

Personal Information

Name: Surendra Bahadur Tamrakar
Gender: Male
Date of Birth: 1967/05/06
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Educational History

- 1987/06/01~1991/07/31 **Bachelor of Engineering (B.E.)**
Mining Engineering, Bengal Engineering Science and
Technology University, West Bengal, **India**
- 1995/09/01~1997/04/18 **Master of Engineering (M.E.)**
School of Civil Engineering, Asian Institute of Technology,
Pathumthani, **Thailand**
- 1997/10/01~2001/03/23 **Doctor of Engineering (Ph.D.)**
Geotechnical Engineering, Hokkaido University, Hokkaido,
Japan

Areas of Expertise

- ① Geotechnical engineering (Soil Mechanics and Rock Mechanics)
- ② Soil laboratory tests and Field tests
- ③ Slope Stability
- ④ Analysis of slope stability, excavation, and embankment works using geotechnical software
- ⑤ Site investigation (Borehole logging, SPT, etc.)
- ⑥ Centrifuge Tests (Slope stability, Excavation, etc.)
- ⑦ Large scale model tests

Professional Career Details

1. **2016/02/01~present** **Associate Professor and Division Head**, Research Training and Consultancy Division, **Kantipur Engineering College** (Affiliated to Tribhuvan University, Nepal), Lalitpur, **Nepal**.
2. **2016/10/01~ present** **Visiting Faculty, Associate Professor**, Pulchowk Engineering College, Institute of Engineering, **Tribhuvan University**, Lalitpur, Nepal.
3. **2014/10/01~ 2015/03/31** **Visiting Faculty and Researcher**, Infrastructure Laboratory for Innovative Technology, Civil Engineering, **Kyoto University**, Kyoto, **Japan**.
4. **2010/02/01~2014/09/30** **Associate Professor**, International Course Program, Civil Engineering, **Kyoto University**, Kyoto, **Japan**.
5. **2009/05/06~2010/01/31** **Senior Researcher, National University of Singapore (NUS)**, Singapore.
6. **2008/04/01~2008/11/30** **Geotechnical Research Engineer, C-way Engineering Consultancy**, Hokkaido, **Japan**.
7. **2007/04/01~2008/03/31** **Post-Doctoral Research Fellow, Hokkaido University**, Hokkaido, **Japan**.
8. **2005/04/01~2007/03/31** **Post-Doctoral Research Fellow, Japan National Institute of Industrial Safety and Health (JNIOOSH)**, Tokyo, **Japan**.
9. **2003/04/01~2005/03/31** **Researcher, JNIOOSH**, Tokyo, **Japan**.
10. **2001/04/01~2003/03/31** **Research Associate, Hokkaido University**, Hokkaido, **Japan**.
11. **1997/05/01~1997/09/30** **Research Associate, Asian Institute of Technology (AIT)**, Thailand.
12. **1991/10/29~1995/07/21** **Mining Engineer, Udayapur Cement Industries, Udayapur, and Godavari Marble Industries, Lalitpur, Nepal**.

Career in detail:

1. **Associate Professor / Division Chief, Kantipur Engineering College, Lalitpur, Nepal**
(2016-03-01 to present)
 - Lectures and Guiding students for their research works:
 - Teaching following subjects:
 - i) Soil Mechanics and Exercises
 - ii) Foundation Engineering and Exercises
 - iii) Soil Mechanics Laboratory and Field Investigation
 - Guiding students, teachers and staffs for their research works.
 - Conducting internal trainings, workshops and technical exhibitions for students and faculties.

2. **Visiting Faculty / Pulchowk Engineering College, Tribhuvan University, Lalitpur, Nepal**
(2016-10-01 to present)
 - Teaching Geotechnical Earthquake Engineering subject for Graduate Students.
 - Guiding graduate students for their research/thesis works.

