The First Programme of the Fifth World Landslide Forum

Important Notices to Presenters of WLF5

1	The WLF5 will be organized in Hybrid system (onsite presentation, online-virtual presentation, pre-recoded presentation, and participation without presentation)	
2	Speakers in this First Programme are the authors of 1) Six volumes of full color books (published in the middle of Jan. 2021, 2) Thematic issue "Sendai Landslide Partnerships" of Landslides, 3) Electronic proceedings (published in the end of December 2020), 4) one-page abstracts (published in July 2021)	
3	New authors of one-page abstracts who are not included in the First Programme will be accepted by 31 March 2021. Deadline of submission of one-page abstract is 30 June 2021. When one-page abstract is rejected, the registration fee will be refunded.	
4	All authors in the First Programme and also new authors of the one-page abstracts are requested to complete the payment of registration fee by 15 March 2021 or latest 31 March 2021.	
5	The Second Programme of the WLF5 will be made only by authors who compete the registration fee by 31 March 2021.	
6	The reservation of unnecessary rooms in the National Kyoto International Conference Center will be cancelled soon after 31 March 2021.	
7	Presentation time of authors paying the registration fee after 31 March 2020 will be shortened or cancelled due to the reduced capacity of rooms.	
8	Oral presentation of the WLF5 will be held in the following rooms. Onsite and Remote (online-virtual and pre-recoded via zoom) presentations are possible. Discussion both from onsite and remote are planned.	
	Room A	Plenary Session on 3 November 2021
	Room 0	Thematic Issue
	Room 1	Sendai Landslide Partnerships and Kyoto Landslide Commitment
	Room 2	From Mapping to Hazard and Risk Zonation
	Room 3	Monitoring and Early Warning
	Room 4	Testing, Modeling and Risk Assessment
	Room 5	Catastrophic Landslides and Frontiers of Landslide Science
	Room 6	Specific Topics in Landslide Science and Applications
		E-Proceeding Session by the Japan Landslide Society Session
	Room B2	World Tsunami Awareness Day Event (5 November 2021)

9	Post-Forum Field Trip to urban landslides in Hiroshima, landslide-induced tsunami in Unzen volcano, and earthquake-induced landslides in Kumamoto will be organized on 7-9 November 2021. Registration fee: 70,000 JPY (by 2021.3.31), 75,000 JPY (by 2021.7.31), 80,000 JPY (by 2021.9.15). Max: 30 persons.
10	Conditions of Field Trip: 100 % will be refunded when the trip will be cancelled. Until 15 September 2021, 70 % will be refunded when a participant is not possible to come to Japan due to COVID-19. No cancelation after 15 September 2021.

Important Dates

1	25-Dec-20	Return the oral presentation form of the WLF5 to wlf5-sec@iclha.org
2	15-Mar-21	Recommended deadline of payment to avoid possible delay due to busy communication and possible troubles.
3	31-Mar-21	Deadline of the payment of registration fee to make the Second Programme of the WLF5.
4	30-Jun-21	Deadline of submission of one-page abstract
5	31-Jul-21	Acceptance of one-page abstract
6	15-Sep-21	Deadline of switching decision of type of oral presentation: 1. Onsite, 2. Online virtual, 3. Pre-recoded
7	15-Oct-21	The Final Oral Presentation Programme of the WLF5 will be announced to all participants

ID No	Authors	Organization	Country/Region	Title	Pub.Type
Forum Speeches, Room A					
P1	Fausto Guzzetti	CNR	Italy	On the prediction of landslides and their consequence	FCB
P2	Charles Wang Wai Ng, Clarence Edward Choi, Haiming Liu, Sunil Poudyal, Julian Shun Hang Kwan	Hong Kong Univrsity of Science and Technology	Hong Kong SAR, China	Design recommendations for single and dual rigid debris flow barriers with and without basal clearance	FCB
P3	Not yet decided			Forum Speech 1	
P4	Not yet decided			Forum Speech 2	
P5	Michel Jaboyedoff, Mariam Ben Hammouda, Marc-Henri Derron, Antoine Guérin, Didier Hantz, François Noel	ISTE-University of Lausanne	Switzerland	The rockfall failure hazard assessment: summary and new advances	FCB
P6	Brian D. Collins, Mark E. Reid, Jeffrey A. Coe, Jason W. Kean, Rex L. Baum, Randall W. Jibson, Jonathan W. Godt, Stephen L. Slaughter, Greg M. Stock	U.S. Geological Survey	USA	Progress and lessons learned from responses to landslide disasters	FCB
P7	Claudio Margottini	Embassy of Italy in Egypt	Egypt	Fukuoka IPL Award lecture: Behind-the-scenes in mitigation of landslides and other geohazards in low income countries - in memory of Hiroshi Fukuoka	FCB
P8	Beena Ajmera and Binod Tiwari	North Dakota State University	USA	Oldrich Hungr Award lecture: Recent Advances in the Methods of Slope Stability and Deformation Analyses	FCB
Theme 1 Sendai Landslide Partnerships and Kyoto Landslide Commitment Contact: ICL secretariat <secretariat@iclhq.org>					
Session 1 Sendai Landslide Partnerships, Kyoto Landslide Commitment, and International Programme on Landslides					
1-1	Kyoji Sassa, Peter Bobrowsky, Kaoru Takara, Badaoui Rouhban	ICL	Japan	Kyoto 2020 Commitment for Global Promotion of Understanding and Reducing Landslide Disaster Risk	FCB
1-2	Kyoji Sassa, Peter Bobrowsky, Kaoru Takara	ICL	Japan	International Consortium on Landslides, IPL, UNITWIN-UNESCO/KU/ICL Programme	FCB
1-3	Matjaž Mikoš, Kyoji Sassa, Željko Arbanas	University of Ljubljana, Faculty of Civil and Geodetic Engineering	Slovenia	The ICL journal Landslides - 16 years of capacity development for landslide risk reduction	FCB
1-4	Kazuo Konagai, Asiri Karunawardena and Kyoji Sassa	ICL	Japan	SATREPS project for Sri Lanka with regard to “Development of early warning technology of Rain-induced Rapid and Long-travelling Landslides”	FCB
1-5	Alexander Strom and Kanatbek Abdrakhmatov	Geodynamics Research Center - branch of JSC "Hydroproject Institute"	Russia	Central Asia – rockslides' and rock avalanches' treasury and workbook	FCB
1-6	Biljana Abolmasov, Uroš Đ urić, Jovan Popović, Marko Pejić, Mileva Samardžić Petrović, Nenad Brodić	University of Belgrade, Faculty of Mining and Geology	Serbia	Results of recent monitoring activities on landslide Umka, Belgrade, Serbia - IPL 181	FCB
1-7	Matjaž Mikoš, Nejc Bezak, Janko Logar, Matej Maček, Ana Petkovšek, Dušan Petrovič, Jošt Sodnik	University of Ljubljana, Faculty of Civil and Geodetic Engineering	Slovenia	Landslides in Weathered Flysch: From Activation to Deposition (WCoE 2017-2020)	FCB
1-8	Snježana Mihalić Arbanas, Sanja Bernat Gazibara, Petra Jagodnik, Marin Sečanj, Vedran Jagodnik, Martin Krkač, Željko Arbanas	University of Zagreb, Faculty of Mining, Geology and Petroleum Engineering	Croatia	Report of the Croatian WCoE 2017-2020: From landslide mapping to risk assessment	FCB
1-9	Leonardo Cascini, Michele Calvello and Sabatino Cuomo	University of Salerno	Italy	LARAM School: an ongoing experience	FCB
1-10	Nicola Casagli, Veronica Tofani, Filippo Catani, Sandro Moretti, Riccardo Fanti, Giovanni Gigli, Silvia Bianchini, Federico Raspini	University of Florence	Italy	Advanced technologies for Landslides (WCoE 2017-2020)	FCB

1-11	Biljana Abolmasov, Mileva Samardžić Petrović, Ranka Stanković, Miloš Marjanović, Jelka Krušić, Uroš Đurić	University of Belgrade, Faculty of Mining and Geology	Serbia	Extreme rainfall event and its aftermath analysis - IPL 210 project progress report	FCB
1-12	Vít Vilímek, Jan Klimeš, Josef Stemberk, Jan Burda, Petr Kycl, Jan Blahůt	Charles University	Czech Republic	Complex geomorphological and engineering geological research of landslides with adverse societal impacts	FCB
1-13	Željko Arbanas, Josip Peranić, Martin Krkač, Vedran Jagodnik, Petra Jagodnik, Snježana Mihalić Arbanas	University of Rijeka	Croatia	Report of the IPL-219, IPL-220 and Croatian WCoE 2017-2020: From landslide investigation to landslide prediction and stabilization	FCB
Session 2 Landslide-induced Tsunamis					
1-14	Yu-xiang Hua, Zhi-you Yub, Jia-wen Zhou	Sichuan University	China	Numerical simulation of landslide-generated waves during the 11 October 2018 Baige landslide at the Jinsha River	TMI
1-15	Do Minh Duc, Dang Quang Khang, Dao Minh Duc, Do Minh Ngoc, Dinh Thi Quynh, Dang Thi Thuy, Nguyen Khac Hoang Giang, Pham Van Tien, Nguyen Huu Ha	Hanoi University of Science	Vietnam	Analysis and modeling of a landslide-induced tsunami-like wave across the Truong river in Quang Nam province, Vietnam	TMI
1-16	Jan Blahůt, Byron Quan Luna	Czech Academy of Sciences, IRSM	Czech Republic	Tsunami from the San Andrés Landslide on El Hierro, Canary Islands: first attempt using simple scenario	FCB
1-17	Kiichiro Kawamura	Yamaguchi University	Japan	A sedimentological study of turbidite layers on a deep–sea terrace in the Japan Trench	FCB
1-18	Pi-Chun Huang, Shu-Kun Hsu, Song-Chuen Chen and Ching-Hui Tsai	Department of Earth Sciences, National Central University, Taiwan	Chinese Taipei	Flank failure of the volcanic Turtle Island and the submarine landslide in the southernmost Okinawa Trough	FCB
1-19	Taro Kakinuma	Kagoshima University	Japan	Numerical simulation for tsunami generation due to a landslide	FCB
1-20	Federico Di Traglia, Teresa Nolesini, and Nicola Casagli			Dealing with mass flow-induced tsunamis at Stromboli volcano: monitoring strategies	FCB
1-21	Kiichiro Kawamura, Ayaka Wada, Miriam Römer, Michael Strasser, Hiske G Fink, Yoshihiro Ito, Ryota Hino	Yamaguchi University	Japan	Detailed seafloor observation on a deep-sea terrace along the Japan Trench after the 2011 Tohoku Earthquake	FCB
Invited and accepted speakers without full papers in books and journal, and e-proceedings in Part 2 Landslide induced tsunami					
1-22	Cheng-Hsien Lee	National Sun Yet-sen University	Chinese Taipei	Multi-phase simulation of submarine granular landslides	1PA
1-23	Wahyu Widiyanto	National Cheng Kung University	Chinese Taipei	Post-event field surveys of 2018 tsunami in Palu Bay and Sunda Strait	1PA
1-24	Francesco Bregoli	IHE Delft Institute for Water Education, Water Science and Engineering Department	Netherlands	On the energy transfer from 3D granular landslide to water body explained by an experimentally-based numerical model	1PA
1-25	Kuo-Fong Ma	National Central University	Chinese Taipei	Probability Tsunami Hazard Analysis of Taiwan, including earthquake induced submarine landslides	1PA
1-26	Tso-Ren Wu	National Central University	Chinese Taipei	Three-Dimensional Simulation on the Rockslide and Mudslide Generated Tsunamis	1PA
1-27	Valentin Heller	University of Nottingham	UK	Landslide-tsunami propagation in different water body geometries	1PA
1-28	Khang Dang	ICL	Japan	Landslide-Tsunami Simulation model	1PA
Session 3 Landslides at UNESCO designates sites and contribution from WMO, FAO, IRDR					
1-29	Irina Pavlova, Soichiro Yasukawa, Aurélien Dousseron, Vincent Jomelli	UNESCO	France	Landslides at UNESCO-designated sites	FCB
1-30	Claudio Margottini, Daniele Spizzichino	Embassy of Italy in Egypt	Egypt	Traditional knowledge and local expertise in landslide risk mitigation of world heritages	FCB
1-31	Stefano Morelli, Veronica Pazzi, Veronica Tofani, Federico Raspini, Silvia Bianchini, Nicola Casagli	Department of Earth Sciences	Italy	Reconstruction of the slope instability conditions before the 2016 failure in an urbanized district of Florence (Italy), a UNESCO World Heritage Site	FCB

1-32	William Frodella, Daniele Spizzichino, Giovanni Gigli, Mikheil Elashvili, Claudio Margottini, Alberto Villa, Paolo Frattini, Giovanni Crosta, Nicola Casagli	University of Florence	Italy	Integrating Kinematic analysis and Infrared Thermography for instability processes assessment in the rupestrian monastery complex of David Gareja (Georgia)	FCB
1-33	William Frodella, Daniele Spizzichino, Andrea Ciampalini, Rosi Ascanio, Claudio Margottini, Nicola Casagli	ISPRA	Italy	Shallow landslide susceptibility assessment in the High City of Antananarivo (Madagascar)	FCB
1-34	Rodrigo Alcaíno-Olivares, Matthew A. Perras, Martin Ziegler and Kerry Leith	York University	Canada	Thermo-mechanical cliff stability at tomb KV42 in the Valley of the Kings, Egypt	FCB
1-35	Xu Tang, Kyoji Sassa, Guy Brasseur, Johannes Cullmann, Zheqing Fang	Integrated Research on Disaster Risk	China	Collaboration in MHEWS through an Integrated Way: The Great Efforts Contributed by Multi-stakeholder Partnership at National, Regional and International Levels	FCB
1-36	Yuka Makino, Thomas Hofer, Mustapha Azdad, Faizul Bari	FAO	Italy	Resilient Watershed Management: Landscape Approach to Climate Change and Disaster Risk Reduction	FCB
1-37	Qunli Han, Fang Lian	Integrated Research on Disaster Risk	China	Integrating DRR into the conservation and management mechanisms of the internationally designated sites – view of IRDR	FCB
1-38	Giuseppe Esposito, Olga Petrucci	CNR-IRPI	Italy	Landslide hazard and risk assessment for civil protection early response	FCB
1-39	Irasema Alcántara-Ayala	Institute of Geography, National Autonomous University of Mexico	Mexico	Size matters: the impact of small, medium and large landslide disasters	FCB
1-40	Shengnan WU, Yu LEI, Pihua Yin, Peng CUI, Zhengtao ZHANG	Institute of Geographic Sciences and Natural Resources Research, CAS	China	Practices of Public Participation Early Warning System for Geological Hazards in China	FCB
Session 4 Education and Capacity Development for Risk Management and Risk Governance					
1-41	Emanuele Intrieri, Giulia Dotta, Federico Raspini, Ascanio Rosi, Samuele Segoni and Nicola Casagli	University of Studies of Florence	Italy	Early warning systems in Italy: state-of-the-art and future trends	FCB
1-42	Jan Klimeš, Ping Lu	IRSM CAS	Czech Republic	Community-based landslide risk management in contrasting social environments, cases from the Czech Republic	FCB
1-43	Wen-I Wu, Tsai-Ming Yu, Chia-Yun Wei, Lee-Ping Shi, San-shyan Lin and Jen Cheng Liao	Taiwan Construction Research Institute	Chinese Taipei	Refinement Progresses on Freeway Slope Maintenance after a Huge Landslide Disaster	FCB
1-44	Ricardo J. Garnica-Peña, Gerardo Cardón-Idelfonso and Irasema Alcántara-Ayala	Institute of Geography, National Autonomous University of Mexico	Mexico	Landslide exposure community-based mapping: a first encounter in a small rural locality of Mexico	FCB
1-45	Elizabeth A. Holcombe, Rose Hen-Jones, Paul J. Vardanega, Mair E.W. Beesley, Charlotte E. L. Gilder, Elisa Bozzolan	University of Bristol	UK	Co-producing data and decision support tools to reduce landslide risk in the humid tropics	FCB
1-46	A A Virajh Dias, N N Katuwala and S S I Kodagoda	Central Engineering Consultancy Bureau	Sri Lanka	Effective global communication on disaster mitigation of Landslides through E-Conferencing	FCB
1-47	Mohamad Fazli Sardi, Ahmad Fairuz Mohd Yusof, Khamarrul Azahari Razak, Rudzidatul Akmam Dziyauddin, Siti Hajar Othman and Munirah Zulkaple	UNIVERSITI TEKNOLOGI MALAYSIA (UTM) KUALA LUMPUR	Malaysia	ICT-based landslide disaster simulation drill: Road to achieve 2030 global commitment	FCB
1-48	Sao-Jeng Chao, Chia-Yun Wei, Han-Sheng Liu, Chien-Hua Kao, Hao Yang and Cheng-Yu Huang	National Ilan University	Chinese Taipei	A Preliminary Work of Safety Potential Analysis Model for Anchors Used on Freeway Slopes	FCB
1-49	Tamara Breuninger, Carolina Garcia-Londoño, Moritz Gamperl, Kurosch Thuro	Technical University of Munich	Germany	Initial Experiences of Community Involvement in an Early Warning System in Informal Settlements in Medellín, Colombia	FCB
1-50	Hendy Setiawan, Endah Retnaningrum, Thema Arrisaldi, and Wahyu Wilopo	Gadjah Mada University	Indonesia	Capacity Building and Community Preparedness towards Landslide Disaster in Pagerharjo Village, Kulon Progo Regency of Yogyakarta, Indonesia	FCB
1-51	Josip Peranić, Martina Vivoda Prodan, Marin Seč anj, Sanja Bernat Gazibara, Snježana Mihalić Arbanas, Ž eljko Arbanas	University of Rijeka, Faculty of Civil Engineering	Croatia	Protection of a cultural heritage site in Croatia from rockfall occurrences	FCB

