

## CONTENTS

1. EXPERIMENTAL STUDY ON DYNAMIC STRENGTH OF FIBER-CEMENT-STABILIZED SOIL . . . . .	1
Hiroshi TAKAHASHI, Kenta TAKAHASHI and Masato MORI	
2. EFFECTS OF SETTLEMENT DUE TO SUBMERGENCE ON EARTH PRESSURE AGAINST WALL . . . . .	7
Kazuaki HIOKI, Hiroshi AZUMA and Kosuke SUGA	
3. A SIMPLIFICATION INSTALLATION METHOD FOR SLOPE MONITORING . . . . .	11
Syunji Katou, Haruhi Etou, Kenshi Taniguchi and Hidefumi Sato	
4. SLOPE STABILITY DURING RAIN FALL BY CENTRIFUGE MODEL TEST . . . . .	17
Hiroaki KANEKO, Hiroyuki TANAKA and Yutaka KUDOH	
5. SOIL TANK TESTS ON SEEPAGE AND FAILURE BEHAVIOR OF MASA SLOPE DUE TO RAINFALL . . . . .	21
Kazunari SAKO, Takefumi SUDA, Tomoaki SATOMI, Ryoichi FUKAGAWA and Ryosuke KITAMURA	
6. IN SITU MEASUREMENT OF UNSATURATED SOIL AND MODELING FOR HEAT TRANSFER AND SEEPAGE . . . . .	27
Yohsuke MATSUZAKI, Yuji MIYAMOTO, Ryosuke KITAMURA	
7. CENTRIFUGAL SIMULATION ON FAILURE MECHANISM OF SLOPE SUBJECTED TO HEAVY RAIN . . . . .	33
Makoto KOBAYASHI, Akihiko HIRO-OKA and Miyuki MATSUI	
8. A RESEARCH ON ROAD TRAFFIC MANEJIMENNT FOR REDUCTION OF REGULATION TIME DUE TO SLOPE FAILURE . . . . .	39
Shunji KATO, Hidetoshil KOHASHI, Atushi HURUYA and Hideki SUGITA	
9. (SPECIAL PAPER) APPLYING GEO-INFORMATION TO GEOLOGICAL RISK MITIGATION . . . . .	45
Akira IWAMATSU	
10. STUDIES ON THE MICRO-TOPOGRAPHY OF THE MOUNTAINOUS WATERSHED USING AIRBORNE LASER ALTIMETRY AND BASE-ROCK SLAKING TENDENCY . . . . .	49
Yasuhiro MURAKAMI, Tetsuro FUTA and Tsuyoshi IKESHIMA	
11. A VOLUMETRIC STUDY OF SURFACE EROSION IN A TEST AREA ON A PYROCLASTIC FAN AROUND UNZEN VOLCANO . . . . .	55
Takahito KUROKI, Nozomi ISO and Kensuke GOTO	
12. RTD-GPS AUTO-MONITORING SYSTEM CASE FOR THE LAND SLIDE . . . . .	61
Satoru KUSUNOKI, Hiroshi IKEBE, Masayuki UCHIYAMA, Toshiyuki MORI	
13. RELATIONSHIP BETWEEN A LANDSLIDE AND ITS CLAY MINERALS IN NAKAGUSUKU-VILLAGE, OKINAWA PREFECTURE . . . . .	67
Mayumi JIGE, Hiroto UENO, Binbin WANG and Takabumi SAKAMOTO	
14. (PROMPT REPORT) EARTHQUAKE-INDUCED SEDIMENT DISASTERS —IWATE-MIYAGI NAIRIKU EARTHQUAKE IN 2008— . . . . .	71
Yoshiharu ISHIKAWA	

15. THE SLOPE FAILURE BY THE TYPHOON NO. 14 AT YAMASUBARU DAM RESERVOIR IN 2005 . . . . . 73  
Kentarou YAMAGUCHI, Sigeharu TAKAMORI, Nobuo HAYASHI and Hiroyuki OOISHI

16. AN INVESTIGATION OF THE RELATIONSHIP BETWEEN SAND DISASTER AND UNDERGROUND  
WATER CONDITION IN KAGOSHIMA RYUGAMIZU AREA . . . . . 79  
Kazuto SAEKI, Daisuke TAKEDA and Etsuro SHIMOKAWA

17. STUDY ON REGIONAL DAMAGE CONDITIONS OF KURATAKE-MACHI DISTRICTS IN THE JULY 1972  
AMAKUSA SEVERE STORM DISASTER . . . . . 85  
Mitsuharu FUKUDA, Zyoji NISIURA, Hidenori NISHI, Tomohiro YAMAZAKI, Yoshito KITAZONO