3. **Visiting Faculty and Researcher / Kyoto University, Kyoto, JAPAN** (2014-10-10 to 2015-03-31)
 - Measurement of residual tensile strength of ground anchor using ultrasonic non-destructive technique.
 - Involved in crack measurements of structures using Non-destructive technology (NDT).
 - Guiding graduate and undergraduate students for their research thesis works.

4. **Associate Professor / Kyoto University, Kyoto, JAPAN** (2010-02-01 to 2014-09-30)
 - Lectures and Guiding students for their research works:
 - Teaching following subjects:
 - iv) Soil Mechanics I and exercise
 - v) Soil Mechanics II and exercise
 - vi) Soil Mechanics Laboratory and Field Investigation
 - vii) Rock Engineering
 - viii) Introduction to Geo-science
 - ix) Geo-environmental Engineering
 - x) Others (Fundamental of Physics A, Exercises in information basics and Computer programming)
 - Guiding students for their research works.
 - Promotional activities new International Civil Eng. Program.
 - Researches related with tensile strength of soil and slope stability due to rain fall.

5. **Senior Researcher / National University of Singapore** (2009-05-06 to 2010-01/31)

- Monitoring and analysis of Stabilized Dredge Fill:
 - Observation and monitoring the strength of Stabilized Dredged Fill in one of the land reclamation site of Singapore.
- Laboratory and Field Tests:
 - Comparison of soil strength of the Stabilized Dredge prepared in the field and laboratory and finding the reason of deviation in strength in the laboratory and at the actual site.
- Early measurement of cement–soil mixture:
 - Methods of finding early strength of cement-soil mixture to predict the future strength of the Stabilized fills.
 - Guiding students for their research works and managing to cooperate with field and laboratory staffs for proper tests and sample preparation.
- Organized one-day seminar on Geotech:
 - **One day seminar on Geotech**, especially with soil-cement mixture was organized. More than 100 participants, both Singaporean as well as others (Japan, China, and Malaysia) attended the seminar and shared their ideas.

6. **Geotechnical Research Engineer / C-way Engineering Consultancy, Hokkaido, JAPAN**

(2008-04-01 to 2008-11-30)

- Monitoring and assessing Site investigation works along with FEM and Stability analysis:
 - Conducted Site investigations and report writing along with field tests using auger, field vane, Cone penetrometer and scala-penetrometer. Design parameters were determined and they were used for different analyses including Foundation design, Stability analysis and FE analysis.
 - Seepage analysis and Liquefaction analyses were also carried out using commercially available software.

7. **Post-Doctoral Research Fellow / Hokkaido University, Hokkaido, JAPAN (Under the Health and Labor Sciences Research Grants of Ministry of Health, Labor and Welfare)**

(2007-04-01 to 2008-03-31)

- Development of Modified Tensile strength measuring apparatus:
 - Tensile strength of both saturated and unsaturated soils became possible with this new apparatus with direct measurement of suction before and during the tensile failure.
- Measurement of dispersion coefficient during the flow of contamination through the soil:
 - Both gravitation field tests and centrifuge tests were carried out to determine and compare the dispersion coefficient values.

8. Post-Doctoral Research Fellow /Japan National Institute of Industrial Safety and Health (JNIOH), Tokyo, Japan (Under the Health and Labor Sciences Research Grants of Ministry of Health, Labor and Welfare) (2005-04-01 to 2007-03-31)

- Development of New Tilt sensor:
 - New tilt sensors are developed which could measure both surface and inner slope movements during the excavation and just before the failure. This tilt sensor has been developed to minimize the labor accidents during the toe/trench excavation of slopes/embankments.
- Monitoring and assessing Test Embankment construction:
 - 5 m high test embankment was constructed and different slope movement measuring instruments were set up. Failure of the slope was allowed by excavating the slope from its toe. Movement of slope were measured and compared.
- Excavation of model slopes within the centrifuge:
 - Model slopes of with slope angles, heights and compaction ratio were prepared and allowed to fail during centrifuge test using in-flight excavator. Excavation pattern was also varied. Movement of slope was measured with each step of excavation.

