updated on 1/22/2017 11:56 AM

CURRICULA VITAE

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**EDUCATION:**

Bachelor of Engineering
Department of Civil Engineering, University of Tokyo, March, 1977
Master of Engineering
Department of Civil Engineering, University of Tokyo, March, 1979
Doctor of Engineering
Department of Civil Engineering, University of Tokyo, March, 1982

**ACADEMIC EXPERIENCES:**

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| 1982.4.1–1982.9.30 | Research Associate, University of Tokyo. |
| 1982.10.1–1983.10.31 | Post-Doctoral Fellow, University of British Columbia. |
| 1983.11.16–1985.4.22 | Lecturer, University of Tokyo. |
| 1985.4.23–1987.4.22 | Assistant Professor, Asian Institute of Technology, Bangkok. |
| 1986– | Associated Faculty of Chulalongkorn University, Bangkok. |
| 1987.4.23–1987.7.31 | Lecturer, University of Tokyo. |
| 1987.8.1–1994.7.15 | Associate Professor, University of Tokyo. |
| 1989– | Associated research fellow at the Public Works Research Institute, Ministry of Construction. |
| 1994.7.16–2015.3.31 | Professor, University of Tokyo |
| 2016.6 | Professor Emeritus, University of Tokyo |
| 2015.4.1–Present | Visiting professor, Kanto Gakuin University, Yokohama, Japan |
| 2016.7.25–12.19 | Distinguished visiting professor, Indian Institute of Technology, Bombay |

Technical advisors for three private sectors:
Tohata and Associates (architectural office), Seirin-sha Company (real estate management) and Chuo Kaihatsu (geotechnical consultant)

**AFFILIATIONS AND MEMBERSHIPS:**

Member of the Japanese Geotechnical Society
Life member of the Southeast Asian Geotechnical Society
Member of the International Society of Soil Mechanics and Geotechnical Engineering
Fellow member of the Japan Society of Civil Engineers
Member of the Japan Association for Earthquake Engineering
Member of the Japan Landslide Society
Honorary member of the Nepal Geotechnical Society
Associate Member of Science Council Japan (2014-2020)
Fellow of the Indian Geotechnical Society

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| 2009–2012 | Vice President, Japan Association for Earthquake Engineering |
| 2013–2017 | Vice President for Asia, International Society for Soil Mechanics and Geotechnical Engineering |
| 2014–2016 | President, Japanese Geotechnical Society |

**AWARDS:**

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| 1985 | Japanese Society of Soil Mechanics and Foundation Engineering, Award for the Best Paper by Young Authors |
| 1985 | Awarded by the Minister of Education for the best performance in education by correspondence (in the field of electric engineering). |
| 1997 | Japanese Geotechnical Society, Award for the Best Paper of the Year 1996 |
| 1998-1999 | Shamsher Prakash Research Award, USA, of Soil Dynamics. |
| 2000 | Japanese Geotechnical Society, Award for Distinguished Research Products |
| 2000 | One of the best twelve papers out of 600 at GeoEng2000 Conference at Melbourne; not included in best three. |
| 2004 | Japanese Geotechnical Society, Award for the Best Paper of the Year 2003 |
| 2009 | 29th Japan Society of Civil Engineers; Best book publication award |
| 2015 | Japanese Geotechnical Society; Technological development award |
| 2016 | Seelye Fellowship, University of Auckland, New Zealand |

**FIELDS OF MAJOR INTEREST:**

Deformation characteristics of cohesionless soils.
Dynamic analysis of earth structures during earthquakes.
Permanent displacement of ground caused by seismic liquefaction.
Soil improvement by densification and grouting
Microscopic Observation of Granular Behavior of Sand Subjected to Shear
Dynamics of landslide and debris flow.
Mechanical Properties of Municipal Waste Ground
Seismic performance-based design of geotechnical structures
Mitigation of rainfall-induced slope instability

**RECENT ACTIVITIES:**

Recovery and retrofitting for future of infrastructures (residential islands, river levees and Fukushima No.1 nuclear power plant) that were damaged by the 2011 Tohoku gigantic earthquake.

