security: Principles ,R-Understanding Privacy	PPT	CO3
3	40	Understanding Copy Right in Information Technology	Work for hire Idea/Expression dichotomy	,T-Cyber Crime and Law Enforcemen,T-Cybersecurity and Cyberlaw,T-Guide to the General Data Prot,T-IT Auditing: Using Controls to,T-The Data Governance Imperative,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th	PPT	CO3
3	41	Understanding Copy Right in Information Technology	Copyrights on the Internet	,T-Cyber Crime and Law Enforcemen,T-Cybersecurity and Cyberlaw,T-Guide to the General Data Prot,T-IT Auditing: Using Controls to,T-The Data Governance Imperative,R-Computer Security: Principles ,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th,R-Understanding Privacy	PPT	CO3
3	42	Understanding Copy Right in Information Technology	Copyright Infringe Remedies of Infringement Multimedia	,T-Cyber Crime and Law Enforcemen,T-Cybersecurity and Cyberlaw,T-Guide to the General Data Prot,T-IT Auditing: Using Controls to,T-The Data Governance Imperative,R-Computer Security: Principles ,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th,R-Understanding Privacy	Case Study,PPT	CO4
3	43	Understanding Copy Right in Information Technology	Copyright Issues	,T-Cybersecurity and Cyberlaw,T-Guide to the General Data Prot,T-The Data Governance Imperative,R-Computer Security: Principles ,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th	PPT	CO3

3	44	Understanding Copy Right in Information Technology	Software Piracy	,T-Cyber Crime and Law Enforcemen,T-Cybersecurity and Cyberlaw,T-Guide to the General Data Prot,T-IT Auditing: Using Controls to,T-The Data Governance Imperative,R-Computer Security: Principles ,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th,R-Understanding Privacy	PPT	CO4
3	45	Understanding Copy Right in Information Technology	Patent Understanding	,T-Cyber Crime and Law Enforcemen,T-Cybersecurity and Cyberlaw,T-Guide to the General Data Prot,T-IT Auditing: Using Controls to,T-The Data Governance Imperative,R-Computer Security: Principles ,R-Data Privacy Law: A Practical ,R-HIPAA: A Practical Guide to th,R-Understanding Privacy	PPT	CO5

Assessment Model			
Sr No	Assessment Name	Exam Name	Max Marks
1	20EU01	External Theory	60
2	20EU01	Assignment/PBL	10
3	20EU01	Attendance Marks	2
4	20EU01	Mid-Semester Test-1	20
5	20EU01	Quiz	4
6	20EU01	Surprise Test	12
7	20EU01	Mid-Semester Test-2	20

CO vs PO/PSO	PSO3	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	2	3	1	1	2	3	2	3	2	2	1	2	2
CO2	2	3	3	3	2	2	2	2	2	3	2	2	2	3	3
CO3	2	2	2	3	3	2	2	2	3	3	2	3	2	2	3
CO4	2	3	3	2	3	3	2	2	1	2	3	2	3	3	3
CO5	2	2	2	3	2	3	3	2	2	1	2	2	2	2	3
Target	2.2	2.4	2.4	2.8	2.2	2.2	2.2	2.2	2	2.4	2.2	2.2	2	2.4	2.8