

## **Statement of Service    Linbing Wang    Ut Prosim (That I May Serve)**

**Summary of My Service to EMI/EMD:** I attended my first EMI conference in 2001 and have attended most of the annual meetings ever since. Currently I am a member of the Nanomechanics and Micromechanics committee, the Granular Materials committee, and the Mechanics of Pavement committee. As the founding committee chair for the Mechanics of Pavement committee, I led the establishing of a Task Committee on Pavement Mechanics in 2008, and turned it into a formal committee in 2011 after successful efforts in growing the task committee, and organizing sessions and mini symposiums. I also served as the vice chair (2015-2017) and chair (2017-2019) of the Nanomechanics and Micromechanics Committee. In the last 25 years, I have actively served as session and mini symposium chairs every meeting I attended, and also served the organizing committee of the EMI annual meetings twice and the local organizing committee of the EMI annual meetings three times (Baton Rouge and Blacksburg). Among the many mini symposiums that I have organized I would like to specially mention the mini-symposiums including one in 2005 in Louisiana in Honor of Bob Lytton, one in Boston in 2011 in Honor of Dallas Little, and one in Stanford in 2015 in honor of James S. Lai. The professors being honored are internationally recognized researchers in pavement mechanics and pavement engineering. Having their honorary symposiums at the EMI annual conferences has impactful effects of EMI to the pavement mechanics and pavement engineering community. Around 2001, only very few participants were from the pavement areas. Today, about 30 active members are regularly involved in activities by the pavement committee thanks to the consistent efforts by succeeding chairs including Drs. Zhanping You, Yong-Rak Kim, Hao Wang, Shane Underwood, and Nam Tran. Meanwhile, I would like to especially mention the 2011 mini-symposium at Boston; the pavement mechanics committee had attracted 35 participants from the pavement engineering community, accounting for a large percentage of all participants of that year. In addition, I am one of the four co-editors to lead the efforts to publish the first EMSP special publication containing the proceedings of the mini symposium organized at the EMI annual meeting at University of Southern California, which has also important advertising effects for EMI.

**Focus Activity Areas Envisioned:** Inspired by the vision developed by our past and current EMI leaders, I would concentrate on the following areas via collaborations with the EMI board and committees to better serve EMI.

**Recruiting Graduate Students and Young Faculty Members:** Engineering mechanics departments in almost all US universities have merged into departments of mechanical, civil, aerospace, and bio engineering. This means engineering mechanics has become an inherent part of its hosts: there is no one single place (engineering mechanics department) where the majority of our future members can be recruited. The boundaries and job markets have also become smeared among these disciplinary areas. When students and young faculty members select their hosting institutes (other ASCE institutes), we are facing competitions from the construction institute, the transportation development institute, however, we do have an advantage in that many members in these institutes have interest in applied mechanics and become a member of EMI. I would be interested in student and young faculty member recruiting activities and will try to work productively and effectively with the board to achieve the goal via promoting the development of workshops and short courses on timely critical theme topics with younger faculty members and graduate students in different disciplines.

**Tightening Industrial and Agency Partnerships for Research and Education:** Although engineering mechanics departments have merged into other departments, it has also presented us with new opportunities, which may require rational analysis and plan development. Due to the merging, faculty members in engineering mechanics and applications in any of these departments may not be able to individually find resources or gain joint forces to approach industrial and agency partners for a large scope support, or to bring upon an event of significant scope and influence. Research activities are often independent and lack of well-coordinated national or regional efforts or programs. I will work with the board and committees to develop plans to approach large industrial partners and agencies to investigate potential service, education, workshop, and other needs for EMI if the board also envisions the importance of the partnerships and needs for improvements or strengthening. This might be also jointly tied into the fund-raising activities for workshops, and augmented-reality teaching, and training for research and education innovations.

**Strengthening International Collaborations:** EMI has a sound reputation worldwide and been successful in organizing international conferences; even the domestic annual meetings have a large percentage of international participants. My tight collaborations with researchers in mechanics of pavements, civil infrastructure materials, multiscale modeling and simulation will allow me to support or lead activities such as joint conferences and workshops in countries such as UK, Germany, the Netherlands and China, offering joint short courses and organizing special publications.