9. Researcher /Under JNIOH and JSTA grants, Tokyo, Japan (2003-04-01 to 2005-03-31)

- Large scale slope failure:
 - Large scale slope models were prepared within the laboratory and various types of tilt sensors were set up.
 - Manual excavation of slope was carried from toe of the slope until slope failure occurred.
 - Slope movement with new tilt sensor could measure movement of slope during and just before the failure.
- Numerical analysis of slope failure accident:
 - Centrifugal model tests resembling the field accidents were prepared and slopes were excavated until failure occurred.
 - Numerical analyses were carried out for such test excavation using Geo-slopes, Plaxis, Sage-Crisp, etc. and comparison of measured and numerical analyses data were made.

10. Research Associate / Hokkaido University, Hokkaido, Japan (2001-04-01 to 2005-03-31)

- Instructor for:
 - Soil laboratory and Surveying
 - Guided bachelor and masters students with their thesis works.
- Tests with frozen soils:
 - Development of ice lens and its mechanism was studies.

11. Research Associate / Asian Institute of Technology, Thailand (under JIRCAS) (1997-05-01 to 1997-09-30)

- Unsaturated soils:
 - Site investigation and laboratory tests of unsaturated soils (Kanto loam) of Khon

Kaen city of North-east **Thailand**.

- Strength measurement of Kanto loam using Double cell triaxial tests specially designed for unsaturated soils with suction measurements were mainly carried out.

12. Mining Engineer / Udayapur cement Industries and Godavari Marble Industries, Nepal
(1991-10-29 to 1995-07-21)

- **Site engineer:**

- Worked as a site mining engineer with the in-charge of open cast limestone mine, where more than 50 people work.
- Drilling, Blasting, Excavation, Production and Maintenance were taken care of.

Professional Membership

- International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE)
- Japan Geotechnical Society (JGS)
- Japanese Society of Civil Engineering (JSCE)
- Nepal Geotechnical Society (NGS)
- Nepal Geological Society (NGS)
- Nepal Engineers' Association (NEA)

Others

Languages Known:

English – Excellent

Japanese – Excellent (Japanese Language Proficiency Test – Level 1)

Nepali – Native

Hindi – Very Good

List of Academic Records with Publications

Surendra Bahadur Tamrakar, PhD

A. Journal Papers

