

Amr Elnashai

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Professor of Civil and Environmental Engineering  
University of Houston, USA

#### Past Positions

- Vice President/Vice Chancellor for Research and Technology Transfer (7.2017-10.2022)
- Harold and Inge Marcus Dean, College of Engineering, Penn State (12.2013-7.2017)
- Head of CEE, Emeritus Professor, University of Illinois, Urbana-Champaign (8.2000-12.2013)
- Division Head/Professor, CEE Department, Imperial College, London (1.1986-7.2000)

### CAREER SUMMARY

Fellow of the British Royal Academy of Engineering Amr Elnashai is professor of Civil and Environmental Engineering at the University of Houston. He completed 5 years as Vice Chancellor and Vice President for Research and Technology Transfer at the University of Houston System and the University of Houston, respectively. The UH System has 74,000 students and over 3000 professors. Amr managed the research enterprise and the research park, with an annual 2022 research expenditure of \$260 M, and an IP income of \$65M (highest university IP income in the USA for institutions without a college of medicine). The Division of Research has a total of 175 employees and an annual operating budget of \$145M. The division is responsible for research directions, all faculty startup and laboratory renovation requirements, compliance/research integrity, animal testing, transfer and innovation, data management and assessment, and research and technology transfer marketing and communications. He was also in charge of university-level research centers (in health, superconductivity, disaster management, advanced manufacturing, carbon capture, drug discovery, and data science), and the UH Technology Bridge that occupies over 74 acres, 750,000 square feet of built space, currently hosts 28 startups, 3 large advanced technology companies, and several research-industry laboratories. Amr's portfolio includes managing intellectual property processes, licensing of technologies and startup company development, incubation and acceleration.

Prior to the University of Houston, he was Dean of Engineering at the Pennsylvania State University, and the Harold and Inge Marcus Endowed Chair of Engineering. Amr was responsible for all aspects of operation and leadership of the College of Engineering. In 2017, the college had 11,000 students, 300 professors, 400 staff, \$240M total budget, \$137M research expenditure, over \$210M endowment, 12 departments, 2 institutes and 20 research centers. He was responsible for undergraduate and graduate curricula, the research enterprise, alumni relations (76,000 living alumni) as well as communications and fundraising. During his tenure, the college expanded substantially, hiring over 70 professors, vastly expanded mechanical engineering, more than doubled the professors in biomedical engineering, created a 5-year strategy and implementation plan, reformed the college budget and created a world-class communications team as well as a leading office of diversity and inclusion.

He was previously head of the Department of Civil and Environmental Engineering at the University of Illinois at Urbana-Champaign (June 2009 to December 2013) and the Bill and Elaine Hall endowed professor. He created new integrative bachelors, masters and PhD programs in societal challenges, vastly expanded the taught one-year masters degrees, hired 14 professors, more than half of whom are women, and turn around an almost deficit budget to create the largest surplus in the department for more than 30 years. He was Director of the NSF multi-institution interdisciplinary Engineering Research Center (ERC), MAE Center (2004-2009). He was also Director of the NSF Network for Earthquake Engineering Simulations (NEES) Laboratory at Illinois (2002-2009). His total research expenditure during his 13 years at Illinois was in excess of \$20M, placing him as the top research spending professor for 4 years running.

Before moving to the USA, Amr was division head at Imperial College, London, and a chaired professor. He created a new masters degree in earthquake engineering that became the leading graduate degree in the subject in Europe, created a large team of researchers and educators in the subject, and attracted exceptionally high levels of funding from industry and government research agencies. His tenure at Imperial College (from where he received his MSc and PhD) lasted from 1986 to 2000. From 1984 to 1986, he worked as a senior engineering in Wimpey Offshore Engineering Limited, London, in the technology development department, and led a team of highly qualified designers and analysts focusing on the North Sea oil and gas industry.

Amr obtained his Bachelor of Science degree from Cairo University followed by MSc and PhD degrees from Imperial College, University of London. Before joining the University of Illinois in June 2001, Amr was Professor of Earthquake Engineering and Head of Division at Imperial College. He was Visiting Professor at the University of Surrey, UK, the University of Tokyo, the University of Southern California, McGill University, and the European School for Advanced Studies in Reduction of Seismic Risk, Italy.

Amr's research interests are multi-resolution distributed analytical simulations, network analysis under stress and disruption, large-scale fire ignition and spread modeling, hybrid testing and field investigations of the response of complex networks and structures to earthquakes. His early research was on design and stability of offshore oil and gas production platforms. He has advised 47 PhD students and over 100 MS thesis students. He published 148 refereed journal papers, 3 books, 11 book chapters, and several hundred conference papers, research and field investigation reports.

# UNIVERSITY OF HOUSTON BIOGRAPHICAL DATA

## Division of Research

**Department (% appnt):** Civil and Environmental Engineering (zero %) **Date:** July 22, 2017

**Name:** Elnashai, Amr S. **Birth Date:** 5/8/1954 **Citizenship:** USA/UK

**Present Academic Rank:** Professor

**Tenure Status:** Indefinite Tenure

**Administrative Title:** Ex-Vice President/Vice Chancellor for Research and Technology Transfer

**Previous:** **Dean of the College of Engineering, The Pennsylvania State University**  
Harold and Inge Marcus Endowed Chair  
**Department Head, Civil and Environmental Engineering**  
University of Illinois at Urbana-Champaign

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### Degrees

1. BSc, Distinction, Cairo University (Cairo, Egypt), July 1977, Civil Engineering
2. MSc, Distinction, Imperial College (London, UK), August 1980, Concrete Structures and Technology
3. DIC, Imperial College (London, UK), August 1980
4. Ph.D., Imperial College (London, UK), July 1984, Unwin Prize - Best PhD in Civil and Mechanical Engineering

### Academic Positions

1. Professor of Civil and Environmental Engineering, October 2022 onwards
2. Vice President/Vice Chancellor for Research and Technology Transfer, July 2017 to September 2022
3. Dean of Engineering, December 2013 to July 2017
4. Head, Department of Civil and Environmental Engineering, University of Illinois at Urbana-Champaign, June 2009 to December 2013
5. Director of Hybrid Simulation, NEES@Illinois Simulation Facility, June 2009 to December 2013
6. Consultant, Mid-America Earthquake (MAE) Center, June 2009 to present
7. Director, College of Engineering, Council on Global Engineering Initiatives, June 2008 to October 2010
8. Director, Mid-America Earthquake (MAE) Center, April 2004 to June 2009
9. Director, NEES@Illinois Simulation Facility, September 2003 to June 2009
10. Acting Director of the Mid-America Earthquake (MAE) Center, September 2003 to April 2004
11. Professor of Structural Engineering, Department OF Civil and Environmental Engineering, University of Illinois at Urbana-Champaign, June 2001 to Present (adjunct since December 2013)
12. Associate Director of the Mid-America Earthquake (MAE) Center, June 2001 to September 2003
13. Visiting Professor, Civil and Environmental Engineering Department, University of Surrey, United Kingdom, April 1995 to October 2014
14. Head of Engineering Seismology and Earthquake Engineering Division, Civil Engineering Department, Imperial College, September 1994 to June 2001
15. MS Course Director, Civil Engineering Department, Imperial College, September 1987 to June 2001
16. Lecturer, Reader then Professor of Earthquake Engineering, Civil Engineering Department, Imperial College, January 1985 to June 2001
17. Research Assistant, Civil Engineering Department, Imperial College, October 1980 to June 1984
18. Structural Engineering, Cairo University, Instructor (faculty) in Structural Analysis and Mechanics, September 1977 to July 1979

## **Professional Activities**

### **Professional (non-academic) Employment**

1. Independent Consultant – Elnashai Ltd, UK, January 1988 to July 2001
2. Senior Consultant – EQE International Limited, Warrington, UK, June 1996 to July 2001
3. Senior Engineer – Technical Development Section, Wimpey Offshore, July 1984 to November 1985
4. Design Engineer – Bridge Design Section, Arab Consultants, Cairo, Egypt, February 1978 to May 1979

### **Consulting Activities**

Major worldwide consulting, working for multinational corporations including Shell International, GSK (previously GlaxoWellcome), Nuclear Installations Inspectorate, British Airports Authority, World Bank, others. List available upon request.

### **Professional Associations**

1. Fellow, Texas Academy of Medicine, Engineering, Science and Technology, since April 2022
2. Fellow, Royal Academy of Engineering, UK, since 2000
3. Fellow, American Society of Civil Engineers, since 1989
4. Fellow, Institution of Structural Engineers, UK, since 1989
5. Member, The Academy of Medicine, Engineering and Sciences of Texas, since 2021
6. Member, British Computer Society, UK, 1984-1993

### **External Service**

1. CEN EC8 Drafting Panel (Repair and Redesign) Member, PT4 2000 - 2002
2. CEN EC8 Drafting Panel (Action, RC, Steel etc), Member, PT1, 1999 - 2002
3. Council of Ministers, Min. Civil Defense, Italy, Technical Expert, 1999 - 2001
4. Ministry of Housing and Construction, Egypt, Member of Code Drafting Committees, 1999 - 2004
5. Federation Internationale de Beton (FIB), Member, SD Commission, 1999 - 2006
6. Comite Euro-Internationale de Beton (CEB), Member, TG13, 1992 - 1998
7. International Decade for Natural Hazard Reduction Earthquake Working Group, Member, 1992 - 1996
8. Working Group on Seismic Design of Composite Structures, JRC, Ispra, Italy, Member, 1992 - 1996
9. International Standards Organization (ISO), Corresponding Member, 1996 - 2001
10. Japan-UK Seismic Risk Forum, Founder/Director, 1995 - 2004
11. World Federation of Engineering Organizations, Project B on Buildings, Member, 1992 - 1994
12. British Standards Committee B/525/8, Technical Co-coordinator, 1991 - 2001
13. CEN Sub-committee 8, National Tech. Contact, 1991 - 2001
14. European Convention for Constructional Steel, UK Representative, 1991 - 2001
15. Illinois Seismic Safety Task Force, Member, 2008 - 2010
16. Member of University Advisory Committee, Hong Kong University, Hong Kong, 2011-2012
17. Member of PhD Scholarship Committee, Universities Grants Council of Hong Kong, 2012-2019
18. Member of Public Policy Committee of the American Society for Engineering Education, USA, 2016-2017
19. Chair of the Commonwealth of Pennsylvania Engineering Deans Committee, 2016-2017
20. Departmental Academic Advisor, CEE Department, Hong Kong Polytechnic University, 2017-2022.
21. Referee of Startups and Mentor of engineering students for Royal Academy of Engineering (in collaboration with the US NAE and the Chinese Academy) on Global Grand Challenges Summit, July 2019
22. Member of Earthquake and Dynamic Effects Panel, Institution of Structural Engineering, since June 2021
23. Member of the International Affairs Committee, Royal Academy of Engineering UK, since April 2020