## **Short Bio of Dr. Linbing Wang, P.E., Professor, F.ASCE, F.EMI, University of Georgia**

### **Education**

Ph.D. 1998 Georgia Institute of Technology, Atlanta, Civil Engineering/ Minor Engineering Mechanics

M.S. 1995 Georgia Institute of Technology, Atlanta, Civil Engineering

M.S. 1991 Tongji University, Shanghai, China, Geotechnical Engineering

B.S. 1984 Hohai University, Nanjing, China, Hydraulic Engineering

### **Professional Experiences**

08/2022~ Professor, University of Georgia

08/2010~07/2022 Professor, Virginia Tech

08/2005~08/2010 Associate Professor, Virginia Tech (Tenured, 2008)

12/2000-08/2005 Assistant Professor, Louisiana State University (LSU) / Southern University (SU)

### **Honors and Awards**

- Wei Li, Zhoujing Ye, Yajian Wang, Hailu Yang, Songli Yang, Zhenlong Gong, Linbing Wang.  
“Development of a distributed MR-IoT method for operations and maintenance of underground pipeline network” TUST Journal Best Paper Award 2023.
- Jian Liu, Daodao Zhou, Fangyu Liu, and Linbing Wang. Accelerated balanced asphalt mix design based on Machine learning and non-dominated Sorting genetic algorithm-II (NSGA-II), 2023 LTPP Data Analytics, 2<sup>nd</sup> Place
- Jian Liu and Linbing Wang. Optimizing asphalt mix design considering IRI of asphalt pavement predicted using autoencoders and machine learning, 2023 LTPP Data Analytics, 2<sup>nd</sup> Place
- Fellow of American Society of Civil Engineers (ASCE), 2021
- Fellow of Engineering Mechanics Institute of ASCE, 2020
- Honorary Professor of College of Engineering, Aston University, UK, 2017
- Virginia Tech Scholar of the Week, the Office of the Vice President for Research, 2016
- Best International Collaborator (to Virginia Tech), Beijing Municipal Scientific Commission, 2014
- TRB Best Paper Award (Geotechnology Section), 2010
- Dean’s Research Fellow, 2008, Virginia Tech
- William Mong Research Fellow, 2007, Hong Kong University, China

### **Professional Registration**

Professional engineer registration: Georgia # 24220

ASCE Membership: 358580

### **Journal Editorial Boards**

Associate Chief Editor: International Journal of Pavement Research and Technology (IJPRT)

Managing Editor: Smart Construction and Sustainable Cities

Associate Chief Editor: Journal of Intelligent Transportation Infrastructure

**Book Authored:** Mechanics of Asphalt, Microstructure and Micromechanics, McGraw-Hill, 2010

**Number of Proceedings Edited: 11**

**Number of Special Issues Edited: 9**

**Number of Papers in Refereed Journals: 277**

**Number of Papers in Conference Proceedings: 73** (See the following Google Scholar Link)

<https://scholar.google.com/citations?user=QdBNm3cAAAAJ&hl=en>

**Number of Projects Funded** by NSF, DOTS, DOA, DOD, NIH, NOAA, NCHRP, and other agencies: **89**

**Number of Invited Keynote Speeches and Lectures: 40**

**Number of Committees Served for Academic or Professional Associations**, serving **18** different committees of ASCE, TRB, EMI and other organizations as member, founding member and chair

**Number of NSF and NCHRP Project Panels Served: 21**

**Number of Professional Meetings, Sessions, Workshops and Conferences Led or Organized: 46**

**University Service:** Course and Curriculum Committee, Laboratory Resource Committee, Safety and Security Committee, Award Committee, Graduate Education Committee, the Dean’s Materials Research Strategy Committee. Engineering Faculty Organization Executive Committee, University Advisory Council on Strategic Budgeting and Planning, College of Engineering Task Force on Research Thrusts, Faculty Search Committees, Lab Infrastructure Committee, University Council, President Faculty Advisory Committee, Department Chair Evaluation Committee