1-52	Alexandra Urgilez, Jessica Robles, Mark Bakker, Pablo Guzman, ThomBogaard	Delft University of Technology	Netherlands	Characterization and hydrological analysis of the Guarumales deep-seatedlandslide in the tropical Ecuadorian Andes	EPR
1-53	Kazuki Murata, Shinji Sassa, Tomohiro Takagawa	National Research and Development Agency, Port and Airport Research Institute (PARI)	Japan	Tsunami Disaster caused by the 1923 Great Kanto Earthquake and theImportance of Submarine Landslides	EPR
1-54	Hideaki Yanagisawa	Tohoku Gakuin University	Japan	Numerical modeling of landslide-induced tsunami using two layer model	EPR
Session 5 SATREPS-Rain-induced Rapid and Long Travelling Landslides					
1-55	Kazuo Konagai, Asiri Karunawardena, Kyoji Sassa, Naoya Orita, Kazuo Anazawa and Takashi Asaeda	ICL	Japan	Overview of the Project RRLL	1PA
1-56	Asiri Karunawardena and Kithsiri N. Bandara	NBRO	Sri Lanka	Overview of the challenges currently ongoing at NBRO	1PA
1-57	Virajh Dias	Central Engineering Consultancy Bureau	Sri Lanka	The role of CECB, as a fully owned State Enterprise by the Government of Sri Lanka, in mitigating landslide risk nationwide in Sri Lanka	1PA
1-58	Naoya Orita	Japan International Cooperation Agency	Japan	Overview of JICA's projects going on in Sri Lanka	1PA
1-59	Toru Koike			Overview of the Project SABO	1PA
1-60	Ryo Onishi			Plan/ policy for developing the technology of precise weather forecast in mountain regions of Sri Lanka	1PA
1-61	Shiho Asano	Forestry and Forest Products Research Institute	Japan	Strategy for monitoring creeping movements of unstable soil masses perching atop of exposed bare earths at pilot sites	1PA
1-62	Ryosuke Uzuoka	Kyoto University	Japan	Predicting groundwater pressure build-up, and identifying locations of RRLLs and their runouts.	1PA
1-63	Katsuo Sasahara, Go Sato and Munenari INOGUCHI	Kochi University	Japan	Strategy for implementing the RRLL early warning system	1PA
One-page abstract papers for Theme 1					
1-64	Lili Xiao	Chang'an University	China	The theory, validation and application of Tsunami Squares simulation approach to landslide generated waves	1PA
1-65	Bihong Fu	Aerospace Information Research Institute, Chinese Academy of Sciences	China	Monitoring and Assessment of Landslides related to 2017 Large Earthquake and Their Influences on Heritage Sites in Jiuzhaigou UNESCO Heritage Using the Remote Sensing Technology	1PA
1-66	Hai Tan	Changjiang Institute of Survey, Planning, Design and Research	China	Numerical modeling of landslide-tsunamis based on a coupled DEM-SPH model	1PA
1-67	Andres Felipe Alonso Rodriguez	State Key Laboratory for Geohazard Prevention and Geoenviorment Protection	China	Role of Near Fault Ground motion pulse traits in Landaslide Hazards	1PA
1-68	Giorgio Bellotti	Roma Tre University	Italy	Laboratory modelling of tsunamis generated by landslides	1PA
1-69	Lorenzo Solari	University of Firenze, Department of Earth Sciences	Italy	Regional scale landslide monitoring based on Sentinel-1 data	1PA
1-70	Satoru Nishikawa	Nagoya University, Disaster Mitigation Research Center	Japan	Ichi-Nichi-Mae (The Day before the Disaster) Project for Landslide Awareness and Risk Communication	1PA
1-71	Junji Miyamoto	Toyo Construction	Japan	Submarine landslide study in a drum centrifuge	1PA
1-72	Akira Doi	Japan Bosai Platform	Japan	"Challenging the disaster prevention business with the policy ""Investment before disaster will save your community and economy"""	1PA
1-73	Bastian van den Bout	Twente University	Netherlands	Impact of multi-hazard interactions on risk assessment	1PA
1-74	Denis Gorobtsov	RSGPU	Russia	Landslides threatening russian culture heritage objects	1PA
1-75	Osvaldo Luiz Leal de Moraes	CEMADEN	Brazil	Monitoring and issuing landslides early warning in Brazil: CEMADEN and its Innovative Methodology	1PA
1-76	Francisco Dourado	UERJ	Brazil	Landslides disasters in Brazil	1PA
1-77	Aline Silva	Rio de Janeiro Geological Survey	Brazil	Rio de Janeiro State Landslide Risk Management: Experience of the Rio de Janeiro Geological Survey	1PA
1-78	Marcos Mendonca	Federal University of Rio de Janeiro	Brazil	Consideration of social vulnerability aspects in landslide risk mapping: the case of Angra dos Reis municipality, Brazil	1PA
1-79	Raymond Cheung	Geotechnical Engineering Office	China	Landslide risk management in Hong Kong	1PA
1-80	Dongxu Yang	Institute of Mountain Hazards and Environment, CAS	China	Characteristics of sediment transportation and abrasion behavior of glacial debris-flow in Southeast Tibet, China	1PA

1-81	Louis Ge	National Taiwan University	Chinese Taipei	International Training Course on Slope Land Disaster Reduction	1PA
1-82	Chia-Yun Wei	Freeway Bureau, Ministry of Transportation and Communications	Chinese Taipei	Refinement Progress on Freeway Slope Maintenance after a Huge Landslide Disaster	1PA
1-83	Tsai-Ming Yu	Freeway Bureau, Ministry of Transportation and Communications	Chinese Taipei	Refinement Progress on Freeway Slope Maintenance after a Huge Landslide Disaster	1PA
1-84	Wen-I Wu	Freeway Bureau, Ministry of Transportation and Communications	Chinese Taipei	Refinement Progress on Freeway Slope Maintenance after a Huge Landslide Disaster	1PA
1-85	San-Shyan Lin	Dept. of Harbor and River Engineering, National Taiwan Ocean University	Chinese Taipei	Refinement Progress on Freeway Slope Maintenance after a Huge Landslide Disaster	1PA
1-86	Jen-Cheng Liao	Taiwan Construction Research Institute	Chinese Taipei	Refinement Progress on Freeway Slope Maintenance after a Huge Landslide Disaster	1PA
1-87	Gianvito Scaringi	Charles University	Czech Republic	Landslide risk education at university	1PA
1-88	Pascal lacroix	IRD	France	Risk management over the Maca slow-moving landslide, Peru	1PA
1-89	Eleftheria Poyiadji	Institute of Geology and Mineral Exploration	Greece	Landslides in Greece and related legislation: difficulties and potential improvements	1PA
1-90	Bhagwati Joshi	Government Post Graduate College, Rudrapur, Uttarakhand, India	India	Empowering Women in Landslide Risk Management in Himalaya	1PA
1-91	Hemalatha Thirugnanam	Amrita Vishwa Vidyapeetham	India	Challenges and opportunities in landslide early warning system	1PA
1-92	Surya Parkash	National Institute of Disaster Management	India	Emerging Issues and Innovative Strategies for Landslides Risk Management	1PA
1-93	Ngadisih Ngadisih	Universitas Gadjah Mada	Indonesia	Community-based Landslide Risk Reduction in Merawu Watershed, Central Java	1PA
1-94	Hatma Suryatmojo	Universitas Gadjah Mada	Indonesia	Landslide Risk Reduction for Human Survivebility and Environmental Sustainability	1PA
1-95	Gulsan Ara Parvin	Kyoto University	Japan	An overview of the Nature and Characteristics of Landslides in Bangladesh, Bhutan, India and Japan	1PA
1-96	HIROSHI OGAWA	NIPPON KOEI co.jp	JAPAN	Landslide mechanism and technical transfer at paleo topographic blockage lake - Case of central Asia Kyrgyz republic-	1PA
1-97	Mohd Khairudin Muhamed	Ampang Jaya Municipal Council	Malaysia	Using Slope Inventories In Managing Landslide Risk Area	1PA
1-98	Mahendra Bikram Shah	Humanity and Inclusion (H.I.)	Nepal	Vulnerable Focal Point Approach for inclusionb of most vulnerable people during disaster	1PA
1-99	Mateja Jemec Auflic	Geological Survey of Slovenia	Slovenia	On the importance of geological data for landslide risk reduction in Slovenia	1PA
1-100	Athauda Arachchige Virajh Dias	Central Engineering Consultancy Bureau	Sri Lanka	Effective Global Communication through E- Conferencing	1PA
1-101	Sowedi Masaba	Busitema University	Uganda	Preparedness for landslide disaster risks in Mount Elgon region, Uganda	1PA
1-102	Ellen Robson	Newcastle University	UK	Cost-effective road slope stabilisation for low-income countries	1PA
1-103	Gopi Basyal	Durham University	UK	Local perceptions and response to changing landslide risk following the 2015 Gorkha Earthquake: Implications for effective risk reduction	1PA
1-104	Dave Petley	University of Sheffield	UK	Creating a rapid understanding of landslide disasters through pooling and crowd-sourcing multiple data sources	1PA
1-105	Bayes Ahmed	University College London (UCL)	UK	The impact of culture in landslide disaster risk reduction	1PA
1-106	Hoang Ninh Nguyen	Vietnam Institute of Geosciences and Mineral Resources	Vietnam	Landslide and flashflood prone areas in Vietnam: where to live?	1PA
Theme 2 From Mapping to Hazard and Risk Zonation Contact: Paola Reichenbach <paola.reichenbach@irpi.cnr.it>					
Session 1 Landslide recognition and mapping					
2-1	Toyohiko Miyagi	Advantechnology Co., Ltd	Japan	Landslide Recognition and Mapping for Slope Disaster Risk Reduction and Management	FCB (keynote)
2-3	Rafał Sikora, Tomasz Wojciechowski	Polish Geological Institute - National Research Institute	Poland	New landslide inventory map of the Sudetes Mountains (south-western Poland)	FCB
2-4	Petra Jagodnik, Vedran Jagodnik, Željko Arbanas and Snježana Mihalić Arbanas	Faculty of Civil Engineering, University of Rijeka	Croatia	Gullies as landforms for landslide initiation – examples from the Dubračina River Basin (Croatia)	FCB

2-5	Kamila Pawluszek-Filipiak, Andrzej Borkowski	Wrocław University of Environmental and Life Sciences	Poland	Opportunities and challenges of the object-oriented automatic landslide detection from the high resolution Digital Elevation Model	FCB
2-6	Mio Kasai	Hokkaido University	Japan	Can Repeat LiDAR Surveys Locate Future Massive Landslides?	FCB
2-7	Gulseren Dagdelenler, Murat Ercanoglu and Harun Sonmez	Hacettepe university	Turkey	Semi-automatic Landslide Inventory Mapping with Multiresolution Segmentation Process: A Case Study from Ulus District (Bartin, NW Turkey)	FCB
2-8	Vedran Damjanović, Snježana Mihalić Arbanas, Sanja Bernat Gazibara, Josip Peranić, Marin Sečanj, Martin Krkač, Željko Arbanas	RGNF Zagreb	Croatia	Landslide mapping based on UAV photogrammetry using SfM – The Prnjavor Čuntićki landslide case study, Croatia	FCB
2-9	Nguyen Kim Thanh, Toyohiko Miyagi, Shinobu Isurugi, Dinh Van Tien, Le Hong Luong, Do Ngoc Ha	Institute of Transport Science and Technology, Vietnam	Vietnam	Developing recognition and simple mapping by UAV/SfM for local resident in mountainous area in Vietnam – A case study in Po Xi Ngai Community, Laocai province	FCB
2-10	Vladimir Greif, Jaroslav Busa and Martin Mala	Comenius University in Bratislava	Slovakia	Landslide activity classification based on Sentinel-1 satellite radar interferometry data	FCB
2-11	Kamila Pawluszek-Filipiak, Andrzej Borkowski	Wrocław University of Environmental and Life Sciences	Poland	Updating Landslide Activity State and Intensity by Means of Persistent Scatterer Interferometry	FCB
2-12	Carlo Tacconi Stefanelli, Nicola Casagli, Filippo Catani	University of Florence	Italy	Damming predisposition of river networks: a mapping methodology	FCB
2-13	Pham Van Tien, Le Hong Luong, Le Minh Nhat, Nguyen Kim Thanh, and Phuong Van Cuong	Institute of Transport Science and Technology	Vietnam	Landslides along Halong-Vandon Expressway in Quang Ninh province, Vietnam	FCB
Session 2 Landslide hazard assessment and zonation – susceptibility modelling					FCB
2-14	Hiroshi Yagi, Kazunori HAYASHI and Go Sato	Yamagata University	Japan	Landslide susceptibility mapping by interpretation of aerial photographs, AHP and precise DEM	FCB (keynote)
2-15	Olga Barykina, Oleg Zerkal, Igor Averin, Eugene Samarin	Lomonosov Moscow State University	Russia	New data on geological conditions of landslide activity on Vorobyovy Gory (Moscow, Russia)	FCB
2-16	Massimiliano Bordoni, Alberto Vercesi, Michael Maerker, Valerio Vivaldi and Claudia Meisina	University of Pavia	Italy	Impact of agricultural management in vineyards to landslides susceptibility in Italian Apennines	FCB
2-17	Sandra García Reyes, Gabriel Legorreta Paulin, Rutilio Castro Miguel, and Fernando Aceves Quesada	Universidad Nacional Autonoma de Mexico	Mexico	Landslide susceptibility in two secondary rivers of La Ciénega watershed, Nevado de Toluca volcano, Mexico	FCB
2-18	Naorem Sarju Singh, Sharad Kumar Gupta, Chandra Shekhar Dubey, Dericks P. Shukla	Indian Institute of Technology Mandi	India	An Ordinal Scale Weighting Approach for Susceptibility Mapping Around Tehri Dam, Uttarakhand, India	FCB
2-19	Meei-Ling Lin, Jian-Fang Wang, Yen-Cheng Chen, and Te-Wei Chen	National Taiwan University	Chinese Taipei	Potential Analysis of Deep-seated Landslides Caused by Typhoon Morakot Using Slope Unit	FCB
2-20	Dymphna Nolasco-Javier, Lalit Kumar	University of the Philippines Baguio	Philippines	Landslide susceptibility assessment using binary logistic regression in northern Philippines	FCB
2-21	Ilyas A Huqqani, Lea Tien Tay and Junita Mohamad-Saleh	Universiti Sains Malaysia	Malaysia	Landslide Hazard Mapping of Penang Island Malaysia based on Multilayer Perceptron Approach	FCB
2-22	Weidong Wang, Zhuolei He, Zheng Han and Yange Li	Central South University	China	Landslide Susceptibility Mapping Based on the Deep Belief Network: A Case Study in Sichuan Province, China	FCB
2-23	Jie Dou, Ali P. Yunus, Abdelaziz Merghadi, Xie-kang Wang, Hiromitsu Yamagishi	The University of Tokyo	Japan	A Comparative study of deep learning and conventional neural network for evaluating landslide susceptibility using landslide initiation zones	FCB
2-24	Mariano Di Napoli, Giuseppe Bausilio, Andrea Cevasco, Pierluigi Confuorto, Andrea Mandarino, Domenico Calcaterra	Federico II University of Napoli, Italy	Italy	Landslide susceptibility assessment by ensemble-based Machine Learning models	FCB
2-25	Bahareh Kalantar, Naonori Ueda, Vahideh Saeidi, Parisa Ahmadi	RIKEN Center for Advanced Intelligence Project, GoalOriented Technology Research Group, Disaster Resilience Science Team	Japan	Application of Machine Learning Algorithms and Their Ensemble for Landslide Susceptibility Mapping	FCB

2-26	Anika Braun, Katrin Dohmen, Hans-Balder Havenith and Tomas FernandezSteeger	Institute of Applied Geosciences, Technical University Berlin	Germany	Overcoming data scarcity related issues for landslide susceptibility modeling with machine learning	FCB
2-27	Jewgenij Torizin, Michael Fuchs, Dirk Kuhn, Dirk Balzer, Lichao Wang	Institute for Geosciences and Natural Resources (BGR)	Germany	Practical accounting for uncertainties in data-driven landslide susceptibility models. Examples from the Lanzhou case study	FCB
2-28	Victor Carvalho Cabral, Fá bio Augusto Gomes Vieira Reis	Universidade Estadual Paulista	Brazil	Assessment of shallow landslides susceptibility using SHALSTAB and SINMAP at Serra do Mar, Brazil	FCB
2-29	Miloš Marjanović, Biljana Abolmasov, Igor Peshevski, James Reeves and Irena Georgievska	University of Belgrade, Faculty of Mining and Geology	Serbia	Regional slope stability analysis in landslide hazard assessment context, North Macedonia example	FCB
2-30	Xiaoli Chen, Xinjian Shan, Mingming Wang, Chunguo Liu and Nana Han	Institute of Geology	China	Applying the Newmark model in the assessment of earthquake triggered landslides during the 2017 Ms 7.0 Jiuzhaigou earthquake, China	FCB
2-31	Shoji Doshida	National Research Institute of Fire and Disaster, Japan	Japan	Evaluation of secondary landslide susceptibility for the rescue activity using LiDAR UAV data	FCB
2-32	Johnny Alexander Vega, Cé sar Augusto Hidalgo	Universidad de Medellin	Colombia	Methodology for landslides assessment causing river channel obstructions and the consequent water shortage in rural communities	FCB
Session 3 Landslide hazard assessment and zonation – temporal and size modelling					FCB
2-33	Aykut Akgun, Tolga Gorum, Hakan A. Nefeslioglu	Karadeniz Technical University	Turkey	Landslide Size Distribution Characteristics of Cretaceous and Eocene Flysch Assemblages in the Western Black Sea Region of Turkey	FCB
2-34	Stefan Steger, Volkmar Mair, Christian Kofler, Massimiliano Pittore, Marc Zebisch, Stefan Schneiderbauer	Eurac Research	Italy	A statistical exploratory analysis of inventoried slide-type movements for South Tyrol (Italy)	FCB
2-35	Gabriel Legorreta Paulin, Lilia Arana-Salinas, Rutilio Castro Miguel, JeanFrançois Yves Pierre Parrot, and Trevor Contreras	Universidad Nacional Autonoma de Mexico	Mexico	Assessing landslide volume for landform hazard zoning purposes	FCB
2-36	Marc-André Brideau, Saskia de Vilder, Chris Massey, Andrew Mitchell, Scott McDougall, and Jordan Aaron	GNS Science	New Zealand	Empirical relationships to estimate the probability of runout exceedance for various landslide types	FCB
2-37	Rex L Baum	U. S. Geological Survey	USA	Rapid sensitivity analysis for reducing uncertainty in landslide hazard assessment	FCB
2-38	Kana Nakatani, Yuji Hasegawa, Yoshifumi Satofuka	Kyoto University, Graduate School of Agriculture	Japan	Applying debris flow simulation for detailed hazard and risk mapping	FCB
2-39	Xudong Hu, Kaiheng Hu, Jinbo Tang, Xiaopeng Zhang, Yanji Li, Chaohua Wu	Institute of Mountain Hazards and Environment, CAS	China	Debris-Flow Peak Discharge Calculation Model Based on Erosion Zoning	FCB
2-40	Akino Watanabe, Thang V. Nguyen, Akihiko Wakai	Gunma University	Japan	Assessment of rainfall-induced landslides in Tomioka city, Gunma Prefecture, Japan (Oct 2019) based on a simple prediction model	FCB
2-41	Takashi Koi, Yasuhiro Fujisawa and Nobuo Anyoji	Hokkaido University	Japan	Rainfall-induced lahar occurrences shortly after eruptions and its initiation processes in Japan	FCB
2-42	Jiaying Li, Weidong Wang	Central South University	China	Spatiotemporal Assessment of Geological Hazard Safety along Railway Engineering using a Novel Method: A Case Study of the Sichuan-Tibet Railway, China	FCB
2-43	Mohamed Rouai, Abdelilah Dekayir and Khaoula Qargori	Moulay Ismail University of Meknes	Morocco	Slope Stability and Landslide Hazard in Volubilis Archaeological Site (Morocco)	FCB
Session 4 Landslide data and information for disaster mitigation					FCB
2-44	Zamri Ramli, Ferdaus Ahmad	Department of Mineral and Geoscience Malaysia	Malaysia	Slope Hazard and Risk Mapping Project (PBRC) – An Overview of Disaster Risk Reduction Initiative	FCB
2-45	Mohd Farid Abdul Kadir, Khamarrul Azahari Razak, Ferdaus Ahmad, Dzul Khaimi Khailani	Department of Mineral and Geoscience Malaysia	Malaysia	Risk-informed Land Use Planning for Landslide Disaster Risk Reduction: A Case Study of Cameron Highlands, Pahang, Malaysia	FCB
2-46	Paolo Tarolli, Anton Pijl, Sara Cucchiaro	University of Padova	Italy	Landslides in steep-slope agricultural landscapes	FCB

