

## MARCO BONOPERA

31/10/2023 10:01  
Tel. 042866090-207

### STUDIES & ACADEMIC POSITIONS

- October 2022 – Ongoing: **Visiting Postdoctoral Associate Researcher at National Taiwan University, Taiwan.** Department of Civil Engineering. Division of Computer-Aided Engineering.
- June 2021 – September 2022: **Postdoctoral Assistant Research Fellow at National Center for Research on Earthquake Engineering, Taiwan.** Office of General Director.
- October 2019 – May 2021: **Postdoctoral Assistant Research Fellow at National Center for Research on Earthquake Engineering, Taiwan.** Bridge Engineering Division.
- October 2017 – September 2019: **Postdoctoral Assistant Research Fellow at University of Ferrara, Italy.** Department of Engineering. Division of Structural Engineering.
- August 2016 – July 2017: **Postdoctoral Assistant Research Fellow at National Center for Research on Earthquake Engineering, Taiwan.** Bridge Engineering Division.
- January 2012 – March 2016: **Ph.D. Student in Civil Engineering at University of Ferrara, Italy.** Division of Structural Engineering.
- July 2015 – December 2015: **Research Assistant at National Taiwan University, Taiwan.** Department of Civil Engineering. Division of Structural Engineering.
- May 2014 – November 2014: **Visiting Ph.D. Student at National Center for Research on Earthquake Engineering, Taiwan.**
- October 2010: **Master Degree in Civil Engineering at Polytechnic University of Marche, Italy.** Master Thesis: “Composite materials and coatings for repair and protection of concrete structures: analysis and experimental study”.
- May 2010 – July 2010: **Master Thesis and Training at Cracow University of Technology, Poland.** Faculty of Civil Engineering. Master Thesis: “Composite materials and coatings for repair and protection of concrete structures: analysis and experimental study”. Erasmus Exchange Programme.
- October 2009 – July 2010: **Visiting Master Student at Cracow University of Technology, Poland.** Faculty of Civil Engineering. Erasmus Exchange Programme.
- October 2006: **Bachelor Degree in Civil Engineering at University of Bologna, Italy.**
- July 2002: **Surveyor High School at Istituto Tecnico per Geometri G.Genga, Pesaro, Italy.**

### PROFESSIONAL REGISTRATION

- **2011/05-Present: Structural Engineer.** Province of Pesaro and Urbino, Italy. No. A1793.

### TEACHING

- 2022/2023: **Guest Instructor** for the course of “Plastic Analysis and Design”, Master Degree in Civil Engineering at National Taiwan University, Taiwan.
- 2014/2015: **Teaching Assistant** for the course of “Structural Engineering”, Master Degree in Civil Engineering at University of Ferrara, Italy.
- 2013/2014: **Teaching Assistant** for the course of “Structural Engineering”, Master Degree in Civil Engineering at University of Ferrara, Italy.
- 2012/2013: **Teaching Assistant** for the course of “Reinforced and Prestressed Concrete Constructions”, Master Degree in Civil Engineering at University of Ferrara, Italy.

### INTERNATIONAL TEACHING

- 2013/2014: **Teaching Assistant** for International Exchange Students. Department of Physics and Earth Science, University of Ferrara, Italy.
- 2013/2014: **Teaching Assistant** for International Exchange Students. Department of Engineering, University of Ferrara, Italy.
- 2012/2013: **Teaching Assistant** for International Exchange Students. Department of Engineering, University of Ferrara, Italy.

### HIGHER EDUCATION COURSES

- **2014/01:** LabVIEW software course at the National Instruments Company - Padova, Italy.

### FOREIGN LANGUAGES

**Italian:** Native.

**English:** Reading skills: Good. Writing skills: Good. Verbal skills: Good.

**Spanish:** Reading skills: Good. Writing skills: Good. Verbal skills: Good.

### TECHNICAL SKILLS

**Software:** Office, Autocad, Matlab, Mathematica, Labview, Strand7 (FEA), ProSap (FEA), Atena (FEA).

### HONORS & AWARDS

- **2022/08: Expert on the Subject of “Structural Engineering”.** Department of Engineering, University of Ferrara, Italy (*Cultore della Materia nel S.S.D. ICAR/09 per il corso di “Tecnica delle Costruzioni”. Dipartimento di Ingegneria, Università degli Studi di Ferrara*).
- **2015: “Summer Program in Taiwan Grant”,** Ministry Of Science and Technology (MOST) of Taiwan for European Ph.D. students.
- **2014: “Summer Program in Taiwan Grant”,** Ministry Of Science and Technology (MOST) of Taiwan for European Ph.D. students.
- **2014: “Tender for Young Researchers Abroad Grant”,** University of Ferrara, Italy.

