

## Curriculum Vitae

**CHRISTOS G. KARAYANNIS , PROFESSOR**

**DEAN**

**SCHOOL OF ENGINEERING**

**DEMOCRITUS UNIVERSITY OF THRACE**

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## **1. GENERAL data - ACADEMIC POSITIONS**

- Date of birth : Sept. 29th,1958 - Married to Fani Ereiliadou with 3 children
- **1981 Diploma from the School of Civil Engineering** of National Technical University of Athens (NTUA).
  - ▶ Graduated at the first (1st) position in the list of excellence of the (more than) 250 graduates of the year 1980-81.
- **Award Ch. Chrisovergi by National Technical University of Athens (NTUA)** for the Diploma with the *highest grade for the academic year 1980-81* from the School of Civil Engineering of National Technical University of Athens (NTUA).
- **1984 Ph.D.** in Civil Engineering from Civil Engineering Dept. of Democritus University of Thrace (DUTH).
- **1986 - 1990 Lecturer** at Civil Engineering Dept. of DUTH.
- **1990 - 1995 Assistant Professor.**
- **1992-93 Academic Visitor** at the Civil Engineering Department of *Imperial College UK*, Engineering Seismology & Earthquake Engineering (ESEE).
- **1995-2001 Associate Professor**

- **2001- current Professor** at Civil Engineering Dept. of DUTH.
- **1997-2003 Director of the Laboratory** of Reinforced Concrete of DUTH.
- **1998-2009 Director of the Post-Graduate Course:**  
*"New Materials and Technologies for the Design of Reinforced Concrete Structures"*  
 It has been the first **Post-Graduate course of Civil Engineering Dept. of DUTH**. The course was established and funded as research project proposed by C.G. Karayannis in 1998).
- 2005-2009 Director of Laboratory of Building Materials of DUTH.
- 2004-2009 Chairman of the University Technical Council of DUTH.
- **2008-2010 Head of Civil Engineering Department** of DUTH.
- **2010-2012 Associate Head** of Civil Engineering Department of DUTH.
- **2013 Jan. - 2015 Dec. Head of Civil Engineering Department** of DUTH.
- **2016 Jan. - current DEAN of the School of Engineering, DUTH.**

**Author or co-Author of more than 180** papers in refereed Journals and Conferences. Citations more than 1200 (International and Greek).

*Citations in SCOPUS: 950 , h-factor in SCOPUS: 18*

- Member of the Technical Chamber of Greece since 1981
- Member of the American Society of Civil Engineers (ASCE)
- Member of the American Concrete Institute (ACI)
- Member of the New Zealand National Society for Earthquake Engineering

## **2. RESEARCH FIELDS**

- Seismic behavior and design of Reinforced Concrete Structures
- Analysis and Design of Reinforced Concrete Structures
- Beam-Column Joints, behavior and reinforcement techniques
- Pre-seismic assessment and Damaged structure seismic assessment
- Repair and Reinforcement techniques of Reinforced Concrete Structures
- Torsion of Reinforced Concrete
- Prestressed Concrete design

## **3. TEACHING EXPERIENCE** at Democritus University of Thrace (DUTH)

### **- Undergraduate (U) Level**

- (1) Reinforced Concrete Design 1A, *Fall Semester (7th Semester)*  
 For more than **20 years** (U)

- (2) Prestressed Concrete, *Fall Semester (9th Semester)*  
For more than **25 years**. (U)
- (3) Reinforced Concrete Design - Design for Seismic Actions, *Fall Semester (9th Semester)*  
For more than **25 years**. (U)
- (4) Reinforced Concrete Laboratory Issues, *Spring Semester (8th Semester)*  
For more than **10 years**. (U)

**- Post Graduate (PG) Level**

- (5) New Concepts and new materials in the Design of Reinforced Concrete Structures,  
**From 1999 - current**. (PG)
- (6) Assessment and Repair Techniques for Reinforced Concrete Structures,  
**From 1999 - current**. (PG)