## Honors, Recognition, and Academic Achievements

### Professorship and Chairs

| Award Name  | Institution  | Date Awarded |
|---|--|--------------|
| Harold and Inge Marcus, and the Woodward Endowed Chairs (2) | The Pennsylvania State University, USA   | 2014         |
| William and Elaine Hall Endowed Professorship               | Department of Civil and Environmental Engineering, University of Illinois, USA | 2007         |
| Donald Biggar Willett Professorship                         | College of Engineering, University of Illinois, USA                            | 2003         |
| Personal Chair in Earthquake Engineering                    | Imperial College London, UK  | 1991         |

### Instruction

| Award Name   | Institution                                | Date Awarded |
|--|--|--------------|
| List of Teachers Ranked as Excellent by their Students | University of Illinois at Urbana-Champaign | 2007         |
| List of Teachers Ranked as Excellent by their Students | University of Illinois at Urbana-Champaign | 2005         |

### Research

| Award Name/Organization  | Title  | Date Awarded |
|--|--|--------------|
| Outstanding 2002 Journal Paper awarded by Los Angeles Tall Buildings Structural Design Council | Overstrength and Force Reduction Factors of Multi-storey R/C Buildings, Mwafy, A. and Elnashai, A.S., Vol. 11, pp. 329-351.  | 2003         |
| Outstanding 1999 Journal Paper awarded by Los Angeles Tall Buildings Structural Design Council | Structural performance and economics of tall high strength RC buildings in seismic regions, Laogan, B.T. and Elnashai, A.S., The Structural Design of Tall Buildings, Vol. 8, No. 3. | 1999         |

| Award Name/Organization   | Title  | Date Awarded |
|---|--|--------------|
| Oscar Faber Best Paper Medal  | Earthquake-resistant Composite Structures, Elnashai, Broderick and Dowling, The Institution of Structural Engineers Journal, vo. 73. pp121-132 | 1995         |
| Armstrong Medal for Best PhD Thesis in Civil and Mechanical Engineering | Composite Tubular Connections for Offshore Applications  | 1985         |

## Resident Instruction, Continuing Education and PhD Committees

### Resident Instruction

1. Earthquake Engineering (Grad, 4 credits, 2003-2013)
2. Earthquake-resistant design and analysis (Grad, 33 hours and field trip, 1987 - 2001)
3. Introduction to Structural Dynamics (UG and Grad, 4 credits, Fall, 2002)
4. Campus Honors Course in Earthquake Engineering (Freshman, Fall 2002, Fall 2003)
5. Calculation of seismic actions (Grad, 6 hours, 1997 - 2001)
6. Advanced finite elements in inelastic and dynamic analysis (Grad, 33 hours, 1987 - 2001)
7. Finite elements (Grad, 33 hours, 1987 - 1996)
8. Seismic assessment, repair and strengthening (Grad, 6 hours, 1996 - 2001)
9. Earthquake design of steel structures (Grad, 15 hours, 1996 - 2001)
10. Earthquake loading (Grad, 33 hours, 1994 - 2001)
11. Experimental methods in dynamics (Grd, 6 hours 1988 - 1990)
12. Engineering computation (UG, 6 hours, 1989)
13. Tutoring on engineering drawing (UG, 33 hours, 1988)
14. Introduction to seismic hazard (UG, 4 hours, 1988)
15. Advanced numerical methods (Grad, 33 hours, 1987)
16. Advanced inelastic and dynamic FE analysis (Grad, 12 hours, 1987)

### Continuing Education

| Course   | Year      | Number of Students | Delivery Method |
|--|-----------|--------------------|-----------------|
| Earthquake Engineering                         | 2003-2013 | 40-75              | live, on-site   |
| Introduction to Structural Dynamics            | 2002-2003 | 60                 | live, on-site   |
| Campus Honors Course in Earthquake Engineering | 2002-2003 | 40                 | live, on-site   |
| Introduction to Structural Engineering         | 2001      | 60                 | live, on-site   |

### Other Instructional Activities

1. Consequence-based Risk Management Course (full credit), Four modules contribution to a graduate full credit course at UIUC, also taken by Georgia Tech., 2006
2. Structural Dynamics – MSc and PhD Course, European School for Seismic Risk Reduction, University of Pravia, Italy, May 2002
3. Assessment and Repair of Structures – An Overview, Practical Seismic Design and Repair of Structures, SECED-IC Short Course, September 1999
4. Seismic Analysis of Steel and RC Structures, TEMPUS Course, University of Ljubljana, Slovenia, February 1989
5. Observations from Recent Earthquakes, Short Course on Seismic Design, University of Cairo, December 1989 and 1990
6. Earthquake Loading, MSc Course in Structural Engineering, University of Surrey, April 1991
7. Seismic Design of Steel Structures, Short Course on Seismic Design, University of Cairo, December 1989 and 1990
8. Repair and Strengthening of Earthquake-Damaged Structures, Society for Earthquake and Civil Engineering Dynamics (SECED) Short Course on Practical Seismic Design, London, September 1996

9. Seismic Design of Steel Structures, SECED Short Course on Practical Seismic Design, London, September 1996
10. The Northridge Earthquake of 17 October 1994, SECED Short Course on Practical Seismic Design, London, September 1996
11. Seismic Design of RC Bridges, European Union (EU) SERINA Course, Thessaloniki, September 1997
12. Repair and Strengthening of RC Structures, SERINA Course (EU), Thessaloniki, September 1997
13. Conceptual Seismic Design of RC Bridges, European Association of Earthquake Engineering, 18th Regional Seminar, Egypt, October 1997
14. Assessment of Earthquake Vulnerability of Structures, PhD Course, Polytechnic of Milan/University of Pavia, June 1998
15. Earthquake-Resistant Design and Status of European Codes, Advanced Course in Integrated Seismic Risk (EU), Kefalonia, Greece, September 1999
16. Seismic Design – An Overview, Practical Seismic Design and Repair of Structures, SECED-IC Short Course, September 1999
17. Future Trends in Seismic Analysis for Design, Practical Seismic Design and Repair of Structures, SECED-IC Short Course, September 1999

### Preliminary and Final PhD Exams

| Doctoral Candidate            | Final Exam Date | (Co-) Chair          |
|-------------------------------|-----------------|----------------------|
| W. Aritenang (Imperial)       | 1989            | Chair                |
| K. Pilakoutas (Imperial)      | 1990            | Chair                |
| M. Lopes (Imperial)           | 1991            | Chair                |
| A. Elghazouli (Imperial)      | 1991            | Chair                |
| A. Salama (Imperial)          | 1992            | Chair                |
| B. Izzuddin (Imperial)        | 1992            | Chair                |
| M. Soliman (Imperial)         | 1992            | Chair                |
| E. M. Higazy (USC)            | 1993            | Co-Chair Agbabian    |
| A. Elmesallamy (Imperial)     | 1993            | Chair                |
| P. Madas (Imperial)           | 1993            | Chair                |
| B. Broderick (Imperial)       | 1994            | Chair                |
| E. Martinez (Imperial)        | 1996            | Chair                |
| F. D. Ashtiani (Imperial)     | 1997            | Chair                |
| M. Salvitti (Imperial)[MPhil] | 1997            | Chair                |
| L. Song (Imperial)            | 1998            | Co-Chair Izzuddin    |
| D. Lee (Imperial)             | 1999            | Chair                |
| R. G. Goodfellow (Imperial)   | 1999            | Chair                |
| R. Pinho (Imperial)           | 2000            | Chair                |
| B. Borzi (Imperial)           | 2000            | Chair                |
| A. Mwafy (Imperial)           | 2001            | Chair                |
| A. Manafpour (Imperial)       | 2002            | Chair Kappos         |
| M. Tsujii (Imperial)          | 2002            | Chair                |
| T. Rossetto (Imperial)        | 2004            | Chair                |
| Seong-Hoon Jeong (Illinois)   | 2005            | Chair                |
| GunJin Yun (Illinois)         | 2006            | Co-Chair Ghaboussi   |
| Oh-Sung Kwon (Illinois)       | 2007            | Chair                |
| Gina Thermou (Greece)         | 2007            | Co-Ch. Pantazopoulou |
| Jun Ji (Illinois)             | 2007            | Chair Kuchma         |
| Narutoshi Nakata (Illinois)   | 2007            | Chair Spencer        |

| Doctoral Candidate           | Final Exam Date | (Co-) Chair          |
|------------------------------|-----------------|----------------------|
| Young Suk Kim (Illinois)     | 2007            | Chair Spencer        |
| Himmet Karaman (ITU)         | 2008            | Co-Chair Sahin       |
| Sung Jig Kim (Illinois)      | 2008            | Chair                |
| Curtis Holub (Illinois)      | 2009            | Chair                |
| JunHee Kim (Illinois)        | 2009            | Co-Chair Ghaboussi   |
| Liang Chang (Illinois)       | 2009            | Chair Spencer        |
| Omar El Anwar (Illinois)     | 2009            | Co-Chair Elrayes     |
| Hussam Mahmoud (Illinois)    | 2011            | Chair                |
| Can Unen (Illinois)          | 2011            | Co-Chair Sahin       |
| Sheng-Lin Lin (Illinois)     | 2011            | Chair                |
| Bora Gencturk (Illinois)     | 2011            | Chair                |
| Adel Abdelnaby (Illinois)    | 2012            | Chair                |
| Do Soo Moon (Illinois)       | 2012            | Chair                |
| Thomas Frankie (Illinois)    | 2013            | Co-Ch.Kuchma/Spencer |
| Seliem Serhan (ITU)          | 2013            | Co-Chair Sahin       |
| Hazam Al Anwar (Illinois)    | 2014            | Chair                |
| Hamed Akbarpour (Penn State) | 2018            | Chair                |
| Gaston Fermandois (Illinois) | 2018            | Chair Spencer        |

## Research, Creative, and Other Scholarly Activities

### Publications

#### Original Edition Books

1. Fundamentals of Earthquake Engineering – From Source to Fragility (expanded second edition), Elnashai, A.S., Di Sarno, L., Kown, O-S, Wiley Applied Science, 2015.
2. Fundamentals of Earthquake Engineering, Elnashai, A.S. and Di Sarno, L., Wiley and Sons, 2008.
3. Seismic Hazard in Lebanon and Surrounding Areas, Elnashai, A.S. and El Khoury , R., World Scientific Publishing Co., 2004.