### EDITORIAL BOARD MEMBERSHIPS

- **Current Trends in Civil & Structural Engineering** (CTCSE, ISSN: 2643-6876), Iris Publishers, LLC, USA.
- **Journal of Modern Industry and Manufacturing** (JMIM, ISSN: 2788-8096), Innovation Forever Publishing Group Limited.
- **Journal of Civil, Construction and Environmental Engineering** (JCCEE, E-ISSN: 2637-3890), Science Publishing Group, USA.

### EDITOR of SPECIAL ISSUES of JOURNALS

- **2022: Buildings, MDPI.** Section: Building Structures. **Guest Editor.** Special issue: **Advanced Studies on Strength and Cracking of Prestressed and Reinforced Concrete Structures.** SCI/EI/Scopus indexation ([https://www.mdpi.com/journal/buildings/special\\_issues/Prestressed\\_Reinforced](https://www.mdpi.com/journal/buildings/special_issues/Prestressed_Reinforced)).
- **2022: Materials, MDPI.** Section: Construction and Building Materials. **Guest Editor.** Special issue: **Advances in Fiber-Reinforced Cementitious Composites for Concrete and Masonry Structures.** SCI/EI/Scopus indexation ([https://www.mdpi.com/journal/materials/special\\_issues/Cementitious\\_Composites\\_Concrete](https://www.mdpi.com/journal/materials/special_issues/Cementitious_Composites_Concrete)).

### CONFERENCES, WORKSHOPS & MINI-SYMPOSIA

- **2023/01:** Member of the Technical Program Committee. The 2023 International Conference on Applied Mechanics, Materials Physics, and Engineering Structures (MMPES 2023), Wuhan, China.
- **2022/12:** Member of the Technical Program Committee. The 8th International Conference on Environmental Science and Civil Engineering (ESCE 2022), Chengdu, China.
- **2022/11:** Minisymposium Organizer. Advancing Technologies and Applications in Structural Dynamics and Vibrations. The 46th National Conference on Theoretical and Applied Mechanics (CTAM 2022), Kaohsiung, Taiwan.
- **2022/10:** Member of the Technical Program Committee. International Conference on Intelligent Transportation Technologies and Applications (ICITTA 2022), Wuhan, China.
- **2021/11:** Minisymposium Organizer. Advances and Challenges in Structural Dynamics and Earthquake Engineering. The 45th National Conference on Theoretical and Applied Mechanics (CTAM 2021), New Taipei City, Taiwan.
- **2019:** Member of the Technical Program Committee. The 2nd International Workshop on Materials Science and Mechanical Engineering (IWMSME 2018). IOP Publishing. IOP Conf. Series: Materials Science and Engineering 504 (2019) 011002. Scopus indexation. doi:10.1088/1757-899X/504/1/011002.
- **2016/10:** Minisymposium Co-organizer. Advances in Structural Control and Health Monitoring of Civil Constructions. The 2nd Computational Mechanics Conference in Taiwan (ACMT).

### SEMINARS as INVITED SPEAKER

- **M. Bonopera.** Approaches for structural control and health monitoring of civil structures. Department of Civil Engineering, National Taiwan University, February 23, 2017, Taipei, Taiwan.
- **M. Bonopera.** Axial load identifications in steel space structures using second-order deflection-based methods. Department of Civil Engineering, National Yang Ming Chiao Tung University, November, 2017, Hsinchu City, Taiwan.
- **M. Bonopera.** Novel method for identifying prestress force in single-span or multi-span PCI girder-bridges. Department of Civil Engineering, National Taiwan University, December 9, 2021, Taipei, Taiwan.
- **M. Bonopera.** Novel method for identifying prestress force in single-span or multi-span PCI girder-bridges. Department of Civil Engineering, National Central University, October 18, 2022, Taoyuan, Taiwan.

### PEER-REVIEWED JOURNAL PUBLICATIONS

1. A. Kozak, **M. Bonopera.** Performance analysis of Reinforced Polymer Cement Mortars “RPCMs” used for repairing concrete structures. *Czasopismo Techniczne* 1 (2015).