#### **4. UNIVERSITY BOOKS**

- C.G. Karayannis** "*Design and Behavior of Reinforced Concrete Structures for Seismic Actions*", editions SOFIA, 2nd Edition, 623 pages, Thessaloniki, 2016 (in Greek).
- C.G. Karayannis "*Design of Prestressed Concrete Structures*", editions SOFIA, 406 pages, Thessaloniki, 2015 (in Greek).
- C.G. Karayannis "*Design and Behavior of Reinforced Concrete Structures for Seismic Actions*", editions SOFIA, 577 pages, Thessaloniki, 2013 (in Greek).
- C. Ekonomou, **C.G. Karayannis** "*Prestressed Concrete - Applications*", SELKA 4M, 295 pages, Athens, 2007 (in Greek).
- C.G. Karayannis** "*Design of Reinforced Concrete Structures for Seismic Actions*", DUTH publication, 390 pages, Xanthi, 2005 (in Greek).
- C. Ekonomou, **C.G. Karayannis** "*Reinforced Concrete-Brief Theory-Applications*", DUTH publication, 208 pages, Xanthi, 1999 (in Greek).

#### **5. Ph.D. SUPERVISED (at DUTH):**

- 1999, K. Chalioris, PhD thesis: "*Investigation of the Behavior and failure Mechanisms of concrete and reinforced concrete elements under prevailing Torsion*", Dr. Chalioris is now Associate Professor - Civil Engineering Department DUTH.
- 2006, M. Favvata, PhD thesis: "*Investigation of the Seismic Behavior and Capacity of multistory RC Structures. Special model for Joints. Interaction of Structures*".
- 2008, G. Sirkelis, PhD thesis: "*Special Techniques for the Repairing of Joints after seismic excitation. Experimental Investigation. Failure Mechanisms*".
- 2008, D. Kakaletsis, PhD thesis: "*Investigation of the behavior of RC rectangular infilled frames with openings under horizontal cyclic loading*" , Dr. Kakaletsis is now Professor - Civil Engineering Department, Technological Educational Institution of Serres, Greece.
- Supervisor of 2 more PhDs (not completed yet).

## 6. Graduate Theses & Post-Graduate Theses SUPERVISED (at DUTH):

- Supervisor of more than **200 Graduate Theses**
- Supervisor of more than **40 Post-Graduate Theses**

## 7. REVIEWER in International Scientific Journals

- ACI Structural Journal
- ASCE Journal Structural Engineering
- ASCE Journal Composite Structures
- Journal of Earthquake Engineering (JEE)
- Journal of Structural Engineering and Mechanics (SEM)
- Journal Earthquake Engineering and Structural Dynamics (EESD)
- Journal of Engineering Structures
- Journal of Composites for Construction
- Arabian Journal for Science and Engineering
- Journal of Structures (editor)
- Technical Chronicles, Scientific Edition, Technical Chamber of Greece

Also Reviewer in the Greek National Conferences for Concrete and in many National and International Conferences

## **8. TECHNICAL PUBLICATIONS**

Author or co-author in more than **180 papers**

in refereed **Journals** and **International** and **National** Conferences

The **h-factor** of SCOPUS is **18**.

### **A. Papers in Scientific Refereed JOURNALS selection of 40 papers (appr.)**

- **C.G. Karayannis**, P.G. Papadopoulos, "*Examination of two Truss Models for the Seismic Analysis of Reinforced Concrete Frames*", [Journal "Zeitschrift fur Angewandte Mathematik und Mechanik \(ZAMM\)"](#), Vol. 68, No. 12, pp. 632-642, 1988.
- P.G. Papadopoulos, **C.G. Karayannis**, "*Seismic Analysis of Reinforced Concrete Frames by Network Models*", [Journal "Computers & Structures"](#), Vol. 28, No. 4, pp. 481-494, 1988.