2-47	Matteo Del Soldato, Lorenzo Solari, Davide Festa, Pierluigi Confuorto, Silvia Bianchini & Nicola Casagli	University of Firenze	Italy	From satellite images to field survey: a complete scheme of lanslide InSAR monitoring	FCB
2-48	Toyohiko MIYAGI, Nguyen Kim Thanh, Dinh Van Tien, Le Hong Luong, and Quang Van Viet	Advantechnology Co., Ltd	Japan	Slope disaster risk reduction map as a communication tool for community based DRR in Japan & Vietnam	FCB
Session 5 Landslide vulnerability of people, communities and the built environment					FCB
2-49	Paola Salvati, Mauro Rossi, Cinzia Bianchi and Fausto Guzzetti	CNR-IRPI	Italy	People vulnerability to landslide: risky behaviours and dangerous conditions by gender and age	FCB
2-50	Erica Akemi Goto, Summer Gray, Edward Keller, Keith C. Clarke	UCSB	USA	Using mixed-methods to understand community vulnerability to debris flows in Montecito, CA	FCB
2-51	Dario Peduto, Gianfranco Nicodemo, Nicoletta Nappo and Giovanni Gullà	University of Salerno	Italy	Innovation in analysis and forecasting of vulnerability to slow-moving landslides	FCB
2-52	Silvia Bianchini, Lorenzo Solari, Anna Barra, Oriol Monserrat, Michele Crosetto, Filippo Catani	University of Firenze	Italy	Sentinel-1 PSI data for the evaluation of landslide geohazard and impact	FCB
2-53	Ricardo Garnica-Peña, Galdino García-Marroquin and Irasema AlcántaraAyala	Institute of Geography, National Autonomous University of Mexico	Mexico	On the use of UAVs for landslide exposure of households: La Gloria neighbourhood, Teziutlán, Puebla	FCB
2-54	Erica Akemi Goto, Keith C. Clarke	UCSB	USA	Ordinal Logistic Regression to automatic classify shallow landslide risk level in Sao Paulo city, Brazil	FCB
2-55	Aditi Singh, Debi P. Kanungo and Pravin Kr. Singh	Gautam Buddha University	India	Site-specific risk assessment of buildings exposed to rock fall in India- A case study	FCB
E-proccedings papers for Theme 2					
2-56	Timotej Verbovšek, Tomislav Popit	University of Ljubljana, Faculty of Natural Sciences and Engineering	Slovenia	Maximum Likelihood Classification method for detection of litho-geomorphological units in the Vipava Valley, SW Slovenia	EPR
2-57	Hiromitsu Yamagishi, Junko Iwahashi, and Fumaki Yamazaki	Hokkaido Research Center of Geology	Japan	Landslides Triggered by the September 6th 2018 Hokkaido Eastern Iburi Earthquake -Topographic and Geologic GIS-LP Analyses	EPR
2-58	Christian Arnhardt, Nikhil Nedumpallile Vasu, Ng Tham Fatt, Elanni Affandi, Vanessa Banks, Andrew Marchant, Joy Jacqueline Pereira, Helen Reeves	British Geological Survey	UK	An expert-based Landslide susceptibility assessment on city scale level with limited data - an example from Kuala Lumpur City	EPR
2-59	Michio Ishigaki	OYO Corporation	Japan	The Advanced Method for Detecting Geotechnical Risks of Landslide Failures by Surveying Historical Surface Deformation and Underground Water	EPR
One-page abstract papers for Theme 2					
2-60	Merghadi Abdelaziz	Larbi Tebessi University	Algeria	A practical Guide Towards Automating Landslide Susceptibility Mapping using Machine Learning: Case Study of Mila Basin	1PA
2-61	Farida Boulaghmen	University of Amar Telidji Laghouat	Algeria	Identification and multidisciplinary Diagnostic of Flood Risk Management in Algeria case of four Wilayas	1PA
2-62	Abdelaziz Merghadi	Larbi Tebessi University	Algeria	A practical Guide Towards Automating Landslide Susceptibility Mapping using Machine Learning: Case Study of Mila Bassin.	1PA
2-63	Shahram Nasiri	The University of Queensland	Australia	Concerns over reliable earthquake-induced landslide hazard assessment: Developing sophisticated geotechnical databases and 3D landslide inventories	1PA
2-64	Colin Mazengarb	Mineral Resources Tasmania	Australia	Debris flow hazard in Tasmania Australia	1PA
2-65	Biswajeet Pradhan	University of Technology Sydney	Australia	Some technical misconceptions in spatial landslide hazard modelling	1PA
2-66	Thomas Glade	University of Vienna	Austria	A national landslide susceptibility assessment in Austria	1PA
2-67	William Ries	University of Vienna	Austria	Calculating cascading and cumulative error at a range of scales-impacts on landslide runout modelling and hazard zonation.	1PA
2-68	Maria Papathoma-Kohle	University of Natural Resources and Life Sciences, Institute for Mountain Risk Engineering	Austria	Physical vulnerability of buildings to debris flow-state of the art and future challenges	1PA
2-69	Rajib Kumar Saha	Geological Survey of Bangladesh	Bangladesh	Landslide hazards of Thanchi-Alikadam Upazila, Bandarban Hill District, Bangladesh	1PA

2-70	Younus Ahmed Khan	University of Rajshahi	Bangladesh	Landslide hazard and risk map of Chottogram hill Districts	1PA
2-71	Olivier Dewitte	Royal Museum for Central Africa	Belgium	Landslide timing in a data-scarce tropical environment: from recent to very old processes in the Kivu Rift	1PA
2-72	Ursula Guerra	Fundacao GEO-RIO	Brazil	PhD Student	1PA
2-73	Richard Guthrie	Stantec	Canada	Refining Landslide Runout Threats Using a New, Agent-Based, Landslide Runout Model	1PA
2-74	Vanessa Cuervo	BGC Engineering Inc., University of Waterloo	Canada	Tailings Dam Failure Hazard Assessment	1PA
2-75	Renato Macciotta	University of Alberta	Canada	Transportation infrastructure vulnerability to landslides in Western Canada	1PA
2-76	Evanaan Restrepo Ruiz	Universite de Geneve	Chile	Landslide Susceptibility Assessment City of Freetown-Sierra Leona, Africa	1PA
2-77	Sergio Sepulveda	Universidad de OHiggins	Chile	Landslide vulnerability changes and migration in Antofagasta, Northern Chile	1PA
2-78	Shengwu Qin	Jilin University	China	Improving the Performance of Machine Learning Methods for Debris Flow Susceptibility Mapping by Solving Class-imbalance Problem using Oversampling Method	1PA
2-79	Wentao Yang	Beijing Forestry University	China	Landslide surface recovery after major earthquakes around the globe	1PA
2-80	Shou Hao Chiang	National Central University	Chinese Taipei	Applying Multi-temporal Synthetic Aperture Radar Imagery for Event Landslides Detection	1PA
2-81	Paulo Silva	Universidad Nacional de Colombia	Colombia	Zonficacion Susceptibilidad cuenca Bogota	1PA
2-82	Edier Aristizabal	National University of Colombvia	Colombia	Rainfall-induced shallow landslide susceptibility assessment in mountainous and tropical scarse-data region of the Colombian Andes	1PA
2-83	Petra Domlija	University of Rijeka, Faculty of Civil Engineering	Croatia	Identification and mapping of shallow landslides in gullied topography	1PA
2-84	Sanja Bernat Gazibara	Faculty of Mining, Geology and Petroleum Engineering	Croatia	Automated landslide mapping using LiDAR for landslide susceptibility assessment	1PA
2-85	Angel Valdiviezo	Servicio Nacional de Gestiテウn de Riesgos y Emergencias	Ecuador	Landslide hazard assessment applying the Slope Mass Rating by Continuous Functions (SMR-C) to Las Cabras hill in the city of Duran, Ecuador	1PA
2-86	Yasser ELSHAYEB	Cairo University	Egypt	Zone Risk Maps in greater Cairo region and areas of high cultural value	1PA
2-87	Mario Reyes	Ministerio de Medio Ambiente y Recursos Naturales	El Salvador	Landslide susceptibility mapping in El Salvador using multivariate adaptive regression splines	1PA
2-88	Azemeraw Wubalem	University of Gondar	Ethiopia	Modeling of Landslide Susceptibility in a Part of Abay Basin, Northwestern Ethiopia based on Bivariate and Multivariate Statistical Methods	1PA
2-89	Kifle Woldearegay Woldemariam	Mekelle University	Ethiopia	Landslides in developing countries; the case of Ethiopia	1PA
2-90	George Gaprindashvili	National Environmental Agency, Department of Geology	Georgia	Geological Hazard (Landslide, Debris/Mudflow, Rockfall et. al) zoning map of Tbilisi city (Georgia)	1PA
2-91	Stratis KARANTANELLIS	Aristotle University of Thessaloniki School of Geology	Greece	Object-based landslide hazard detection using machine learning	1PA
2-92	Oscar Rolando Elvir Ferman	Instituto Hondureno De Ciencias De La Tierra-Universidad Nacional Autonoma De Honduras	Honduras	The importance of understanding landslides in Honduras a case of study:Analisys of susceptibility to landslides in municipality of Ajuterique, Honduras	1PA
2-93	Kuntala Bhusan	North Eastern Space Applications Centre	India	Landslide scenario in North East India and associated challenges	1PA
2-94	Praveen Kumar Rai	Amity University, Noida	India	Remote Sensing and GIS based study of Landslide Mapping and Monitoring in Garwal Himalaya, India	1PA
2-95	Tapas Martha	National Remote Sensing Centre	India	Geospatial landslide inventory database of India for decision makers	1PA
2-96	Vishal Mishra	Indian Institute of Technology, Roorkee	India	Monitoring of Reservoir Induced Landslides in Uttarakhand Himalayas using Radar Remote Sensing	1PA
2-97	Droupti Yadav	CSJM University Kanpur, U.P., India	India	Landslide Hazard Zonation Mapping of the Himalayan Region: A case study of Uttarakhand Himalaya, India	1PA
2-98	Piyoosh Rautela	Disaster Mitigation and Management Centre	India	Landslides in the Himalayan state of Uttarakhand and development challenges	1PA
2-99	Vikram Gupta	Wadia Institute of Himalayan Geology	India	Active tectonics and the distribution of landslides along the Indian Himalayan river valleys	1PA
2-100	SUNIL KUMAR DE	NORTH-EASTERN HILL UNIVERSITY	India	Landslide Hazard Zonation of North Sikkim Himalayas, India	1PA
2-101	Munawar Munawar	BMKG	Indonesia	Rainfall Induced Landslide Threshold Distribution in West Java Province	1PA
2-102	Zefanya Putra	Pertamina University	Indonesia	Landslide Hazard Identification through Remote Sensing	1PA
2-103	Jafar Hassanpour	University of Tehran	Iran	Rainfall induced landslide in Mazandaran province, Iran	1PA

2-104	Ali Uromeihy	Tarbiat Modares University	Iran	The use of LR, MLP and RBF methods in predicting rockfalls occurence induced by earthquake	1PA
2-105	Laurie Kurilla	University of Torino, Dept. of Earth Sciences	Italy	Global susceptibility of debris flows and spatial accuracy	1PA
2-106	Paola Reichenbach	CNR-IRPI	Italy	A review of statistically-based landslide susceptibility models	1PA
2-107	Pasquale Versace	University of Calabria	Italy	EVIL model: a method for vulnerability and risk assesment of the people	1PA
2-108	Alessandro Mondini	CNR-IRPI	Italy	Landslide mapping using SAR images: pros, cons and future challenges	1PA
2-109	Settimio Ferlisi	Department of Civil Engineering, University of Salerno	Italy	Consequence scenarios in urban areas exposed to rainfall-induced slope instabilities	1PA
2-110	Jung-Hsuan (Rosana) Lin	University of Tsukuba	Japan	Weathering of Serpentinite in Relation to Landslide Types in Yahata Landslide, Japan	1PA
2-111	Yuji HASEGAWA	Hiroshima University	Japan	Debris flows occurred in Hiroshima due to 2018 July heavy rain and proposing detail hazard mapping	1PA
2-112	Jong Kim	Nazarbayev University	Kazakhstan	Detection and characterization of landslides using satellite remote sensing technologies: A case study for Kazakhstan	1PA
2-113	Rouba Kaafarani	Lebanese American University	Lebanon	Quarried Sites in Lebanon: Ability of Regional Scale Models to Predicts Hazards Compared to Site-Specific Analysis	1PA
2-114	Zuhairi Abd Hamid	Construction Research Institute of Malaysia	Malaysia	Landslide Vulnerability Assessment and Risk Analysis for Critical Infrastructure in Malaysia	1PA
2-115	Mohd Khairolden Ghani	Construction Research Institute of Malaysia	Malaysia	Landslide Vulnerability Assessment and Risk Analysis for Critical Infrastructure in Malaysia	1PA
2-116	Yusrin Faiz Abd Wahab	Construction Research Institute of Malaysia	Malaysia	Landslide Vulnerability Assessment and Risk Analysis for Critical Infrastructure in Malaysia	1PA
2-117	SUHAIMI JAMALUDIN	PUBLIC WORK DEPARTMENT	MALAYSIA	SLOPE INVENTORIES DATA COLLECTION: RECENT ADVANCE	1PA
2-118	Jorge Antonio Paz Tenorio	Facultad de Ingenieria, Universidad de Ciencias y Artes de Chiapas	Mexico	Cartography of susceptibility to landslides and analysis of vulnerabilities	1PA
2-119	Juan Manuel Sanchez Nunez	CIIEMAD IPN	Mexico	Evaluation risk to Landslide instability in the Monarch Butterfly Biosphere Reserve (MBBR), El Rosario, Michoacan Mexico.	1PA
2-120	Luis Angel Jimenez Lopez	CIIEMAD IPN	Mexico	Study of the geological hazard due to landslides in the Motozintla basin, Chiapas, Mexico.	1PA
2-121	Perla Rodriguez Contreras	CIIEMAD IPN	Mexico	Characterization of the Geological Hazardtin Volcanic Domos (Colli and Tajo) Located in the West of the Metropolitan Area of Guadalajara, Jalisco, Mexico	1PA
2-122	Basanta Raj Adhikari	Institute of Engineering, Tribhuvan University	Nepal	Landslide hazards in the Sino-Nepal road corridors	1PA
2-123	Olga Mavrouli	ITC-University of Twente	Netherlands	Damage and vulnerability of buildings to rockfalls and landslides using analytical models	1PA
2-124	Phil Mourot	Waikato Regional Council / GEO-ID	New Zealand	Geological hazards in geothermal areas: Impact on Maori cultural heritage	1PA
2-125	John Dehls	Geological Survey of Norway	Norway	Mapping landslides at a nationwide scale using InSAR: the Norwegian Ground Motion Service	1PA
2-126	Farrokh Nadim	NGI	Norway	Theoretical framework for estimating the annual probability of occurrence of landslides	1PA
2-127	Dieu Tien Bui	University of South-Eastern Norway	Norway	Advanced Machine Learning and Deep Learning for spatial prediction of landslide hazards	1PA
2-128	Menal Zaheer	National Engineering Services Pakistan	Pakistan	Landslide Susceptibility Mapping and Zonation of Murree Area, Pakistan	1PA
2-129	Tomislav Popit	University of Ljubljana, Faculty of Natural Sciences and Engineering, Department of Geology	Slovenia	Roughness analysis of fossil landslide surfaces in the Vipava Valley, SW Slovenia	1PA
2-130	Tomaz Podobnikar	University of Ljubljana	Slovenia	Geomorphometric analysis of debris flow fan features	1PA
2-131	Abdikani mohamed Jeylani	Minister of humanitarian and disaster management	Somalia	Hazard Mapping and assessment	1PA
2-132	Txomin Bornaetxea	University of the Basque Country	Spain	The Effective Surveyed Area. Uncertainty reduction in field work based landslide inventories.	1PA
2-133	Gerardo Herrera	The Geological Surveys of Europe	Spain	Landslide impact in Europe. A review by the Geological Surveys.	1PA
2-134	Adolfo Quesada-Roman	University of Geneva/University of Costa Rica	Switzerland	Landslide hazard and dynamics in Costa Rica	1PA
2-135	Anatoly Ischuk	Institute of Geology, Earthquake Engineering and Seismology, Academy of Sciences, Republic of Tajikistan	Tajikistan	Landslide Susceptibility Under Strong Earthquakes in the Mountainous Areas of Tajikistan	1PA
2-136	Senem Tekin	Cukurova University	Turkey	Landslide Hazard Assessments In Goksu River Watershed (Southern Turkey)	1PA

2-137	Cigdem Tetik Bicer	Turkey Ministry Of Interior Disaster And Emergency Management Presidency	TURKEY	Landslide Hazard and Risk Assesment	1PA
2-138	TASKIN KAVZOGLU	GEBZE TECHNICAL UNIVERSITY	TURKEY	Modelling of Landslide Susceptibility in Blacksea region of Turkey Using Machine Learning Techniques	1PA
2-139	Claire Dashwood	British Geological Survey	UK	Challenges associated with national scale landslide mapping.	1PA
2-140	Nick Rosser	Durham University	UK	Assessing the evolution of post-earthquake landslide hazard: the legacy of the 2015 Gorkha earthquake, Nepal	1PA
2-141	Antonio Abellan	Rock Mechanics, Engineering Geology and Hydrogeology. Institute of Applied Geosciences, University of Leeds	UK	Spatial aspects of the long-term evolution of rock slopes: using ice calving as proxy for investigating rock slope failures.	1PA
2-142	Bruce Malamud	Kings College London	UK	Spatial and Temporal modelling of triggered landslide event populations: Review of where we are at	1PA
2-143	Mike Winter	TRL	UK	Quantitative Risk Assessment of Potential Fatalities Amongst Road Users from Debris Flow Events	1PA
2-144	Dalia Kirschbaum	NASA	USA	Multi-scale landslide hazard assessment using remote sensing data	1PA
2-145	William Schulz	United States Geological Survey	USA	Use of InSAR at multiple spatial and temporal scales to reveal landsliding mechanisms	1PA
Theme 3 Monitoring and Early Warning Contact: Veronica Tofani <veronica.tofani@unifi.it>					
Session 1 Landslide monitoring and geophysical surveys					
3-1	Paola Revellino, Luigi Guerriero, Giuseppe Ruzza and Francesco M. Guadagno	Department of Sciences and Technologies, University of Sannio	Italy	Defining kinematic and evolutive features of earth flows using integrated monitoring and low-cost sensors	FCB
3-2	Ondřej Racek, Jan Blahůt, Filip Hartvich	Czech Academy of Sciences, IRSM	Czech Republic	Monitoring of thermoelastic wave within a rock mass coupling information from IR camera and crack meters: a 24-hour experiment on “Branická skála” Rock in Prague, Czechia	FCB
3-3	Paolo Allasia, Marco Baldo, Francesco Faccini, Danilo Godone, Davide Notti, Flavio Poggi	CNR IRPI	Italy	The role of measure of deep-seated displacements in the monitoring networks on large-scale landslide	FCB
3-4	Rustam Niyazov, Bakhtiar Nurtaev, Gani Bimurzaev and Mansur Tashpulatov	Institute of geology and geophysics	UZBEKISTAN	Flow slides in Uzbekistan: overview and case studies	FCB
3-5	Tomofumi Koyama, Seiji Kondo, Taizo Kobayashi, Shinichi Akutagawa, Takeshi Sato, Katsuyuki Nakata and Kazuyuki Shimojima	Kansai University	Japan	Development of resident participation-type slope measurement/monitoring system in mountain region	FCB
3-6	JONGMANS Denis, FIOLLEAU Sylvain, BIÈ VRE Gregory	Universite Grenoble Alpes	France	Geophysical monitoring of landslides: state-of-the art and recent advances	FCB
3-7	Jonathan Chambers, Philip Meldrum, Paul Wilkinson, Jessica Holmes, David Huntley, Peter Bobrowsky, David Gunn, Sebastian Uhlemann, Nick Slater	British Geological Survey	UK	Long-term geophysical imaging of moisture driven landslide processes	FCB
3-8	Sebastian Uhlemann, Jonathan Chambers, Philip Meldrum, Patrick McClure, and Baptiste Dafflon	Lawrence Berkeley National Lab	USA	Geophysical monitoring of landslides – A step closer towards predictive understanding?	FCB
3-9	Jim Whiteley, Arnaud Watlet, Sebastian Uhlemann, Philip Meldrum, Paul Wilkinson and Jonathan Chambers	University of Bristol/British Geological Survey	UK	Recent advances in high spatial resolution geophysical monitoring of moisture-induced landslides	FCB
3-10	Hao Luo, Aiguo Xing, Kaiping Jin, Shimin Xu, Yu Zhuang	Shanghai Jiao Tong University	China	Characteristic analysis of the Nayong rock avalanche based on the seismic signal	FCB
3-11	Yu Zhuang, Aiguo Xing	Shanghai Jiao Tong University	China	Electrical resistivity tomography (ERT) based investigation of two landslides in Guizhou, China	FCB
3-12	Kiminori Araiba and Shoji Doshida	National Research Institute of Fire and Disaster	Japan	Vibration of Piled Rocks - Which rock can be removed ?	FCB
Session 2 Remote sensing for landslide risk management					