1. Kung, G.T., Chien-Chih W., **Tamrakar S.B.**, Yu-Geng T., Shih-Tsung., and Lien-Chieh C. (2014): **Early-warning approaches for landslide using rainfall indices**, Journal of Disaster Advances, Vol. 7(6), 2014/6/15.
2. **Tamrakar S.B.**, Mitachi T., and Kung, G.T., **Tensile strength and suction of naturally available saturated clays with modified tensile testing apparatus and their relationships with unconfined compressive strength**, Journal of Disaster Advances, Vol.6(10), 96-109: Oct. 2013
3. **Tamrakar S.B.**, Mitachi T., and Toyosawa Y., **Measurement of soil tensile strength and factors affecting its measurement**, Soils and Foundations, Vol.47, No.5, 911-918: 2007.
4. **Tamrakar S.B.**, Toyosawa Y., Mitachi T., and Itoh K., **Tensile strength of compacted and saturated soils using newly developed tensile strength measuring apparatus**, Soils and Foundations, Vol.45, No.6, 103-11:2005.
5. **Tamrakar S.B.**, Shibuya S., and Mitachi T., **Parametric FE analysis of Bangkok clay underneath test embankment at Nong Ngoo Hao**, Geotechnical Engineering Journal, SEAGS, Vol.31. No.3, 193-208: 2000.
6. Shibuya S. and **Tamrakar S.B.**, **Simulating soft clay deformation behind diaphragm wall by FE analysis using linear equalization FEM method**, Geotechnical Engineering Journal, SEAGS, Vol. 36, No. 1, 1-12: 2005.
7. Shibuya S., **Tamrakar S.B.** and Manakul W., **Geotechnical hazards in Bangkok – present and future**, Lowland Technology International, Vol. 5, No. 1, 1-13: 2003.
8. Shibuya S., **Tamrakar S.B.** and Theramast N., **Geotechnical site characterization on engineering properties of Bangkok clay**, Journal of the Southeast Asian Geotechnical Society, Vol. 32, No. 3, 139-151: 2001.
9. Toyosawa Y., MitachiY., Yang J., Itoh K. and **Tamrakar S.B.**, (2005): “Stability of Trench excavation underneath the construction machinery”, Journal of Japan Society of Civil Engineering, No. 806/III, pp.79-91.
10. Itoh Y., Toyosawa Y., **Tamrakar S.B.** and Horii N. (2005): “Investigation and analysis of labor accident due to slope failure during construction works”, Journal of Japan Landslide Society, Vol. 41, No. 6, pp.17-26.
11. Tamate S., Itoh K. and **Tamrakar S.B.** (2009): “An experimental study on monitoring the shear deformations in the shallow section of slopes to sense an increase of the potential risk of failure”, Journal of Japan Society of Civil Engineering, Vol. 65, No. 1, 1-18, (2009.1).
12. **Tamrakar S.B.**, Shiotani T., Chang K.C. and Fujiwara Y., **Ultrasonic method for predicting residual**