- **C.G. Karayannis**, J.V. Soulis, "A Numerical Method for Torsional Analysis of Structural Elements", [Journal "Computers & Structures"](#), Vol. 36, No. 4, pp. 755-768, 1990.
- B.A. Izzuddin, **C.G. Karayannis**, A.S. Elnashai, "Advanced Nonlinear Formulation for Reinforced Concrete Beam-Column", [Journal "Structural Engineering ASCE"](#), Vol. 120, No. 10, pp. 2913-2929, Oct. 1994.
- **C.G. Karayannis**, B.A. Izzuddin, A.S. Elnashai, "Application of Adaptive Analysis to Reinforced Concrete Frames", [Journal "Structural Engineering ASCE"](#), Vol. 120, No. 10, pp. 2935-2957, Oct. 1994.
- **C.G. Karayannis**, C. Ekonomou, K. Sideris, "Behavior of repaired RC Beams tested in cyclic flexural loading", "Technical Chronicles", (Scientific Edition I) Technical Chamber of Greece, Vol. 14, (Issue 3), pp. 85-103, 1994 (in Greek).
- **C.G. Karayannis**, "Torsional Analysis of Flanged Concrete Elements with Tension Softening", [Journal "Computers & Structures"](#), Vol. 54, No. 1, pp. 97-110, 1995.
- **C.G. Karayannis**, "Torsional Damage of Concrete Beams with Softening Behaviour", [Journal "Theoretical and Applied Fracture Mechanics"](#), Vol. 22, No. 1, pp. 63-70, 1995.
- **C.G. Karayannis**, "Numerical Approach to Steel Fibre Reinforced Concrete under Torsion", [Journal "Structural Engineering Review" \(Incorporated in the Journal "Engineering Structures"\)](#), Vol. 7, No. 2, pp.83-91, 1995.
- **C.G. Karayannis**, C.E. Chalioris, K.K. Sideris, "Effectiveness of RC Beam-Column Connection Repair using Epoxy Resin Injections", ["Journal of Earthquake Engineering"](#), Vol. 2, No. 2, pp. 217-240, 1998.
- **C.G. Karayannis**, C.E. Chalioris, "Repair of RC members with resin injections", *Scientific Review KTIRIO*, Vol. C, pp. 31-38, 1998 (in Greek).
- M. Konsta-Gdoutos, **C.G. Karayannis**, "Flexural Behaviour of Concrete Beams Reinforced with FRP Bars", [Journal "Advanced Composites Letters"](#), Vol. 7, No. 5, pp. 133-138, 1998.
- **C.G. Karayannis**, M. Fotopoulou, I. Christoforidis, "Behavior factors of RC Structures designed to Greek regulations NEAK/95 and EC8/94", *Technical Chronicles*, (Scientific Edition I) Technical Chamber of Greece, Vol. 18, Issue 2, pp. 57-73, 1998 (in Greek).
- **C.G. Karayannis**, C.E. Chalioris, "Experimental Investigation of the behavior of fiber-concrete in direct tension", *Scientific Review KTIRIO*, Vol. A, pp. 45-54, 2000 (in Greek).
- **C.G. Karayannis**, "Analysis and Experimental Study for Steel Fiber Pullout from Cementitious Matrices", [Journal "Advanced Composites Letters"](#), Vol. 9, No. 4, pp. 243-256, 2000.
- **C.G. Karayannis**, "Nonlinear Analysis and Tests of Steel-fiber Concrete Beams in Torsion", [Journal "Structural Engineering and Mechanics"](#), Vol. 9, No. 5, pp. 323-338, 2000.

- **C.G. Karayannis**, C.E. Chalioris, "*Influence of steel-fibers on the capacity of RC T-beams under torsion*", " *Technical Chronicles* ", (Scientific Edition I) Technical Chamber of Greece, Vol. 142, pp.11-122, 2000 (in Greek).
- **C.G. Karayannis**, "*A Smearred Crack Analysis for Concrete in Torsion*", [Journal "Structural Engineering ASCE"](#) Vol. 126, No. 6, pp. 638-645, 2000.
- **C.G. Karayannis**, C.E. Chalioris, "*Experimental Validation of a Smearred Analysis for Concrete in Torsion*", [Journal "Structural Engineering ASCE"](#) Vol. 126, No. 6, pp. 645-652, 2000.
- **C.G. Karayannis**, C.E. Chalioris, "*Capacity of RC Joints Suffered Early-age Cyclic Loading*" [Journal of Earthquake Engineering](#), Vol. 4, No. 4, pp. 479-510, 2000.
- **C.G. Karayannis**, C.E. Chalioris, "*Strength of Prestressed Concrete Beams in Torsion*", [Journal "Structural Engineering and Mechanics"](#), Vol. 10, No. 2, pp. 165-180, 2000.
- **C.G. Karayannis**, "*Experimental Investigation of the influence of loading during the early age on the seismic capacity of RC joints*", *Scientific Review KTIRIO*, Vol. A, pp. A, pp. 31-40, 2001 (in Greek).
- **C.G. Karayannis**, G. Sirkelis, "*Experimental Investigation of the use of spiral reinforcement in RC joints*", *Scientific Review KTIRIO*, Vol. A- B, pp. 95-104, 2004(in Greek).
- **C.G. Karayannis** et al, "*Repair and Strengthening of external RC joints applying light jacketing and resin*", *Technical Chronicles*, Technical Chamber of Greece, bi-monthly ed., Nov.-Dec., Vol. 6, 2004 (in Greek).
- **C.G. Karayannis** et al, "*Earthquake induced interaction between adjacent Reinforced Concrete structures with non-equal heights*", [Journal Earthquake Engineering and Structural Dynamics](#), Vol. 34, pp. 1-20, 2005.
- **C.G. Karayannis** et al "*Inter – story Pounding between Multistory Reinforced Concrete Structures*", [Journal "Structural Engineering and Mechanics"](#), Vol. 20, No 5, pp. 505-526, 2005.
- D. Kakaletsis, **C. G. Karayannis**, "*Experimental investigation of infilled r/c frames with eccentric openings*", [Journal "Structural Engineering and Mechanics"](#), Vol. 26, No 3, pp. 231-250, 2007.
- D.J. Kakaletsis, **C.G. Karayannis**, "*Influence of masonry strength and openings on infilled R/C frames under cycling loading*", [Journal of Earthquake Engineering](#), Vol. 12, No. 2, pp. 197-221, 2008.
- **C.G. Karayannis** et al (3), "*Local retrofit of exterior RC beam – column joints using thin RC jackets – An experimental study*", [Journal Earthquake Engineering and Structural Dynamics](#), Vol. 37, pp. 727-746, 2008.
- **C.G. Karayannis**, G.M. Sirkelis, "*Strengthening and rehabilitation of RC beam – column joints using carbon – FRP jacketing and epoxy resin injection*", [Journal Earthquake Engineering and Structural Dynamics](#), Vol. 37, pp. 769-790, 2008.