3-13	Ko-Fei Liu, Ting-Iu Kuo, and Shih-Chao Wei	National Taiwan University	Chinese Taipei	Debris flow detection with video camera	FCB
3-14	Federico Raspini, Emanuele Intrieri, Davide Festa and Nicola Casagli	Earth Sciences Department of the University of Firenze	Italy	Landslide mapping and monitoring with satellite interferometry	FCB
3-15	Xue Chen, Giulia Tessari, Massimo Fabris, Vladimiro Achilli and Mario Floris	Sarmap SA	Switzerland	Comparison between PS and SBAS InSAR techniques in monitoring shallow landslides	FCB
3-16	Giulia Tessari, Loris Copa, Giaime Origgi, Almazbek Torgoev, Lars Uhlig and Francesco Holecz	Sarmap SA	Switzerland	Analyses of Koitash landslide, affecting Mailuu Suu valley, Kyrgyzstan, through integrated remote sensing techniques	FCB
3-17	Giulia Tessari, Divya Kashyap and Francesco Holecz	Sarmap SA	Switzerland	Landslide monitoring in the main municipalities of Sikkim Himalaya, India, through Sentinel-1 SAR data	FCB
Session 3 Landslide early warning systems					
3-18	Gaetano Pecoraro, Michele Calvello	University of Salerno	Italy	Definition and first application of a probabilistic warning model for rainfall-induced landslides	FCB
3-19	Nikolaos Depountis, Nikolaos Sabatakakis, Katerina Kavoura, Konstantinos Nikolakopoulos, Panagiotis Elias, George Drakatos	University of Patras	Greece	Establishment of an integrated landslide early warning and monitoring system in populated areas	FCB
3-20	Nguyen Duc Ha, Le Quoc Hung, Takahiro Sayama, Kyoji Sassa, Kaoru Takara, Khang Dang	Vietnam Institute of Geosciences and Mineral Resources	Vietnam	An Integrated WebGIS System for Shallow Landslide Hazard Early Warning	FCB
3-21	Manfred Stähli and Adrian Wicki	Federal Swiss Federal Research Institute WSL	Switzerland	The value of soil wetness measurements for regional landslide Early Warning Systems	FCB
3-22	John Singer, Kurosch Thuro, Moritz Gamperl, Tamara Breuninger and Bettina Menschik	AlpGeorisk	Germany	Technical concepts for an early warning system for rainfall induced landslides in informal settlements	FCB
3-23	An Lu, Wei-Kai Haung, Ching-Fang Lee, Lun-Wei Wei, Hsi-Hung Lin and Chun-Chi Chi	Sinotech Engineering Consultants	Chinese Taipei	Combination of rainfall thresholds and susceptibility maps for early warning purposes for shallow landslides at regional scale in Taiwan	FCB
3-24	Agus Setyo Muntohar, Olga Mavrouli, Victor G. Jetten, Cees J. van Westen, Rokhmat Hidayat	Univeritas Muhammadiyah Yogyakarta	Indonesia	Development of Landslide Early Warning System based on the Satellite-Derived Rainfall Threshold in Indonesia	FCB
3-25	Agie Wandala Putra, Nn. Ummul Choir OS, Imaduddin Salma Faalih	Agency for Meteorology Climatology and Geophysics of Republic of Indonesia (BMKG)	Indonesia	The Efficient Early Warning with South East- Asia Oceania Flash Flood Guidance System (SAOFFGS)	FCB+EPR
3-26	Qiang Xu, Dalei Peng, Xuanmei Fan, Xing Zhu, Chaoyang He	State Key Laboratory of Geo-hazard Prevention and Geo-environment Protection,Chengdu University of Technology	China	Presenting Some Successful Cases of Regional Landslides Early Warning Systems in China	FCB+EPR
3-27	Klaus-Peter Keilig, Markus Bauer, Peter Neumann and Kurosch Thuro	Technical University of Munich	Germany	Towards an early warning system for instable slopes in Gorgia The large Tskneti Akhaldaba landslide	FCB
3-28	Lin Wang, Makoto Fukuhara, Taro Uchimura, Gallage Chaminda and Tharindu Abeykoon	Chuo Kaihatsu Corporation	Japan	An EWS of landslide and slope failure by MEMS tilting sensor array	FCB
Session 4 Forecasting models and time predictions of landslides					
3-29	Maria Teresa Brunetti, Massimo Melillo, Stefano Luigi Gariano, Luca Ciabatta, Luca Brocca, Silvia Peruccacci	CNR IRPI	Italy	Regional approaches in forecasting rainfall-induced landslides	FCB
3-30	Shobhana Lakhera, P.K. Champati ray, Michel Jaboyedoff, Harshita Tiwari	Indian Institute of Remote Sensing (IIRS), India	India	Establishing Soil Moisture and Rainfall Intensity-duration thresholds for initiation of mass movements along the National Highway-58 in the Chamoli district of Uttarakhand	FCB

3-31	Graziella Devoli, Hervé Colleuille, Monica Sund, Jaran Wasrud	Norwegian Water Resources and Energy Directorate	Norway	Seven years of landslide forecasting in Norway – strengths and limitations	FCB
3-32	Veronica Tofani, Gabriele Bicocchi, Elena Benedetta Masi, Carlo Tacconi Stefanelli, Guglielmo Rossi, Filippo Catani	University of Florence - Department of Earth Sciences	Italy	Characterization of hillslope deposits for physically-based landslide forecasting models	FCB
3-33	Brenda Rosser, Chris Massey, Biljana Lukovic, Sally Dellow, Matt Hill	GNS Science	New Zealand	Development of a Rainfall-induced Landslide Forecast Tool for New Zealand	FCB
3-34	Naoki Iwata, Katsuo Sasahara	Chuden Engineering Consultants Co.,Ltd	Japan	Influence of intervals measuring surface displacement on time prediction of slope failure using Fukuzono Method	FCB
3-35	Katsuo Sasahara	Kochi University	Japan	Velocity and acceleration of surface displacement in sandy model slope with various slope conditions	FCB
3-36	Praveen Kumar, Priyanka Sihag, Ankush Pathania, Pratik Chaturvedi, K. V. Uday and Varun Dutt	Indian Institute of Technology Mandi	India	Comparison of Moving-average, Lazy, and Information Gain Methods for Predicting Weekly Slope-movements: A Case-study in Chamoli, India	FCB
3-37	Antoinette Tordesillas, Shuo Zhou, Federico Di Traglia and Emanuele Intrieri	University of Melbourne	Australia	New insights into the spatiotemporal precursory failure dynamics of the 2017 Xinmo landslide and its surrounds	FCB
E-proccedings papers for Theme 3					
3-38	Chaminda Gallage, Tharindu Abeykoon, Jessica Trofimovs, Lin Wang and Taro Uchimura	Saitama University	Japan	Case study: Use of real-time monitoring to estimate the time for slope failure	EPR
3-39	Nikhil Nedumpallile Vasu, Christian Arnhardt, Muhammad Firdaus Ammar Abdullah, Ng Tham Fatt, Vanessa Banks, Helen Reeves, Joy Jacqueline Pereira, Elanni Affandi	British Geological Survey	UK	Methodology for developing a preliminary hydrological threshold for rainfall-induced landslides in Kuala Lumpur city, Malaysia	EPR
3-40	Adriaan van Natijne, Roderik Lindenbergh, Thom Bogaard	Delft University of Technology	Netherlands	Machine Learning: Potential for Deep-Seated Landslide Nowcasting	EPR
One-page abstract papers for Theme 3					
3-41	David Huntley	Geological Survey of Canada	Canada	Field testing innovative RTK-GPS-GNSS-UAV monitoring technologies	1PA
3-42	Nur Hussain	McMaster University	Canada	Remote sensing based landslides risk measurement	1PA
3-43	Matt Lato	BGC Engineering	Canada	Advances in 4D remote sensing for landslide mapping and risk assessment	1PA
3-44	D Jean Hutchinson	Queen's University	Canada	Towards managing debris channel risks to infrastructure: Understanding debris processes using remotely sensed data.	1PA
3-45	Runqing Ye	Wuhan Centre of China Geological Survey	China	Analysis of Deformation Characteristics of Landslide in the Three Gorges Reservoir Area･靴hina	1PA
3-46	Ying Liu	Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences	China	Remote sensing monitoring of landslides along highways	1PA
3-47	Keren Dai	Chengdu University of Technology	China	time to build the intergrated earth observation landslide early warning system	1PA
3-48	Ping Lu	Tongji University	China	Landslide Inventory Mapping from VHR, HR and MR imageries	1PA
3-49	Srikrishnan Siva Subramanian	State Key Laboratory of Geohazard Prevention and Geoenvironment Protection (SKLGP), Chengdu University of Technology	China	Modelling and defining early warning thresholds for snowmelt induced soil slope failures in seasonal cold regions	1PA
3-50	Xiaolei Liu	Ocean University of China	China	In situ observations of wave-induced submarine landslide on the Yellow River subaqueous delta	1PA
3-51	Mingsheng Liao	Wuhan University	China	Mapping and monitoring surface displacements in mountainous-	1PA
3-52	Chun-Fan CHANG	Department of Animal Science, Chinese Culture University	Chinese Taipei	Relational Application with Profiling Potentials of Alike Land Displacement Strain and Soil Liquidity Stress	1PA
3-53	ROUFEI CHEN	Department of Geology/Chinese Culture University	Chinese Taipei	Using multi-temporal interferometry to recognize sliding blocks with in deep-seated landslide by ALOS/ALOS2 imagery	1PA

3-54	YuanJung Tsai	Disaster Prevention Research Center, National Cheng Kung University	Chinese Taipei	Framework of emergency response system for potential large-scale landslide in Taiwan	1PA
3-55	Chih-Chung Chung	National Central University	Chinese Taipei	The Development of TDR-integrated landslide Early Warning System	1PA
3-56	Kuo-Lung WANG	National Chi Nan University	Chinese Taipei	Advanced deep seated landslide monitoring combining with remote sensing, geophysical, geotechnical methods	1PA
3-57	Jean-Philippe Malet	CNRS - Ecole et Observatoire des Sciences de la Terre	France	Massive processing of satellite image time series for landslide forecasting	1PA
3-58	Kurosch Thuro	Technical University of Munich	Germany	Development of an early warning system for shallow landslides in the tropical Andes (Medellтn; Colombia)	1PA
3-59	Nikolaos Depountis	University of Patras	Greece	Establishment of an integrated landslide early warning and monitoring system in populated areas	1PA
3-60	Soumya Darshan Panda	Indian Institute of Technology (IIT), Roorkee	India	Regional Rainfall Intensity Threshold for Landslides in Uttarakhand Himalaya, India	1PA
3-61	Prodip Mandal	Cooch behar Panchanan Barma University	India	Rainfall thresholds for the prediction of rainfall-induced landslides along NH-10 in Darjeeling Himalayas, India	1PA
3-62	Manojit Samanta	CSIR-Central Building Research Institute	India	A review of rainfall threshold for landslide initiation, limitations and way forward	1PA
3-63	Uday K V	IIT Mandi	India	Landslide debris-flow Prediction using Ensemble and Non-Ensemble Machine-Learning Methods	1PA
3-64	Sangeeth kumar Chinnadurai	Amrita Vishwa Vidyapeetham	India	Comparison of Data Networking Architectures for Remote Landslide Warning System:Pros and Cons	1PA
3-65	Prakash Chandra Tiwari	Kumaun University, Nainital	India	Community Based Early Warning System for Climate Change Induced Landslide Risk Reduction in Himalaya	1PA
3-66	Maneesha Ramesh	Amrita Vishwa Vidyapeetham	India	Enhancing the reliability of IoT System for landslide monitoring by integrating learning models	1PA
3-67	Weniza Weniza	Indonesian Agency for Meteorology, Climatology and Geophysics BMKG	Indonesia	Indonesian Tsunami Hazard Early Warning System; the Challenge and Innovations	1PA
3-68	Teuku Faisal Fathani	Universitas Gadjah Mada	INDONESIA	Landslide Monitoring and Early Warning System	1PA
3-69	Liang Feng	University of Florence	Italy	Rockfall detection and early warning using micro-seismic monitoring	1PA
3-70	Vladislav Ivanov	Politecnico di Milano	Italy	Applicability of an interferometric optical fibre sensor for shallow landslide monitoring 宴•experimental tests	1PA
3-71	Andrea Segalini	Universitт di Parma	Italy	Definition and application of a new multi-criteria algorithm to identify the landslide acceleration phase	1PA
3-72	Enrico Mittiga	Anas SpA - Gruppo FS Italiane	Italy	Early Warning Systems for Infrastructure Protection in Italy	1PA
3-73	Mario Parise	University Aldo Moro, Dept. Earth and Environmental Sciences	Italy	Do we really use landslide susceptibility maps?	1PA
3-74	Paolo Mazzanti	Sapienza University of Rome	Italy	Recent developments in photomonitoring	1PA
3-75	Andrea Carri	ASE S.r.l.	Italy	Remote geotechnical monitoring in the IoT era	1PA
3-76	Sho Iwagami	Forestry and Forest Products Research Institute, Forest Research and Management Organization, National Research and Development Agency	Japan	Pore-air pressure response in soil layer during rainfall event in a small headwater catchment	1PA
3-77	Hiroo Oouchi	OYO Corporation	Japan	The Monitoring of Lava Dome on Mt. Unzen using satellite radar data	1PA
3-78	Deepak KC	CDRMP/United Nations Development Programme	Nepal	Community Based Early Warning System for Floods and Landlsides in Policies and Practices	1PA
3-79	Thom Bogaard	Delft University of Technology	Netherlands	What hydrological informationsshould we include in landslide hzard assessment and Early Warning Systems?	1PA
3-80	Bapon Fakhruddin	Tonkin and Taylor	New Zealand	Multi-hazards impact based early warning system	1PA
3-81	Jose Cepeda	Norwegian Geotechnical Institute - NGI	Norway	A generalized form of the power law function for precipitation thresholds	1PA
3-82	Vikas Thakur	Norwegian University of Science and Technology	Norway	Need for an integrated landslide and cybersecurity management framework	1PA
3-83	Ray Andrew Buensuceso	Philippine Institute of Volcanology and Seismology	Philippines	Monitoring and Early Warning System for Shallow and Deep-seated Landslides: A preliminary study in the Philippines	1PA
3-84	Roy Anthony Luna	AMH Philippines, Inc	Philippines	Development of Landslide Monitoring and Early Warning System for Philippine Infrastructures	1PA

3-85	Hyuck-Jin Park	Sejong University	Republic of Korea	Probabilistic modelling of uncertainties in physically based landslide susceptibility assessment	1PA
3-86	Mihai Niculita	Alexandru Ioan Cuza University of Iasi	Romania	LiDAR and UAV SfM for landslide monitoring	1PA
3-87	Sergey Matsiy	Kuban State Agrarian University	Russia	Landslide Risk-Assestment	1PA
3-88	Anna Barra	CTTC	Spain	Sentinel-1 landslides detection: the Granada coast	1PA
3-89	Oriol Monserrat	CTTC	Spain	Sentinel-1 as a tool to support early warning systems	1PA
3-90	Anna Scolobig	University of Geneva	Switzerland	Landslide warning communication: challenges and prospects	1PA
3-91	Haluk Akgun	Middle East Technical University (METU)	Turkey	Landslide monitoring using optical fibers	1PA
3-92	Mustafa Kockar	Hacettepe University	Turkey	Landslide Monitoring and Early Warning System	1PA
3-93	Arzu Arslan Kelam	Middle East Technical University (METU)	Turkey	Utilization of Optical Fibers for Landslide Monitoring	1PA
3-94	Catherine Pennington	British Geological Survey	UK	Preliminary results from data-driven IoT landslide monitoring systems in the UK	1PA
3-95	Samprada Pradhan	Durham University	UK	Impacts of road construction on rainfall induced landsliding in Nepal	1PA
3-96	George Adamson	King's College London	UK	The institutional structure of disaster risk reduction in India and its relation to landslides	1PA
3-97	Anshu Ogra	King's College London	UK	Institutional Structure for Landslide Early Warning System in India	1PA
Theme 4 Testing, Modeling and Risk Assessment			**Binod Tiwari <btiwari@fullerton.edu>**		
Session 1 Recent Development in Physical Modeling of Landslides					
4-1	Timothy D. Stark and Zhengdan Xu	University of Illinois at Urbana-Champaign	USA	Oso Landslide: Failure Mechanism and Runout Analyses	FCB
4-2	Xiaoyu Chen, Rolando P Orense	University of Auckland	New Zealand	Application of magnetic tracking system in laboratory-scale rock avalanche model tests	FCB
4-3	Yanto, Sumiyanto, and Arwan Apriyono	Jenderal Soedirman University	Indonesia	A simple physically-based distributed translational landslide model	FCB
4-4	Mastura Azmi, Muhd Harris Ramli, Mohd Azril Hezmi, Siti Aimi Nadia Mohd Yusoff and Hazwan Zaki	Universiti Sains Malaysia	Malaysia	Behaviour of Slope Instability using Physical and Computational Modelling	FCB
4-5	Nobutaka Hiraoka, Naotaka Kikkawa and Kazuya Itoh	National Institute of Occupational Safety and Health, Japan	Japan	Centrifuge Modelling of Slope Failure due to Groundwater during Excavation	FCB
4-6	Wei HU, Xiaoyan ZHANG, and Huawei HU	Chengdu University of Technology	China	Effects of Relative Density in Progressive Sliding of Tailing	FCB
4-7	Binod Tiwari	California State University, Fullerton	USA	Experimental Studies on the Effect of Vegetation Density to Change Underground Seepage Rate and Stability of Slopes	FCB
4-8	Jonathan M Carey, Joshu J Mountjoy, Gareth J Crutchley, Barbara Lyndsell and David N Petley	GNS Science	New Zealand	Laboratory simulations of submarine landslide failure mechanisms	FCB
4-9	Gennaro Spolverino, Giovanna Capparelli and Pasquale Versace	University of Calabria	Italy	Laboratory tests to simulate the rainfall infiltration process of pyroclastic soils subject to instability	FCB
4-10	Irene Manzella	University of Plymouth	UK	Granular flow experiments and mobility of large mass flows	EPR
Session 2 Recent Development in Numerical Modeling of Landslides					
4-11	Daniel Pradel	Ohio State University Columbus	USA	Numerical Modelling for Slope Stabilizations in Modern Geotechnical Practice	FCB
4-12	Roger Ruiz-Carulla, Gerard Matas, Jordi Corominas, Nieves Lantada	Technical University of Catalonia	Spain	3D analysis of a fragmental rockfall	FCB
4-13	Hans-Balder Havenith	University of Liege	Belgium	3D landslide models in VR	FCB
4-14	Xiaoli Su, Xilin Xia and Qiuhua Liang	Loughborough University	UK	A coupled discrete element and depth-averaged model for flow-like landslide simulations	FCB
4-15	Martin Mergili and Shiva P. Pudasaini	BOKU University, Institute of Applied Geology	Austria	Advanced methods for simulating complex landslides	FCB
4-16	Guan-Yu Chen, Chin-Chih Liu and Yi-Fung Wang	National Sun Yat-sen University	Chinese Taipei	Application of Reciprocal Green's Functions on the Forecast of Submarine Landslide Tsunamis	FCB
4-17	Kuo-Hsin Yang, Thanh Son Nguyen, Harianto Rahardjo, and Der-Guey Lin	NATIONAL TAIWAN UNIVERSITY	Chinese Taipei	Deformation characteristics with porewater pressure development of shallow landslide triggered by rainfall infiltration	FCB