#### Books Edited or Co-Edited

1. Implications of Recent Earthquakes on Seismic Risk, Innovation in Structures and Construction (book series) – Vol. 2, Joint editorship with P.J. Dowling, published by World Scientific Publishing Co., 2000.
2. Design of Modern Highrise Reinforced Concrete Structures, Innovation in Structures and Construction (book series) – Vol. 3, Joint editorship with P.J. Dowling, published by World Scientific Publishing Co., 2002.
3. Seismic Design of Masonry Structures, Implications of Recent Earthquakes on Seismic Risk, Innovation in Structures and Construction (book series) – Vol. 1, Joint editorship with P.J. Dowling, published by World Scientific Publishing Co., 1999.

#### Chapters in Books

1. Structural Seismic Design Optimization and Earthquake Engineering: Formulations and Applications, Elnashai, A.S. and Gencturk, B., Chapter 3: Life Cycle Cost Considerations in Seismic Design Optimization of Structures, pp. 1-22, Ed. V. Plevris, C.C. Mitropoulou, and N.D. Lagaros, 2012.
2. The 1755 Lisbon Earthquake: Revisited, In series: Geotechnical, Geological, and Earthquake Engineering, Vol. 7, Elnashai, A.S., and Jeong, S.-H., Chapter 19, Part 6.2: Rapid probabilistic assessment of structural systems in earthquake regions, pp. 335-349, Ed. L.A. Mendes-Victor, C.S. Sousa Oliveira, J. Azevedo, and A. Ribeiro, 2009.
3. Hybrid Simulation: Theory, Implementation and Applications. Kwon, O.S., Elnashai, A.S. and Spencer, B.F., Chapter 15: UI-SIMCOR: A global platform for hybrid distributed simulation, pp. 157-180, Eds. V.E Saouma and M.V. Sivaselvan, Taylor and Francis, 2008.

4. Designers' Guide to EN 1998-1 and EN 1998-5, Eurocode 8: Design of structures for earthquake resistance., General rules, seismic actions, design rules for buildings, foundations and retaining structures, Fardis, M.N., Carvalho, E. Elnashai, A.S., Faccioli, E., Pinto, P. and Plumier, A., 2005.
5. Seismic Assessment and Retrofit of Reinforced Concrete Buildings, Elnashai, A.S., Chapter 5: Seismic Retrofitting Techniques, FIB Bulletin, 2003.
6. Displacement Based Design of RC Structures, Elnashai, A.S., Chapter 5: Seismic Action, FIB Bulletin, 2003.
7. Manual of Bridge Engineering, Chapter 9: Seismic response and design, Thomas Telford, 2000. Updated and reprinted 2006 and 2018.
8. Earthquake Loading, Elnashai, A.S., Chapter 2: Nonlinear analysis of structures, Virdi (ed.), Blackie, 1993.
9. Stability and Ductility of Steel Structures under Cyclic Loading, Elnashai, A.S. and Takanashi, K., Chapter: experiments on partially encased composite columns, pp. 175-186, Ed. Y. Fukumoto and G.C. Lee, 1992.
10. Seismic Design of Steel Structures, Elnashai, A.S. and Dowling, P.J., Chapter 2: Stability and strength of metal structures subjected to dynamic loading, Ed. R. Narayanan and T. Roberts, 1990.
11. Stability of Metal Structures: A World View, Elnashai, A.S. and Dowling, P.J., Chapter 10: Composite columns, Published by Structural Stability Research Council, Bethlehem, Pennsylvania, USA, 1989.

#### Articles In Journals

1. Influence of loading behavior on the post-buckling of circular rings, El Naschie, M.S. and Elnashai, A.S., American Institute of Aeronautics and Astronautics Journal, Vol. 14, No. 2, pp. 266-267, 1976.
2. A new pressurized grouted connection for steel tubulars, Dowling, P.J., Elnashai, A.S. and Carroll, B.C., Journal of Constructional Steel Research, Vol. 3, No. 3, pp. 32-38, 1983.
3. Some restrictions on Lehigh-Purdue concrete plasticity model, Elnashai, A.S. and Nicholson, R.W., Journal of Engineering Mechanics, Vol. 112, No. 2, pp. 217-221, 1986.
4. Lessons learnt from the Kalamata (Greece) earthquake of 13 September 1986, Elnashai, A.S., Pilakoutas, K., Ambraseys, N.N. and Lefas, I.D., European Earthquake Engineering, Vol. 1, pp. 11-19, 1987.
5. The Norwegian Sea earthquake of 8 August 1988, Ambraseys N.N., Elnashai A.S., Journal of European Earthquake Engineering, vol. 3, pp. 53-54, 1988.
6. Efficient large displacement elastoplastic dynamic analysis of steel frames, Elnashai, A.S., Izzuddin, B.A. and Dowling, P.J., European Earthquake Engineering, Vol. 3, pp. 32-41, 1989.
7. Experimental behaviour of reinforced concrete walls under earthquake loading, Elnashai, A.S., Pilakoutas, K. and Ambraseys, N.N., Earthquake Engineering and Structural Dynamics, Vol. 19, pp. 389-407, 1990.
8. Seismic hazard in the North Sea, Ambraseys, N.N. and Elnashai, A.S., Hydrocarbon Technology, vol.43, pp.103-109, 1990.
9. International assessment of design guidance for composite columns, Elnashai, A.S., El-Ghazouli, A.Y. and Dowling, P.J., Journal of Constructional Steel Research, Vol. 15, pp. 191-213, 1990.
10. Failure mechanisms of weld-beaded grouted pile/sleeve connections, Aritenang, W., Elnashai, A.S., Dowling, P.J. and Carroll, B.C., Marine Structures, Vol. 3, pp. 391-417, 1990.
11. Verification of pseudo-dynamic testing of steel members, Elnashai, A.S., El-Ghazouli, A.Y. and Dowling, P.J., Journal of Constructional Steel Research, Vol. 16, pp. 153-161, 1990.
12. Nonlinear modelling of weld-beaded composite tubular connections, Elnashai, A.S. and Aritenang, W., Engineering Structures, Vol. 13, pp. 34-42, 1991.
13. Effect of random material variability on seismic design parameters of steel frames, Elnashai, A.S. and Chryssanthopoulos, M., Earthquake Engineering and Structural Dynamics, Vol. 20, pp. 101-114, 1991.
14. Experimental behaviour of partially encased composite beam-columns under cyclic and dynamic loads, Elnashai, A.S., Takanashi, K., Elghazouli, A.Y. and Dowling, P.J., Proceedings of the Institution of Civil Engineers, Structures and Buildings, Vol. 91, Part 2, pp. 259-272, 1991.
15. Strength of composite tubular connections, Elnashai, A.S. and Dowling, P.J., Proceedings of the Institution of Civil Engineers, Structures and Buildings, Vol. 91, Part 2, pp. 377-398, 1991.
16. Techniques for repair and retrofitting of structures: A vulnerability reduction approach, Ambraseys, N.N., Dowling, P.J. and Elnashai, A.S., International Journal of Earthquake Engineering, Vol. 1, No. 2, pp. 83-103, 1991.
17. Eulerian formulation for large-displacement analysis of space frames, Izzuddin, B.A. and Elnashai, A.S., Journal of Engineering Mechanics, Vol. 119, No. 3, pp. 549-569, 1993.
18. Analysis-based design equations for composite tubular connections, Aritenang, W., Elnashai, A.S. and Dowling, P.J., Engineering Structures, Vol. 14, No. 3, pp. 195-204, 1992.