B. International Conference Papers

Refereed Conference Papers

1. Prajapati A., Poudel Y. R., and Tamrakar S.B., **Site Specific Ground Response Analysis of Bhaktapur Municipality With Microtremor**, 2nd International Conference on Earthquake Engineering and Post Disaster Reconstruction Planning, Bhaktapur, Nepal, April 25-27, 2019.
2. KC U. and Tamrakar S.B., **Liquefaction Induced Settlement Analysis of nec Library Building During 2015 Gorkha Earthquake of Moment Magnitude 7.8**, International Conference on Health Engineering in Disaster, Pokhara University, Pokhara, Nepal, May 1-3, 2019.
3. Prajapati A., Poudel Y. R., and Tamrakar S.B., **Site Specific Ground Response Analysis of Bhaktapur Municipality With Microtremor**, Symposium of Nepal Geotechnical Society, Kathmandu, Nepal. January 13, 2019.
4. Tamrakar S.B. and Shiotani T., **Application of Ultrasonic wave for in tension measurement of Anchor**, Symposium of Nepal Geotechnical Society, Kathmandu, Nepal. January 13, 2019.
5. Tamrakar S.B., Shiotani T., Chang K.C. and Fujiwara Y., **Ultrasonic method for predicting residual tension of ground anchors**, 6th International Conference on Emerging Technologies in Non-destructive Testing (ET-NDT6), Brussels, Belgium, May 28-29, 2015.
6. Chang K.C., Shiotani T., and Tamrakar S.B., **Experimental verification of a Rayleigh-wave based technique for detecting the depth of deteriorated concrete**, 6th International Conference on Emerging Technologies in Non-destructive Testing (ET-NDT6), Brussels, Belgium, May 28-29, 2015.
7. Tamrakar S.B., **Prediction of residual tension of wedge-fix type ground anchors using ultrasonic reflection wave**, International Workshop on Non-destructive Testing, Kyoto, Japan, December 28-29, 2014.
8. Tamrakar S.B., and Mitachi T., **Tensile strength and suction of saturated NSF clay and their relationships with UC strength**, Third International Conference on Geotechnique, Construction Materials and Environment, Nagoya, Japan, Nov. 13-15, 2013, ISBN: 978-4-9905958-2-1 C3051, 2013.
9. Tamrakar S.B., Toyosawa Y., Mitachi T., Itoh K., and Takashi K., **Possible use of tilt-sensor**
10. Tamrakar S.B., Toyosawa Y., Mitachi T., Itoh K., and Takashi K., **Possible use of tilt-sensor for failure movement and failure plane just before slope failure**, *Proceeding of International Geotechnical symposium on "Geotechnical Engineering for disaster prevention and reduction"*, Russia, pp.247-252, 2007.
11. Tamrakar S.B., Toyosawa Y., and Itoh K., **Application of tilt-sensor in the slope excavation field for slope movement measurement just before failure**, *First North American Landslide Conference*, Vail, Colorado, US, pp.1041-1050, 2007.
12. Tamrakar S.B., Mitachi T., and Toyosawa Y., **Factors affecting tensile strength measurement and modified tensile strength measuring apparatus for soil**, *Mechanics of Unsaturated soils*, Weimar, Germany, 2007.
13. Tamrakar S.B., Toshiyuki M., Toyosawa Y., and Itoh K., **Development of new tensile strength measuring apparatus for soils with suction measurement**, 13th Asian Regional Conference of Soil Mechanics and Geotechnical Engineering, 2007.
14. Tamrakar S.B., Toyosawa Y., and Timpong S., **Measurement of slope movement just before failure using newly developed tilt sensors**, 13th Asian Regional Conference of Soil Mechanics and Geotechnical Engineering, 2007.
15. Tamrakar S.B., Toyosawa Y., Itoh K., and Timpong S., **Comparison of failure mechanism due to toe excavation, Centrifuge, Field test and Numerical Analysis**, *CI-Premier's Geotechnique Week*, 2006.
16. Tamrakar S.B., Toyosawa Y., Itoh K., and Timpong S., **Failure heights comparison during excavation of slope using In-flight excavator**, *International conference on Physical Modeling in Geotechnics, Physical Modelling in Geotechnics-6th ICPMG 2006*, Ng, Zhang and Wang (eds), Vol.1, pp.385-390, ISBN