4-18	Kana Nakatani, Ken'ichirou Kosugi and Yoshifumi Satofuka	Kyoto University, Graduate School of Agriculture	Japan	Debris flow simulations due to landslide dam outburst and considering effective countermeasures	FCB
4-19	Federico Gatti, Luca Bonaventura, Alessandra Menafoglio, Monica Papini and Laura Longoni	Politecnico di Milano - Milano Leonardo	Italy	First test results from the SMART-SED simulation tool basin scale sediment yield model	FCB
4-20	Khang Dang, Doan Huy Loi, Kyoji Sassa, Do Minh Duc, Nguyen Duc Ha	ICL	Japan	Hazard assessment of a rainfall-induced deep-seated landslide in Hakha city, Myanmar	FCB
4-21	Doan Huy Loi, Kyoji Sassa, Khang Dang, Le Hong Luong	International Consortium on Landslides/ Institute of Transport Science and Technology	Japan	Landslide hazard zoning based on the integrated simulation model (LS-Rapid)	FCB
4-22	Jelka Krušić, Biljana Abolmasov and Miloš Marjanović	University of Belgrade, Faculty of Mining and Geology	Serbia	Numerical models of debris flows with entrainment analysis-case studies from the Republic of Serbia	FCB
4-23	Akihiko Wakai, Deepak Raj Bhat, Kenta Kotani and Soichiro Osawa	Gunma University	Japan	Numerical simulation of a creeping landslide case in Japan	FCB
4-24	Takashi Kitazume, Takahiro Abe and Satoshi Goto	Tokyo Electric Power Services Co., Ltd.	JAPAN	Numerical simulation of debris flows after ash fall at Mt. Fuji	FCB
4-25	Thirapong Pipatpongsa, Krit Aroonwattanaskul and Kun Fang	Kyoto University	Japan	On the progression of slope failures using inverse velocity of surface movements in an undercut slope model	FCB
4-26	Mario Martinelli, Wei-Lin Lee, Chjeng-Lun Shieh and Sabatino Cuomo	National cheng kung university	Chinese Taipei	Rainfall boundary condition in a multiphase Material Point Method	FCB
4-27	Jiawei Xu, Ryosuke Uzuoka and Kyohei Ueda	Kyoto University	Japan	Response of slopes to earthquakes and rainfall	FCB
4-28	Hitoshi Nakase, Yukio Nakata	TEPSCO	Japan	Reproduction of Sedimentation State during Rock Slope Failure Using the Simplified DEM Model	FCB
Session 3 Recent Development in Soil and Rock Testing Techniques, Application and Analysis Methods					
4-29	Binod Tiwari and Beena Ajmera	California State University, Fullerton	USA	Recent Developments in the Evaluation and Application of Residual and Fully Softened Shear Strengths for the Stability Analyses of Landslides	FCB
4-30	Rita Tufano, Luigi Annunziata, Enrico Di Clemente, Giovanni Falgiano, Francesco Fusco, Pantaleone De Vita	Dipartimento di Scienze della Terra, dell'Ambiente e delle Risorse - Universita di Napoli Federico II	Italy	Analysis of shear strength variability of ash-fall pyroclastic soils involved in flow-like landslides	FCB
4-31	L K Nimani S Kulathilake, E H N Premasiri & A A Virajh Dias	Central engineering consultancy Bureau	Sri Lanka	Comparison of Soil Parameters and Soil Moduli E50 & E70 of Residual Soils used in Stability Analysis	FCB
4-32	Qi Liu, Lijun Su, Jun Zhang	Institute of Mountain Hazards and Environment, Chinese Academy of Sciences	China	Influence of plant root asperities and architectural traits on soil shear resistance	FCB
4-33	Pongsakorn Wongchana, Peerapong Jitsangiam, Suriyah Thongmunee, and Tawatchai Tanchaisawat	Chiang Mai University	Thailand	Modelling of Creep Behavior of Claystone in Mae Moh Open-Pit Mine Using the Soft Soil Creep Model	FCB
4-34	Istiyanti Mega Lia, Goto Satoshi, Dung Mai Xuan	University of Yamanashi	Japan	Relation between water content and shear strength characteristics on undisturbed and reconstituted samples at tephra layers in Aso volcano, Kyushu, Japan	FCB
4-35	Deepak Raj Bhat	Okuyama Boring Co., Ltd.	Japan	Shearing rate effect on residual strength of typical clay soils in ring shear test	FCB
4-36	Mariagiovanna Moscariello and Sabatino Cuomo	Unviersity of Salerno	Italy	Simple shear tests for unsaturated soils	FCB
4-37	Beena Ajmera and Binod Tiwari	North Dakota State University	USA	Simplest Methods of Determining Dynamic Soil Properties for Use in Co-seismic Hazard Analysis	FCB
4-38	Yao Jiang, Gonghui Wang	Institute of Mountain Hazards and Environment, Chinese Academy of Sciences	China	The acoustic emission characteristics and shear behaviour during granular shearing	FCB
Session 4 Recent Advancements in the Methods of Slope Stability and Deformation Analyses					
4-39	Masahiro Katayama, Tsuyoshi Nakade, Tetsuji Yamaguchi and Masafumi Okawara	Kumagai Gumi Co.,Ltd.	Japan	Prediction of deformation of caisson type piles in open cut works and countermeasures employing early closure method	FCB
4-40	Timur Ersöz, Merve Özköse and Tamer Topal	Middle East Technical University	Turkey	Slope Stability Assessment of Weak and Weathered Rocks with BQ System	FCB

4-41	Paul J Vardanega, Elizabeth A Holcombe, Myrto Savva, Casey J Shepheard, Rose Hen-Jones, Flavia De Luca	University of Bristol	UK	Soil databases to assist slope stability assessments in the Eastern Caribbean	FCB
4-42	Saaduddin, Jurgen Neuberg, Mark E. Thomas, Jon Hill	University of Leeds, UK	UK	The Mt Gamalama instability level in generating landslide-induced tsunami in Ternate Island, Indonesia	FCB
Session 5 Recent Development in Disaster Risk Assessment					
4-43	Limin Zhang, Jian He, and Te Xiao	Hong Kong University of Science and Technology	China	Engineering Risk Mitigation for Landslide Hazard Chains: the Baige Landslides on the Jinsha River in 2018	FCB
4-44	Kelvin Sattler, David Elwood, Michael T. Hendry, David Huntley, Jessica Holmes, and Paul B. Wilkinson	University of Saskatchewan	Canada	Effect of Pore Pressure Dynamics on Progressive Failure in a Clayey Glaciolacustrine Landslide	FCB
4-45	Shantanu Sarkar and Koushik Pandit	CENTRAL BUILDING RESEARCH INSTITUTE	India	Engineering Geological Investigation and Slope Stability Analysis for Landslide Hazard Assessment in Indian Himalayas	FCB
4-46	Damiano Vacha, Giuseppe Mandrone, Matteo Garbarino & Donato Morresi	University of Torino	Italy	First considerations about post 2017 wildfire erosion response and debris flows in Susa valley (NW Italy)	FCB
4-47	Wahyu Wilopo, Hendy Setiawan, Doni Prakasa Eka Putra, Teuku Faisal Fathani	Gadjah Mada University, Indonesia	Indonesia	Identification of Sliding Surface and Crack Pattern in the Soil Creep, Case Study: Unika Soegijapranata Campus, Semarang, Central Java, Indonesia	FCB
4-48	Tina Peternel, Ela Šegina, Matija Zupan, Mateja Jemec Auflič and Jernej Jež	Geological Survey of Slovenia	Slovenia	Preliminary result of real-time landslide monitoring in the case of the hinterland of Koroška Bela, NW Slovenia	FCB
4-49	Saskia de Vilder, Chris Massey, Tony Taig, Biljana Lukovic, Garth Archibald, and Regine Morgenstern	GNS Science	New Zealand	Quantitative risk analysis of earthquake-induced landslides	FCB
4-50	Julian S. H. Kwan, W. K. Leung, and Clarence E. Choi	Geotecnhnical Engineering Office	Hong Kong SAR, China	Role of Remote Sensing Technology in Landslide Risk Management of Hong Kong	FCB
4-51	Yoshikazu Tanaka, Kyohei Ueda and Ryosuke Uzuoka	Disaster Prevention Research Institute, Kyoto University	Japan	The characteristics of the vegetation distribution related to the slope failure caused by the earthquake	FCB
E-proccedings papers for Theme 4					
4-52	Luqi Wang, Yueping Yin, Bolin Huang, Zhenwei Dai, Zhihua Zhang	China University of Geosciences	China	Risk assessment of submerged rock mass in reservoir area	EPR
One-page abstract papers for Theme 4					
4-53	Christina Rechberger	University of Natural Resources and Life Sciences Vienna, Institute of Applied Geology	Austria	Discrete element modelling of an active deep-seated rock slide in a glacier-retreat area studying initial failure and slope deformation processes	1PA
4-54	Emmanouil Fleris	Technical University of Vienna	Austria	A study of Rockfall processes at different geomorphological settings through a stochastic numerical approach in 3D.	1PA
4-55	Md. Rafiqul Islam	Department of Petroleum and Mining Engineering, Shahjalal University of Science and Technolog, Sylhet-3114, Bangladesh	Bangladesh	Numerical modeling sliding behavior and safety factor analysis of the right-bank of the river Jamuna, Central Banglaesh	1PA
4-56	Masato Kobiyama	Federal University of Rio Grande do Sul	Brazil	Hazard connectivity index for debris-flow disaster management	1PA
4-57	Jiajia Wang	Chang'an University	China	Tsunami Squares modeling of landslide generated impulsive waves	1PA
4-58	Dongri Song	Institute of Mountain Hazards and Environment, Chinese Academy of Sciences	China	Basal stresses of debris flow in instrumented flume	1PA
4-59	Yajun Li	Lanzhou University	China	Active periods of debris flows on the eastern margin of the Tibetan Plateau	1PA
4-60	George Goodwin	University of Hong Kong	China	Coarse-grained flows and slit-structures: a closer look at the transitition between self-cleaning and mechanical trapping	1PA
4-61	Zhenwei Dai	Wuhan Centre of China Geological Survey	China	Study on Deterioration Characteristics of Slope Rock Mass and Its New Anchorage Control Technology in Three Gorges Reservoir Area, China	1PA
4-62	Bolin Huang	China Three Gorges University	China	Dynamic Analysis of Impulse Wave Generated by the Collapse of Granular Pillar	1PA

4-63	Xiaofan An	Xi'an University of Technology	China	Grain-based distinct element modelling for flexural toppling of rock slopes	1PA
4-64	Xiaoqin Lei	Institute of Mountain Hazards and Environment, CAS	China	Effects of internal erosion on the stability of slopes composed of loose deposits	1PA
4-65	Chaojun Ouyang	Institute of Mountain Hazards and Environment,CAS	China	Numerical modeling of dynamic process and risk prediction of recent catastrophe landslides	1PA
4-66	Lili Xiao	Chang'an University	China	assistant professor	1PA
4-67	WEI ZHONG	Institute of Mountain Hazards and Environment, CAS	China	Spatial Stability Evaluation of Landslide	1PA
4-68	Clarence Choi	The University of Hong Kong	China	Impact of debris flow against multiple barriers	1PA
4-69	Jianqi Zhuang	Chang'an University	China	Mechanism of the remodel loess failure due to Gully Stabilization and Highland Protection and improvement using Sodium Alginate	1PA
4-70	Yuan-Jun Jiang	Institute of Mountain Hazards and Environment, Chinese Academy of Sciences	China	Interaction mechanism of dry granular flow and countermeasure structure	1PA
4-71	Yu Huang	Tongji University	China	Resilience assessment of Anchored Engineering Slopes Subject to seismic excitation	1PA
4-72	Keh-Jian Shou	NATIONAL CHUNG-HSING UNIVERSITY	Chinese Taipei	On the scale effect of the catchment landslide susceptibility with consideration of climate change	1PA
4-73	Wen-Chao Huang	National Central University	Chinese Taipei	Rock slope simulation employing centrifuge and DEM modeling	1PA
4-74	Sanja Dugonjic Jovancevic	University of Rijeka, Faculty of Civil Engineering	Croatia	Analysis of rock mass and instability phenomena along the karst-flysch contact	1PA
4-75	Alonso A. Alfaro Navarrete	MOPT - El Salvador	El Salvador	Rockfall and landslides events and its study in Los Chorros Segment of the CA01 route, El Salvador.	1PA
4-76	Anthony Leung	Hong Kong University of Science and Technology	Hong Kong SAR, China	Innovative use of thermo-active pile row in unsaturated soil slope	1PA
4-77	Thambidurai Ponnugounder	Priyadarshini Engineering College	India	Electrical Resistivity and Geotechnical Approach for Landslide Investigation of Mangan Town, Sikkim, Northeastern India - A Case Study	1PA
4-78	Vamshi Krishna Rao Karanam	Leibniz University of Hannover	India	Land slide monitoringusing Persistant scatterer interferometry (ADInSAR)	1PA
4-79	RAJESH KUMAR DASH	CSIR-Central Building Research Institute	India	Debris flow runout estimation for landslide risk assessment in Indian Himalaya	1PA
4-80	Philips Omowumi Falae	2Academy of Scientific and Innovative Research (AcSIR), Ghaziabad, India	India	Integrated Geo-investigations for Landslide Investigation	1PA
4-81	Jun Umemura	Nihon University	JAPAN	Shear tests for the slip surface of earthquake induced landslides based on the scenario at the time of their occurrence	1PA
4-82	Shuji Moriguchi	Tohoku University	Japan	Correlation analysis of DEM input parameters in slope failure simulations	1PA
4-83	Ngoc Ha Do	University of Yamanashi	Japan	Research on landslides mechanism in case of heavy rainfall by flume experiment	1PA
4-84	Kazuya ITOH	Tokyo City University	Japan	Centrifuge model tests of rainfall-induced slope failures	1PA
4-85	Netra Prakash Bhandary	Ehime University	Japan	Residual-state ring shear creep tests on clayey materials and development of creep failure model	1PA
4-86	Zili Dai	Shimane University	Japan	SPH-based numerical modeling of submarine landslide propagation and its generated surge waves	1PA
4-87	Jonathan Nuttall	Deltares	Netherlands	Probabilistic Site Characterization using CPT data, Convolutional Neural Networks and Random Fields	1PA
4-88	mario martinelli	DELTARES	Netherlands	Modelling landslide triggering and runout with the Material Point Method	1PA
4-89	Marta Tomaszczyk	Polish Geological Institute-NRI	Poland	Numerical restoration of pre-failure slope geometry using DSI algorithm	1PA
4-90	Panyabot Kaothon	Gangneung-Wonjo National University	Republic of Korea	Master Curve Approach to Soil Nail Design Based on Finite Element Method	1PA
4-91	Ananta Man Singh Pradhan	Pukyong National University	Republic of Korea	Hybrid rainfall thresholds and landslide susceptibility for scenario-based vulnerability and risk assessment in South Korea	1PA
4-92	Valentina Svalova	Sergeev Institute of Environmental Geoscience RAS	Russia	Landslide risk assessment and management for city territories	1PA
4-93	Vladimir Matsiy	Kuban State Agrarian University	Russia	Landslide risk assestment of transportation systems	1PA
4-94	Jordi Corominas	Universitat Politｦcnica de Catalunya-BarcelonaTech	Spain	Fragmental rockfalls and the analysis of risk	1PA
4-95	Herath Mudiyanselage Janaki M K Herath	Central Engineering Consultancy Bureau	Sri Lanka	Geological Significance of Wedge form Rock-Slope Instabilities in Roads Cuts	1PA

4-96	Kumari M. Weerasinghe	CECB	Sri Lanka	Deformities & Dynamics of Long-Travel Landslides	1PA
4-97	Avirut Chinkulkijniwat	Suranaree University of Technology	Thailand	Evaluation of failure plane for shallow landslides under ranfall conditions.	1PA
4-98	Tolga CAN	University of Cukurova / Turkey	TURKEY	Quantitative Landslide Risk Assessment in part of Central Taurus Mountains (Turkey)	1PA
4-99	guotao ma	university of warwick	UK	Probabilistic kinematics of landslides with stochastic material point method considering random fields	1PA
4-100	Paul Vardanega	University of Bristol	UK	Soil databases to assist slope stability assessments in the Eastern Caribbean	1PA
4-101	Domenico Lombardi	The University of Manchester	UK	A state-dependent procedure for the evaluation of post-liquefaction stability of sand	1PA
4-102	Jin Sun	University of Edinburgh	UK	Particle simulation methods for slope stability and flow analysis	1PA
Theme 5 Catastrophic Landslides and Frontiers of Landslide Science Contact: Vít Vilímek <vit.vilimek@natur.cuni.cz>					
Session 1 Landslides and earthquakes					
5-1	Paulus Rahardjo	Universitas Katolik Parahyangan	Indonesia	Study on the Phenomena of Liquefaction Induced Massive Landslides in 28 September 2018 Palu-Donggala Earthquake	FCB
5-2	Igor Fomenko, Oleg Zerkal, Alexander Strom, Daria Shubina and Ludmila Musaeva	Ordzhonikidze Russian State Geological Prospecting University	Russia	The Krasnogorsk landslide (Northern Caucasus): its evolution and modern activity	FCB
5-3	Salvatore Martino, Celine Bourdeau, Josè Delgado and Luca Lenti	University of Rome	Italy	Earthquake-triggered landslides and slope-seismic waves interaction inferring induced displacements	FCB
5-4	Hiroshi Yagi, Go Sato, Hiroshi P. SATO, Daisuke HIGAKI, Vishunu Dangol, Shanmukesh C. Amatya	Yamagata University	Japan	Slope deformation of Jure landslide 2014 along Sun Koshi in Lesser Nepal Himalaya and effect of Gorkha earthquake 2015	FCB
5-5	ChongXu, Kai Li	Institute of Geology, China Earthquake Administration	China	Inventory of landslides triggered by the Hejing Ms6.6 earthquake, China, on 30 June 2012	FCB
5-6	Toshiya Aoki, Shin'ya Katsura, Takahiko Yoshino, Takashi Koi, Yasutaka Tanaka, and Takashi Yamada	Hokkaido University	Japan	Pressure head dynamics on a natural slope in Eastern Iburi struck by the 2018 Hokkaido earthquake	FCB
5-7	Dalei Peng, Limin Zhang, Hofai Wong, Ruilin Fan, and Shuai Zhang	Hong Kong University of Science and Technology	China	Investigation of 20 August 2019 Catastrophic Debris Flows Triggered by Extreme Rainstorms near Epicentre of Wenchuan Earthquake	FCB+EPR
Session 2 Landslide dams and outburst floods					
5-8	Mariana Correas-Gonzalez, Stella Maris Moreiras and Jan Klimeš	CONICET	Argentina	Spatial distribution of lakes in the Central Andes (31°-36°), Argentina: implications for outburst flood hazard	FCB
5-9	Tomas Kroczek, Vit Vilimek	Charles University	Czech Republic	Rockfall/rockslide hazard, lake expansion and dead-ice melting assessment: Lake Imja, Nepal	FCB
5-10	Oleg V. Zerkal, Aleksey N. Makhinov, Alexander L. Strom, Vladimir I. Kim, Michael E. Kharitonov, Igor K. Fomenko	Lomonosov Moscow State University, Geological Department	Russia	Formation of the 2018 Bureya landslide, Far East of Russia	FCB
5-11	Regine Morgenstern, Chris Massey, Brenda Rosser and Garth Archibald	GNS Science	New Zealand	Landslide dam hazards: assessing their formation, failure modes, longevity and downstream impacts	FCB
5-12	Chukwuueloka A.U. Okeke	Covenant University, Nigeria	Nigeria	The Sedimentology and Internal Structure of Landslide Dams – Implications for Internal Erosion and Piping Failure: A Review	FCB
5-13	Arash Barjasteh	Khuzestan Water & Power Authority (KWPA	IRAN	March 2019 flood impact on the stability of Ambal salt ridge in the Gotvand dam reservoir, Southern Iran	FCB
Session 3 Catastrophic large-scale landslides in mountainous regions					
5-14	Alexand Strom	Geodynamics Research Center	Russia	Rock avalanches: basic characteristics and classification criteria	FCB
5-15	Jan Burda, Vít Vilímek	VUHU	Czech Republic	An interdisciplinary assessment of a coal-mining-induced catastrophic landslide (Czech Republic)	FCB

