Curriculum Vitae of Ken'ichi Kawaguchi

Ken'ichi Kawaguchi

Professor, Department of Architecture, the University of Tokyo

PhD. (1991, the University of Tokyo)

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Short Bio Sketch of Ken'ichi Kawaguchi

Dr.Ken'ichi Kawaguchi is a professor in the Institute of Industrial Science, the University of Tokyo. He graduated from the department of architecture at Waseda university for his undergraduate study in 1985 and finished his master (1988) and PhD degree (1991) at the university of Tokyo.

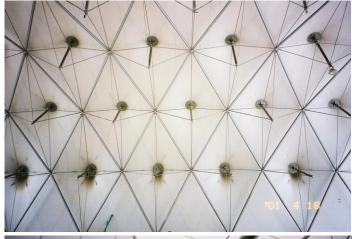
He started his academic carrier in the study on numerical analysis of kinematically indeterminate structures. He also handles structural design of buildings and practical developments of structural devices. He has developed the tension truss system and constructed a dome in 1991. He also designed a world first typical tensegrity structure, White Rhino in 2001 and new faculty building for department of engineering in the University of Tokyo in 2006. He has also proposed and developed two new types of seismic base-isolation systems, one of which has been already put in the commercial and several houses were constructed with the system. He has kept warning the dangerous failure of ceilings in large public spaces since Kobe earthquake in 1995 and the warning became true in the Japan earthquake 2011. Then his proposal of using lighter ceiling material, such as textile membrane, instead of heavy plasterboards, has been quickly and widely getting popularity. Since 2004 he has been a member of Executive Council of the IASS, the International Association for Shell and Spatial Structures. He is currently serving as one of the vice presidents of IASS since 2012.

Recent Research Topics

- 1. Development of 10m Re-usable Deployable Arches
- 2. Development of Deployable Compression Ring for SSPS (Space Solar Power Station)
- 3. Development of New Lightweight Structural Systems
- 4. Deployable Tensegrity Structures
- 5. Safety of Large Covered Space
- 6. Tension Structures
- 7. Numerical Analysis of Structures













WORK EXPERIENCE

April 2006- Professor

Now Institute of Industrial Science, the University of Tokyo, Tokyo, JAPAN

April 1995- Associate Professor

March 2006 Institute of Industrial Science, the University of Tokyo, Tokyo, JAPAN

October 1991- Lecture

March 1995 Institute of Industrial Science, the University of Tokyo, Tokyo, JAPAN

April 1991- Research Assistant

September 1991 Institute of Industrial Science, the University of Tokyo, Tokyo, JAPAN

April 1993- Visiting Scholar

September 1993 Department of Civil Engineering, Imperial College, London, UK

October 1993- Visiting Scholar

January 1994 Department of Engineering, Cambridge University, Cambridge, UK

April 1994- **Part-time lecturer**: Advanced Structural Analysis

Now (a regular class in the spring semester)

Department of Architecture and Building Science,

Graduate School of Engineering, Tokyo Metropolitan University, Tokyo, JAPAN

October 1999- Part-time lecturer: Advanced Structural Design

2008 (two lectures in the autumn semester)

Department of Architecture, Graduate School of Engineering,

Tokai University, Kanagawa, JAPAN

April 2002- Part-time lecturer: Structural Design and Seismic Design

2008 (a regular class in the spring semester)

Department of Architecture, Yoyogi Campus, Tokai University, Tokyo, JAPAN

AWARDS & HONORS

1999 The Encouragement Prize of Architectural Institute of Japan

2004 The Best Paper Award from Membrane Structures Association of Japan

2008 The Japan Society of Seismic Isolation Award

2012 The AIJ Prize of Architectural Institute of Japan

2016- Honorary Professor of Tianjin University, China

MAJOR STRUCTURAL DESIGN WORKS

Structural Design of Tension Truss Dome, at Roppongi, Tokyo, Japan, 1990-1991

Structural Design of Tensegrity Dome, at Nishi-Chiba, Chiba, Japan, 2001-2002

Structural Design of Spiral Timber Roof for Uchimachi Festival Park, at Mashiko, Tochigi, Japan, 2001-2002

Fundamental Structural Design for New Faculty Building No.2 & 3, at Hongo, Bunkyo-ku, Tokyo, Japan, 2000-2003