- ..., **C.G. Karayannis** (3) “Reinforced concrete beam – column joints with crossed inclined bars under cyclic deformations”, [Journal Earthquake Engineering and Structural Dynamics](#), Vol. 37, pp. 881-897, 2008.
- ....., **C.G. Karayannis** (3) “Modelling exterior beam – column joints for seismic analysis of RC frame structures”, [Journal Earthquake Engineering and Structural Dynamics](#), Vol. 37, pp. 1527-1548, 2008.
- D. Kakaletsis, **C.G. Karayannis**, "Experimental Investigation of Infilled reinforced Concrete Frames with Openings", [ACI Structural Journal](#), Vol. 106, No 2, pp. 132-141, March/April 2009.
- C.E. Chalioris, **C.G. Karayannis**, “Effectiveness of the use of steel fibres on the Torsional behavior of Flanged Concrete Beams”, [Journal Cement and Concrete Composites](#), Vol. 31, No.6, pp. 331-341, 2009.
- **C.G. Karayannis**, et al (3), “Seismic behaviour of infilled and pilotis RC frame structures with beam–column joint degradation effect”, [Journal Engineering Structures](#), Vol. 33, No.6, pp. 2821-2831, 2011.
- D.J. Kakaletsis, **C.G. Karayannis**, G.K. Panagopoulos “Effectiveness of rectangular Spiral Shear Reinforcement on Infilled R/C Frames Under Cyclic Loading”, [Journal of Earthquake Engineering](#), Vol. 15, pp. 1178-1193, 2011.
- **C.G. Karayannis**, C.E. Chalioris, “Design of partially prestressed concrete beams on the cracking control provisions”, [Journal Engineering Structures](#), Vol. 48, pp. 402-416, 2013.
- C.E. Chalioris, **C.G. Karayannis** “Experimental Investigation of RC beams with rectangular spiral reinforcement in Torsion”, [Journal Engineering Structures](#), Vol. 56, pp. 286-297, 2013.
- **C.G. Karayannis**, C.E. Chalioris, “Shear tests of reinforced concrete beams with continuous rectangular spiral reinforcement”, [Journal Construction and Building Material](#), Vol. 46, pp. 86-97, 2013.
- C. Providakis, **C.C. Karayannis**, ... (6), “Usage of PZTs for Damage Evaluation of Steel Reinforcing Bar”, [Scholar Journal of Engineering and Technology](#), Vol.-3, Issue 1B, pp. 80-93, Dec-Jan 2015.
- **C.E. Karayannis**, et al (5), “Detection of flexural damage stages for RC beams using Piezoelectric sensors (PZT) ”, [Journal Smart Structures and Systems](#), Vol. 15, Issue 4, pp. 997-1018, April 2015.
- **C.G. Karayannis**, et al (6), “Experimental Damage Evaluation of Reinforced Concrete Steel Bars using Piezoelectric Sensors”, [Journal Construction and Building Material](#), Vol. 105, pp. 227-244, 2016.

