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Dr. Civil Engineer

Professor

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SHORT CURRICULUM VITAE

Demetrios J. Kakaletsis is a Professor of Structural Engineering at the Technological Educational Institution of Central Macedonia, Serres, Greece. He received his diploma in Civil Engineering from the National Technical University of Athens in 1975 and MSc and PhD from the Democritus University of Thrace, Xanthi, Greece in 1999 and 2008 respectively. His research interests include the **seismic behavior and retrofitting of R/C structures with infills**.

CURRICULUM VITAE OUTLINE

1952: Born in Serres – Greece

1975: Diploma in Civil Engineering, National Technical University of Athens, Greece.

1975-78: Military service in greek army (officer in engineering works).

1978-84: Private Section – Consultant Engineer.

1984-87: Greek Ministry of Public Works.

1987- : Technological Educational Institution of Serres, Serres, Greece, (Dept. Civil Engineering).

1999: Master of Science (M.Sc.) in “New materials and techniques on the design of reinforced concrete”, Civil Engineering Department of Demokritus University of Thrace (D.U.Th., Greece). Master Thesis topic: “The application of 1997 Greek Code of Concrete Technology in Serres District”.

2009: Doctoral Degree, Civil Engineering Department of Demokritus University of Thrace (D.U.Th., Greece). Ph.D. Thesis topic: “Investigation of the behaviour of Bare and Masonry Infilled RC Frames under Seismic Actions”.

- He has been active in education, research and professional praxis in Structural Engineering, Earthquake Engineering and Seismic Rehabilitation of Structures for 35 years.

EDUCATIONAL ACTIVITIES

- He is currently the Director of the Reinforced Concrete Laboratory at Technological Educational Institution of Serres.

- He has been the President of the Civil Engineering Department at Technological Educational Institution of Serres.

- He has been the President of the Technical Council of Technological Educational Institution of Serres.
- He has been Member of The Research Committee of Technological Institution of Serres.
- He has been Member of The General Council of Technological Institution of Serres.
- He is teaching the courses:
 1. “Concrete Constructions under Seismic Actions”.
 2. “Earthquake Resistant Design of Engineering Structures”.
- He is the author of the books:
 1. “Concrete Constructions - Design under Seismic Actions”, TEI of Serres Publication, 2006.
 2. “Earthquake Resistant Design of Engineering Structures”, TEI of Serres Publication, 2006.
 3. “Special Reinforced and Prestressed Concrete Structures”, TEI of Serres Publication, 2006.
- He is the reviewer of the Journals:
 1. Engineering Structures (ELSEVIER).
 2. Journal of Composites for Constructions (ASCE).
 3. The Open Construction and Building Technology Journal (BENTHAM).
 4. Structural Engineering and Mechanics, An International Journal(TECHNO PRESS)
 5. Earthquake Engineering and Structural Dynamics (WILEY).
 6. The Structural Design of Tall and Special Buildings (WILEY).
- He is an editorial board member for “The Open Construction and Building Technology Journal” (BENTHAM).

RESEARCH ACTIVITIES

- He is the Scientific Supervisor and Researcher of many Research Programs relative to his activation scientific fields funded by the Research Committee of Technological Educational Institution of Serres or the Serres Municipality Authorities.

PROFESSIONAL PRAXIS ACTIVITIES

- He is the Designer of many new school buildings and structural upgrading interventions in old buildings.

SOME INDICATIVE RECENT PUBLICATIONS

International Journals

1. D.J. Kakaletsis, C.G. Karayannis: “Experimental investigation of infilled R/C frames with eccentric openings”, **Structural Engineering and Mechanics, an International Journal**, Vol. 26, No3, June 20 2007, pp 231-250. (Impact factor 0,438 - 7 Citations)
2. 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, No2, February 01 2008, pp 197-221. (Impact factor 0,58 - 15 Citations)
3. D.J. Kakaletsis, C.G. Karayannis: “Experimental investigation of infilled R/C frames with concentric openings”, **ACI Structural Journal**, V.106, No. 2, March-April 2009, pp 132-141. (Impact factor 0,56 - 17 Citations)

