
アリゾナ州立大学・アーカンソー大学（アメリカ合衆国） 研修報告書
土石流危険度評価マップの作製

先進理工系科学研究科 社会基盤環境デザインプログラム 木次 貴太

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GIS

Rebacca

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Fig.1

Table.1

	12		6	
	10 m	DEM	ArcGISPro	
	ArcGISPro			
NDVI			3	NDVI
Engine	NASA	250 m	Terra	Google Earth
				ArcGISPro
		18		
				4
				15 mm/hour
			250 m	XRain 1
CSV		Python		
	30 7			
				0 1

Fig.2
15 mm/hour

15 mm/hour
PC1 PC2 PC3
15 mm/hour
Fig.3

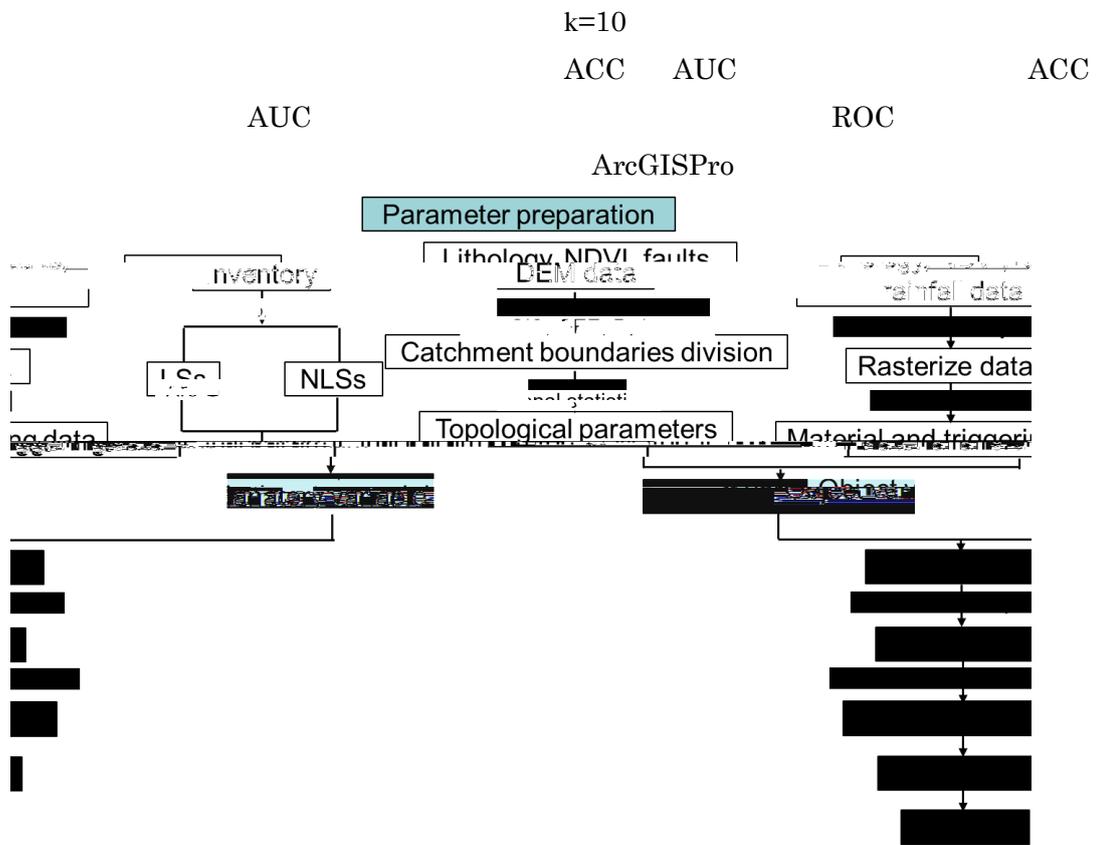


Fig.1 Flow of this research

Table.1 Explanatory and object variable

Explanatory variable			Object variable
Topological data	Material data	Triggering data	Inventory data
Elevation Average slope Catchment area Catchment perimeter Catchment relief Aspect	NDVI Soil material class Distance to faults	Accumulative data Peak Duration over 15 mm/hour	

ACC AUC

Table.2

Table.2 Result of each model

	LR	SVM	NB	ANN	RF	GB
ACC	0.747	0.748	0.742	0.764	0.757	0.765
AUC	0.798	0.811	0.805	0.821	0.822	0.821