2. **M. Bonopera**, K.C. Chang, C.C. Chen, T.K. Lin, N. Tullini. Compressive column load identification in steel space frames using second-order deflection-based methods. *International Journal of Structural Stability and Dynamics* 18 (7) (2018) art. ID 1850092.
3. **M. Bonopera**, K.C. Chang, C.C. Chen, Z.K. Lee, N. Tullini. Axial load detection in compressed steel beams using FBG-DSM sensors. *Smart Structures and Systems* 21 (1) (2018) 53–64.
4. **M. Bonopera**, K.C. Chang, C.C. Chen, Y.C. Sung, N. Tullini. Feasibility study of prestress force prediction for concrete beams using second-order deflections. *International Journal of Structural Stability and Dynamics* 18 (10) (2018) art. ID 1850124.
5. **M. Bonopera**, K.C. Chang, C.C. Chen, Y.C. Sung, N. Tullini. Prestress force effect on fundamental frequency and deflection shape of PCI beams. *Structural Engineering and Mechanics* 67 (3) (2018) 255–265.
6. **M. Bonopera**, K.C. Chang, C.C. Chen, T.K. Lin, N. Tullini. Bending tests for the structural safety assessment of space truss members. *International Journal of Space Structures* 33 (3–4) (2018) 138–149.
7. **M. Bonopera**, K.C. Chang, C.C. Chen, Y.C. Sung, N. Tullini. Experimental study on the fundamental frequency of prestressed concrete bridge beams with parabolic unbonded tendons. *Journal of Sound and Vibration* 455 (2019) 150–160.
8. **M. Bonopera**, K.C. Chang, C.C. Chen, Z.K. Lee, Y.C. Sung, N. Tullini. Fiber Bragg grating-differential settlement measurement system for bridge displacement monitoring: Case study. *Journal of Bridge Engineering*, ASCE 24 (10) (2019) 1–12, art. ID 05019011.
9. **M. Bonopera**, K.C. Chang, Z.K. Lee. State-of-the-art review on determining prestress losses in prestressed concrete girders. *Applied Sciences* 10 (20) (2020) art. ID 7257.
10. **M. Bonopera**, K.C. Chang, T.K. Lin, N. Tullini. Influence of prestressing on the behavior of uncracked concrete beams with a parabolic bonded tendon. *Structural Engineering and Mechanics* 77 (1) (2021) 1–17.
11. **M. Bonopera**, K.C. Chang, Y.C. Ou. Overview on the prestress loss evaluation in concrete beams. *Bridge Maintenance, Safety, Management, Life-Cycle Sustainability and Innovations - Proceedings of the 10th International Conference on Bridge Maintenance, Safety and Management, IABMAS 2020* (2021) 117–122.
12. **M. Bonopera**, K.C. Chang. Elastic modulus of prestressed and reinforced concrete beams in Taiwan under dynamic flexural loading. *Journal of the Chinese Institute of Civil and Hydraulic Engineering* 33 (2) (2021) 83–92.
13. **M. Bonopera**, K.C. Chang. Novel method for identifying residual prestress force in simply supported concrete girder-bridges. *Advances in Structural Engineering* 24 (14) (2021) 3238–3251.
14. **M. Bonopera**, W.C. Liao, W. Perceka. Experimental-theoretical investigation of the short-term vibration response of uncracked prestressed concrete members under long-age conditions. *Structures* 35 (2022) 260–273.
15. **M. Bonopera**. Fiber-Bragg-grating-based displacement sensors: Review of recent advances. *Materials* 15 (16) (2022) art. ID 5561.
16. Z.K. Lee, **M. Bonopera**, C.C. Hsu, B.H. Lee, F.Y. Yeh. Long-term deflection monitoring of a box girder bridge with an optical-fiber, liquid-level system. *Structures* 44 (2022) 904–919.
17. **M. Bonopera**, K.C. Chang, N. Tullini. Compression-softening effect in prestressed beams: Experimental-finite-element vibration analysis of post-tensioned thin-walled steel-box-girders. *Journal of Constructional Steel Research*. *In peer-review*.
18. W. Perceka, W.C. Liao, **M. Bonopera**. Force-deformation relationship model of steel fiber reinforced concrete columns. *In writing*.
19. **M. Bonopera**, K.C. Chang. Influence of static loading-interaction on the modal parameters of concrete cantilever-bridges. Part I: Laboratory tests. *In writing*.
20. **M. Bonopera**, K.C. Chang. Influence of static loading-interaction on the modal parameters of concrete cantilever-bridges. Part II: Numerical analyses. *In writing*.