4. D. Kakaletsis: “Analytical modelling of masonry infills with openings”, **Structural Engineering and Mechanics, an International Journal** Vol. 31, No4, March 2009, pp 423-437. (Impact factor 0,438 - 3 Citations).
5. D. Kakaletsis: “Comparison of CFRP and alternative seismic retrofitting techniques for bare and infilled RC frames”, **ASCE Journal of Composites for Construction**, Vol. 15, No. 4, July / August (2011), 565-577. (Impact factor 1,02- 1 Citation)
6. D. J. Kakaletsis, C. G. Karayannis and G. Panagopoulos: “Effectiveness of Rectangular Spiral Shear Reinforcement on Infilled R/C Frames Under Cyclic Loading”, **Journal of Earthquake Engineering**, 15: 2011, pp 1178-1193. (Impact factor 0,58 - 1 Citation).
7. D. J. Kakaletsis, K. N. David and C. G. Karayannis: “Effectiveness of some conventional seismic retrofitting techniques for bare and infilled R/C frames”, **Structural Engineering and Mechanics, an International Journal**, Vol. 39, No. 4 August (2011), 499-520. (Impact factor 0,438 - 2 Citations).
8. Asteris, P.G., Kakaletsis, D.J., Chrysostomou, C.Z., Smyrou, E.E. “Failure Modes of Infilled Frames”, **Electronic Journal of Structural Engineering**, 11(1), 2011, 11-20. (15 Citations).
9. Chris G. Karayannis, Maria J. Favvata, D.J. Kakaletsis, “[Seismic behaviour of infilled and pilotis RC frame structures with beam–column joint degradation effect](#)”, **Engineering Structures**, 33 (2011), 2821-2831. (Impact factor 1,363-5 Citations).
10. D. J. Kakaletsis: “Rotations of RC Members of Infilled Frames at Yielding and Ultimate”, Special Issue on "[Advances in Infilled Framed Structures: Experimental & Modelling Aspects](#)", of the **Open Construction and Building Technology Journal (TOCBTJ)**, 2012, 6, 50-62.
11. Kirtas E., Kakaletsis D., “Numerical investigation of influential parameters concerning the experimental testing of RC frames under cyclic loading”, **The Open Construction and Building Technology Journal (TOCBTJ)**, 2013, 7, 230-243.
<http://www.benthamscience.com/open/tobctj/articles/V007/230TOBCTJ.pdf>

International Conferences

1. C.G. Karayannis, D.J. Kakaletsis, M.J. Favvata: “Behavior of bare and masonry infilled R/C frames under cyclic loading. Experiments and analysis”, **Proceedings of Fifth International Conference on Earthquake Resistant Engineering Structures, (ERES 2005)**, pp 429-438, Skiathos, 2005. (8 Citations).
2. D.J. Kakaletsis: “Influence of masonry strength and rectangular spiral shear reinforcement on infilled R/C frames under cycling loading.”, **Proceedings of Thirteenth International Conference on Computational Methods and Experimental Measurements (CMEM 2007)**, pp 643-653, Prague, Czech Republic, 2007. (2 Citations).
3. D.J. Kakaletsis: “Masonry infills with window openings and influence on R/C frame constructions”, **Proceedings of Seventh International Conference on Earthquake Resistant Engineering Structures, (ERES 2009)**, pp 445-455, Cyprus, 2009. (1 Citation).

Hellenic Conferences (in Greek).

1. D. Kakaletsis, C. Karagiannis, S. Papaioannou: “Conclusions on the application of concrete technology Code '97 in the district of Serres”, **1st Hellenic Conference of Concrete Composite Materials**, Technical Chamber of Greece, Democrity University of Thrace, Hellenic Scientific Society on Concrete Research, pp 15-26, Xanthi, 2000.
2. D. J. Kakaletsis, C .G .Karagiannis, “An experimental investigation of R/C frames infilled with masonry walls containing openings under cyclic loading”, **Proceedings of 14th Hellenic Conference on Concrete Structures**, Technical Chamber of Greece, Vol A, pp 474-483, Kos 2003. (1 Citation).
3. C. Karagiannis, D. Kakaletsis: “An experimental investigation of infilled R/C frames with concentric openings under cyclic loading”, **Proceedings of 15th Hellenic Conference on Concrete Structures**, Technical Chamber of Greece, Hellenic Concrete Department, Scientific Technical Chamber of Cyprus, Vol B, pp 269-284, Alexandroupoli, 2006. (3 Citations).
4. D. Kakaletsis, M. Farrata, C. Karagiannis: “Strength of infilled R/C frames with openings under horizontal loading”, **Proceedings of 15th Hellenic Conference on Concrete Structures**, Technical Chamber of Greece, Hellenic Concrete Department, Scientific Technical Chamber of Cyprus, Vol D, pp 328-339, Alexandroupoli, 2006.
5. D. Kakaletsis, C. Karagiannis: “Masonry infilles with door openings and influence on R/C frame structures”, **3th Hellenic Conference of Earthquake Mechanics and Technical Seismology**, No 1981 from the Conference CD, Athens, 2008. (2 Citations).
6. D. Kakaletsis, C. Karagiannis: “Rotations in yielding and ultimate of R/C members of infilled frames”, **Proceedings of 16th Hellenic Conference on Concrete Structures**, Technical Chamber of Greece, Hellenic Concrete Department, Scientific Technical Chamber of Cyprus, Vol B, pp 801-812, Pafos, 2009.
7. D. Kakaletsis, C. Karagiannis: “Continuous force – displacement model of masonry infill with openings”, **Proceedings of 16th Hellenic Conference on Concrete Structures**, Technical Chamber of Greece, Hellenic Concrete Department, Scientific Technical Chamber of Cyprus, Vol C, pp 599-610, Pafos, 2009.