0-415-41586-1, 2006.

17. Tamrakar S.B., Toyosawa Y., Tanaka H. and Itoh K., **Possibility of measurement of slope movement during the Sandy soil slope failure in centrifuge**, *Sea to Sky Geotechnique-2006, 59th Canadian Geotechnical Conference*, pp.351-358, 2006.
18. Tamrakar S.B., Toyosawa Y., Itoh K., and Airki K., **Measurement of slope movement during the slope excavation of small size Full scale model**, *Proceedings of the International Symposium, Landslide Hazards in Orogenic Zone from the Himalaya to Island Arcs in Asia (Kathmandu, Nepal)*, pp.265-274, 2005.
19. Tamrakar S.B., Toyosawa Y., Itoh K., Horii N., and Kusakabe S., **Failure mechanism of slopes in the centrifuge using In-flight excavator**, *Proceedings of the International Symposium, Landslide Hazards in Orogenic Zone from the Himalaya to Island Arcs in Asia*, pp.255-264, 2005.
20. Tamrakar S. B., Mitachi T., Toyosawa Y., and Itoh K., **Development of a new soil tensile test apparatus**, *Proc., Geo-Frontiers 2005, Geotechnical Special Publication 138 (CD-ROM)*, ASCE, Reston, Va, 2005.
21. Tamrakar S.B., Shibuya S., and Mitachi T., **Design parameters for elasto-plastic FE analysis of soft clay ground**, *Proc. of 12th Asian Regional Conf. on Soil Mechanics and Geotechnical Engineering*, Singapore, Vol.1, pp.829-832, 2003.
22. Tamrakar S.B., Shibuya S., and Mitachi T., **A practical FE analysis for predicting deformation of soft clay subjected to deep excavation**, *Proc. of 3rd International Conference on Soft Soil Engineering*, Hong Kong, Vol.1, pp.377-382, 2001.
23. Tamrakar S.B., Shibuya S., and Mitachi T., **Case study on the practical use of elastic modulus in deformation analysis of soft clay ground**, *Advance laboratory Stress-strain Testing of Geomaterials*, pp.309-316, 2001.
24. Tamrakar S.B., Shibuya S., and Mitachi T., **Behavior of soft Bangkok clay underneath test embankment at Nong Ngoo Hao**, *Proc. of the GEOTECH-Year 2000, Development in Geotechnical Engineering (Balasubramaniam et. al eds.)*, Bangkok, Asian Institute of Technology, pp.145-154, 2000.
25. Tamrakar S.B., Shibuya S., and Mitachi T., **Effects of elastic deformation modulus of Bangkok clay in predicting soil-structure interaction in excavation work**, *Proceedings of the 2nd joint symposium between Hokkaido University and Yeungnam University, (Watanabe Y., Matsuto, T. and Murao, N. eds)*, pp.15-20, 2000.
26. Timpong S., Miura S., Toyosawa Y., Tamrakar S.B. and Itoh K., **Case study and simulation of trench collapse in peat ground**, *The 13th Asian Regional Conference of soil Mechanics and Geotechnical Engineering*, Kolkata, India, ARC-SMGE, 2007.
27. Timpong S., Toyosawa Y., Tamrakar S.B., Miura S. and Itoh K., **Investigation of slope failure during trench excavation in peat**, *59th Canadian Geotechnical Conference, Sea to Sky Geotechnique*, Vancouver, Canada, pp. 389-393, 2006.
28. Toyosawa Y., Yang J., Timpong S., Itoh K. and Tamrakar S. B., **Stability of trench excavation under construction machinery load**, *59th Canadian Geotechnical Conference, Sea to Sky Geotechnique*, Vancouver, Canada, pp. 376-381, 2006.
29. Toyosawa Y., Itoh K., Tamrakar S.B. and Suemasa N., **Redistribution of lateral earth pressures using movable earth support apparatus in centrifuge**, *International conference on Physical Modeling in Geotechnics (2006), Physical Modeling in Geotechnics, 6th ICPMG 2006*, Vol. 2, pp. 1111-1118, ICPMG, Ng, Zhang and Wang (eds) ISBN 0-415-41586-1, 2006.
30. Toyosawa Y., Itoh K., Tamrakar S.B. and Horii N., **The characteristics of labor accidents caused by slope failure**, *Proceedings of the International Symposium, Landslide Hazards in Orogenic Zone from the Himalaya to Island Arcs in Asia*, pp. 281-290, 2005.
31. Kusakabe S., Suemasa N., Toyosawa Y., Itoh K., Tamrakar S.B. and Ichikawa T., **Centrifuge tests on lateral earth pressures using a movable earth support apparatus**, *Geotechnical Aspects of Underground Construction in Soft Ground (Netherlands)*, pp. 63-68, 2005.
32. Takahashi H., Sato N., Toyosawa Y., Itoh K., Horii N. and Tamrakar S.B., **Comparison between different construction sequences for safety of slope by reliability analysis**, *Landslides: Evaluation and*