#### CONFERENCE PUBLICATIONS

1. P. Fan, **M. Bonopera**, K.C. Chang, C.C. Chen (2015). Axial load identification of a slender pre-stressed concrete beam. The 6th Conference of the Four Districts of Cross-Straits on Monitoring and Control in Civil Engineering, Xiamen, People's Republic of China.
2. C.C. Chen, K.C. Chang, P. Fan, **M. Bonopera**, Z.K. Lee, N. Tullini (2016). Applying the deflection measurement technology to identify the prestress force of beams. The 13th National Conference on Structural Engineering/The 3rd National Conference on Earthquake Engineering, Taoyuan, Taiwan.
3. **M. Bonopera**, N. Tullini, C.C. Chen, T.K. Lin, K.C. Chang (2015). Identification of the pre-stress force in bridge beams using their first natural frequency. The 1st Association of Computational Mechanics Taiwan (ACMT) Conference, Taipei, Taiwan.
4. **M. Bonopera**, K.C. Chang, C.C. Chen, Y.C. Sung, N. Tullini (2016). Prestress loss detection in concrete beams using fiber Bragg grating-differential settlement measurement technology. The 2nd Association of Computational Mechanics Taiwan Conference, Taipei, Taiwan.
5. H.C. Wei, **M. Bonopera**, K.C. Chang, C.C. Chen, N. Tullini (2016). Monitoring on prestress load in PCI beam-type bridge using non-destructive testing methods. The 29th KKHTCNN Symposium on Civil Engineering, Hong Kong, China.
6. K.C. Chang, C.C. Chen, **M. Bonopera**, Y.C. Sung, H.C. Wei, P. Fan (2017). Feasibility study on prestress force identification in beams using deflected shape measurements. The 10th Taiwan Japan Workshop on Structural and Bridge Engineering, Kyoto, Japan.

7. **M. Bonopera**, K.C. Chang, C.C. Chen, Y.C. Sung, W.I. Liao, N. Tullini (2017). Deflection-based measuring method for the prestress force prediction in concrete members. The 6th International Conference of Euro Asia Civil Engineering Forum (EACEF), Seoul, Korea.
8. **M. Bonopera**, K.C. Chang, C.C. Chen, T.K. Lin, Y.C. Sung, N. Tullini (2017). Second-order beam theory-based methods for the structural health monitoring of civil structures. The 3rd Association of Computational Mechanics Taiwan (ACTM) Conference, Tainan, Taiwan.
9. **M. Bonopera**, K.C. Chang, C.C. Chen, Y.C. Sung, N. Tullini (2017). Influence of prestress force on the fundamental frequency of concrete beams with straight unbonded tendons. The 30th KKHTCNN Symposium on Civil Engineering, Taipei, Taiwan.
10. B.H. Lee, C.C. Chen, **M. Bonopera**, Y.C. Sung, K.C. Chang. Experimental study of loading combinations on modal parameters of pre-stressed concrete beams. The 2017 World Congress on Advances in Structural Engineering and Mechanics, ASEM17, Daejeon, Korea (2017).
11. **M. Bonopera**, K.C. Chang, C.C. Chen, B.H. Lee, Y.C. Sung, N. Tullini. Integration of in lab experiments and numerical modeling in a short-term safety evaluation system for beam-type bridges. The 7th International Conference on Advances in Experimental Structural Engineering, Pavia, Italy (2017).
12. K.C. Chang, **M. Bonopera**, C.C. Chen, Y.C. Sung, N. Tullini (2018). Feasibility study of estimating PCI beam stiffness using free vibration testing. The 11th Taiwan-Japan Workshop on Structural and Bridge Engineering, Taipei, Taiwan.
13. **M. Bonopera**, K.C. Chang, C.C. Chen, Y.C. Sung (2018). Experimental study on the prestress force prediction in concrete beams with a parabolic tendon. The National Center for Research on Earthquake Engineering, Experimental Results in 2018, Taipei, Taiwan, July 16.
14. **M. Bonopera**, K.C. Chang, Z.K. Lee, Y.C. Sung, N. Tullini (2018). Bridge displacement monitoring based on fiber Bragg grating-differential settlement measurement sensors. The 42nd National Conference on Theoretical and Applied Mechanics, Taipei, Taiwan, November 23-24.
15. A. Saddek, **M. Bonopera**, T.K. Lin, Y.Q. Lin (2018). Prestress force prediction in concrete bridge beams with a parabolic tendon using compression-softening theory. The 42nd National Conference on Theoretical and Applied Mechanics, Taipei, Taiwan, November 23-24.
16. **M. Bonopera**, K.C. Chang, N. Tullini (2019). Bending tests to estimate the axial force in steel bridge members. The 12th Taiwan-Japan Workshop on Structural and Bridge Engineering, Kyoto, Japan, April 2-3.
17. **M. Bonopera**, K.C. Chang, C.C. Chen (2019). Review on prestress loss evaluation in concrete beams. The International Conference in Commemoration of 20th Anniversary of the 1999 Chi-Chi Earthquake, Taipei, Taiwan, September 15-19.
18. W.T. Chang, **M. Bonopera**. Preliminary study of internal impact on metal silo for granular solids under seismic loading. The 16th East Asia-Pacific Conference on Structural Engineering & Construction, EASEC16, Queensland, Australia (2019).
19. **M. Bonopera**, K.C. Chang, C.C. Chen, Z.K. Lee (2019). An investigation into the "compression-softening" effect in post-tensioned steel beams. The Asian Pacific Congress on Computational Mechanics (APCOM 2019), Taipei, Taiwan, Dec 18-20.
20. Z.K. Lee, **M. Bonopera**, C.C. Hsu, S.B. Chiou (2020). Health monitoring on a repaired earthquake damaged bridge by optic fiber differential settlement sensors. The Fifteenth National Conference on Structural Engineering/The Fifth National Conference on Earthquake Engineering, Tainan, Taiwan, Sep 2-4.
21. **M. Bonopera**, K.C. Chang, C.C. Chen (2020). An investigation into the dynamic and static response of an uncracked prestressed concrete bridge member in Taiwan. The Fifteenth National Conference on Structural Engineering/The Fifth National Conference on Earthquake Engineering, Tainan, Taiwan, Sep 2-4.
22. **M. Bonopera**, W. Perceka (2022). Long-term laboratory investigation for structural assessment of concrete cantilever-bridges. The 46th National Conference on Theoretical and Applied Mechanics, Kaohsiung, Taiwan, November 18-19.
23. W. Perceka, W.C. Liao, **M. Bonopera** (2022). Numerical simulation of high strength steel fiber reinforced concrete columns under axial concentric loads. The 46th National Conference on Theoretical and Applied Mechanics, Kaohsiung, Taiwan, November 18-19.