CITATIONS

15 articles have been cited by **82 Citations**.

RESEARCH PROGRAMS:

1. Objective of research: **“Special design of water lock retaining frame, on a soil with a high underground water level. - Case study of the connecting road branch of the motordrome of Serres Municipality”**

Position in the Program: Scientific Supervisor of the Work.

Funded by: The Serres Municipality Authorities

Carried out by: Technological Educational Institution of Serres, 1998. (The design has been applied successfully.)

2. Objective of research: **“Conclusions on the application of concrete technology Code '97 in the district of Serres”**

Position in the Program: Scientific Supervisor of the Work.

Funded by: The Research Committee of Technological Institution of Serres

Carried out by: Technological Educational Institution of Serres, 2000

3. Objective of research: **“Influence of masonry strength and openings on infilled R/C frames under lateral loading”**

Position in the Program: Scientific Supervisor of the Work.

Funded by: The Research Committee of Technological Institution of Serres

Carried out by: Technological Educational Institution of Serres, 2007

4. Objective of research: **“Experimental investigation of infilled R/C frames with eccentric openings under lateral loading”**

Position in the Program: Scientific Supervisor of the Work.

Funded by: The Research Committee of Technological Institution of Serres

Carried out by: Technological Educational Institution of Serres, 2007

5. Objective of research: **“Experimental investigation of infilled R/C frames with concentric openings under lateral loading”**

Position in the Program: Scientific Supervisor of the Work.

Funded by: The Research Committee of Technological Institution of Serres

Carried out by: Technological Educational Institution of Serres, 2007

6. Objective of research: **“Analytical modelling of masonry infills with openings under lateral loading”**

Position in the Program: Scientific Supervisor of the Work.

Funded by: The Research Committee of Technological Institution of Serres

Carried out by: Technological Educational Institution of Serres, 2008

7. Objective of research: **“Concrete strength investigation, with none- destructive methods, of the Stadium - City of Serres”**

Position in the Program: Scientific Supervisor of the Work.

Funded by: The Serres Municipality Authorities

Carried out by: Technological Educational Institution of Serres, July 2008

8. Objective of research: **“Laboratory tests and Special Strengthening Intervention Design proposal of the Stadium Structural System – City of Serres”**

Position in the Program: Scientific Supervisor of the Work.

Funded by: The Serres Municipality Authorities

Carried out by: Technological Educational Institution of Serres, July 2009. (The intervention design has been applied successfully.)

9. Objective of research: **“Effectiveness of some conventional seismic retrofitting techniques for bare and infilled R/C frames”**

Position in the Program: Scientific Supervisor of the Work.

Funded by: The Research Committee of Technological Institution of Serres
Carried out by: Technological Educational Institution of Serres, 2009-11.

10. Objective of research: **“Comparison of CFRP and alternative seismic retrofitting techniques for bare and infilled RC frames”**

Position in the Program: Scientific Supervisor of the Work.

Funded by: The Research Committee of Technological Institution of Serres

Carried out by: Technological Educational Institution of Serres, 2010-11.

11. Objective of research: **“Effectiveness of Rectangular Spiral Shear Reinforcement on Infilled R/C Frames Under Cyclic Loading”**

Position in the Program: Scientific Supervisor of the Work.

Funded by: The Research Committee of Technological Institution of Serres

Carried out by: Technological Educational Institution of Serres, 2010-11.

EXPERIENCE AS A CIVIL ENGINEER (PROFESSIONAL PRAXIS ACTIVITIES)

1. **Structural design of five multi-story Buildings - City of Serres, 1979-1984.** (The buildings have been constructed).
2. **Structural design of five Industrial Buildings - District of Serres, 1979-1984.** (The buildings have been constructed).
3. **Urban plan of City of Serres, 1979-1984.**
4. **Railway bridges design on the irrigation network of Serres, 1979-1984.**
5. **Bridges design of the roadway P. Kavala - Polynero, 1979-1984.** (The bridges have been constructed).
6. **Design of ring road of the City of Drama - Supervisor Engineer, 1984-1987.**
7. **Design of Drama - Paranesti highway - Supervisor Engineer, 1984-1987.**
8. **Design of seven bridges of reinforced and prestressed concrete - District of East Macedonia, 1984-1987.** (Most of the bridges have been constructed).
9. **Design of eight road interchanges - District of East Macedonia, 1984-1987.** (The interchanges have been constructed).
10. **Structural design of eight Buildings of Technological Educational Institution of Serres campus, 1988-2000.** (The buildings have been constructed).