KIGAM Korea Institute of Geoscience and Mineral Resources

Regular Training Course on 'Landslide Monitoring and Assessment'
Week 1

(Module 1) – Landslide Monitoring and Early Warning   **(Venue : Ara room)**

Date/Time	Program Description	Remarks
8.18 (Mon) 9:20-9:50	**Registration and Orientation**	**IS-Geo (Nuri Hall)**
8.18 (Mon)	**Introduction and basics of landslide risk prediction**	
10:00-11:00	Orientation test	Dr. Filippo Catani
11:10-12:10	Landslide risk definitions and basics	
12:10-13:30	Lunch	
13:30-14:30	Landslide causative factors and susceptibility	
14:40-15:40	Key environmental issues for landslide prediction	
16:00-18:00	Monitoring tools: an overview	
8.19 (Tue)	**Statistic and deterministic EW for rainfall induced landslides**	
8:30-9:30	Korean language class	IS-Geo
10:00-11:00	Rainfall patterns and landslide triggering	Dr. Filippo Catani
11:10-12:10	Case studies and state of the art	
12:10-13:30	Lunch	
13:30-14:30	Rainfall thresholds methods for landslide prediction	
14:40-15:40	Variable rainfall thresholds	
15:50-16:50	Deterministic modeling of rainfall induced slope failure	
17:00-18:00	Model sensitivity and key parameters	
8.20 (Wed)	**Advances in landslide monitoring**	
8:30-9:30	Korean language class	IS-Geo
10:00-12:10	Basic landslide displacement monitoring	Dr. Filippo Catani
	Basic landslide triggering parameters monitoring	
	Advanced ground-based techniques	
12:10-13:30	Lunch	
13:30-15:30	Advanced air- and space-borne techniques	
16:00-18:00	Elements and case studies for EW based on remote sensing techniques	
8.21 (Thu)	**Exercise day**	
8:30-9:30	Korean language class	IS-Geo
10:00-11:00	Introduction to the material for the exercise	Dr. Filippo Catani
11:10-12:10	Rainfall data analysis	
12:10-13:30	Lunch	
13:30-15:30	PS-InSAR data analysis(I)	
16:00-18:00	PS-InSAR data analysis(II)	
8.22 (Fri)	**Data integration and module wrap-up**	
8:30-9:30	Korean language class	IS-Geo
10:00-11:00	Specific topics on landslide monitoring	Dr. Filippo Catani
11:10-12:10	Specific topics on landslide prediction and early warning	
12:10-13:30	Lunch	
13:30-17:00	Data integration	
17:30-18:00	Module wrap-up	
	Open questions and brainstorming with students	

※ The working language is English

Regular Training Course on 'Landslide Monitoring and Assessment'
Week 2

(Module 2) – Landslide Hazard and Risk Assessment   **(Venue : Ara room)**

Date/Time	Program Description	Remarks
8. 25 (Mon)	**Registration (Korean)**	**IS-Geo**
9:20-9:30		
8.25 (Mon)	**Landslide inventory**	
8:30-9:30	Korean language class	IS-Geo
10:00-11:00	Introduction to landslide processes	Dr. Cees Van Westen
11:15-12:15	Methods for landslide inventory assessment	
12:15-13:30	Lunch	
13:30-15:30	Exercise: Landslide inventory mapping (I)	
16:00-18:00	Exercise: Landslide inventory mapping (II)	
8.26 (Tue)	**Landslide initiation analysis**	
8:30-9:30	Korean language class	IS-Geo
10:00-11:00	Scale of analysis, input data and selection of assessment method	Dr. Cees Van Westen
11:15-12:15	Heuristic, statistical and deterministic methods for landslide susceptibility assessment	
12:15-13:30	Lunch	
13:30-15:30	Exercise: Landslide susceptibility assessment, using weights of evidence method	
16:00-18:00	Exercise: Deterministic landslide susceptibility assessment, using infinite slope modelling	
8.27 (Wed)	**Landslide runout assessment**	
8:30-9:30	Korean language class	IS-Geo
10:00-11:00	Scale of analysis, input data and selection of landslide run-out assessment methods	Dr. Cees Van Westen
11:15-12:15	Empirical and numerical methods for landslide run-out assessment	
12:15-13:30	Lunch	
13:30-15:30	Exercise: Simple run-out assessment at the regional scale using the FLOW-R model (I)	
16:00-18:00	Exercise: Simple run-out assessment at the regional scale using the FLOW-R model (II)	
8.28 (Thu)	**Landslide vulnerability assessment**	
8:30-9:30	Korean language class	IS-Geo
10:00-11:00	Classification of elements at risk and their vulnerability for landslides	Dr. Cees Van Westen
11:15-12:15	Methods for landslide vulnerability assessment	
12:15-13:30	Lunch	
13:30-15:30	Exercise: Introduction to quantitative multi-hazard risk assessment case study	
16:00-18:00	Exercise: Application of vulnerability assessment method	
8.29 (Fri)	**Landslide risk assessment**	
8:30-9:30	Korean language class	IS-Geo
10:00-11:00	Landslide risk assessment framework	Dr. Cees Van Westen
11:15-12:15	Landslide risk assessment methods used at different scales	
12:15-13:30	Lunch	
13:30-15:30	Exercise: Quantitative landslide risk assessment, and evaluation of risk reduction alternatives	
16:00-18:00	Module evaluation and wrap-up of the module	

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