19. A new passive confinement model for the analysis of concrete structures subjected to cyclic and transient dynamic loading, Madas, P. and Elnashai, A.S., *Earthquake Engineering and Structural Dynamics*, Vol. 21, pp. 409-431, 1992.
20. Modelling of material non-linearities in steel structures subjected to transient dynamic loading, Elnashai, A.S. and Izzuddin, B.A., *Earthquake Engineering and Structural Dynamics*, Vol. 22, pp. 509-532, 1993.
21. Performance of composite steel/concrete members under earthquake loading, Part I: Analytical model, Elnashai, A.S. and Elghazouli, A.Y., *Earthquake Engineering and Structural Dynamics*, Vol. 22, pp. 315-345, 1993.
22. Performance of composite steel/concrete members under earthquake loading, Part II: Parametric studies and design considerations, Elghazouli, A.Y. and Elnashai, A.S., *Earthquake Engineering and Structural Dynamics*, Vol. 22, pp. 347-368, 1993.
23. Adaptive space frame analysis, Part I: A plastic hinge approach, Izzuddin, B.A. and Elnashai, A.S., *Proceedings of the Institution of Civil Engineers, Structures & Buildings*, Vol. 99, pp. 303-316, 1993.
24. Adaptive space frame analysis, Part II: A distributed plasticity approach, Izzuddin, B.A. and Elnashai, A.S., *Proceedings of the Institution of Civil Engineers, Structures & Buildings*, Vol. 99, pp. 317-326, 1993.
25. Sources of uncertainty and future research requirements in seismic analysis of structures, Elnashai, A.S. and Izzuddin, B.A., *Nuclear Energy*, Vol. 32, No. 4, pp. 213-220, 1993.
26. Observations on the effect of numerical dissipation on the nonlinear dynamic response of structural systems, Broderick, B.M., Elnashai, A.S. and Izzuddin, B.A., *Engineering Structures*, Vol. 16, No. 1, pp. 51-62, 1994.
27. An analytical solution for the probabilistic response of SDOF non-linear random systems subjected to variable amplitude cyclic loading, Manzocchi, G.M.E., Chryssanthopoulos, M. and Elnashai, A.S., *Earthquake Engineering and Structural Dynamics*, Vol. 23, pp. 489-506, 1994.
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161. Seismic response evaluation of high-rise RC buildings subjected to near and far earthquakes, 8th Pacific Conference on Earthquake Engineering (8PCEE), Singapore, December 5-7, 2007.
162. Applications and challenges of scenario-based analytical earthquake impact assessment, Elnashai, A.S. and Cleveland, L., Proc. International Conference on Earthquake Engineering and Disaster Mitigation, Jakarta, Indonesia, April 14-15, 2008.
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166. Analytical and experimental investigations of the effect of vertical ground motion on RC bridge piers, Kim, S. J., Holub, C., and Elnashai, A.S., Proceedings of the 14th World Conference on Earthquake Engineering, Beijing, China, October 12-17, 2008.
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170. A framework for hybrid simulation of semi-rigid steel frames, Mahmoud, H.N., and Elnashai, A.S., STESSA 2009: Behaviour of Steel Structures in Seismic Areas, Philadelphia, Pennsylvania, August, 2009.
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175. Hybrid Mechanical-Neural Modelling Framework of Beam-to-Column Connections, Kim, J.H., Ghaboussi, J. and Elnashai, A.S., Proceedings of the Twelfth International Conference on Civil, Structural and Environmental Engineering Computing and the First International Conference on Soft Computing Technology in Civil, Structural and Environmental Engineering, Funchal, Madeira, Portugal, September, 1-4, 2009.
176. Earthquake Impact on Vulnerable Communities and Requirements for Mitigation, Response and Recovery, International Symposium of Earthquake Engineering, Sakarya, Turkey, 1-3 October, 2009.
177. Seismic Performance Analysis of Utility Lifeline Networks in Istanbul, Turkey, Huseyin Can Unen, Himmert Karaman, Muhammed Sahin and Amr Elnashai, Proceedings of the XXIV FIG International Congress, Sydney, Australia, 11-16 April, 2010.
178. Hybrid Simulation with Multiple Support Excitation, Jian Li, Bill F. Spencer, Amr S. Elnashai and Brian F. Phillips, 5th World Conference on Structural Control and Monitoring, Tokyo, Japan, 12-14 July 2010.
179. Early Observations from the Magnitude Mw 7.0 January 12, 2010 Haiti Earthquake, A.S. Elnashai and A. Lewis, The Fourth International Conference on Structural Engineering, Mechanics and Computation, Cape Town, South Africa, September 2010.
180. Seismic Response of A Semi-Rigid Moment Resisting Frame under Far and Near Field Records, N.D. Aksoylar and A.S. Elnashai, 14th European Conference on Earthquake Engineering, Ohrid, Republic of Macedonia, 30 August-3 September 2010.
181. Hybrid Mathematical-Informational Method for Embedded Modeling of Components of Complex Systems, J. Ghaboussi and A.S. Elnashai, 2nd International Multi-Conference on Complexity, Informatics and Cybernetics (IMCIC), Orlando, Florida, USA, 27-30 March 2011.
182. Assessment of Interdependent Lifeline Networks Performance in Earthquake Disaster Management, H.C. Ünen, M. Şahin, and Elnashai, A.S., Proceedings of the 8th International ISCRAM Conference, Lisbon, Portugal, May 2011.
183. Preparing for a New Madrid Earthquake: Accelerating and Optimizing Temporary Housing Decisions for Shelby County, TN, O. El-Anwar, K. El-Rayes, and A.S. Elnashai, 2011 ASCE International Workshop of Computing in Civil Engineering, Miami, Florida, USA, 19-22 June 2011.

184. Numerical Hybrid Simulation Modeling Verification for a Curved 3-Pier Bridge (Investigation of Combined Actions on Reinforced Concrete Bridge Piers (CABER) Project), A. Abdelnaby, T. Frankie, B.F. Spencer, and A.S. Elnashai, 3rd International Multi-Conference on Complexity, Informatics and Cybernetics, Orlando, Florida, USA, 25-28 March 2012.
185. NEES Integrated Seismic Risk Assessment Framework (NISRAF), S.L. Lin, J. Li, A.S. Elnashai, and B.F. Spencer, 2012 New Zealand Society for Earthquake Engineering Conference, Canterbury, Christchurch, New Zealand, 13-15 April 2012.
186. Integrated and Interdisciplinary Earthquake Impact Assessment for Mitigation, Response and Recovery, Elnashai, A.S., and Cleveland, L., 38<sup>th</sup> IAHS World Congress on Housing science, Istanbul April 16-19, 2012.
187. Cable-stayed Bridges subjected to Near-fault Vertical Earthquake Motion, Kuleli, M, and Elnashai, A.S., COMPDYN 2013, 4<sup>th</sup> ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, Kos, Greece, June 2013.
188. Model Updating during Hybrid Simulation, Elnashai, A.S., Seismicity of Historical Buildings, Istanbul, Turkey, November 3-5, 2014.
189. Hybrid Simulation in Earthquake Assessment, Elnashai, A.S., International Conference on Earthquake Engineering and Seismicity, Skopje, Macedonia, May 14-16, 2015
190. Hybrid Analytical-Experimental Simulation and Application to Semi-rigid Steel Frames, Elnashai, A.S, and Mahmoud, H., 8th STESSA International Conference, Shanghai, July 1-4, 2015.
191. Analytical-Experimental Simulation in Earthquake Response Assessment, Elnashai, A.S., Kwon, O-S., Gencturk, B., Mahmoud, H., Spencer, B.F., Al-Anwar, H., 6<sup>th</sup> International Conference on Structural Engineering, Mechanics and Computation, Cape Town, South Africa, 5-7 September 2016.

**Keynote and Invited Lectures** (including keynotes from above list)

| Title   | Conference/Organization  | Location   | Year              |
|---|--|--|-------------------|
| 1. Seismic Resistance of Composite Structures                                 | U Tokyo, Invited   | University of Tokyo, Institute of Industrial Science, Tokyo, Japan | April 1990        |
| 2. Ductility of Composite Steel-Concrete Beam-columns                         | U Tokyo, Invited   | University of Tokyo, Institute of Industrial Science, Tokyo, Japan | April 1992        |
| 3. Implications of Recent Earthquakes on Earthquake Risk                      | British Council, Invited   | The British Council, Tokyo, Japan                                  | June 1995         |
| 4. Damage to Steel Frame Structures in Recent Earthquakes                     | Keynote - International Conference on Modern Code Development  | University of Cairo, Cairo, Egypt                                  | November 26, 1995 |
| 5. Earthquake Risk in Egypt   | British Council, Invited   | The British Council, Cairo, Egypt                                  | December 30, 1996 |
| 6. Simplified Methods for Accounting for Vertical Earthquake Motion in Design | FAU, Invited   | Florida Atlantic University, Florida, USA                          | March 29, 1997    |
| 7. Seismic capacity rehabilitation of RC structures                           | Keynote - International Conference on Rehabilitation and Development of Civil Engineering Infrastructure Systems | Beirut, Lebanon  | June 1997         |
| 8. Seismic Risk in the Middle East and Implication for Lebanon                | The Order of Engineers Seminars  | Beirut, Lebanon  | June 16, 1997     |
| 9. Current status of EC8 and issues for future development                    | Keynote - Fourth Turkish National Conference on Earthquake Engineering   | Ankara, Turkey   | September 1997    |

| <b>Title</b>   | <b>Conference/Organization</b>   | <b>Location</b>   | <b>Year</b>          |
|--|--|---|----------------------|
| 10. Earthquake resistance of high strength reinforced concrete buildings   | Keynote - Sixth SECED Conference on Seismic Design Practice for the Next Millennium              | Oxford, UK  | March 1998           |
| 11. Observed Damage of RC Bridges and Impact on Conceptual Design  | McMaster, Invited  | McMaster U, Hamilton, Ontario, Canada                   | April 1999           |
| 12. Seismic Behavior of High Rise High Strength RC Structures  | McMaster, Invited  | McMaster U, Hamilton, Ontario, Canada                   | April 1999           |
| 13. Damage to RC structures in the Kocaeli earthquake: Inferior construction or unexpected demand?                                 | Keynote - The Kocaeli Earthquake Conference  | Istanbul Technical University, Istanbul, Turkey         | December 1999        |
| 14. Integration of earthquake testing, analysis and field observations for seismic performance evaluation                          | Keynote - 12th European Conference on Earthquake Engineering                                     | London, UK  | September 2002       |
| 15. Next generation vulnerability functions for RC structures  | Keynote - Response of Structures to Extreme Loading Conference                                   | Toronto, Canada   | August 2003          |
| 16. Development of Multi-state Codes; The Experience of Eurocode 8 for Seismic Design,   | Keynote - Arab Codes Symposium, HBRC   | Cairo, Egypt  | 21-23 September 2003 |
| 17. Newmark Distinguished Lecture: Vulnerability Assessment under Earthquake Action: from Field Observations to Hybrid Simulations | Distinguished Lectures Series  | University of Illinois, Urbana-Champaign, Illinois, USA | 18 October 2004      |
| 18. Approaches to the Assessment of Earthquake Response of Complex Structural Systems  | Keynote - The HBRC 50th Anniversary Conference   | Cairo, Egypt  | 20-22 December 2004  |
| 19. Multi-platform earthquake analysis of geotechnical structural systems  | ASCE International Conference on Computing in Civil Engineering                                  | Cancun, Mexico  | July 12-15, 2005     |
| 20. Seismic assessment of high rise RC structures using multi-resolution multi-platform analysis                                   | Keynote - The Indonesian Society of Civil and Structural Engineers (HAKI) Conference             | Jakarta, Indonesia                                      | August 2006          |
| 21. Advances in computational methods in structural dynamics and earthquake engineering  | Keynote - Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2007) | Crete, Greece   | June 2007            |
| 22. Recent Developments in Earthquake Engineering  | DUT, Invited   | Democritus University of Thrace, Greece                 | October 2007         |
| 23. Seismic response evaluation of high-rise RC buildings subjected to near and far earthquakes                                    | Keynote - 8th Pacific Conference on Earthquake Engineering (8PCEE)                               | Singapore   | December 2007        |