#### TECHNICAL REPORTS

- **M. Bonopera**. Static methods for the axial load estimations in truss bridges. Technical reports of the National Center for Research on Earthquake Engineering (2021). NCREE-2021-011.
- **M. Bonopera**, K.C. Chang. Feasibility study of prestress force estimation in concrete beams using second-order displacements. Technical reports of the National Center for Research on Earthquake Engineering (2021). NCREE-2021-009. In Chinese.

#### Ph.D. THESIS

- **M. Bonopera**. Axial load identifications in space frame systems. Ph.D. Thesis, University of Ferrara (2016).

#### PATENTS/TECHNOLOGY TRANSFERS

- 2021: Inventor: **M. Bonopera**. Co-inventors: K.C. Chang, C.C. Chou. **Method for identifying prestress force in single-span or multi-span PCI girder-bridges**. US Patent No.: US 63/257,315. Institution: National Applied Research Laboratories (No.: NCREP25US).

- **2021:** Inventor: **M. Bonopera**. Co-inventors: K.C. Chang, C.C. Chou. **Method for identifying prestress force in single-span or multi-span PCI girder-bridges**. Taiwan Patent No.: **NCRE-I25-TW**. Institution: National Applied Research Laboratories (No.: 110149662).

#### **REVIEWER for JOURNALS**

- Advances in Science, Technology and Engineering Systems Journal
- Advances in Structural Engineering, SAGE
- Applied Mechanics, MDPI
- Applied Sciences, MDPI
- Buildings, MDPI
- Crystals, MDPI
- Energies, MDPI
- Engineering Proceedings, MDPI
- Engineering Structures, Elsevier
- Entropy, MDPI
- Environmental Science and Pollution Research, Springer
- Fractal and Fractional, MDPI
- Frontiers in Built Environment, Earthquake Engineering
- Institute of Electrical and Electronics Engineers (IEEE) Sensors Journal
- Indian Journal of Science and Technology
- Infrastructures, MDPI
- International Review of Civil Engineering
- Journal of Composites Science, MDPI
- Journal of Modern Civil Engineering
- Journal of Structural Engineering, ASCE
- Materials, MDPI
- Polymers, MDPI
- Sensors, MDPI
- Shock and Vibration, Hindawi Publishing Corporation
- Structural Monitoring and Maintenance, Techno-Press
- Sustainability, MDPI
- Symmetry, MDPI