5-16	Gioachino Roberti, Brent Ward, Benjamin van Wyk de Vries, Nicolas Le Corvec, Swetha Venugopal, Glyn Williams-Jones, John J. Clague, Pierre Friele, Giacomo Falorni, Geidy Baldeon, Luigi Perotti, Marco Giardino, and Brian Menounos	Minerva Intelligence	Canada	Could glacial retreat-related landslides trigger volcanic eruptions? Insights from Mount Meager, British Columbia	FCB
5-17	Andrey A. Ponomarev, Kai Kang, Oleg V. Zerkal	Lomonosov Moscow State University, Geological Department	Russia	Rock avalanches in the upper reaches of the Mzymta River, Russia	FCB
5-18	Emilie Lemaire, Anne-Sophie Mreyen and Hans-Balder Havenith	Liège University	Belgium	Structural and dynamic numerical models of rockslides in the Carpathians and the Alps	FCB
5-19	Michele Delchiaro, Emanuele Mele, Marta Della Seta, Salvatore Martino, Paolo Mazzanti and Carlo Esposito	Sapienza University of Rome	Italy	Quantitative investigation of a Mass Rock Creep deforming slope through A-Din SAR and geomorphometry	FCB
5-20	Ching-Ying Tsou, Masahiro Chigira, Yu-Chung Hsieh, Mien-Ming Chen, and TaiChieh He	Faculty of Agriculture and Life Science/Hirosaki University	Japan	Deformational Features of Deep-Seated Gravitational Slope Deformation of Slate Slopes in the Central Range, Taiwan	FCB
5-21	Kiichiro Kawamura, Jan Sverre Laberg	Yamaguchi University	Japan	Bathymetric Analyses of Submarine Landslides on the Jan Mayen Ridge, Norwegian–Greenland Sea	FCB
5-22	Dirk Kuhn, Reginald Hermanns, Jewgenij Torizin, Michael Fuchs, Tim Redfield, Raymond Eilertsen and Dirk Balzer	Federal Institute for Geosciences and Natural Resources	Germany	Forkastningsfjellet rock slide, Spitsbergen: State of activity in a changing climate	FCB
5-23	Vinod K Sharma	Geological Survey of India (Retd)	India	Catastrophic landslides in Indian sector of Himalaya	FCB
5-24	Andrée Blais-Stevens	Geological Survey of Canada	Canada	Landslides that caused fatalities in Canada from 1771-2019	EPR
5-25	Tomáš Pánek, Elisabeth Schönfeldt, Michal Břežný, Diego Winocur, Oliver Korup	University of Ostrava	Czech Republic	Giant landslides in the foreland of Patagonian Andes: effects of deglaciation and drawdown of glacial lakes	EPR
5-26	Mark E. Reid, Brian D. Collins	U.S. Geological Survey	USA	Basal Liquefaction from Rapid Landsliding: The 2014 Deadly Oso Landslide (USA)	EPR
5-27	Toshimi Mizuno	OYO Corporation	Japan	The evaluation of Deep-seated catastrophic landslides (DCLs) on Kii Peninsula 2011 by means of the historical deformation	EPR
Session 4. Landslides triggered by extreme rainfall and other effects of climate change					
5-28	Ken Ho, H.W. Sun, E.J. Lam and F.L.C. Lo	GEO	China	Enhancing Preparedness against Impact of Climate Change on Slope Safety in Hong Kong	FCB
5-29	Wei Shan, Chengcheng Zhang, Ying Guo, Monan Shan, Xujing Zeng, Chunjiao Wang	Northeast Forestry University	China	Climate Change and Surface Deformation Characteristics in Degradation Area of Permafrost in Lesser Khingan Mountain, China	FCB
5-30	Nejc Bezak, Tina Peternel, Anže Medved, Matjaž Mikoš	University of Ljubljana	Slovenia	Climate change impact evaluation on the water balance of the Koroška Bela area, NW Slovenia	FCB
5-31	Jessica Maria Chicco, Marco Frasca, Giuseppe Mandrone, Damiano Vacha and Laurie Jayne Kurilla	University of Torino	Italy	Global warming as a predisposing factor for landslides in glacial and periglacial areas: an example from western Alps (Aosta Valley, Italy)	FCB
5-32	Qiang Zou, Peng Cui, Hu Jiang, Yanguo Liu, Cong Li, Sheng Hu, Bin Zhou			Characteristics and causes of the debris flow in Shelong Gully, China	FCB
5-33	Kounghoon Nam and Fawu Wang	Shimane University	Japan	Extreme rainfall induced landslide susceptibility assessment using Autoencoder combined with Random forest	FCB
Session 5. Frontiers of landslide science					
5-34	Sabatino Cuomo, Angela Di Perna and Mario Martinelli	University of Salerno	Italy	MPM modelling of buildings impacted by landslides	FCB
5-35	Rafael Caduff, Tazio Strozzi, Nils Hählen and Jörg Hä berle	Gamma Remote Sensing	Switzerland	Accelerating Landslide Hazard at Kandersteg, Swiss Alps; Combining 28 years of satellite InSAR and single campaign terrestrial radar data	FCB
5-36	Ying GUO, Wei SHAN, Zhichao XU, Chunjiao WANG and Shuanglin WANG	Northeast Forestry University	China	Identification old landslides in permafrost degradation area in Northeast China by difference distribution of surface trees	FCB

5-37	Thi Minh Hue Le, Vidar Gjelsvik, Suzanne Lacasse, Stein-Are Strand, Eirik Traae and Vikas Thakur	Norwegian Geotechnical Institute	Norway	Forensic geotechnical investigation of the Skjeggestad quick clay landslide, Norway	FCB
5-38	Vera Hui Loo, Chou Khong Wong	Curtin University of Malaysia	Malaysia	Accuracy Assessment of Unmanned Aerial Vehicle (UAV) Structure from Motion Photogrammetry Compared with Total Station for a Deformed Slope	FCB
5-39	Murat Ercanoglu, Mehmet Balcılar, Fatih Aydın, Sedat Aydemir, Güler Deveci and Bilgekağan Çintimur	Hacettepe University	Turkey	ARAS: A Web-Based Landslide Susceptibility and Hazard Mapping Systém	FCB
5-40	Paula Hilger, Reginald L. Hermanns, Bernd Etzelmüller	Western Norway University of Applied Sciences	Norway	A landform evolution model for the Mannen area in Romsdal valley, Norway	FCB
5-41	Guglielmo Grechi, Salvatore Martino	University of Rome La Sapienza	Italy	Multimethodological study of non-linear strain effects induced by thermal stresses on jointed rock masses	FCB
5-42	S.O.A.D. Mihira Lakruwan, S.A.S. Kulathilaka	Tohoku University, Japan	Japan	Economizing the Soil Nailing Design by Drainage Improvement – Case History at Ginigathhena	FCB
5-43	Sabatino Cuomo, Sabrina Moretti, Lorenzo Frigo and Stefano Aversa	Unviersity of Salerno	Italy	Performances of geosynthetics-reinforced barriers for protection against debris avalanches	FCB
5-44	Carlo Tacconi Stefanelli, Teresa Gracchi, Guglielmo Rossi, and Sandro Moretti	University of Firenze	Italy	Large and small scale multi-sensors remote sensing for landslide characterisation and monitoring	FCB
5-45	Pilar Jeanneret, Stella Moreiras, Silke Merchel, Andreas Gärtner, Steven Binnie, Maria Julia Orgeira, G. Aumaître, D Bourlès, and K. Keddadouche	CONICET	Argentina	Novel cosmogenic datings in landslide deposits, San Juan, Argentina	FCB
5-46	Gabriel Legorreta Paulin, Trevor A. Contreras, Katherine A. Mickelson, Kara E. Jacobacci, andWilliam Gallin	Universidad Nacional Autonoma de Mexico	Mexico	Modeling landslide volumes: A case study in Whatcom County, Washington, USA	FCB
5-47	Santiago Noriega-Londoño, Maria Isabel Marín-Cerón, Julien Carcaillet, Matthias Bernet, Isandra Angel	EAFIT University	Colombia	CRE dating of torrential alluvial deposits as an approximation of the Holocene climate-changes signatures in the Northwestern Colombian Andes	FCB
5-48	Andrey Kazeev, German Postoev	Soil Mechanics, Sergeev Institute of Environmental Geoscience of Russian Academy of Science	Russia	Features of Construction in Areas with Deep Block-type Landslides	FCB
5-49	Isakbek Torgoev and Salamat Toguzbaev	Institute of Geomechanics and Mining of National Academy of Sciences of Kyrgyz Republic	Kyrgyz Republic	Rock Glaciers and Landslides in the Waste Dump of High-Altitude Kumtor Goldmine (Kyrgyzstan)	FCB
5-50	Pietro Rimoldi, Matteo Lelli, Pietro Pezzano, Fabrizia Trovato	Consultant	Italy	Geosynthetic reinforced soil structures for slope stabilization and landslide rehabilitation in Asia	FCB

One-page abstract papers for Theme 5

5-51	Nicholas Roberts	Mineral Resources Tasmania	Australia	Managing hazard and risk of landslide-generated waves in lakes	
5-52	Marc Ostermann	Geological Survey of Austria	Austria	The Pineda Rockslide -Caracteristics of Vajontעɪs elder brother	
5-53	Christian Zangerl	University of Natural Resources and Life Sciences, Vienna	Austria	Investigation, characterisation and monitoring of deep-seated landslides in the surroundings of large dam reservoirs	
5-54	Reshad Md. Ekram Ali	Geological Survey of Bangladesh	Bangladesh	Influence of geology and geological structures in tiggering landslides, Bangladesh perspective.	
5-55	Atm Shakhawat Hossain	Jahangirnagar University	Bangladesh	Rainfall Induced Landslide Hazards of Bangladesh---Challenges, Issues and sustainable Development	
5-56	Renato de Lima	CENACID-UFPR	Brazil	Understanding the landslides in the mega disasters of Santa Catarina (2008), Rio de Janeiro (2011) and Paranꜟ。(2011)-Brazil	
5-57	Dave Gauthier	BGC Engineering	Canada	Karrat Fjord (Greenland) tsunamigenic landslide of 17 June 2017: initial 3D observations	
5-58	Violchen Sepulveda	Universidad de Chile	Chile	Catastrophic landslide and subsequent tsunamis in Los Lagos District, Chile	
5-59	Marcelo Somos-Valenzuela	Universidad de La Frontera	Chile	Landslides triggered by hydroclimatological events in the Chilean Andes	
5-60	Xiaolin Fu	Wuhan Centre of China Geological Survey	China	Study on deformation and formation mechanism of the deep-seated landslide triggered by human engineering activities: A case study of the Baiyangwan landslide in Wushan County, the Three Gorges Reservoir region, China	

5-61	Lei Zhu	Institute of Mountain Hazards and Environment, Chinese Academy of Sciences, Chengdu	China	Failure mechanism and dynamic processes of rock avalanche occurrence in Chengkun railway, China, on August 14, 2019	
5-62	Hongjuan Yang	Institute of Mountain Hazards and Environment, Chinese Academy of Sciences	China	Rainfall-induced landslides and debris flows in Mengdong Town, Yunnan Province, China	
5-63	Baoping Wen	China University of Geosciences (Beijing)	China	Necessary and sufficient conditions on the prediction and description of rapid and long run-out rock landslides窶・	
5-64	Chenxiao Tang	Institute of Mountain Hazards and Environment, CAS	China	Monitoring of landslide risk components after the 2008 Wenchuan earthquake	
5-65	Ruichen Chen	China University of Geosciences (Beijing)	China	Kinematic mechanism of a long runout landslide in the upper reaches of the Jinsha River	
5-66	Jian Chen	China University of Geosciences (Beijing)	China	Evolution of a giant paleolake in the upper Minjiang River, eastern Tibetan Plateau	
5-67	YunusAli Pulpadan	State Key Laboratory of GeoHazard Prevention and Geoenvironment Monitoring	China	Fluvial responses to large scale landslides	
5-68	Xuanmei Fan	SKLGP, Chengdu University of Technology	China	The disaster chain effect of landslides after strong earthquakes	
5-69	Shenghua Cui	State Key Laboratory of Geohazard Prevention and Geoenvironment Protection, Chengdu University of Technology	China	An updated initiation model for the earthquake induced Daguangbao landslide	
5-70	Jia-Jyun Dong	National Central University	Chinese Taipei	Submarine landslide: A case study from the southwestern of Taiwan offshore	
5-71	Edwin Garcia	University of Antioquia	Colombia	A technical investigation on causation on the catastrophic landslide on 26th October 2016 in Copacabana, Colombia	
5-72	Dericks Shukla	Indian Institute of Technology Mandi	India	What happened at Kotrupi landslide of Himachal Pradesh, India	
5-73	SARADA PRASAD PRADHAN	INDIAN INSTITUTE OF TECHNOLOGY ROORKEE, INDIA	India	Large scale landslide in mountainous region	
5-74	Chandrasekaran S S	Vellore Institute of Technology, India	India	Geotechnical Investigations on mechanism of flow type catastrophic landslides of Western Ghats, India	
5-75	Swapna Acharjee	State Remote Sensing Application Centre, Department of Science and Technology, Government of Arunachal Pradesh	India	Landslide triggered by rainfall and landuse change: A case study of Laptap Landslide, Arunachal Pradesh, India	
5-76	Sreekumar Sankara Pillai	IRTC	India	Landslides 2018 in Kera,India,Lessons Learned	
5-77	Federico Agliardi	University of Milano-Bicocca	Italy	Practical characterization of slow rock slope deformation mechanisms, long-term activity and progressive failure: implications for dam reservoirs	
5-78	Carlo Esposito	Universit□ La Sapienza	Italy	Time-dependent rock mass deformation and landscape evolution in causing catastrophic rockslides	
5-79	Guido Rianna	CMCC Foundation	Italy	Bridging the gap between climate sciences and landslide practitioners: insights from European experiences	
5-80	Stefano Luigi Gariano	CNR IRPI	Italy	Prediction and forecasting of rainfall-induced landslides in a changing environment	
5-81	Atsuhiko Kinoshita	National Institute for Land and Infrastructure Management	Japan	Study on the mechanism of the deep-seated landslide using the airborne electromagnetic surveys	
5-82	Komatsubara Taku	Geological Survey of Japan, AIST	Japan	Relationships between antecedent rainfall and volume of earthquake-induced縲landslides in historical era of Japan	
5-83	Prakash Chandra Ghimire	Institute of Engineering, Pulchwok Campus, Tribhuvan University	Nepal	Large Scale Landslide mechanism: A case study of Jure landslides in Nepal	
5-84	Caleb Gasston	University of Auckland	New Zealand	Surface fault rupture and landslides: investigating the triggering mechanisms of large volume landslides generated by the 2016 Kaikoura Earthquake.	
5-85	Nikola Chevyaga	Grad23	Russia	Paragenetic landslide-mudflow process in the upper Belaya river (Caucasus, Russia)	

5-86	Igor Fomenko	Russian State Geological Prospecting University n. a. Sergo Ordzhonikidzミオ (MGRI)	Russia	Paragenetic landslide-mudflow process in the upper Belaya river (Caucasus, Russia)	
5-87	John Reynolds	Reynolds International Ltd	UK	Slope instabilities and Glacial Lake Outburst Floods: processes, hazard assessment and mitigation	
5-88	David Alexander	University College London	UK	The role of landslides in cascading disasters	
5-89	Marte Gutierrez	Colorado School of Mines	USA	The Massive February 17, 2006, Leyte, Philippines, Rockslide	
5-90	Ubydul Haque	University of North Texas Health Science Center	USA	Increasing deadly landslides worldwide 1995 窶・2019: an update	
5-91	Thi Hai Van Nguyen	Vietnam Institute of Geosciences and Mineral Resources	Vietnam	Recent, shallow landslides in mountainous provinces of Northwestern Vietnam: causes and consequences	
5-92	Md Aftabur Rahman	Chittagong University of Engineering & Technology	Bangladesh	Numerical simulation debris flow along curved channel	
5-93	Scott McDougall	University of British Columbia Department of Earth, Ocean and Atmospheric Sciences	Canada	Drone-based LiDAR surveying of landslide deposits to characterize runout behaviour	
5-94	Peter Bobrowsky	Geological Survey of Canada	Canada	Drone Technology and Landslide Hazards in British Columbia	
5-95	Michael Hendry	University of Alberta	Canada	Development of Active landslides and ground hazards into full-scale laboratories: outcomes and benefits	
5-96	Marten Geertsema	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	Canada	Challenges with radiocarbon dating landslides	
5-97	Yi Zhang	Lanzhou University	China	Geomorphology and movements of deep-seated landslide along active fault in the Bailong River basin	
5-98	Wen-Chieh Cheng	Xi'an University of Architecture and Technology	China	Mobility Characteristics in Loess Landslide over Erodible Bed: Insights from Sandbox Experiment	
5-99	Xingmin Meng	School of Earth Sciences, Lanzhou University	China	Landslide Hazards and Management in Beilong River Corridor, China	
5-100	Hufeng Yang	Southwest Jiaotong University	China	Will the ancient rock avalanche threat the safety of Sichuan-Tibet Railway in Maoyaba Basin or not?	
5-101	Xiwei Xu	Institute of Crustal Dynamics, China Earthquake Administration	China	Correlation between surface rupture-associated geological hazards and casualties related to the 2008 Wenchuan, China Mw7.9 earthquake	
5-102	Guoyu Li	State Key Laboratory of Frozen Soil Engineering, Chinese Academy of Sciences	China	Rock glacier degradation in Tianshan Moutains, China: a case study	
5-103	Si Fan Zhang	School of engineering,harbin institute of technology	China	Formation Mechanism and Mitigative Measures of Frost Hazards encountered by Crude Oil Pipeline along the Slope in Daxing'anling Permafrost Region	
5-104	Xinyu Li	School of civil engineering, harbin institute of technology	china	Engineering geological environment of permafrost region in NE China under permafrost degradation	
5-105	Jan Hradecky	University of Ostrava, Faculty of Science	Czech Republic	Long-term slope instability in Crimean Mountains 窶・dating of giant rockslides.	
5-106	Michal Bil	CDV - Transport Research Centre	Czech Republic	A Prediction of Landslide Risks to Transportation Infrastructure in Czechia: An assessment based on climate scenarios and transport infrastructure planned development	
5-107	Costanza Morino	Universite de Nantes	France	Different dynamics of permafrost degradation-induced landslides revealed by molards	
5-108	Niels Hovius	GFZ German Centre for Geoscience Research	Germany	Causes of transient changes of landslide rates after earthquakes	
5-109	Oded Katz	Geological Survey of Isreal	Israel	Submarine landslide hazard assessment and mapping	
5-110	Mario Valiante	Sapienza University of Rome	Italy	A 4D object-oriented data model for landslides (LOOM): a first pilot application to the Cilento Geopark (Italy)	
5-111	Davide Bertolo	Regione Autonoma Valle d\'Aosta	Italy	Integrating PS-InSAR monitoring and local early warning systems in the Alps: form the regional to the local scale. The experience of a public service.	
5-112	Giuseppe Cardile	Mediterranea University of Reggio Calabria DICEAM	Italy	Key factors to define the design parameters of geosynthetic-reinforced soil structures for landslide stabilisation	
5-113	Yoshinori Otani	Hirose Hokyodo & Co.,ltd.	Japan	Recent Development of the Mechanically Stabilized Earth Walls with Geosynthetic Strap Reinforcements	