| <b>Title</b>   | <b>Conference/Organization</b>  | <b>Location</b>                                 | <b>Year</b>    |
|--|---|---|----------------|
| 24. Applications and challenges of scenario-based analytical earthquake impact assessment                | Keynote - International Conference on Earthquake Engineering and Disaster Mitigation                              | Jakarta, Indonesia                              | April 2008     |
| 25. Fragility Analysis of RC Bridges with Soil-Structure Interaction and Liquefaction                    | Invited UCL   | University College London                       | May 2009       |
| 26. Earthquake Impact on Vulnerable Communities and Requirements for Mitigation, Response and Recovery   | Keynote - International Symposium of Earthquake Engineering   | Sakarya, Turkey                                 | October 2009   |
| 27. Hybrid Mathematical-Informational Modeling of Structural Systems                                     | Keynote - 3rd International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering | Corfu, Greece                                   | May 2011       |
| 28. Hybrid Mathematical-Informational Modeling of Complex Systems  | Keynote - Mathematics and Earth Workshop  | Zaragoza, Spain                                 | June 2011      |
| 29. Integrated and Interdisciplinary Earthquake Impact Assessment for Mitigation, Response and Recovery  | Invited - International Council of Academies of Engineering and Technological Sciences                            | Mexico City, Mexico                             | June 2011      |
| 30. Multi-Objective Optimal Seismic Design of Buildings Using Advanced Engineering Materials             | Invited U Napoli  | University of Napoli Federico II, Napoli, Italy | July 2011      |
| 31. Analytical and Experimental Investigation of the Effect of Vertical Ground Motion on RC Bridge Piers | Invited UCSD  | University of California, San Diego, California | July 2011      |
| 32. Early observations from the Magnitude Mw 7.0 January 12, 2010 Haiti Earthquake                       | Keynote - Fifth International Conference on Structural Engineering, Mechanics and Computation                     | Cape Town, South Africa                         | September 2011 |
| 33. Multi-Objective Optimal Seismic Design of Buildings Using Advanced Engineering Materials             | Keynote - Jordan Order of Engineers Fifth International Civil Engineering Conference                              | Amman, Jordan                                   | January 2012   |
| 34. Integrated Seismic Assessment of Plan-Irregular Structures   | Invited CSU   | Colorado State University                       | September 2012 |
| 35. Integrated Seismic Assessment of Plan-Irregular Structures   | Invited - Distinguished Speakers Series   | University of Houston                           | October 2012   |
| 36. Hybrid Simulation and Optimization of Reinforced Concrete and High-performance Fiber Concrete        | Keynote - International Conference on Earthquake Engineering  | Skopje, Macedonia                               | May, 2013      |

| Title  | Conference/Organization   | Location                                   | Year                |
|--|---|--|---------------------|
| 37. Hybrid Simulation in Earthquake Assessment   | Keynote - International Conference on Earthquake Engineering and Seismicity                                       | Skopje, Macedonia                          | May 2015            |
| 38. Hybrid Analytical-Experimental Simulation and Application to Semi-rigid Steel Frames             | Keynote - 8 <sup>th</sup> STESSA International Conference   | Shanghai                                   | July 2015           |
| 39. Analytical-Experimental Simulation in Earthquake Response Assessment                             | Keynote - Conference on Structural Engineering Mechanics and Computation  | Cape Town, SA                              | September 2016      |
| 40. Optimized Temporary Housing Assignments after Disasters  | Keynote – 9 <sup>th</sup> International Conference on Construction in the 21st Century                            | Dubai, UAE                                 | March 5-7, 2017     |
| 41. Distributed Analysis of Interacting Soil and Structural Systems under Dynamic Loading            | Invited - International Conference On Sustainable Civil Infrastructures: Innovative Infrastructure Geotechnology” | Sharm El-Sheikh, Egypt                     | July 15-19, 2017    |
| 42. Analytical assessment of combined and sequential fire and earthquake effects on steel structures | Keynote – 4 <sup>th</sup> World Congress and Exhibition on Construction and Steel Structures                      | Atlanta, Georgia, USA                      | October 16-18, 2017 |
| 43. Seismic Capacity Assessment of Multi-span RC Bridges by Hybrid Simulation                        | Keynote – Missouri University of Science & Technology Transportation Infrastructure Conference                    | Rolla, Missouri, USA                       | December 7-8, 2017  |
| 44. Field Investigation and Back-analysis of the Chile Earthquake of 2010                            | Civil and Environmental Engineering Seminar Series  | University of Houston, Houston, Texas, USA | February 2, 2018    |
| 45. Integrated framework for analysis of buildings under earthquake and fire scenarios               | Keynote – 2 <sup>nd</sup> International Conference on Seismic Analysis and Design of Structures and Foundations   | Brighton, UK                               | June 4, 2019        |
| 46. Shaping the Industry-Academe Ecosystem – An Issue of Context, Definition and Diversity           | Keynote – Eurasian Higher Education Leaders Forum 2019  | Noor-Sultan City, Kazakhstan               | June 2019           |
| 47. Machine Learning Approaches for Modeling Complex Structural Systems                              | Invited Seminar Series Civil and Environmental Engineering Department   | University of Southern California, USA     | January 21, 2020    |
| 48. In-test Model Updating for Hybrid Dynamic Simulation   | Keynote – Structural Engineering and Mechanics Conference   | University of Cape Town, South Africa      | September 2022      |

1. The Pakistan Earthquake of October 2005: A reminder of human-science interaction in natural disasters risk management, Elnashai, A.S., The Illinois International Review, University of Illinois at Urbana-Champaign, Issue No. 3, fall 2006.
2. Aftershocks ..., Elnashai, A.S., The World Today, Magazine of the Royal Institute of International Affairs, pp. 12-14, October 1999.
3. The Hyogo-ken Nanbu (Kobe) Earthquake of 17 January 1995, Elnashai, A.S., Magazine of the Royal Academy of Engineering, 1996.
4. Comments on the performance of steel structures in the Northridge (Southern California) earthquake of 17 January 1994, Elnashai, A.S., New Steel Construction, Vol. 2, No. 5, pp. 36-37, October 1994.
5. Seismic hazard in the North Sea, Ambraseys, N.N. and Elnashai, A.S., Hydrocarbon Technology, Vol. 3, March 1990.
6. The Norwegian Sea earthquake of 8 August 1988, Ambraseys, N.N. and Elnashai, A.S., The Offshore Engineer, October 1988.
7. Several more articles in the Civil and Environmental Engineering Department (2009 onwards) and the Mid-America Earthquake Center (2004 to 2009) magazines.

### Reports

1. Nonlinear modeling of plain concrete, Elnashai, A.S. and Dowling, P.J., Marine Technology Report No. SS-40, London Centre for Marine Technology, Imperial College, UK, 1982.
2. Bond strength of grouted connections, Elnashai, A.S. and Dowling, P.J., Marine Technology, Imperial College, UK, 1983.
3. Nonlinear finite element analysis of grouted stressed clamp, Elnashai, A.S. and Nicholson, R.W., In 'Durability of a stressed grouted clamp', Wimpey Offshore Report No. WOL 260/84. British Petroleum (UK), 1984.
4. Thermal and load analysis of concrete bell foundations, Elnashai, A.S., Wimpey Offshore Report No. WOL 6/85a, Woodside Petroleum, Australia, 1985.
5. Thermal and stress analysis of Westinghouse type 44 vertical steam generator, Elnashai, A.S., Wimpey Offshore Report No. WOL 201/85, FPD Corporation, USA, 1985.
6. Vortex-induced vibrations of conductors, Elnashai, A.S., In 'TL085 Troll East Hybrid Monotower Platform, Jacket Design Study', Wimpey Offshore Report No. 288/85, Saga Petroleum, Norway, 1985.
7. Design review and analysis of armored plating for weather deck, Elnashai, A.S., Wimpey Offshore Report No. WOL 336/85 (technical and commercial proposal), Conoco Ltd. NGd, 1985.