## **B. Papers in Proceedings of [INTERNATIONAL CONFERENCES](#)**

**Selection of 40 papers (appr.)**

- P.G. Papadopoulos, **C.G. Karayannis**, "A model for Seismic Analysis of Pilotis Buildings", 2nd Intern. Conf. "Computer Aided Analysis and Design of Concrete

**Structures"**, Zell am See, 1990, Proceedings Edited by N. Bicanic & H. Mang, Pineridge Press, Vol. 2, pp. 1189-1200, 1990.

- A. Karabinis, **C.G. Karayannis**, "*Damage Repairing Influence on the Seismic Behaviour of RC Buildings Dynamic Characteristics*", **1st Alexandria Conf. on Structural and Geotechnical Engineering**, Alexandria, Proc. Vol. II, pp. 885-894, 1990.

- **C.G. Karayannis**, A. Karabinis, "*Analytical Evaluation of Damage Repairing Influence on the Seismic Behaviour of RC Buildings*", **1st Alexandria Conf. on Structural and Geotechnical Engineering**, Alexandria, Proc. Vol. II, pp. 945-957, 1990.

- **Χρ. Καργιάννης**, "*A Model for the Torsion of Plain and Steel Fiber-Reinforced Concrete Elements*", **Intern. Conf. EURO-C 1994 "Computational Modeling of Concrete Structures"**, Innsbruck, Proceedings Pineridge Press, pp. 735-744, 1994.

- P.G. Papadopoulos, **C.G. Karayannis**, "*Nonlinear Seismic Analysis of Infilled Plane Reinforced Concrete Frames*", **10th European Conference on Earthquake Engineering**, Vienna, Proceedings editor G. Duma, Balkema, pp. 1333-1338, Aug. 1994.

- **C.G. Karayannis**, "*A Model with Tension Softening for Concrete Beams under Combined Torsion, Flexure, Shear and Prestressing*", **2nd Intern. Conf. on Computational Structures Technology**, Proceedings Vol. "*Advances in Finite Elements Techniques*", Civil-Comp. Press, pp. 161-167, Aug. 1994.

- K.K. Sideris, K.D. Baltzopoulou, **C.G. Karayannis**, "*A Proposal for the Evaluation of Concrete Strength using Ultrasonics*", **First Joint Belgian - Hellenic Conference on Non - Destructive Testing**, Patras, Proc. pp. 259-265, May 1995.

- **C.G. Karayannis**, K.K. Sideris, C.M. Economou, "*Response of Repaired RC exterior joints under cyclic loading*", **5th SECED Conference "European Seismic Design Practice - Research & Application"**, Chester UK, Proceedings editor A.S. Elnashai, Balkema, pp. 285-292, Oct. 1995.

- K.K. Sideris, M.S. Konsta, **C.G. Karayannis**, "*Application of the Cement Hydration Equation to Concrete*", **Intern. Conf. "Concrete in the Service of Mankind"**, Dundee UK, Proc. Vol. "*Appropriate Concrete Technology*", pp. 343-349, June 1996.

- **C.G. Karayannis**, M.G. Fotopoulou, "*Pounding of multistory RC Structures designed to EC8 & EC2*", **11th European Conference on Earthquake Engineering**, Paris, Proceedings in CD form, Balkema, TS1, 1998.

- C.M. Economou, C.Prinou, C.E. Chalioris, **C.G. Karayannis**, "*Capacity decrease of RC joints due to seismic actions in the Curing Period*", **11th European Conference on Earthquake Engineering**, Paris, Proceedings in CD form, Balkema, T2, 1998.

- M. Konsta-Gdoutos, **C.G. Karayannis**, "*Bending of Concrete Beams Reinforced with FRP Bars*", **Society of Experimental Mechanics (SEM) Annual Conference on "Theoretical, Experimental and Computational Mechanics"**, Cincinnati Ohio USA, Proc. pp. 499-502, June 1999.

- C.M. Economou, **C.G. Karayannis**, "*A smeared crack model for the torsional behaviour of concrete*", **G Penelis International Symposium on Concrete and Masonry Structures**, Thessaloniki, Πρακτ. σελ. 119-130, Oct. 2000.