5-114	Junichi Koseki	University of Tokyo	Japan	Japanese case histories on use of geosynthetics in reconstructing failed slopes	
5-115	Bharat Prasad Bhandari	Tribhuvan University	Nepal	Landslide heterogeneity in the Siwalik zone of Nepal	
5-116	Mohammad Ibrahim Mazhar	IGIS NUST Pakistan	Pakistan	Landslide Susceptibility mapping through integration of GIS and Geotechnical approaches	
5-117	Haleem Magsi	Karakoram International University	Pakistan	1. Sesimotectonic Method In Evaluation Of Slope Stability 2. Seismotectonic Landslide Zoning in Northern Areas	
5-118	Artem Khomutov	Earth Cryosphere Institute Tyumen Scientific Centre SB RAS	Russia	Mechanisms of cryogenic landslides and landforms under warming, Yamal, Russia	
5-119	Elena Babkina	Earth Cryosphere Institute, Tyumen Scientific Centre SB RAS	Russia	Response of slope process to permafrost warming in the North of West Siberia, Russia	
5-120	Mohamed Ayeldeen	Keller Grundbau GmbH	UAE	Landslides modelling and ground improvement	
Theme 6 Specific Topics in Landslide Science and Applications Contact: Zeljko Arbanas <zeljko.arbanas@gradri.uniri.hr>					
Part 1 Impact of large ground deformations near seismic faults on critically important civil-infrastructures					
6-1	Kazuo Konagai, Alex K. Tang and John M. Eidinger	International Consortium on Landslides	Japan	Recent earthquakes that hit areas covered and/or underlain by pyroclastic matters and their impacts on lifelines	FCB
6-2	Kazuo Konagai	International Consortium on Landslides	Japan	Landslides in recent earthquakes and damage to lifelines	FCB
6-3	Alex Tang	L&T Consulting	Canada	Lessons Learned – Landslide Induced Lifelines Disasters from Past Earthquakes	FCB
6-4	Hiroshi P. Sato and Hiroshi Une	College of Humanities and Sciences, Nihon Univ.	Japan	Relation between horizontal direction of crustal deformation surveyed on the control points and area ratio of the slope failures triggered by the 2016 Kumamoto earthquake (Mj7.3)	FCB
6-5	Farzad TALEBI and Junji KIYONO	Kyoto University	Japan	Seismic response of buried pipeline to strong ground motion of strike-slip fault	FCB
6-6	Tara Nidhi Bhattarai, Dhruba Prasad Sharma and Lekh Prasad Bhatta	Tribhuvan University	Nepal	Reconstruction Strategies for Mw 7.8 Earthquake-induced Landslide-affected Settlements in Nepal	FCB
6-7	Katsumi Ebisawa, Toshiaki Sakai, Futoshi Tanaka, Ryusuke Haraguchi, Yoshinori Mihara and Yuji Nikaido	Central Research Institute of Electric Power Industry	Japan	State of nuclear power plant risk assessment for ground deformation with seismic faulting	FCB
6-8	Ching Hung, Chih-Hsuan Liu and Hsuan-Ho Wang	National Cheng Kung University	Chinese Taipei	Relationship between Arias intensity and the earthquake-induced displacements of slopes	FCB
Part 2 Recent Progress in the Landslide Initiating Science					
6-9	Amin Askarinejad & Sarah M. Springman	TU Delft	Netherlands	Water exfiltration from bedrock: a drastic landslide triggering mechanism	FCB
6-10	Haijun Qiu, Yifei Cui, Dongdong Yang, Sheng Hu, Yanqian Pei, Shuyue Ma	Northwest University	China	Controls on landslide size: insights from field survey data	FCB
6-11	Ikuo Towhata, Takeshi Akima, Satoshi Goto, Shigeru Goto, Junya Tanaka and Shogo Aoyama	Kanto Gakuin University	Japan	Geologic and hydrologic investigations on slope failures triggered by extreme rainfall on Izu Oshima Island, Japan	FCB
6-12	Tao Wang and Mingfeng Deng	Institute of Mountain Hazards and Environment, Chinese Academy of Sciences	China	Comparison of Relationship between Debris-flow Volume and Peak Discharge in Different Regions	FCB
6-13	Yifei Cui, Yanzhou Yin, Chaoxu Guo	Tsinghua University	China	Investigation of internal erosion of wide grading loose soil – a micromechanics-based study	FCB
6-14	Bingli Hu, Lijun Su, Qijun Xie, Fangwei Yu, Chonglei Zhang	Institute of Mountain Hazards and Environment, Chinese Academy of Sciences	China	Formation Mechanism and Stability of The Instable Block Formed in Xinmo Landsilde	FCB
6-15	Hirotaka Ochiai, Katsuo Sasahara, Yusuke Koyama	Japan Forest Technology Association	Japan	Landslide Field Experiment on a Natural Slope in Futtsu City, Chiba Prefecture	FCB
6-16	Vedran Jagodnik, Josip Peranić and Željko Arbanas	Faculty of Civil Engineering, University of Rijeka	Croatia	Mechanism of landslide initiation in small-scale sandy slope triggered by an artificial rain	FCB

6-17	Huayong Chen, Peng Cui, Xiaoqing Chen, and Jiangang Chen	Institute of Mountain Hazards and Environment, CAS, 14AQEICQDXGR0JD V Chengdu 610041, China	China	Experimental study on formation and propagation of debris flow triggered by the glacial lake outburst flood	FCB
6-18	Yan Yan, Yifei Cui, Shuyao Yin, Xin Tian	Southwest Jiaotong University	China	Quantitative analysis of landslide processes based on seismic signals - a new method for monitoring and early warning of landslide hazards	FCB
Part 3 Earth Observation and Machine Learning					
6-19	Christopher Gomez, Allouis, T, Lissak C, Hotta N, ShinoharaY, Hadmoko D.S, Vilimek V, Wassmer P, Lavigne F, Setiawan A, Sartohadi J, Saputra A, Rahardianto T	Kobe University	Japan	High-resolution point-cloud for Landslides in the 21st Century: from data acquisition to new processing concepts	FCB
6-20	Giacomo Titti, Matteo Mantovani, Giulia Bossi	CNR-IRPI, Research Institute for Geo-Hydrological Protection	Italy	Detecting change of patterns in landslide displacements using machine learning, an example application	FCB
6-21	Elahe Jamalinia, Faraz S. Tehrani, Susan C. Steele-Dunne, Philip J. Vardon	Delft university of technology	Netherlands	Predicting rainfall induced slope stability using Random Forest regression and synthetic data	FCB
6-22	Daniele Giordan, Aleksandra Wrzesniak, Paolo Allasia, Davide Bertolo	CNR IRPI	Italy	Automatized dissemination of landslide monitoring bulletins for early warning applications	FCB
Part 4 General Landslide Studies					
6-23	Vassilis Marinos, Kostas Papazachos, Georgios Stoumpos, Dimitra Papouli, George Papathanassiou, Theodoros Stimaratzis	Aristotle University of Thessaloniki	Greece	Engineering geological appreciation in landslide mapping for a natural gas pipeline project: challenges and risk reduction measures	FCB
6-24	Tonglu LI, Mumtaz Haider, Wei Shen, Ping Li	Chang'an University	China	Loess Stratigraphy and Loess Landslides in the Chinese Loess Plateau	FCB
6-25	Louise M Vick, Jørgen N Berg, Mark Eggers, Anne Hormes, Ingrid Skrede, Lars Harald Blikra	UiT The Arctic University of Norway	Norway	The Jettan Rockslide- an engineering geological overview	FCB
6-26	Hermanns Reginald L, Oppikofer Thierry, Böhme Martina, Penna Ivanna M, Nicolet Pierrick, and Bredal Marie	Geological Survey of Norway	Norway	Mapping, hazard and consequence analyses for unstable rock slopes in Norway	FCB
6-27	Martina Böhme, Reginald L. Hermanns, Tom R. Lauknes	Geological Survey of Norway	Norway	Landscape formation and large rock slope instabilities in Manndalen, northern Norway	FCB
6-28	Peng Cui, Qiang Zou, Yu Lei, Zhengtao Zhang, Shengnan Wu	Institute of Mountain Hazards and Environment, CAS	China	Disaster Risk Assessment of the Silk Road	FCB
6-29	Jiao Wang, Qiang Zou, Wen Jin, Yanju Fu	Institute of Mountain Hazards ans Environment, CAS	China	Analyzing the characteristics of glacial debris flow activity in Parlung Tsangpo basin, Tibet	FCB
6-30	Daisuke Higaki, Kishor Kumar Karki, Naoto Koiwa, Mio Takahashi, Sohan Kumar Ghimire	Hirosaki University	Japan	Rehabilitation of gully-dominant hill slopes by using low-cost measures-a case study in Nepal	FCB
6-31	Chinthaka Ganepola, Udeni Priyantha Nawagamuwa, Anurudda Kumara Karunarathna, Senaka Basnayake, Lilanka Kankanamge and Dhanushka Jayathilake	Asian Disaster Preparedness Center	Sri Lanka	Site Suitability Analysis for Nature-based Landslide Risk Mitigation	FCB
6-32	Udeni P. Nawagamuwa and Markandu Dishan	University of Moratuwa	Sri Lanka	Study on the Application of Nature Based Landslide Mitigation in Sri Lanka	FCB
6-33	Kiyoharu HIROTA, Cincy ROSA and Koichi HASEGAWA	KOKUSAI KOGYO CO., LTD/(ICL)	Japan	Slope stability around the northern part of the Tegucigalpa Basin, Honduras: A case of landslide process at residential development areas	FCB
6-34	Oleg V. Zerkal, Alexander L. Strom	Lomonosov Moscow State University, Geological Department	Russia	Classification of Cryogenic Landslides and Related Phenomena (by Example of the Territory of Russia)	FCB
E-proccedings papers for Theme 6					
6-35	Yu Zhao, Jingzhi Wu, Liangbo Hu, Yu Jiang	Institute of Mountain Hazards and Environment,CAS	China	Measuring colloidal forces between clay microparticles with optical tweezers	EPR

6-36	Jana Eichel	Karlsruhe Institute of Technology, Institute of Geography and Geoecology	Germany	Biogeomorphic feedbacks between plants and mass movement processes in periglacial environments	EPR
6-37	Jose A. Chavez, Mauricio E. Vasquez	OPAMSS	El Salvador	Slope Behavior Improvement of Partially-Saturated Pyroclastic in Data Scarse Regions	EPR
6-38	Vishnu Dangol, Tuk Lal Adhikari, Achyuta Nanda Bhandary, and Ishwor Dahal	Nepal Landslide Society	Nepal	Geotechnical Investigation for Landslide Stabilization Works in Narayanghat-Mugling Road, Central Nepal	EPR
6-39	Yasunori Katsume, Yutaka Shimizu, Takumi Abe, Yasuko Okajima, Kazue Fujita	OYO CORPORATION	Japan	Three-dimensional shape of mountainous landslide and the ground deformation caused by snow melting - Jin'nosuke-dani landslide, Mount Hakusan,Central Japan	EPR
6-40	Kumiko Fujita	International Consortium on Landslides	Japan	Starting International Joint Research for Landslide Disaster Risk Reduction: The Use of Japanese Warning Technology Considering the Social Differences in Sri Lanka and Japan	EPR
6-41	A.Wrzesniak, D.Notti, D.Giordan, N.Dematteis, P.Lollino, N.L.Fazio	CNR-IRPI	Italy	Numerical modeling and risk assessment of large Monesi slide (Italy) based on multi-source monitoring data analysis	EPR
6-42	Christophe Balg, Nobuhito Nishimura	Geobrugg AG	Switzerland	Applying over ten years of experience in debris flow barriers to examples in South Africa and India for permanent protection	EPR
6-43	Shiguo Xiao, Yuan Qi, Xuan Wang	Southwest Jiaotong University	China	A calculation method for frame-type stabilizing piles in slope engineering	EPR
6-44	Vishnu Dangol, Dinesh Pathak, and Samjwal Ratna Bajracharya	Nepal Landslide Society	Nepal	Impact on Infrastructure by 2015 Gorkha Eathquake Induced Landslides	EPR
The Japanese Geotechnical Society Sesssion "Risk and Adaptation in Geo-Disaster Vulnerable Areas under Resecent Severe Earthquake and Extreme Rainfall" Contact: Kazunari Sako <sako@oce.kagoshima-u.ac.jp>					
6-45	Kazuya Yasuhara	Ibaraki University	Japan	Contribution of geotechnical engineering to climate change and IPCC	EPR
6-46	T. Komatsu			(Tentative) Risk prevention and management: the great challenge on water-related disasters	1PA
6-47	Motoyuki Suzuki, Kyoko Kagohara, Kazuyuki Sakaguchi, Hiroaki Matsugi, Satoru Kataoka	Yamaguchi University	Japan	Urgent issues and new suggestions for geo-disaster prevention in Japan	FCB/Vol.3
6-48	Tatsuya Ishikawa	Hokkaido University	Japan	Lessons from recent geo-disasters in Hokkaido under heavy rainfall	FCB/Vol.6
6-49	Satoshi Murakami	Fukuoka University	Japan	Lessons from recent geo-disasters due to extreme rainfall events in Kyushu district, Japan	1PA
6-50	Noriyuki Yasufuku and Adel Alowiasy	Kyushu University	Japan	Lessons from recent geo-disasters caused by heavy rainfall in recent years in Kyushu Island, Japan	FCB/Vol.6
6-51	Shima Kawamura	Muroran Institute of Technology	Japan	Lessons from recent geo-disasters in Hokkaido under earthquake	FCB/Vol.6
6-52	Kiyonobu Kasama, Zentaro Furukawa, Noriyuki Yasufuku	Tokyo Institute of Technology	Japan	Lessons from recent eqrthquake-induced Geo-disaster in Kyushu	EPR
One-page abstract papers for Theme 6					
6-53	Weile Li	Chengdu University of Technology	China	Precursor of large rockslides and its application on landslide early detection	1PA
6-54	Lingjing LI	Institute of geomechanics, Chinese academy of geological sciences	China	Study on the deformation models and spatial-temporal distribution characteristics of landslides in Jinsha River based on InSAR technology	1PA
6-55	Chaoying Zhao	Chang宴和n University	China	Landslide Dynamic Deformation Monitoring with Sequential Least Squares Based SAR/InSAR techniques	1PA
6-56	Lu Zhang	Wuhan University	China	Challenges and opportunities in landslide hazards detection and disaster early warning with SAR/InSAR observations	1PA
6-57	Hong-Hu Zhu	Nanjing University	China	Multi-field monitoring of landslide using a distributed fiber optic sensing system	1PA
6-58	Yadong Huang	Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences	China	Changing permafrost environment in the Gulian Basin, northern Da Xing anling Mountains, NE China	1PA
6-59	Fujun Niu	State Key Laboratory of Frozen Soil Engineering, Northwest Institute of Eco-Environment and Resources, Chinese Academy of Science	China	Slope Failures in Permafrost Regions of the Qinghai-Tibet Plateau	1PA
6-60	Changbao Guo	Institute of Geomechanics, China Geological Survey	China	Reactivation mechanism of ancient landslide in the eastern Tibetan Plateau, China	1PA
6-61	Martina Vivoda Prodan	Faculty of Civil Engineering	Croatia	Structural protection measures on deep seated landslides in Croatia	1PA

6-62	Martin Krkac	University of Zagreb - Faculty of Mining, Geology and Petroleum Engineering	Croatia	Landslide movement prediction using Random Forests and Multiple Linear Regression	1PA
6-63	Mahdi Motagh	GFZ German Research Center for Geosciences	Germany	Multi-sensor analysis of catastrophic landslides related to the 2019 extreme rainfall events in Iran	1PA
6-64	Stavroula Fotopoulou	Aristotle University of Thessaloniki	Greece	Towards a probabilistic performance-based methodology for the vulnerability assessment of buildings subjected to seismically induced landslides	1PA
6-65	Vickie Kong	Geotechnical Engineering Office	Hong Kong SAR, China	Territory-wide rainfall landslides prediction using Machine Learning Algorithm	1PA
6-66	Akshay Pandey	Indian Institute of Technology Roorkee	India	Application of Web-GIS for Dissemination of Landslide Susceptibility information	1PA
6-67	Dhanya Madhu	Amrita Vishwa Vidyapeetham	India	Rainfall thresholds for landslide initiation	1PA
6-68	Lal Dinpuia	Mizoram University (Pachhunga University College)	India	Slope instabilities analysis and monitoring of Aizawl landslides, Mizoram, Northeast India	1PA
6-69	Alessandro Pasuto	Research Institute for Geo-Hydrological Protection - National Research Council (IRPI-CNR)	Italy	Assessing Landslide Hazard along the Belt and Road	1PA
6-70	Alessandro Leonardi	Politecnico di Torino	Italy	A multiscale paradigm for the simulation of debris flow and countermeasures	1PA
6-71	YongSu Kim	NPO Sediment Disaster Prevention Publicity Center	Japan	A STUDY FOR IMPROVING DISASTER PREVENTION OF COMMUNITY	1PA
6-72	Xi Xiong	Nagoya Institute of Technology	Japan	Investigation on unsaturated slope stability influenced by rainfall and fluctuation of reservoir water level with varied rainfall infiltration rates	1PA
6-73	Kaoru Nakazato	Pacific consultants	Japan	Generating Landslide Hazard Map on 2015 Nepal Earthquake and Subsequent Training Activity	1PA
6-74	Naoki Watanabe	Niigata University	Japan	Relationship between chemical weathering rate and landslide disaster - An example from the middle Hime river basin	1PA
6-75	Katsunori Hattori	GODAI繰Development Corporation Limited	Japan	Landslide Simulation	1PA
6-76	Susumu Nakamura	College of Engineering, Nihon University	Japan	Risk assessment of structural damage for rock collision	1PA
6-77	Michiyo Nakashima	NIPPON KOEI	Japan	The Report on a landslide in Kyotango city,Kyoto prefecture	1PA
6-78	YAMASHITA YUICHI	Technico Ltd.	Japan	Daily education for disaster risk reduction and victim support in disaster	1PA
6-79	JamesMotVG JamesMotVG	google	Lithuania	drug testing policy	1PA
6-80	Faraz Tehrani	Deltares	Netherlands	Global Landslide Detection using Random Forest Classifier and Optical Satellite Imagery	1PA
6-81	Zhongqiang Liu	Norwegian Geotechnical Institute	Norway	Landslide displacement prediction using deep learning methods	1PA
6-82	Sigurdur Mar Valsson	Statens vegvesen	Norway	Detection of highly sensitive clay layers using machine learning with CPTu data	1PA
6-83	Ivan Depina	SINTEF	Norway	Machine learning models for rainfall-induced landslide predictions on local to regional scales	1PA
6-84	Emir Ahmet Oguz	NTNU	Norway	Critical Appraisal of Machine Learning Methods for the Assessment of Slope Failure	1PA
6-85	Kidae Kim	National Institute of Forest Science	Republic of Korea	Suitability Analysis by Matrix Combination Methods of Landslide Susceptibility Map and Rainfall Threshold for Landslide Prediction	1PA
6-86	Suk Woo Kim	Korean Society of Forest Engineering	Republic of Korea	Empirical Rainfall Thresholds for the Initiation of Landslides in Korea	1PA
6-87	JinHo Lee	Korean Association of Soil and Water Conservation	Republic of Korea	Introduction of a Technique Developed for Examining Distribution of Land Creep Susceptible Zones in Korea	1PA
6-88	JUNG IL SEO	Korean Society of Forest Engineering	Republic of Korea	Development of a Statistical Model to Assess the Potential Possibility of Land Creep in Korean Mountain Areas	1PA
6-89	Man-Il Kim	National Forestry Cooperative Federation	Republic of Korea	Stability analysis for cut-slope collapse by earthquake	1PA
6-90	Kwang-Ho Lee	Korea Forest Service	Republic of Korea	Landslide Control Policy of Korea	1PA
6-91	Sangjun IM	Seoul National University	Republic of Korea	Quantitative Evaluation of Erosion Contro Dam on Sediment Trapping Efficiency with a Simulation Approach	1PA
6-92	Bahaaeldin Sadagah	King Abdulaziz University	Saudi Arabia	Mitigation of slope stability	1PA
6-93	Suneth Neranjan	National Building Research Organisation	Sri Lanka	Adaptation of GPR Technique in Identification of Slip Surfaces of Landslides	1PA
6-94	Galip Usta	Trabzon University	Turkey	Emergency Aid in Disasters	1PA
6-95	Sultan Kocaman	Hacettepe University	Turkey	The role of VGI in landslide inventory preparation	1PA
6-96	Candan Gokceoglu	Hacettepe University	Turkey	A new horizon in landslide researches based on CitSci Approach	1PA