8. Quality assurance manual for OFFPAF: A development of PAFEC for the analysis and design of offshore structures, Elnashai, A.S. (Editor), Wimpey Offshore, 1985.
9. Composite steel/concrete connections: analytical studies and a design equation, Elnashai, A.S. and Dowling, P.J., Engineering Seismology and Earthquake Engineering Report No. ESEE 6/86, Imperial College, UK, 1986.
10. The Kalamata (Greece) earthquake of 13 September 1986, Elnashai, A.S. and Pilakoutas, K., Engineering Seismology and Earthquake Engineering Report No. ESEE 9/86, Imperial College, UK, December 1986.
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19. Experimental behavior of reinforced concrete structural walls subjected to cyclic and shake-table loading, Elnashai, A.S., Pilakoutas, K. and Ambraseys, N.N., Engineering Seismology and Earthquake Engineering Report No. ESEE 12/89, December 1989.
20. Effect of random material variability on the structural response of steel frames, Alexopulu, P., Elnashai, A.S. and Chryssanthopoulos, M., Engineering Seismology and Earthquake Engineering Report No. ESEE 8/89, September 1989.
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36. Effect of modeling assumptions and input motion characteristics on the ductility demand of RC bridge piers, Elnashai, A.S. and McClure, D.C., Engineering Seismology and Earthquake Engineering Report No. ESEE 3/95, September 1995.
37. Vertical earthquake ground motion; evidence, effects and simplified analysis procedures, Elnashai, A.S. and Papazoglou, A., Engineering Seismology and Earthquake Engineering Report No. ESEE 6/95, December 1995.
38. Effect of model conditions on the seismic response of large RC bridges, Dodd, S.G., Elnashai, A.S. and Calvi, G.M., Engineering Seismology and Earthquake Engineering Report No. ESEE 96-5, August 1996.
39. Experimental and analytical investigations into the seismic behavior of semi-rigid steel frames, Elnashai, A.S., Danesh Ashtiani, F.A. and Elghazouli, A.Y., Engineering Seismology and Earthquake Engineering Report No. ESEE 96-7, December 1996.
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41. JAPANCAT A program for earthquake insurance loss estimation in Japan, Winkler, T. and Elnashai, A.S., EQE Report No. 403-2.
42. Review and development of response spectra for displacement-based seismic design, Bommer, J.J., Elnashai, A.S., Chlimintzas, G.O. and Lee, D., Engineering Seismology and Earthquake Engineering Report No. ESEE 98-3, March 1998.
43. Inelastic spectra and ductility-damping relationships for displacement-based seismic design, Borzi, B., Elnashai, A.S., Faccioli, E., Calvi, G.M. and Bommer, J.J., Engineering Seismology and Earthquake Engineering Report No. ESEE 98-4, May 1998.
44. Observations on the effects of the Adana-Ceyhan (Turkey) earthquake of 27 June 1998, Elnashai, A.S., Engineering Seismology and Earthquake Engineering Report No. ESEE 98-5, August 1998.
45. Inelastic dynamic response of RC bridges to non-synchronous earthquake input-motion, Tzanetos, N., Elnashai, A.S., Hamdan, F. and Antoniou, S., Engineering Seismology and Earthquake Engineering Report No. ESEE 98-6, August 1998.
46. Parameterised displacement spectra for seismic design, Bommer, J.J. and Elnashai, A.S., Engineering Seismology and Earthquake Engineering Report No. ESEE 98-7, August 1998.
47. Seismic performance and cost-benefit assessment of high rise high strength concrete buildings, Laogan, B.T. and Elnashai, A.S., Engineering Seismology and Earthquake Engineering Report No. ESEE 98-8, November 1998.
48. Assessment of response of multi-story buildings using force- and displacement-based approaches, Borzi, B. and Elnashai, A.S., Engineering Seismology and Earthquake Engineering Report No. ESEE 99-2, October 1999.
49. The Kocaeli (Turkey) earthquake of 17 August 1999: Assessment of spectra and structural response analysis, Elnashai, A.S., Engineering Seismology and Earthquake Engineering Report No. ESEE 99-3, November 1999 (on CD).
50. The North Athens (Greece) earthquake of 7 September 1999: Analytical studies of structural response, Elnashai, A.S., Engineering Seismology and Earthquake Engineering Report No. ESEE 99-4, November 1999 (on CD).
51. Static pushover versus dynamic-to-collapse analysis of RC structures, Mwafy, A.A. and Elnashai, A.S., Engineering Seismology and Earthquake Engineering Report No. ESEE 00-1, January 2000.
52. INDYAS – A Program for INelastic DYnamic Analysis of Structures, Elnashai, A.S., Pinho, R. and Antoniou, S., Engineering Seismology and Earthquake Engineering Report No. ESEE 00-2, June 2000.

53. Ductility of RC members constructed from high strength concrete and reinforcing steel, Goodfellow, R.C. and Elnashai, A.S., Engineering Seismology and Earthquake Engineering Report No. ESEE 00-3, August 2000.
54. Deformation-based analytical vulnerability functions for RC bridges, Elnashai, A.S. and Borzi, B., Engineering Seismology and Earthquake Engineering Report No. ESEE 00-6, September 2000.
55. Task 1.1: Performance parameters and criteria for assessment and rehabilitation, Task 1.2: Rehabilitation strategies for RC and masonry buildings, Thermou, G.E., and Elnashai, A.S., SPEAR Project Report No. G6RD-CT-2001-00525 (Seismic Performance Assessment and Rehabilitation, Imperial College of Science, Technology and Medicine, UK), 2002.
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58. Analytical assessment of an irregular RC full scale 3D test structure, Jeong, S-H. And Elnashai, A.S., Mid-America Earthquake Center, University of Illinois at Urbana-Champaign, CD Release 03-02, October 2003.
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64. Seismic assessment of the I-155 bridge at Caruthersville with SSI and retrofit, Elnashai, A., Mwafy, A. and Kwon, O., Interim Report No. 1, Mid-America Earthquake Center, University of Illinois at Urbana-Champaign, 2006.
65. The Yogyakarta (Indonesia) earthquake of 25 May 2006, observations, reconstruction of hazard and recommendations, Elnashai, A.S., Kim, S-J. and Yun, G-J., Mid-America Earthquake Center, University of Illinois at Urbana-Champaign, CD Release 07-02, March 2007.
66. Comprehensive seismic loss assessment for the State of Illinois, LaFore, S. and Elnashai, A.S., Interim Report No. 1, Mid-America Earthquake Center, University of Illinois at Urbana-Champaign, CD Release 07-01, April 2007.
67. New Madrid seismic zone catastrophic earthquake response planning, Cleveland, L.J. and Elnashai, A.S., Interim Report 1, Mid-America Earthquake Center, University of Illinois at Urbana-Champaign, CD Release 07-03, May 2007.
68. Analytical assessment of the damage potential of the Kashmir (Pakistan) earthquake of October 8, 2005, Elnashai, A.S. and Kim, S.J., Mid-America Earthquake Center, University of Illinois at Urbana-Champaign, CD Release 07-04, May 2007.
69. Assessment of seismic integrity of multi-span curved bridges in Mid-America, Elnashai, A.S. and Mwafy, A.M., Mid-America Earthquake Center, University of Illinois at Urbana-Champaign, CD Release 07-08, May 2007.
70. Modeling of hysteretic behavior of beam-column connections based on self-learning simulations, Yun, G.J., Ghaboussi, J. and Elnashai, A.S., Mid-America Earthquake Center, University of Illinois at Urbana-Champaign, CD Release 07-13, August 2007.
71. Seismic fragility assessment for reinforced concrete high-rise buildings, Ji, J., Elnashai, A.S. and Kuchma, D.A., Mid-America Earthquake Center, University of Illinois at Urbana-Champaign, CD Release 07-14, September 2007.
72. Probabilistic seismic assessment of structure, foundation, and soil interacting systems, Kwon, O-S. and Elnashai, A.S., Mid-America Earthquake Center, University of Illinois at Urbana-Champaign, CD Release 07-15, September 2007.

73. Seismic performance of interdependent lifeline systems, Kim, Y.S., Spencer, B.F., Song, J., Elnashai, A.S. and Stokes, T., Mid-America Earthquake Center, University of Illinois at Urbana-Champaign, CD Release 07-16, September 2007.
74. The Pisco-Chincha earthquake of August 15, 2007: Seismological, geological and structural assessments, Elnashai, A.S., Kwon, O., Pineda, O., Alva, J., Moran, L., and Huaco, G., Mid-America Earthquake Center, University of Illinois at Urbana-Champaign, CD Release 08-01, October 2008.
75. Impact of earthquakes on the Central USA, Elnashai, A.S., Cleveland, L.J., Jefferson, T., Harrald, J., Mid-America Earthquake Center, University of Illinois at Urbana-Champaign, CD Release 08-02, September 2008.
76. Design and Assessment Models and Spectra for Repaired Reinforced Concrete Structures Thermou, Georgia E., Pantazopoulou, Stavroula J., and Elnashai, Amr S., Mid-America Earthquake Center, University of Illinois at Urbana-Champaign, CD Release 09-01, May 2009.
77. Impact of New Madrid Seismic Zone Earthquakes on the Central USA, Elnashai, A.S., Cleveland, L.J., Jefferson, T., Harrald, J., Mid-America Earthquake Center, University of Illinois at Urbana-Champaign, CD Release 09-03, November 2009.
78. The Maule (Chile) Earthquake of February 27, 2010: Consequence Assessment and Case Studies, Elnashai, Amr S., Gencturk, Bora, Kwon, Oh-Sung, Al-Qadi, Imad L., Hashash, Youssef, Roesler, Jeffery R., Kim, Sung Jig, Jeong, Seong-Hoon, Dukes, Jazalyn, and Valdivia, Angharad, Mid-America Earthquake Center, University of Illinois at Urbana-Champaign, CD Release 10-04, December 2010.

## Grants and Contracts

### For Research

| Years (Inclusive) | Brief Title or Description   | Source of Funds    | Total Funding | Funds Allocated to this prof | #PI's and lead PI if not this prof |
|-------------------|--|--------------------|---------------|------------------------------|------------------------------------|
| 2001 - 2006;      | Masters Training in Earthquake Risk Management                                   | EPSRC              | \$1.2M        | \$1.2M                       |                                    |
| 2002              | Structure Retrofit Strategies  | NSF-MAE            | \$420K        | \$210k                       | M.B. Hueste                        |
| 2002              | Response Analysis Tools  | NSF-MAE            | \$368K        | \$250k                       | M. Aschheim                        |
| 2002 – 2004       | Multi-Axial Full-scale Sub-Structured Testing and Simulation (MUST-SIM) Facility | NSF                | \$3.3M        | Facility Building            | Kuchma, Spencer, Alleyne           |
| 2003              | Analytical Assessment of Seismic Performance of Bridges                          | FHWA               | \$25K         | \$25K                        |                                    |
| 2001              | Seismic Performance Evaluation Rehabilitation (SPEAR)                            | European Community | \$1.5M        | \$400K                       | 5 European partners                |
| 2002              | CM-4 Structural Retrofit Strategies  | NSF                | \$380K        | \$380K                       |                                    |
| 2004-2014         | Network for Earthquake Engineering Simulations NEES – Operations and Maintenance | NSF                | ~\$9M         | Operation and Maintenance    | Spencer and Kuchma                 |
| 2002              | DS-3 Response Analysis Tools   | NSF                | \$410K        | \$410K                       |                                    |