#### **REVIEWER for CONFERENCES & WORKSHOPS**

- The 2nd International Workshop on Materials Science and Mechanical Engineering (IWMSME 2018), Qingdao, Shandong Province, China, October 26-28, 2018. Scopus indexation.
- The 3rd International Workshop on Materials Science and Mechanical Engineering (IWMSME 2020), Hangzhou, China, April 18-20, 2020. Scopus indexation.
- IEEE - International Conference on Electrical, Computer and Energy Technologies (ICECET), Cape Town, South Africa, December 9-10, 2021. Scopus indexation.
- The International Conference on Electrical, Computer, Communications and Mechatronics Engineering (ICECCME 2022), Maldives, November 16-18, 2022. Scopus indexation.
- The International Conference on Electrical, Computer, and Energy Technologies (ICECET 2022), Prague, Czech Republic, July 20-22, 2022. Scopus indexation.

#### **REFeree for STUDENT COMPETITIONS**

- **2019:** Asia-Pacific Mechanics Contest for College Students. The Society of Theoretical and Applied Mechanics of the Republic of China (STAM). Department of Civil Engineering, National Yang Ming Chiao Tung University, Taiwan.

#### **CO-SUPERVISOR of M.S. GRADUATE STUDENT THESIS**

- **2019:** Hermawan Sutejo (Master Student, Civil Eng., National Taiwan University).
- **2018:** Ahmed Saddek (Master Student, Civil Eng., National Yang Ming Chiao Tung University).
- **2017:** Hsing-Chih Wei (Master Student, Civil Eng., National Taiwan University).
- **2016:** Peng Fan (Master Student, Civil Eng., National Taiwan University).

#### **RESEARCH PROJECTS**

- **October 2020~September 2022:** Project Head Institution: **Directorate General of Highways, Ministry Of Transportation and Communications (MOTC) of Taiwan**. Project No.: **1091B1004-01**. Project Name: **Real-time health-monitoring of “Yun-An Bridge”, Taiwan**. Institution: National Center for Research on Earthquake Engineering. **Co-investigator**.
- **2021/10/1~2022/9/30:** Project Head Institution: **National Center for Research on Earthquake Engineering**. Project No.: **MOST 110-2811-E-492-500**. Project Name: Research and development of



structural seismic technologies. Sub-project 1.3: **Research and development of bridge seismic resistance and life extension technologies. Co-investigator.**

- **2020/10/1~2021/9/30:** Project Head Institution: **National Center for Research on Earthquake Engineering.** Project No.: **MOST 109-2811-E-492-500.** Project Name: Research and development of structural seismic technologies. Sub-project 1.3: **Research and development of bridge seismic resistance and life extension technologies. Co-investigator.**
- **2019/10/1~2020/9/30:** Project Head Institution: **National Center for Research on Earthquake Engineering.** Project No.: **MOST 108-2811-E-492-001.** Project Name: Research and development of structural seismic technologies. Sub-project 1.3: **Research and development of bridge seismic resistance and life extension technologies. Co-investigator.**
- **2018/10/1~2019/9/30:** Project Head Institution: **National Center for Research on Earthquake Engineering.** Project No.: **MOST 107-2811-E-492-001.** Project Name: Research and development of structural seismic technologies. Sub-project 1.3: **Research and development of bridge seismic resistance and life extension technologies. Co-investigator.**
- **2017/10/1~2018/9/30:** Project Head Institution: **National Center for Research on Earthquake Engineering.** Project No.: **MOST 106-2811-E-492-001.** Project Name: Research and development of structural seismic technologies. Sub-project 1.3: **Research and development of bridge seismic resistance and life extension technologies. Co-investigator.**
- **2016/8/1~2017/7/31:** Project Head Institution: **National Center for Research on Earthquake Engineering.** Project No.: **MOST 105-2811-E-492-001.** Project Name: Research and development of structural seismic technologies. Sub-project 1.3: **Research and development of bridge seismic resistance and life extension technologies. Co-investigator.**
- **2016 ~ 2019:** Project Head Institutions: **CECI Engineering Consultants, Inc. - National Taiwan University, Department of Civil Engineering.** Project No.: **07923.** Project Name: Development and Application of a Methodology for the Axial/Prestressing Force Detection in Compressed/Prestressed Members. **Co-investigator.**

2022.11.9

*Marco Bonopera, Ph.D.*