GIS-E3010 Least-Squares Methods in Geoscience

Lecture 6, activation 2

You have below a structure illustration of the design matrix $\begin{bmatrix} A \\ B \end{bmatrix}$ of bundle block adjustment. Your task is to

understand from which images the object points are visible. Add \checkmark -mark to the table, if the point is measured from current image.

	Image 1	Image 2	Image 3
Point 1 is measured			
Point 2 is measured			
Point 3 is measured			
Point 4 is measured			
Point 5 is measured			
Point 6 is measured			
The orientation is			
known			

Which object points are geodetically measured (known object points)?

The structu	ire of the des	sign matrix	$\begin{bmatrix} A \\ B \end{bmatrix}$ is				
2x6			2x3				
	6x6						
				 	2v2	 	
					272		

Solution:

	Image 1	Image 2	Image 3
Point 1 is measured	\checkmark	\checkmark	
Point 2 is measured	\checkmark	\checkmark	\checkmark
Point 3 is measured	\checkmark		\checkmark
Point 4 is measured	\checkmark	\checkmark	\checkmark
Point 5 is measured		\checkmark	\checkmark
Point 6 is measured	\checkmark	\checkmark	\checkmark
The orientation is known		\checkmark	

	Kuva 1	Kuva 2	Kuva 3
Piste 1 näkyy kuvilla	x	x	
Piste 2 näkyy kuvilla	x	x	x
Piste 3 näkyy kuvilla	х		х
Piste 4 näkyy kuvilla	х	X	х
Piste 5 näkyy kuvilla		X	X
Piste 6 näkyy kuvilla	x	X	X
Minkä kuvan ulkoinen		x	
orientointi on tunnettu			

Which object points are geodetically measured (known object points)? points 4, 5 and 6