| Years (Inclusive) | Brief Title or Description   | Source of Funds                                     | Total Funding             | Funds Allocated to this prof  | #PI's and lead PI if not this prof               |
|-------------------|--|---|---------------------------|-------------------------------|--|
| 2004-2009         | MAE Center   | NSF   | ~\$22M<br>(external only) | ~\$4M                         | Sole PI (many subcontracts to core institutions) |
| 2004              | Enhanced Load Control and Education-Training Features for UIUC NEES Site (equipment) | NSF   | \$198K                    | Education, Outreach, Training | Spencer and Kuchma                               |
| 2005              | Seismic Retrofit Study of Bridge A-1700  | Missouri Dept. of Transportation-Jacobs Engineering | \$272K                    | \$200K                        | Hashash  |
| 2005              | NEESR-SG Bridges   | NSF   | \$1.2M                    | \$285K                        | 4 universities                                   |
| 2005              | Cast iron pilot project with MAE center  | Memphis Light Gas & Water                           | \$15K                     | \$10K                         | Spencer  |
| 2006              | Loss Model for Illinois  | IEMA  | \$250K                    | \$250k                        |  |
| 2006 - 2009       | NMSZ Loss Assessment in the Central USA  | FEMA (CERL)   | \$4.5M                    | \$3.5M                        | 2 universities                                   |
| 2006              | MAEviz Impact of Earthquakes on Istanbul Buildings                                   | ITU-Istanbul Municipality                           | \$100K                    | \$100k                        |  |
| 2006              | Pakistan Schools and Hospitals project   | USAID-Pakistan                                      | \$87K                     | \$50k                         | Masud, Hajjar                                    |
| 2007              | NEESR-SD   | NSF   | \$200K                    | \$100k                        | Spencer  |
| 2007              | St. Louis HAZUS analysis   | AMEC Earth and Environment                          | \$14K                     | \$14K                         |  |
| 2008              | Development of MAEVIZ-Laclede  | Laclede Gas Company                                 | \$90K                     | \$90K                         |  |
| 2008              | Development of MAEVIZ-Centerpoint  | CenterPoint Energy                                  | \$60K                     | \$60K                         |  |
| 2008-2011         | Modeling Building Downtime due to Hurricane Impacts                                  | NSF   | \$32K                     | \$16k                         | Spencer  |

#### Areas of Research

1. Investigation of the performance of engineering systems subjected to earthquake ground motion using analysis, testing and field observations. Systems investigated include buildings, bridges, utility networks, transportation
2. Disaster impact assessment, mitigation and recovery on a regional and national levels, and optimization of post-disaster housing
3. Applications of high performance and sustainable materials in earthquake design applications
4. Multi-hazard design of highrise buildings
5. Fire modeling and the effect of interaction between fire and earthquakes on structural performance

#### Graduate Thesis Research Advising

##### M.S. Thesis Students

About 90 MSc thesis students graduated at Imperial College, London. List below is at Illinois only.



| Student Name   | Year Graduated | Thesis Title  | Placement                           |
|----------------|----------------|---|-------------------------------------|
| John Barry     | 2005           | Semi-rigid Steel Frames                             | Thornton Tomasetti, USA             |
| Nick Berdette  | 2005           | Curved Bridges                                      | Ove Arup, UK                        |
| Susan LaFore   | 2006           | Impact of Earthquakes on the State of Illinois      | Consulting, USA                     |
| Lisa Cleveland | 2006           | Impact of New Madrid Earthquakes on the Central USA | Sargeant and Lundy, USA             |
| Bora Gencturk  | 2007           | A New Pushover-Based Fragility Method               | U of Houston, USA                   |
| Roberto Suarez | 2007           | Earthquake Impact on the State of Illinois          | Consultant, USA                     |
| David Bennier  | 2009           | Hybrid Simulation of Semi-rigid Steel Frames        | HNTB, USA                           |
| Anisa Como     | 2010           | Integrated Impact of Central US Earthquakes         | U of Colorado (grad student)        |
| Thomas Frankie | 2010           | ANalysis-based Fragility of Masonry Structures      | U of Illinois (grad student)        |
| Gulen Ozkula   | 2011           | Advanced Steel Materials for Seismic Design         | UC San Diego (grad student)         |
| Amanda Lewis   | 2011           | Fragility Analysis of Asphalt Pavement              | Consultant, USA                     |
| Elisa Chen     | 2012           | Mutli-hazard Assessment of High Rise Buildings      | Magnusson Klemencic Associates, USA |

#### Ph.D. Thesis Students

| Student Name                  | Year Graduated | Thesis Title  | Placement                             |
|-------------------------------|----------------|---|---------------------------------------|
| 1. W. Aritenang (Imperial)    | 1989           | Composite Tubular Connections for Offshore Applications   | Ministry of Transportation, Indonesia |
| 2. K. Pilakoutas (Imperial)   | 1990           | Seismic Performance of RC Walls                           | Professor, U of Sheffield             |
| 3. M. Lopes (Imperial)        | 1991           | Shear Dominated RC Walls                                  | Professor, U of Lisbon                |
| 4. A. Salama (Imperial)       | 1992           | Repair and Retrofitting of RC Walls                       | Consultant, Dubai and Egypt           |
| 5. A. Elghazouli (Imperial)   | 1991           | Seismic Behavior of Composite Columns                     | Professor, Imperial College           |
| 6. B. Izzuddin (Imperial)     | 1992           | Advanced Inelastic Dynamic Analysis of Offshore Platforms | Professor, Imperial College           |
| 7. M. Soliman (Imperial)      | 1992           | Automated Assessment of Seismic Vulnerability             | Professor, U of Zagazig, Egypt        |
| 8. B. Broderick (Imperial)    | 1994           | Seismic Behavior of Composite Frames                      | Professor, Trinity College, Dublin    |
| 9. E.M. Higazy (Imperial)     | 1993           | Shear in RC Beam-column Connections                       | Professor, Ain Shams U, Egypt         |
| 10. A. Elmesallamy (Imperial) | 1993           | Three-dimensional Analysis of RC Structures               | Professor, U of Mansoura, Egypt       |
| 11. P. Madas (Imperial)       | 1993           | Seismic Performance of Semi-Rigid and Composite Frames    | Consultant, Greece                    |
| 12. E. Martinez (Imperial)    | 1996           | A New Energy Dissipation Device for RC Buildings          | Professor, U of Brighton              |

| Student Name                    | Year Graduated | Thesis Title  | Placement                       |
|---------------------------------|----------------|---|---------------------------------|
| 13. F.D. Ashtiani (Imperial)    | 1997           | Experimental and Analytical Study of Semi-rigid Frames          | Ministry of Construction, Iran  |
| 14. D. Lee (Imperial)           | 1999           | Flexure-Shear-Axial Interaction in Concrete Columns             | Professor, Peche U, Korea       |
| 15. L. Song (Imperial)          | 1998           | Combined Earthquake and Fire Analysis of Buildings              | Consultant, Japan               |
| 16. R.G. Goodfellow (Imperial)  | 1999           | High Performance RC Structures                                  | Consultant, Ireland             |
| 17. R. Pinho (Imperial)         | 2000           | Seismic Assessment of RC Structures                             | Professor, U of Pavia           |
| 18. B. Borzi (Imperial)         | 2000           | Methods and Spectra for Displacement-based Design               | Professor, U of Pavia           |
| 19. A. Mwafy (Imperial)         | 2001           | Advanced Inelastic Pushover of RC Buildings                     | Professor, U of UAE (Al Ain)    |
| 20. A. Manafpour (Imperial)     | 2002           | Refined Analysis Methods for RC Buildings                       | Consultant, UK                  |
| 21. M. Tsujii (Imperial)        | 2002           | Shaking Table Testing of Steel Frames                           | Nippon Steel, Japan             |
| 22. T. Rossetto (Imperial)      | 2004           | Fragility Analysis of European Buildings                        | Professor, U College, London    |
| 23. Seong-Hoon Jeong (Illinois) | 2005           | Refined Testing and Analysis of 3D RC Buildings                 | Professor, Inha U, Korea        |
| 24. GunJin Yun (Illinois)       | 2006           | Neural Network Solutions for Structural Systems                 | Professor, U of Akron, USA      |
| 25. Oh-Sung Kwon (Illinois)     | 2007           | Fragility of RC Bridges with Soil-structure Interaction         | Professor, U of Toronto, USA    |
| 26. Gina Thermou (Greece)       | 2007           | Strengthening of RC Buildings                                   | Professor, Aristotle, Greece    |
| 27. Jun Ji (Illinois)           | 2007           | Multiplatform Fragility Analysis of High-rise Buildings         | Consultant, USA                 |
| 28. Narutoshi Nakata (Illinois) | 2007           | Hybrid Simulation of Skew Bridges                               | Professor, Johns Hopkins, USA   |
| 29. Young Suk Kim (Illinois)    | 2007           | Optimized Static Transportation and Utility Network Models      | Consultant, USA                 |
| 30. Himmet Karaman (ITU)        | 2008           | Risk Assessment of Istanbul, Turkey                             | Professor, Istanbul Technical U |
| 31. Sung Jig Kim (Illinois)     | 2008           | Effect of Vertical Motion on RC Bridges                         | Professor, Keimyung U, Korea    |
| 32. Curtis Holub (Illinois)     | 2009           | Testing and Analysis of RC Bridges with Vertical Motion Effects | ExxonMobil, USA                 |
| 33. JunHee Kim (Illinois)       | 2009           | Neural Networks Applications to Steel Frames                    | Professor, Yonsei U., Korea     |
| 34. Omar El Anwar (Illinois)    | 2009           | Optimization of Post-disaster Housing                           | Professor, U of Washington, USA |
| 35. Nihan Dogramaci (Yildiz U)  | 2009           | Seismic Behavior of Semi-rigid Frames                           | Professor, Fatih U, Turkey      |
| 36. Liang Chang (Illinois)      | 2010           | Static and Dynamic Transportation Network Modeling              | Consultant, USA                 |