**PUBLICATIONS:**

More than 400 English papers in international journals and conferences, including a comprehensive book on geotechnical earthquake engineering:

Ikuo Towhata (2008): Geotechnical Earthquake Engineering, ISBN 978-3-540-35782-7, Springer Verlag - Berlin Heidelberg.

<u>Journal papers</u>


Ishihara, K. and Towhata, I. (1980) One-Dimensional Soil Response Analysis during Earthquakes Based on Effective Stress Method, *Journal of the Faculty of Engineering*, University of Tokyo (B), Vol. XXXV, No.4, pp.655-700.

Ishihara, K. and Towhata, I. (1983) Sand Response to Cyclic Rotation of Principal Stress Directions as Induced by Wave Loads, *Soils and Foundations*, Vol.23, No.4, pp.11-26.

Towhata, I. and Ishihara, K. (1985) Undrained Strength of Sand Undergoing Cyclic Rotation of Principal Stress Axes, *Soils and Foundations*, Vol.25, No.2, pp.135-147.

Towhata, I. and Ishihara, K. (1985) Shear work and pore water pressure in undrained shear, *Soils and Foundations*, Vol.25, No.3, pp.73-84.

Towhata, I. and Islam, Md. S. (1987) Prediction of Lateral Displacement of Anchored Bulkheads Induced by Seismic Liquefaction, *Soils and Foundations*, Vol.27, No.4, pp.137-147.

Towhata, I., Hamada, M., Yasuda, S., and Isoyama, R. (1987) Study on Permanent Ground Displacement Induced by Seismic Liquefaction, *Computers and Geotechnics Journal*, Vol.4, pp.197-220.

Towhata, I. and Al-Hussaini, T.M. (1987) Evaluation of Lateral Load Exerted by Submarine Mudflows on Offshore Piles, *Journal of the Faculty of Engineering*, the University of Tokyo, A25, pp.8-9 (in Japanese).

Towhata, I. and Al-Hussaini, T.M. (1988) Lateral Loads on Offshore Structures Exerted by Submarine Mudflows, *Soils and Foundations*, Vol.28, No.3, pp.26-34.
Shi, L.P., Towhata, I. and Wieland, M. (1989) Prediction of Seismically Induced Deformation of Liyutan Dam, Taiwan, by Means of Cyclic Triaxial Testing and Finite Element Analysis, *Computers and Geotechnics*, Vol.7, No.3, pp.205-222.
Ishihara, K., Muroi, T., and Towhata, I. (1989) In-Situ Pore Water Pressures and Ground Motions during the 1987 Chiba-Toho-Oki Earthquake, *Soils and Foundations*, Vol.29, No.4, pp.75-90.
Al-Hunaidi, M.O., Towhata, I. and Ishihara, K. (1990) Silent Boundary for Time Domain Wave Motion Analyses Based on Direct Energy Deletion, *Soil Dynamics and Earthquake Engineering*, Vol.9, No.2, pp.85-95.
Towhata, I. and Kim Seung Ryull (1990) Undrained Strength of Underconsolidated Clays and Its Application to Stability Analysis on Submarine Slopes under Rapid Sedimentation, *Soils and Foundations*, Vol.30, No.1, pp.100-114.
Sasaki, Y., Towhata, I., Tokida, K., Yamada, K., Matsumoto, H., Tamari, Y., and Saya, S. (1992) Mechanism of permanent displacement of ground caused by seismic liquefaction, *Soils and Foundations*, Vol.32, No.3, pp.79-96.
Towhata, I., Sasaki, Y., Tokida, K., Matsumoto, H., Tamari, Y. and Yamada, K. (1992) Prediction of Permanent Displacement of Liquefied Ground by Means of Minimum Energy Principle, *Soils and Foundations*, Vol.32, No.3, pp.97-116.
Ishihara, K., Haeri, S.M., Moinfar, A.A., Towhata, I. and Tsujino, S. (1992) Geotechnical aspects of the June 20, 1990 Manjil Earthquake in Iran, *Soils and Foundations*, Vol.32, No.3, pp.61-78.
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