- **C.G. Karayannis**, C.E. Chalioris, "*Smearred Crack Model for Plain in Torsion and Experimental Validation*", **Invited Paper, ACI - ASCE 445, Shear and Torsion Committee, Toronto Convention "Torsion of Structural Concrete: Recent Advances"**, Toronto, Οκτώβριος, 2000.
- **C.G. Karayannis**, G.M.Sirkelis, "*Effectiveness of RC Beam-Column Connections Strengthening Using Carbon-FRP Jackets*", **12th European Conference on Earthquake Engineering (12ECEE)**, Proc. in CD form, Paper Ref.549, London, UK, 2002.
- **C.G. Karayannis**, C.E. Chalioris, "*Strengthening of Shear T-beams using Carbon FRP*", Proceedings of the **1st International Conference on Concrete Repair, St-Malo, Brittany, France**, Vol. 2, pp. 775-782, July 2003.
- **C.G. Karayannis**, G.M. Sirkelis, C.E. Chalioris, "*Repair of Reinforced Concrete T-beam – Column Joints using Epoxy Resin Injections*", Proceedings of the **1st International Conference on Concrete Repair, St-Malo, Brittany, France**, Vol. 2, pp. 793-800, July 2003.
- **C.G. Karayannis**, C.E. Chalioris, "*Experimental Investigation of the Contribution of Bonded C-FRP jackets to Shear Capacity of RC Beams*", Proceedings of the **International Symposia "Celebrating Concrete: People and Practice"**, University of Dundee, Scotland, UK, Vol. Role of Concrete in Sustainable Development, pp. 689-696, Sept. 2003.
- **C.G. Karayannis**, C.E. Chalioris, "*Cyclic Testing of RC Connections in the Concrete Curing Period: Influence on the Final Capacity*", Proceedings of the **International Symposia "Celebrating Concrete: People and Practice"**, University of Dundee, Scotland, UK, Vol. Role of Concrete in Sustainable Development, pp. 319-328, Sept. 2003.
- **C.G. Karayannis**, C.E. Chalioris, "*Torsion of Prestressed Concrete and Steel-Fiber Concrete Members*" **Invited Paper, ACI-445E Torsion of Structural Concrete Committee, Structural Engineering Institute (SEI) of the ASCE "Structures Congress & Exposition"**, Nashville, Tennessee, USA, May 2004.
- **C. Karayannis**, G. Sirkelis, P.Mavroeidis, "*Improvement of seismic capacity of external beam-column joints using continuous spiral shear reinforcement*", **5th Conference on "Earthquake Resistant Engineering Structures" (ERES 2005)**, Skiathos, Greece, WIT press, pp. 147-156, 2005.
- **C. Karayannis**, et al (3), "*Behaviour of bare and masonry infilled R/C frames under cyclic loading*", Proceedings of the **5th Conference on "Earthquake Resistant Engineering Structures" (ERES 2005)**, Skiathos, Greece, WIT press, pp. 429-438, 2005.
- **C. Karayannis**, G. Sirkelis, "*Response of columns and joints with spiral shear reinforcement*", Proceedings of the **12th International Conference on**

“**Computational Methods and Experimental Measurements**” (CMEM 2005), Malta, pp. 455-463, 2005.

- **C.G. Karayannis**, G.M.Sirkelis, “*Seismic Behaviour of Reinforced Concrete Columns With Rectangular Spiral Shear Reinforcement*”, **3rd International Conference on Construction in the 21<sup>st</sup> Century (CITC-III) “Advancing Engineering, Management and Technology**”, Proc. CD paper 147, Athens, September 2005.

- **C.G. Karayannis**, G.M.Sirkelis, C. Chalioris, “*Seismic Performance of RC Beam – Column Joints Retrofitted using Light RC Jacket – Experimental study*”, **First European Conference on Earthquake Engineering and Seismology (1st ECEES)**, paper No. 136, Geneva, Switzerland, September 2006.

- C. Chalioris, **C.G. Karayannis**, ... (3) “*Cyclic testing of reinforced concrete beam – column joints with crossed inclined bars*”, Proceedings of the **13th International Conference on “Computational Methods and Experimental Measurements” (CMEM 2007)**, Prague, pp. 623-632, 2007.

- C. Chalioris, ..., **C.G. Karayannis**,(4) “*A new Method for the Seismic Rehabilitation of Old Construction Joints*”, **7th European Conference on Structural Dynamics (EURODYN 2008)**, Proc. in CD form, E245, Southampton, July, 2008.