| Student Name                        | Year Graduated | Thesis Title  | Placement                           |
|-------------------------------------|----------------|---|-------------------------------------|
| 37. Can Unen (ITU)                  | 2011           | Interactive Utility networks Modeling in the USA and Turkey           | Senior Researcher, ITU, Turkey      |
| 38. Hussam Mahmoud (Illinois)       | 2011           | Hybrid Testing of Steel Frames with Semi-rigid Connections            | Professor, Colorado State U, USA    |
| 39. Sheng-Lin Lin (Illinois)        | 2011           | Integrated and Refined Earthquake Impact Assessment                   | RMS, Canterbury, New Zealand        |
| 40. Bora Gencturk (Illinois)        | 2011           | Advanced Concrete Materials and Applications in Seismic Design        | Professor, U of Southern California |
| 41. Do Soo Moon (Illinois)          | 2012           | Kinematically Eccentric RC Buildings                                  | Post-doc, U Illinois                |
| 42. Adel Essam Abdelnaby (Illinois) | 2012           | Multiple Earthquake Effects on RC Buildings                           | Professor, U of Memphis             |
| 43. Seliem Serhan (ITU)             | 2013           | Physics-based Fire after Earthquakes Models                           | Professor, Osmaniye U, Turkey       |
| 44. Xiowen Yao (Zhejiang)           | 2013           | Seismic Performance of RC Arch Dams in China                          | Senior researcher, Zhejiang         |
| 45. Thomas Frankie (Illinois)       | 2013           | Hybrid Simulation and Fragility of Curved RC Bridges                  | WJE, Chicago                        |
| 46. Hazam Al Anwar (Illinois)       | 2015           | Model Updating in Hybrid Simulation                                   | Professor, Cairo U.                 |
| 47. Hamed Akbarpour (Penn State)    | 2019           | Fire Following Earthquake: Analysis, Assessment and Mitigation Design | Post-doc, Penn State                |

#### Editorships of Journals or Other Learned Publications

1. Journal of Earthquake Engineering, Founder and Editor-in-Chief, currently published by Taylor and Francis, 1996 – present (published 1996-2004 by World Scientific Publishing Co.)
2. Natural Disasters, Member of the Board of Editors, 2006 – present
3. Journal of Earthquake Engineering and Engineering Vibrations, Member of the Board of Editors, 2005 – present
4. Progress in Structures and Materials, Earthquake Engineering Editor, published by John Wiley and Sons, Ltd., September 1997-2004
5. Implications of Recent Earthquakes on Seismic Risk, Proceedings of the 3rd Japan-UK Seismic Risk Forum Workshop, London, published by Imperial College Press/World Scientific Publishing Company, April 6-8, 2000
6. The Structural Design of Tall Buildings, member of Board of Editors, published by John Wiley and Sons, April 1996
7. ‘European Seismic Design Practice; Research and Application’, Proceedings of the Fifth SECED Conference, Chester, October 27-28, 1995 (A.A. Balkema)
8. Seismic Behavior of Steel Structures, Special Issue of the Journal of Constructional Steel Research, published by Elsevier, December 1993
9. Simplicity and Confidence in Seismic Design, The 4th Mallet-Milne Lecture, T. Paulay, published by John Wiley and Sons, Ltd., November 1993
10. Reduction of Vibration, The 3rd Mallet-Milne Lecture, G. Warburton, published by John Wiley and Sons, December 1992

#### Post-doctoral Associates and Visiting Scientists

| Name               | Country of Origin | Permanent Employer                       | Years                        |
|--------------------|-------------------|--|------------------------------|
| Omar Pineda-Porras | Mexico            | National Autonomous University of Mexico | September 2006 – August 2008 |

| Name              | Country of Origin | Permanent Employer   | Years                        |
|-------------------|-------------------|--|------------------------------|
| Zakir Hussain     | Pakistan          | University of Engineering & Technology, Peshawar                         | April 2008 – January 2010    |
| Huseyin Can Unen  | Turkey            | Istanbul Technical University  | February 2008 – May 2009     |
| Soo-Yeon Seo      | Korea             | Chungju National University (CJNU)                                       | Jan 2008 – Jan 2009          |
| Vincent Yang      | Taiwan            | NCREE  | June-August 2008             |
| Fikri Acar        | Turkey            | Middle East Technical University   | June 08 – June 09            |
| Young-Sun Choun   | Korea             | Korea Atomic Energy Research Institute                                   | August 2008 – July 2009      |
| Giulio Martire    | Italy             | Department of Structural Engineering, University of Naples "Federico II" | January 2009 - May 2010      |
| Khan Shaahzada    | Pakistan          | University of Engineering & Technology, Peshawar                         | January 2010 - January 2011  |
| Muhammad Ashraf   | Pakistan          | University of Engineering & Technology, Peshawar                         | January 2010 - January 2011  |
| Cenk Aksoylar     | Turkey            | Istanbul Technical University  | January-June 2011            |
| Nihan Dogramaci   | Turkey            | Yildiz Univeristy  | January-June 2011            |
| Changdong Zhou    | China             | Jaitong University   | December 2011- December 2012 |
| Takashi Miyamoto  | Japan             | Tokyo University   | June-August 2012             |
| Mahmoud Jabareen  | Israel            | Tecnion Tel Aviv   | August 2015                  |
| Reyhaneh Navabzad | USA               | Texas A and M  | June 2018-June 2019          |

### Conferences Organized or Chaired

1. Chairman of Conference Committee, Society of Earthquake and Civil Engineering Dynamics (SECED) Conference on Seismic Design Codes in the Next Millennium, Chester, 1995
2. Chairman of Conference Committee, 12th European Conference on Earthquake Engineering, London 2002 (chairman from September 1998 to January 2000, then Chairman of the Scientific Affairs sub-committee from January 2000 to June 2002, thereafter member of the Conference Organizing Committee)
3. Chairman, 2009 Asian-Pacific Network of Centers for Earthquake Engineering Workshop, Illinois, 2009
4. Co-editor, GeoMEast International Conference, Sharm Elsheikh, July 2017

### External Academic Committees

1. Member of the three-person Steering and Selection Committee for the Italian Civil Defense Agency for Research in Earthquake Risk (GNDT), 1999-2004
2. Member of the Board of Directors of the International School of Reduction of Seismic Risk (Rose), Pavia, Italy, 2000-present
3. Member of the University Engineering Advisory Committee, University of Hong Kong, 2010-2012
4. External assessor of the CEE Department at Florida International University, USA, 2010
5. Member of the external assessment panel of the School of CE and Environmental Science at University of Florida, Gainesville, USA, 2011
6. Member of the external assessment panel of the Royal Commission of Jubail and Yanbo' University and Technical Institutes in Jubail, Kingdom of Saudi Arabia, 2011
7. Member of the external assessment panel for the CEE Department at the University of Toronto, 2012

8. Member of the external assessment panel for the CEE Department at the University of British Columbia, 2012

## **Technical and Professional Service**

### **Professional Societies**

1. The Royal Academy of Engineering, UK, Fellow, 2000 onwards
2. European Association of Earthquake Engineering, Senior Vice President, 1998 - 2002
3. European Association of Earthquake Engineering, Executive Comm. Member, 1994 - 2001
4. European Association of Earthquake Engineering, UK Delegate, 1994 - 2001
5. American Society of Civil Engineers, USA, Fellow, 1997 -
6. Society of Earthquake and Civil Engineering Dynamics, (SECED), (ICE-affiliated), UK, Chairman, 1992 - 1994
7. Society of Earthquake and Civil Engineering Dynamics, (SECED), (ICE-affiliated), UK, Vice-Chairman, 1990 - 1992
8. Society of Earthquake and Civil Engineering Dynamics, (SECED), (ICE-affiliated), UK, Committee Member 1985 - 1995
9. International Association of Earthquake Eng., Deputy UK Delegate, 1992 - 2001
10. Structural Stability Research Council, USA, Member-at-Large, 1990 -
11. British Computer Society, UK, Member, 1989 - 1993
12. Earthquake Engineering Research Institute, USA, Member, 1989 -
13. Institution of Structural Engineers, UK, Fellow, 1989 -
14. Engineering Council, UK Member, 1989 -
15. Applied Technology Council-63, Steering Committee Member, 2005 - 2007
16. Applied Technology Council-58, Panel Review Member, 2006 - 2008
17. Asian-Pacific Network of Centers for Earthquake Engineering, President, 2007 - 2009
18. Member of the Board of Directors of the Institution of Structural Engineers, UK, 2012 - 2019
19. Chi Epsilon, Civil Engineering Honors Society, Honorary Life Member, 2011
20. Life Member of the Penn State University Alumni Society, 2015

### **CEE at Illinois**

1. Awards Committee, Member, 2004 - 2006
2. New Faculty Search Committee, Chairman, 2006
3. Ad Hoc Committee, Promotions and Tenure, Chairman, 2004 and 2008
4. Promotions and Tenure Committee member, 2003 and 2009

### **College of Engineering at Illinois**

1. College Promotion and Tenure Committee, 2011-2014
2. Named Recognitions Committee, Member, 2011
3. College of Engineering Working Group on Faculty Startups, Member, 2009
4. Council on Global Engineering Initiatives, Chairman, 2008-2009

### **University of Illinois**

1. Chair of search committee for founding director of the Institute of Energy and Environment
2. Member, University Overheads Distribution Model committee

### **Penn State University**

1. Chair, search committee for dean of Eberly College of Science
2. Chair, Campus committee on strategic thrust 'Managing Resources'

3. Chair, STEM Deans committee on Inclusive Penn State
4. Member, Case Statement Committee for PSU fundraising campaign
5. Member, Health Sciences Council
6. Member, steering committee of the Huck Institute of Life Sciences
7. Member, steering committee of the Institutes for Energy and Environment
8. Member, steering committee for Institute for Natural Gas Research

#### **University of Houston**

1. Member of President's Council
2. Member of Space Reallocation Committee
3. President's Representative on Houston Exponential Advisory Board
4. President's Representative on Association of Public and Land-grant Universities
5. Chair of the Budget Transparency Sub-committee on Performance
6. Co-Chair of the Budget Transparency Steering Committee on Research Funding and Management
7. Co-Chair of the Reopening UH System Task Force (due to Corona virus)
8. Chair of the Research Preeminence Implementation Committee