6-97	Zhenhong Li	Newcastle University / Chang'an University	UK	Rapid landslide detection over wide regions with GACOS and OTL based InSAR analysis	1PA
6-98	Chun-Hsing Ho	Northern Arizona University	USA	Oral	1PA
6-99	Zhong Lu	Southern Methodist University	USA	Study of hydrology-driven landslide hazards in Northwestern USA using InSAR and other satellite and in-situ observations	1PA
6-100	John Eidinger	G&E Engineering Systems Inc	USA	Landslide Impacts on Electric Power Systems	1PA
Thematic issue "Sendai Landslide Partnerships 2015-2025"				**Contact: Kyoji Sassa <secretariat@ichhq.org>**	
T-1	Masahiro Shinoda	National Defense Academy	Japan	Regional landslide susceptibility following the 2016 Kumamoto earthquake using back-calculated geomaterial strength parameters	TMI
T-3	Roberta Bonì	Department of Earth and Environmental Sciences	Italy	Assessment of the Sentinel-1 based ground motion data feasibility for large scale landslide monitoring	TMI
T-4	Martin Krkač, Sanja Bernat Gazibara, Željko Arbanas, Marin Sečanj, Snježana Mihalić Arbanas	University of Rijeka	Croatia	A comparative study of random forests and multiple linear regression in the prediction of landslide velocity	TMI
T-5	Ting-kai Nian, Hao Wu, Dong-yang Li, Wei Zhao, Kaoru Takara, De-feng Zheng	Dalian University of Technology	China	Experimental investigation on the formation process of landslide dams and a criterion of river blockage	TMI
T-6	Piciullo Luca, Tiranti Davide, Pecoraro Gaetano, Cepeda Jose Mauricio, Calvello Michele	NGI	Norway	Standards for the performance assessment of territorial landslide early warning systems	TMI
T-7	Oxana V. Masyaginaa, Svetlana Yu. Evgrafova, Valentina V. Kholodilova, Stanislav G. Prokushkin	Sukachev Institute of Forest SB RAS	Russia	A comparative study of soil processes in depletion and accumulation zones of permafrost landslides in Siberia	TMI
T-8	Gordon G. D. Zhou, Pamela Jessica C. Roque, Yunxu Xie, Dongri Song, Qiang Zou, and Huayong Chen	Institute of Mountain Hazards and Environment, Chinese Academy of Sciences	China	Numerical study on the evolution process of a geohazards chain resulting from the Yigong landslide	TMI
T-9	Yuki Matsuoka, Erick Gonzales Rocha	UNDRR Office in Japan	Japan	Sendai voluntary commitments: landslide stakeholders and the all-of-society approach enhanced by UNDRR	TMI
T-10	Benjamin B. Mirus, Eric S. Jones, Rex L. Baum, Jonathan W. Godt, Stephen Slaughter, Matthew Crawford, Jeremy Lancaster , Thomas Stanley, Dalia B. Kirschbaum, William J. Burns, Robert G. Schmitt, Kassandra O. Lindsey, and Kevin McCoy	U.S. Geological Survey	USA	Landslides across the USA: occurrence, susceptibility, and data limitations	TMI
T-11	Jeffrey A. Coe	US Geological Survey	USA	Bellwether sites for evaluating changes in landslide frequency and magnitude in cryospheric mountainous terrain: a call for systematic, long-term observations to decipher the impact of climate change	TMI
T-12	KANBARA Junichi, IMAMORI Naoki	MLIT	Japan	Outline of measures for sediment disaster by the Sabo department of MLIT, Japan	TMI
T-13	Stefano Alberti, Andrew Senogles, Kara Kingen, Adam Booth, Pete Castro, Jill DeKoekkoek, Kira Glover-Cutter, Curran Mohney, Michael Olsen, and Ben Leshchinsky	Oregon State University	USA	The Hooskanaden Landslide: historic and recent surge behavior of an active earthflow on the Oregon Coast	TMI
T-14	Zinan Li, Faming Zhang, Wen Gu, Menglong Dong	Hohai University	China	The Niushou landslide in Nanjing City, Jiangsu Province of China: a slow-moving landslide triggered by rainfall	TMI
T-15	Haibing Yu, Changdong Li, Jia-Qing Zhou, Wenqiang Chen, Jingjing Long, Xutao Wang, Tao Peng	China University of Geosciences, Wuhan	China	Recent rainfall- and excavation-induced bedding rockslide occurring on 22 October 2018 along the Jian-En expressway, Hubei, China	TMI
T-16	Samuele Segoni, Giulio Pappafico, Tania Luti, Filippo Catani	University of Florence	Italy	Landslide susceptibility assessment in complex geological settings: sensitivity to geological information and insights on its parameterization	TMI
T-17	Karel Šilhán	University of Hradec Kralove	Czech Republic	Dendrogeomorphology of landslides: principles, results and perspectives	TMI
T-18	Judith Uwihirwe, Markus Hrachowitz, Thom A. Bogaard	Delft University of Technology	Netherlands	Landslide precipitation thresholds in Rwanda	TMI
T-19	Ran LI, Fawu WANG, Shuai ZHANG	Shimane University	Japan	Failure mechanism of a flow-like landslide triggered by the 2018 Western Shimane Earthquake	TMI

T-20	Nejc Bezak, Jošt Sodnik, Jernej Jež, Mateja Jemec Auflič, Matjaž Mikoš	University of Ljubljana	Slovenia	An extreme May 2018 debris flood case study in northern Slovenia: analysis, modelling, and mitigation	TMI
T-21	Guruh Samodra, Muhammad Fauzan Ramadhan, Junun Sartohadi, Muhammad Anggri Setiawan, Nugroho Christanto, Adhera Sukmawijaya	Universitas Gadjah Mada	Indonesia	Characterization of displacement and internal structure of landslides from multitemporal UAV and ERT imaging	TMI
T-22	Luke A. McGuire, Ann M. Youberg	University of Arizona	USA	What drives spatial variability in rainfall intensity-duration thresholds for post-wildfire debris flows? Insights from the 2018 Buzzard Fire, NM, USA	TMI
T-23	Zongji Yang, Liyong Wang, Jianping Qiao, Taro Uchimura, Lin Wang	Institute of Mountain Hazards and Environment	China	Application and verification of a multivariate real-time early warning method for rainfall-induced landslides: implication for evolution of landslide-generated debris flows	TMI
T-24	Christopher I. Massey, Dougal Townsend, Biljana Lukovic, Regine Morgenstern, Katie Jones, Brenda Rosser, Saskia de Vilder	GNS Science	New Zealand	Landslides triggered by the MW7.8 14 November 2016 Kaikō ura earthquake: an update	TMI
T-26	Picarelli L, Olivares L, Damiano E, Darban R, Santo A	Universita della Campania	Italy	The effects of extreme precipitations on landslide hazard in the pyroclastic deposits of Campania Region: a review	TMI
T-28	Huanling Wang, Shiqi Liu, Weiya Xu, Long Yan, Xiao Qu, Wei-Chau Xie	Hohai University	China	Numerical investigation on the sliding process and deposit feature of an earthquake-induced landslide: a case study	TMI
T-29	Susanta Kumar Samanta, Ranjit Kumar Majumdar	Jadavpur University	India	Identification of landslide prone slopes at Paglajhora area, Darjeeling Himalaya, India	TMI
T-30	Alex Palma, Rosie Garrill, Martin S. Brook, Nicholas Richards, Jon Tunnicliffe	University of Auckland	New Zealand	Reactivation of coastal landsliding at Sunkist Bay, Auckland, following ex-Tropical Cyclone Debbie, 5 April 2017	TMI
T-31	Francis Rengers, Luke Mcguire, Nina Oakley, Jason Kean, Dennis Staley, Hui Tang	U.S. Geological Survey	USA	Landslides after wildfire: initiation, magnitude, and mobility	TMI
T-32	Vít Vilímek, Jan Klimeš, Ruth Verónica Ttito Mamani, José Bastante Abuhadba, Fernando Astete Victoria, Piedad Zoraida Champi Monterroso	Charles University	Czech Republic	Contribution of the collaborative effort of the Czech WCoE to landslide risk reduction at the Machupicchu, Peru	TMI
T-33	Sudesh Kumar Wadhawan, Balmukund Singh, Maneesha Vinodini Ramesh	Amrita Vishwa Vidyapeetham	India	Causative Factors of Landslides 2019: Case Study in Malappuram and Wayanad Districts of Kerala, India	TMI
T-34	Michele Calvello, Graziella Devoli, Katy Freeborough, Stefano Luigi Gariano, Fausto Guzzetti, Dalia Kirschbaum, Hiroaki Nakaya, Joanne Robbins, Manfred Stähli	University of Salerno	Italy	LandAware: a new international network on Landslide Early Warning Systems	TMI
in September 2021 and authors will register WLF5, those presentation will be added in this place.					

E-Proceedings session by the Japan Landslide Society Contact: Daisuke Higaki <a9024@n-koei.co.jp>

Session 1 International Cooperation in Landslide Disaster/Risk Reduction (Japan)

J-1	Naoya Orita	Japan International Cooperation Agency	Japan	JICA's support in sediment disaster risk reduction	EPR
J-2	Tomoharu Iwasaki, Mukteshwar Gobin	KOKUSAI KOGYO CO., LTD	Japan	Technical cooperation project: Landslide Adviser for Mauritius	EPR
J-3	Mukteshwar Gobin, Tomoharu Iwasaki, Noriyuki Yasufuku, Ryohei Ishikura	Kyushu University	Japan	Structural and non-structural countermeasures against landslides implemented in Mauritius with the assistance of the Government of Japan	EPR
J-4	Kiyoharu Hirota, Maynor Ruiz, Takeshi Kuwano	KOKUSAI KOGYO CO., LTD/(ICL)	Japan	Preliminarly report of simple hazard mapping methods for slope stability in Tegucigalpa, Honduras	EPR
J-5	Lidia Torres‐Bernard, Elias Garcia‐Urquia	Instituto Hondureno de Ciencias de la Tierra UNAH	Honduras	AHP method applicated to landslide susceptibility mapping in pilot sites of Tegucigalpa	EPR
J-6	Elias Garcia‐Urquia, Lidia Torres‐Bernhard	Civil Engineering Department, National Autonomous University of Honduras	Honduras	Coupling antecedant rainfall and intensity-duration thresholds for landslide occurrence in Tegucigalpa, Honduras, 2010	EPR
J-7	Takeshi Kuwano, Takashi Hara, Hotaka Aoki, Kiyoharu Hirota, Koichi Hasegawa, Kosuke Uzawa	Kokusai Kogyo	Japan	Slope disaster and countermeasures in Honduras	EPR

J-8	Tempa Thinley	Department of Road, Ministry of Works and Human Settlement	Bhutan	Landslide disaster management and capacity development for roadside slope risk reduction in Bhutan	EPR
J-9	Takashi Hara	OYO International Corporation	Japan	Rockfall protection on road in Bhutan	EPR
J-10	Naoto Iwasa, Daizo Tsutsumi, Shiro Ohmi, Tempa Thinley, Dowchu Drukpa	Nippon Steel Metal Products CO.,Ltd.	Japan	Application on slope stabilization method aimed an environment and landscape conservation	EPR
J-11	Kaoru Nakazato, Satoru Shibata	Pacific Consultants Co.,LTD. Land Infrastructure Div. Geotechnical Engineering Dept.	Japan	Generating landslide hazard map on 2015 Nepal Earthquake and subsequent training activity	EPR
J-12	Daisuke Higaki	Hirosaki University	Japan	A case study of low-cost measures against landslides by river bank erosion in Nepal	EPR
J-13	Masanori Tozawa, Hussein Yuldashev, Umedjon Shomirov, Ainiddin Boimurodzoda, Bekhruiz Shomirov	Kokusai Kougyo co., ltd.	Japan	Introduction of preventive measures in the road infrastructure development in Tajikistan, in cooperation with a JICA technical project	EPR
J-14	Yoji KASAHARA, Yuji YASHIRO, Yoshio KASHIWAI	Japan Conservation Engineers & Co., LTD.	Japan	Road slope disaster countermeasures in Sri Lanka	EPR
J-15	Pucai Yang, T. Nishikawa, H.H Hemasinghe, H.A.G. Jayathissa	Nippon Koei Co., Ltd.	Japan	Identification of debris flow hazards in Sri Lanka	EPR
Session 2 Introduction of landslide mitigation measures of Japan					
J-16	Toko Takayama, Hasi Bateer, Takahiro Yoshida	Asia Air Survey Co., Ltd.	Japan	Landslide interpretation and evaluation based on precise visualization method using high resolution geospatial data	EPR
J-17	Wataru Takeshita, Hiroyuki Sugimoto, Yoshiki Wada	Public Works Research Institute(PWRI)	Japan	Use of UAV-SfM point cloud for emergency response to landslide disasters	EPR
J-18	Tomoya Hayakawa, Ryuku Shimizu, Keisuke Teraguchi	Nippon Koei Co., Ltd.	Japan	The large landslide dam in Hidakahoronai, Hokkaido	EPR
J-19	Senro Kuraoka, Yuichi Nakashima, Hirokazu Furuki, Masahiro Chigira	Nippon Koei Co., Ltd.	Japan	Development of methods to assess the annual expected loss of earthquake-induced landslides	EPR
J-20	Nobuyuki Shibasaki, Ryota Ooya, Shunsuke Mitsuzuka, Tamiaki Fujiwara, Tadashi Hatakeyama, Kunimori Komiya	NIPPON KOEI CO., LTD.	JAPAN	Effect of S wave velocity structure of ground on occurrence of strain in landslide slope during earthquake: a case study of landslide along the YamagataSuifu Line, induced by the 2011 Off the Pacific Coast of Tohoku Earthquake	EPR
J-21	Wataru Sagara, Hideaki Marui	SABO & LANDSLIDE TECHNICAL CENTER	Japan	Relationship between water quality and ground condition of earthquake-induced landslide areas in a mountain watershed	EPR
J-22	Yoshinori Ito	Kowa Co.,Ltd.	Japan	Prediction of the groundwater level fluctuation in landslide area using genetic algorithm	EPR
J-23	Akihiro Miyagi, Iwao Miyoshi	SABO&Landslide Technical Center	Japan	Relationship between bamboo rhizome and surface failure	EPR
J-24	Kazunori Hayashi, Daisuke Sato	Okuyama Boring Co., Ltd.	Japan	Small and simple water drainage drilling method for landslide disaster prevention	EPR
J-25	Yoshitsugu Kimura, Hiroyuki Umezawa, Risa Tanbe, Peihong ZHU	Toa Grout Kogyo Co., Ltd	Japan	Performance Verification of sediment capture by Flexible Barrier	EPR
J-26	Masayuki Ujihara, Ryouichi Fukagawa	NITTOC CONSTRUCTION CO.,LTD.	Japan	The Geofiber method-protecting slopes with environment-conscious continuous fiber reinforced soil	EPR
J-27	Hiroaki KOJIMA	OSASI Technos, Inc.	Japan	Case studies of installation of measuring instruments on overseas landslide countermeasures and their problems : examples of Sri Lanka and Honduras	EPR
J-28	Yusuke Koyama	Japan Broadcasting Corporation	Japan	Disaster risk coverage of TV media for citizens	EPR
Sessin 3 Activities of Landslide-prevention engineers to enhance local capacity for disaster reduction in Japan					
J-29	Noriko Ohnuma, Akio Sato, Saika Shimizu	Japan Conservation Engineers & CO.,LTD.	Japan	Process of Preparing Community Disaster Management Plan: Case Study of Communities on Ichinichi-Mae Project and CDMP that Have Experienced Recent Disaster	EPR
J-30	Kiyomi Nakamura	Japan Conservation Engineers & Co. ltd.	Japan	Extraction of subjects for regional disaster risk reduction by teaching materials simulating evacuation behaviors	EPR
J-31	Shunitsu Fujii	Fujii Consulting & Associates	Japan	An easy way to learning rainfall-induced landslides and its prevention using analog modelling	EPR
J-32	Akihiko Tadokoro, Misako Yamamoto, Masahito Matsuoka, Yosuke Hamaguchi	Shikoku Geotechnical Consultants Association , Kochi Branch	japan	The workshop program of disaster prevention learning for primary school children and junior high school students	EPR

J-33	Kouichi Ikebe	The Japan Landslide Society Chubu Branch	Japan	Approaches and actions for information dissemination and education for disaster resilience in the Chubu Branch of Japan Landslide Society	EPR
World Tsunami Awareness Day Special Event. Contact: Shinji Sassa <sassa_pari@hotmail.co.jp>					
TS-1	Giogio Belloti			Laboratory modelling of tsunamis generated by landslides	1PA
TS-2	Finn Løvholt, Sylfest Glimsdal, Carl B. Harbitz	NGI	Norway	Tsunami uncertainty due to landslide dynamics	TMI
TS-3	Uri ten Brink	USGS	USA	Using statistics to understand submarine landslide processes and hazard	FCB
TS-4	Hermann Fritz	Georgia Institute of Technology	USA	From granular landslide generated tsunamis in the laboratory to recent landslide	1PA
TS-5	Saeedeh Yavari Ramsheh	California State University, Fullerton	USA	Tsunami events of the Indian Ocean-role of landslides	1PA
TS-6	Ken Ikehara	Geological Survey of Japan, AIST	Japan	The link between upper-slope submarine landslides and mass transport deposits in the hadal	FCB
TS-7	Shinji Sassa	Port and Airport Research Institute, National Institute of Maritime, Port and Aviation Technology	Japan	Session Coordinator: Review of Landslides-induced Tsunamis	1PA
Special Lectures and Panel Discussion for World Tsunami Awareness Day Event					
TS-8	Nicola Casagli	University of Florence	Italy	Monitoring and Early Warning of Landslides including Stromboli landslide induced tsunami	FCB
TS-9	Doan Loi, Kyoji Sassa, Khang Dang, Toyohiko Miyagi			Simulation of Tsunami waves induced by coastal and submarine landslides in Japan	FCB
TS-10	Luciano Picarelli, Suzanne Lacasse, Ken K.S. Ho	Universita della Campania	Italy	The impact of climate change on landslide hazard and risk	FCB
TS-11	Kazuo Konagai & Asiri Karunawardena			Early Warning of rain-induced rapid and long-travelling landslides in Sri Lanka	FCB
TS-12	Stephan Grilli	University of Rhode Island	USA	Tsunami generation by Volcanic flank collapse: Case study of Anak Krakatau	1PA
TS-13	David R Tappin, Stephan T Grilli	British Geological Survey	UK	The continuing underestimated tsunami hazard from submarine landslides	FCB+EPR
TS-14	Viacheslav Gusiakov, Alexey Makhinov	Institute of Computational Mathematics and Mathematical Geophysics	Russia	December 11, 2018 landslide and 90-m icy tsunami in the Buryea water reservoir	FCB
TS-15	Dwikorita Karnawati	Indonesian Meteorological climatological and Geophyisic Agency (BMKG)	Indonesia	Innovation in Tsunami Early Warning System in Indonesia	EPR
TS-16	Toyohiko Miyagi	Tohoku-Gakuin University	Japan	Explanation of submarine landslides distributions around Japanese islands and stereo photo of submarine landslides on the floor	
				Break: Obsevation of stereo photo of submarince landslides by participants	
Panel Discussion: Understanding and reducing disaster risk of landslide-induced Tsunami along with the Kyoto Landslide					
				Short talks and comments from panelists and floor	
				Concluding remarks on World Tsunami Awareness Day Event in WLF5	