CO-PO-PSO Mapping Table

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	2	1	1		2	1					3	3	2
CO2	3	3	2	3		2	1					3	3	2
CO3	3	2			3			1		2		3	3	3
CO4	3				2			1		3		3	3	2
CO5	3	3	3	3	2	2		2		3		3	3	3

CO-PO-PSO Mapping Justification

Mapping (CO-PO/PSO)	**Attainment**	**Justification**
CO1 – PO1	2	Students apply core computer-vision and deep-learning concepts (feature maps, convolution responses) to understand how content and style are represented; this moderately supports foundational engineering knowledge.
CO1 – PO2	2	Interpreting how feature correlations and loss terms affect outputs develops analytical skills in diagnosing model behaviour and reasoning about problem statements.
CO1 – PO3	1	Provides a basic awareness of network layer roles, such as which VGG layers capture texture

		versus semantics, offering only a slight link to system design understanding.
CO1 – PO4	1	Encourages small investigative exercises like observing the effects of loss tweaks or layer choices, creating an introductory connection to investigative methods.
CO1 – PO6	2	Raises moderately important ethical and societal considerations, including potential misuse and aesthetic bias, prompting students to reflect on such implications.
CO1 – PO7	1	Promotes a minor awareness of computational efficiency and lightweight model choices during experimentation, relating slightly to sustainability.
CO1 – PO12	3	Demands continuous reading of literature and hands-on experimentation, strongly supporting lifelong learning and staying current with methods.
CO1 – PSO1	3	Builds practical computer-vision and deep-learning skills, such as feature extraction and representation, which strongly support the program-specific outcome.
CO1 – PSO2	2	Helps students moderately relate neural methods to software and creative applications, for example applying models to produce stylized outputs.
CO2 – PO1	3	Requires strong mathematical and engineering grounding to analyse Gram matrices, inner-product computations, and spatial transforms.
CO2 – PO2	3	Demands high-level analytical and problem-solving skills to evaluate improved loss formulas and reason about their effects on visual artifacts.
CO2 – PO3	2	Translates analytical improvements into architectural choices or algorithmic changes, representing a moderate design-level activity.

CO2 – PO4	3	Involves systematic experimentation, ablation studies, and validation using metrics such as PSNR and SSIM, strongly supporting investigative competence.
CO2 – PO6	2	Considers ethical and societal implications of generated images, giving moderate emphasis to responsible use and potential harms.
CO2 – PO7	1	Shows slight awareness of sustainability concerns, such as computational costs during iterative experiments.
CO2 – PO12	3	Encourages the adoption of new loss ideas and recent literature, strongly supporting lifelong learning and continuous upskilling.
CO2 – PSO1	3	Strengthens core computer-vision and deep-learning skills through improved loss functions and experiments.
CO2 – PSO2	2	Moderately supports applying these research advances to real-world software and creative image tasks.
CO3 – PO1	3	Requires strong foundational deep-learning knowledge to implement NST with pretrained networks and manipulate feature maps.
CO3 – PO2	2	Involves selecting and adapting architectures or components, such as deciding which layers to use for content and style representation, which is a moderate design activity.
CO3 – PO5	3	Makes extensive use of machine learning frameworks and tools such as PyTorch or TensorFlow, strongly mapping to modern tool competency.
CO3 – PO8	1	Encourages ethical use of models and datasets, including respecting licenses and attribution, but this plays a limited role in implementation.

CO3 – PO10	2	Improves technical communication through documentation of implementation steps and explanations of technical workflows.
CO3 – PO12	3	Promotes continuous learning and iterative improvement through hands-on development and experimentation.
CO3 – PSO1	3	Builds professional competence in image-processing implementations expected in the program.
CO3 – PSO2	3	Strongly supports the creation of domain-specific software solutions, such as stylization modules, using AI methods.
CO4 – PO1	3	Relies on strong domain knowledge to interpret quantitative metrics like PSNR and SSIM and combine them with perceptual judgement.
CO4 – PO5	2	Uses analysis and visualization tools, such as plotting scripts and metric computation programs, to compare outputs
CO4 – PO8	1	Promotes limited ethical awareness, such as avoiding misrepresentation of generated media.
CO4 – PO10	3	Requires clear presentation of evaluation outcomes, including figures, tables, and reasoned discussion, strongly supporting communication skills.
CO4 – PO12	3	Encourages ongoing learning and refinement of methods through review of recent literature and evaluation techniques.
CO4 – PSO1	3	Strengthens applied evaluation and comparative skills relevant to professional computer-vision and deep-learning tasks.

CO4 – PSO2	2	Moderately supports assessing whether generated outputs meet the needs of specific software or creative applications.
CO5 – PO1	3	Applies engineering concepts accurately in the preparation of a detailed technical report.
CO5 – PO2	3	Demonstrates strong analytical ability through critical assessment of methods, results, and limitations.
CO5 – PO3	3	Shows strong design understanding by documenting architecture choices, algorithmic trade-offs, and system flows.
CO5 – PO4	3	Strongly supports investigative skills through detailed reporting of experimental setups, metrics, and inferences.
CO5 – PO5	2	Moderately enhances tool competency through the use of document creation and visualization tools such as LaTeX, Word, and plotting libraries.
CO5 – PO6	2	Discusses societal and ethical implications of the work, giving moderate attention to these aspects.
CO5 – PO8	2	Maintains ethical writing practices, including proper citation and acknowledgment of datasets and prior work.
CO5 – PO10	3	Strongly supports communication skills through clear written and visual presentation of technical findings.
CO5 – PO12	3	Encourages ongoing learning and research interest through reflective project writing.
CO5 – PSO1	3	Develops professional technical documentation skills expected in the domain.
CO5 – PSO2	3	Strongly supports clear articulation of domain-specific AI and software concepts for various audiences.