- P.G. Papadopoulos, ..., **C.G. Karayannis**, ... (6), “*Concrete Stability achieved by Confinement in a Reinforced Concrete Column*”, **The 12th International Conference on “Civil, Structural and Environmental Engineering Computing, Funchal-Madeira-Portugal**, paper CC.125, Sept. 1-4, 2009.

- V. Tsioukas, V. Alexandri, **C.G. Karayannis**, C.E. Chalioris, “*Photogrammetry as a Tool to record a Historic Building at risk*”, Proceedings of the **22nd CIPA Symposium**, Kyoto, Japan, Oct. 11-15, 2009.

- M.J. Favvata, **C.G. Karayannis**, “*The inter-story pounding effect on the seismic behavior of infilled and pilotis RC structures*”, Proceedings of the **6th European Workshop on the “Seismic Behaviour of Irregular and Complex Structures” Haifa, Israel**, Paper No.38, 12–13 September, 2011.

- C.E. Chalioris,....., **C.G. Karayannis**,(4) “*Recording Historic Masonry Building using Photogrammetry - Two case studies*”, Proceedings of the **COMPDYN 2013 - 4th ECCOMAS**, KOS, 12-14 June, 2013.

- C.E. Chalioris, ..., **C.G. Karayannis**,(4) “*Rehabilitation of a partially collapsed masonry traditional tobacco warehouse of the late 19th century*”, Proceedings of the **COMPDYN 2013 - 4th ECCOMAS**, KOS, 12-14 June, 2013.

- **C.G. Karayannis**, et al (3), “*Structural upgrading of 3-storey heritage structure of 1925 in Thessaloniki*”, Proceedings of the **COMPDYN 2013 - 4th ECCOMAS**, KOS, 12-14 June, 2013.

- C.P. Providakis, ..., **C.G. Karayannis**, (6), “*Detection of Concrete Reinforcement Damage using Piezoelectric Materials - Analytical and Experimental Study*” **World Academy of Science, Engineering and Technology**, Vol. 86, pp. 1188-1196, 2014, Proc. of the Intern.

Conf. on Civil, Environmental and Structural Engineering (ICCESE 2014), [Barcelona, Spain](#), Feb. 2014.

- **C.G. Karayannis**, C.E. Chalioris "Concrete in Torsion: A smeared crack Approach" **2nd Greek-Russian Symposium on Mechanics**, pp. 25-26, [Xanthi](#), 2015.

- C.E. Chalioris, C.P. Providakis, **C.G. Karayannis**, "Testing a new Wireless Impedance/Admittance Monitoring System (WiAMS) on a Reinforced Concrete Beam under Flexure", **2nd Greek-Russian Symposium on Mechanics**, Xanthi, June-July, 2015.

- C.E. Chalioris, ..., **C.G. Karayannis**, (4), "Flexural and cracking behavior of concrete beams reinforced with FRP bars" Proc. of the **6th Intern. Conf. on Concrete Repair - Concrete Solutions**, [Thessaloniki, Greece](#), pp. 487-492, 2016.

- **C.G. Karayannis**, M.C. Naoum, "Torsion Effect due to Asymmetric Pounding between Multistory RC Buildings", **COMPDYN 2017 - 6th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering**, Rhodes Island, 15-17 Jun. 2017.

- **C.G. Karayannis**, M.C. Naoum, "Inter-story Pounding and Torsional Effect due to Interaction between adjacent Multistory RC Buildings", **COMPDYN 2017 - 6th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering**, Rhodes Island, 15-17 Jun. 2017.

### C. Papers published in Proceedings of [NATIONAL CONFERENCES](#)

Selection of 40 papers (appr.)

- Vl. Kalevras, **C.G. Karayannis**, "Analysis of Structure No. 211 during the earthquakes of Kalamata", **8th Hellenic Conference of Concrete**, [Xanthi-Kavala](#), Proc. Vol. II, pp. 234-241, 1987 (in Greek).

- **C.G. Karayannis**, "Reduction factors of walls with openings", **8th Hellenic Conference of Concrete**, [Xanthi-Kavala](#), Proc. Vol. II, pp. 213-220, 1987 (in Greek).

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## **9. PROFESSIONAL activities**

The experience of C.G. Karayannis includes a **large number** of

- **Repair design projects for structures with damage problems**
- **Repair design projects for the rehabilitation old structures**
- **Design projects for special structures**

in many cities of Greece.