- Stabilization*, pp. 955-961, Lacerda, Ehrlich, Fontoura & Sayao (eds.) - 2004, ISBN 04 1535 665 2, 2004.
33. Itoh K., Toyosawa Y., Horii N., Tamrakar S.B. and Hashizume H., **Failure mechanism of slope covered with shotcrete in a centrifuge**, *The 9th International Symposium on Landslides*, Vol. 2, pp. 947-953, 2004.
 34. Takahashi H., Sato N., Toyosawa T., Itoh K. and Tamrakar S.B., **A basic study of the risk assessment about slope failure in construction stage**, *Asia Pacific Symposium on Safety*, November 18 ~ 20, Taipei International Convention Center, pp. 479-482, APSS, 2003.
 35. Shibuya S. and Tamrakar S.B., **Engineering properties of Bangkok clay, Characterization and engineering properties of Natural Soils**, pp. 645-692, Tan et al. (eds.), 2003.
 36. Shibuya S., Tamrakar S.B. and Mitachi T., **Deep excavation in Bangkok - characterization, measurement and prediction**, *IS-Kyoto 2001, Modern Tunneling Science and Technology*, Japan, pp. 243-248, 2001.
 37. Shibuya S. and Tamrakar S.B., **In-situ and laboratory investigation into engineering properties of Bangkok clay**, *Proceeding of International Symposium on Characterization of Soft Marine Clays-Bothkener, Drammen, Quebec and Ariake Clays*, Yokosuka, Japan, pp. 107-132, 1997.
 38. Kohgo Y., Horpibulsuk S. and Tamrakar S.B., **Simulation of volume change behavior of yellow soil sampled from Khon Kaen city in Northeast Thailand**, *11th ARC on Soil Mechanics and Geotechnical Engineering*, Vol. 1, pp. 141-144, Hong et. al. (eds.) Balkema, Rotterdam, ISBN905809 0531, 1999.
 39. Tamate S., Endo A., Toyosawa Y., Itoh K. and Tamrakar S.B., **Experimental analysis of shallow deformation in slope failure**, *AEG Special publication*, No. 23, CD-ROM, ISBN 978-0-975-4295-3-2, 1st North American Landslide Conference, 2007.

Japan National Institute of Industrial Safety (NIIS) Report

1. Tamrakar S.B., Toyosawa Y., and Itoh K. (2005): "Tensile Strength of Soil Measured Using Newly Developed Tensile Strength Apparatus", Research report of National Institute of Industrial Safety, NIIS-RR-2004(2005).
2. Tamrakar S.B., Toyosawa Y. and Itoh K. (2004): "Tensile strength of clayey soils using newly developed tensile strength measuring apparatus", Research Report, National Institute of Industrial Safety, NIIS-RR-2004(2005).
3. Toyosawa Y., Itoh K. and Tamrakar S.B. (2004): "Study on the mechanism of generating lateral earth pressures using centrifuge with movable earth support equipment", Research Report, National Institute of Industrial Safety, NIIS-RR-2004(2005).
4. Itoh K., Toyosawa Y., Tamrakar S.B., Timpong S. and Horii N.: "Physical modeling of slope failure during slope cutting work", National Institute of Industrial Safety, Research Report, NIIS-SRR-No. 35
5. Toyosawa Y., Itoh K., Tamrakar S.B., Ariki T., Kunimi T., Nishijyoh A, and Ohkubo S.: "A study on prediction of slope failure using highly accurate tilt-sensor", Research Report, National Institute of Industrial Safety, NIIS-SRR-No. 35.

Japan National Conferences

1. Tamrakar S.B., Toyosawa Y., Kazuya I., Takashi K., Atsushi N. and Satomi O. (2006): "Development of tilt-sensor and possibility of measurement of failure trend just before the failure", 41st Annual conference of Japan Geotechnical Society, Kagoshima. pp. 2253-2254.

