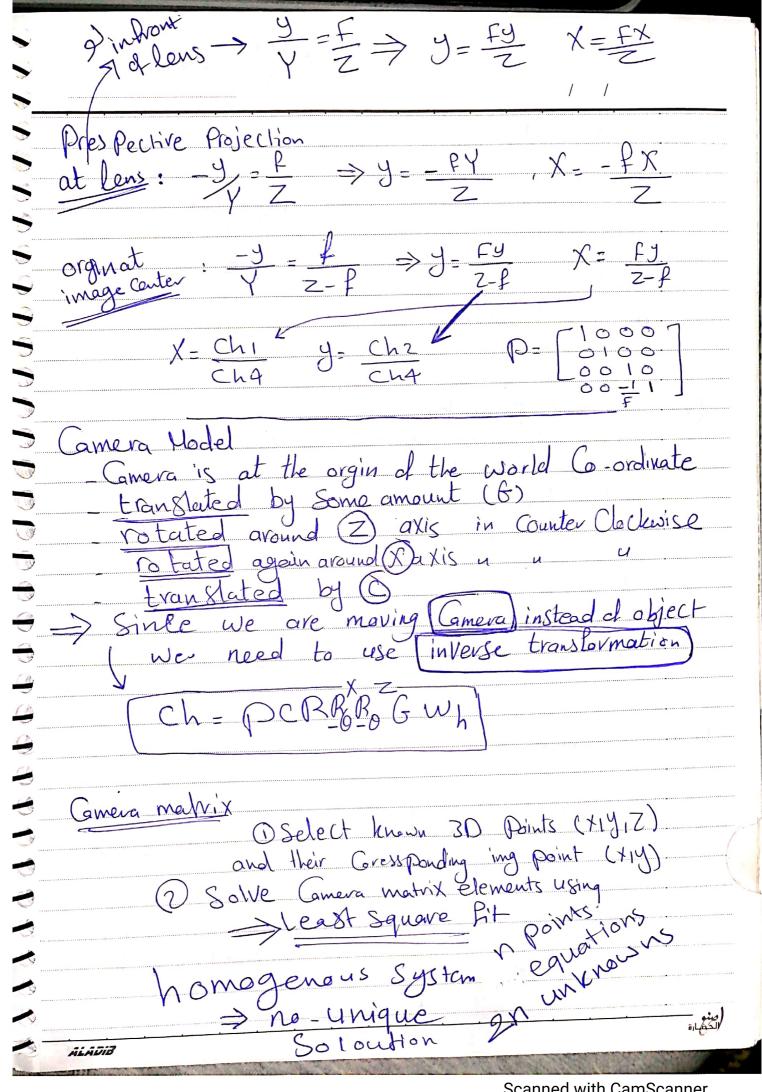
lec 9 Camera model, Cali	biration /
Owly we Should Calibarate Comera extrinsic lintrisinc parameters	d Camera
Location orientation Size of Pexels	Look Per 3rdD
Pose extimation  Given 30 model of object its in  - Determine (lo Cation, orientation) of object  when project on the image plan	nage (20 Projection) ect Such that e, it will match
(Evanslation, rotation)	around
0 3 0 0	9- XSIND + y Gs 10 - GSO - Sind 0]
الم المحلولات ا	Sind GSO O Sind O I
3) Euler Angle rotation around aribitrary axis if angles are Small Cos0~1 Sin0~0	orthonormal matrices
$R = \begin{bmatrix} 1 & 2 & 3 \\ 2 & 1 & 2 \end{bmatrix}$	$(RO)^{-1} = (RO)^{t}$
ALADIA	VVI(NV) = I



matrix Mextrinsic		
	J. rotation / extrinsic	
Camera Parameters	-/-	
(1) EXtrinsic Parameters		
La Cation, orie	ntation of Jamera	
Known World r	re with respect to	
a) 3D-translation	rector	
b) 3 x 3 rotation	matrix	
(2) intrinsic parameters		
Parameters necessary to link pixel		
(a ordinates of an image point		
	nding Goodhales Inthe	
anera le	hane trane	
a) Prespective pro	jection (Local length)	
b) transfermation between Camera Prane Co-ordinates, Dixel Co-ordinates		
. Co-ordinates, Dixel Co-ordinates		
Image, Camera Co-ordinde		
X=-(Xim-0x)SX Y=-(yim-0x)SX	Xim 1 Jim > Image Coodi  Ox 10y > image conter	
$\frac{3(3)m-9}{3}$	OXIOY > Image conter	
$\chi_{im} = -\chi + 0\chi$	18x18x	
$\lim \frac{1}{2} \frac{1}{2} \frac{1}{2} + 0 \frac{1}{2}$	elsective Size & pixels	
99	elsective size & pixels in NoriZontal, vertical	
Jim 3 + 0 X	directions	
ALADIB		