PARSHWANATH CHARITABLE TRUST'S

A.P. SHAH INSTITUTE OF TECHNOLOGY

Department of Computer Science and Engineering Data Science



Semester : VI	Subject :Machine Learning	Academic Year: 2023 - 2024
Vector Norms		
Example.	Find L1, L2, and ∞ n $x = \begin{bmatrix} 2 \\ 5 \\ -3 \end{bmatrix}$	soms for the follows
Solution:	- 11 N. G.	
	-1: the 直 L1 Norm x 1 = x, + x2 +	i 2m/
27 (200)	= 2t5t3	· / · · · ·
	11 m/a = 10	
2 Part 10 - noms or Fulideon nonn		
<u>→</u> P=	2: The L2-noms or FC 11×112 = $\sqrt{x_1^2 + x_2^2 +}$	$+\alpha_n^2$
, 1 m m m	$=\sqrt{x^{T}x}$	
	= V4+25+9	
	≈ = 6-1644	·
-9 p=	0: The Las + norm	
	11 x 1100 = max x;	
,	11 x 1100 = max x; 1	
	11x1100 = 5	
,		