18. THE RISK EVALUATION OF SLOPE DURING RAINFALL USING PRINCIPAL COMPONENT ANALYSIS  
CONSIDERING VARIATION OF SOIL MOISTURE . . . . . 91  
Tomoaki SATOMI, Kazunari SAKO, Ikuo YASUKAWA and Ryoichi FUKAGAWA

19. THE RISK EVALUATION OF THE SLOPE WHICH NOTICED PRIMARY CAUSES OF  
SLOPE FAILURE . . . . . 97  
Yoshito KITAZONO and Athuhiro INOUE

20. ADAPTABILITY OF MODIFIED TANK MODEL TO SEDIMENT DISASTER RISK PREDICTION IN  
HEAVY RAIN . . . . . 103  
Kazuaki HIOKI, Kazuo AOKI and Satoshi NAKAMURA

21. USE OF LEDGER SYSTEM USING WEB-GIS FOR SPECIFICATION OF SEDIMENT DISASTER  
PREVENTION DISTRICTS . . . . . 109  
Takuji NOMA, Ichiro KOBAYASHI, Shiro TAKESHITA

22. (KEYNOTE PAPER) WARNING AND EVACUATION SYSTEM FOR SEDIMENT-RELATED  
DISASTERS . . . . . 115  
Shigeru OGAWA

23. SEDIMENT RELATED-DISASTER DUE TO INTENSE RAINFALL IN MT. BAWAKARAENG CALDERA,  
SOUTH SULAWASI, INDONESIA . . . . . 121  
HASNAWIR and Tetsuya KUBOTA

24. DEVELOPMENT OF 3-DIMENSIONAL DISTINCT ELEMENT METHOD FOR HAZARD MAP  
OF ROCKFALLS . . . . . 127  
Takahisa MAKINO, Senro KURAOKA and Ayano SUGIYAMA

25. ANALYTICAL CONSIDERATION ON 7·20 MINAMATA SLOPE FAILURE DISASTER . . . . . 131  
Satoru OHTSUKA, Tsukasa IWABE, Koichi ISOBE and Toshihiro HORIKOSHI

26. MODELING OF DYNAMIC INTERACTION OF SLOPE FAILURE AND BARRIER STRUCTURES WITH  
THE DISTINCT ELEMENT METHOD . . . . . 137  
Senro KURAOKA and Yuichi NAKASHIMA

27. APPLICATION OF THE MOVING PARTICLE METHOD FOR MODELING SOLID-LIQUID MIXTURE FLOW AT SLOPE FAILURE . . . . .	143
Hiroyuki TOSAKA, Hiroaki KURIHARA and Shingo KIMURA	
28. DEVELOPMENT OF AN USER FRIENDLY DEBRIS FLOW SIMULATOR EQUIPPED WITH GUI . . . . .	149
Kana NAKATANI, Takashi WADA, Yoshifumi SATOFUKA and Takahisa MIZUYAMA	
29. INVESTIGATION OF CHARACTERISTICS WITH TEMPORAL CHANGE IN FOURIER SPECTRUM IN A FLOW CONDITION USING VIBRATION SENSORS: CASE STRUDY ALONG NOJIRI RIVER . . . . .	155
Tsuneo OHSUMI, Hiroshi ASAHARA and Etsuro SHIMOKAWA	
30. (INVITED PAPER) CURRENT STATE OF RESERVOIR SEDIMENTATION MANAGEMENT AND VIEW IN THE FUTURE . . . . .	161
Noriaki HAKOISHI	
31. CHARACTERISTICS OF SEDIMENT OUTFLOW FROM MOUNTAINOUS AREA INKYUSHU . . . . .	167
Haruyuki HASHIMOTO, Hiroyuki NAGANO	
32. A STUDY ON PREDICTION OF SEDIMENT INTO RESERVOIRS USING A DISTRIBUTED RAINFALL AND SEDIMENT RUNOFF MODEL . . . . .	173
Gen NAGATANI, Yasufumi TAKATA, Kaoru TAKARA and Takahiro SAYAMA	
33. THE STUDY IN MEASURES AGAINST SEDIMENTATION IN RUN-OFF-RIVER HYDRO POWER PLANT CAUSED BY SEDIMENT RUNOFF FROM UPSTREAM CHANNEL BED . . . . .	179
Yuichi KOUCHI, Takashi HOSODA and Kenji OKUBO	
34. VARIATION OF BED ELEVATION AND GRAIN SIZE DISTRIBUTION BY THE MULTIPLE ROWS OF CYLINDERS IN AN OPEN CHANNEL . . . . .	185
Hiroki TAKAOKA, Haruyuki HASHIMOTO, Shinya IKEMATSU and Hiroshi SHIMOOSAKO	
35. A RESEARCH ON RIVERBED VARIATION AND SEDIMENT BUDGET IN THE OMARU RIVER . . . . .	191
Ryo MIYAZAKI, Haruyuki HASHIMOTO and Tamishirou HARADA	