2. **Tamrakar S.B.**, Toyosawa Y., Itoh K. and Toshiyuki M. (2005): "Newly developed tensile strength measuring apparatus and factors affecting its measurement", Proceedings of the 40th Japan National Conference on Geotechnical Engineering, Vol. 40, pp. 319-320.
3. **Tamrakar S.B.**, Shibuya S. and Mitachi T. (2000): "Deformation analysis of Bangkok sub-soil subjected to test embankment", Proceedings of the 35th Japan National Conference on Geotechnical Engineering, Gifu, Japan, pp. 323-324.
4. **Tamrakar S.B.**, Toyosawa, Y. and Itoh K. (2004): "A Newly developed tensile strength measuring apparatus (comparison of tensile strength and UC strength of Kanto loam)", Proceedings of the 39th Japan National Conference on Geotechnical Engineering, Vol. 39, pp. 251-52.
5. **Tamrakar S.B.**, Shibuya S. and Mitachi T. (2000): "Prediction of ground deformation due to embankment on soft Bangkok clay", Proceedings of the 40th Japan National Conference on Geotechnical Engineering, Hokkaido branch, pp. 55-62.
6. **Tamrakar S.B.**, Shibuya S. and Mitachi T. (1999): "Geotechnical design parameters for infrastructure works in Bangkok area", Proceedings of the 39th Japan National Conference on Geotechnical Engineering, Hokkaido branch, Japan, pp. 173-182.
7. **Tamrakar S.B.**, Toyosawa Y., Itoh K., Kunimi T., Nishijyo A, and Okubo T. (2006): "Comparison of slope failure trend just before failure in the field using newly developed tilt-sensor", 61st Annual conference of Japan Society of Civil Engineer, pp. 433-434.
8. **Tamrakar S.B.**, Toyosawa Y. and Itoh K. (2005): "Measurement of tensile strength and the effect of finer particles", 60th Annual conference of Japan Society of Civil Engineer pp. 179-180.
9. **Tamrakar S.B.**, Toyosawa Y. and Itoh K. (2004): "Tensile strength of compacted and saturated soils using newly developed tensile strength measuring apparatus", 59th Annual conference of Japan Society of Civil Engineer, pp. 557-558.
10. **Tamrakar S.B.**, Y. Toyosawa, K. Itoh and Yang, J. (2003): "Evaluation of safety of Trench excavation in relation to the weight of construction machinery", Proceeding of 58th Annual Conference of the Japan Society of Civil Engineers, pp. 367-368.
11. **Tamrakar S.B.**, Shibuya S. and Mitachi T. (1999): "Geotechnical design parameters for the construction of Bangkok Metro", Proceeding of 54th Annual Conference of the Japan Society of Civil Engineers, 3 - (A), pp. 96-97.
12. **Tamrakar S.B.**, Shibuya S. and Mitachi T. (1998): "Suction effects in unsaturated soil", Proceedings of the 53rd Annual Conference of the Japan Society of Civil Engineers, 3-(A), pp. 104-105.
13. **Tamrakar S. B.**, Toyosawa Y. and Itoh K. (2006): "Development of tilt-sensor for advance prediction of failure and its applicability in the field excavation", 36th symposium on engineering safety, Vol. 36, 6-5, pp. 169-172.
14. **Tamrakar S. B.**, Toyosawa Y., Itoh K. and Timpong S. (2006): "Relationship between critical failure height and trench excavation depth in relation to centrifuge tests performed with In-flight excavator", 36th symposium on engineering safety, Vol. 36, 6-6, pp. 173-176.
15. **Tamrakar S.B.**, Toyosawa Y., Itoh K., and Ariki T. (2005): "Movement of slope due to toe excavation of Full scale slope test", 35th symposium on engineering safety, pp. 319-322.

16. **Tamrakar S.B.**, Toyosawa Y. and Itoh K. (2004): "Tensile strength in relation to slope failure and measurement tensile strength in relation to newly developed tensile strength measuring apparatus", 34th symposium on engineering safety, Vol. 34, pp. 345-348.
17. **Tamrakar S.B.**, Okawara M., Okazaki K. and Mitachi T. (2008): "Dispersion Coefficient of clayey soil under gravitational and centrifugal models and effect of interstitial velocity and effective stress", 48th Japan Geotechnical Society Hokkaido Branch conference.
18. **Tamrakar S.B.**, Mitachi T. and Toyosawa Y. and Itoh K., (2007): "Behavior of tensile strength and suction measured with tensile strength measuring apparatus", Proceedings of 42nd Japan National Conference on Geotechnical Engineering, pp. 209-210.
19. Kohgo Y. and **Tamrakar S.B.** (1997): "Deformation and shear behavior of a typical unsaturated soil sampled from Khon Kaen city", Proceedings of 4th National Convention of Civil Engineering, pp. 301-308, KMITT, Thailand.
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