Mehmet Polat Saka

Middle East Technical University
Engineering Science Department
Ankara, TURKEY
e-mail: mpsaka@metu.edu.tr

Date of Birth: 17th January 1947
Nationality: Turkish

EDUCATION

Ph.D.   : University of Aston in Birmingham, Birmingham, U.K., 1975

                                Title of Thesis: Optimum Design of Structures
                                Supervisor   : Professor K. I. Majid

M.Sc.   : Istanbul Technical University, Istanbul, Turkey, 1969

B.Sc.   : Istanbul Technical University, Istanbul, Turkey, 1968

SCHOLARSHIPS

- Ministry of Education , Government of Turkey , scholarship for studying Ph.D., 1971
- UNESCO Fellowship for Post Doctoral Research , 1977

ACADEMIC EXPERIENCE

Professor   : Middle East Technical University, Turkey, 2022-present,
                                  (part-time as retired academic staff)
Professor   : University of Bahrain, Bahrain, 2010-2021, (retired in 2021)
Professor   : Middle East Technical University, Turkey, 2005- 2010
Professor   : University of Bahrain, Bahrain, 1993-2005
Associate Professor   : University of Bahrain, Bahrain, 1984-1993
Associate Professor   : Black Sea Technical University, Trabzon, Turkey, 1982-1984
Assistant Professor   : Black Sea Technical University, Trabzon, Turkey, 1978-1982
Research Fellow   : University of Aston in Birmingham, Birmingham, U.K.,
                               1977-1978
Assistant Professor   : Black Sea Technical University, Trabzon, Turkey, 1975-1977
Graduate Assistant   : Black Sea Technical University, Trabzon, Turkey, 1969-1971

COURSES TAUGHT

Postgraduate Level:

       Matrix Analysis of Structures
       Finite Element Analysis
       Nonlinear Analysis of Structures
       Plastic Design of Structures
       Advanced Steel Design
       Advanced Mechanics of Materials
       Optimization Techniques
       Structural Stability
       Elastic Stability
       Advanced Numerical Methods in Engineering
       Numerical Solution of Ordinary Differential Equations
       Project Management

Undergraduate Level:

       Statics
       Structural Analysis I and II
       Structural Mechanics I and II
       Steel Design I and II
       Timber Design
       Computer Applications in Civil Engineering
       Numerical Methods in Civil Engineering
       Computing Methods in Engineering
       Computer Programming
       Engineering Management and Operations Research
       Senior Projects
       Diploma Projects

SHORT COURSES

- "Optimum design of Structures" , 3 days course taught at the University of Yildiz Istanbul , August 1979

- "Optimization Techniques" , 15-days course taught in Postgraduate program of University of Firat, Elazig, Turkey, 1980

- "Microcomputer Analysis of Structures", 7-days course offered twice to practicing civil engineers in Bahrain in 1988 and 1992.

- "Design of Steel Structures According to BS 5950", 7-days course offered to practicing civil engineers in Bahrain , 1992 and repeated in 1998

- "Design of Steel Industrial Structures according to BS5950", 5-days course offered to practicing civil engineers in Bahrain,14-18 November 1998

ADMINISTRATIVE DUTIES

Departmental Level:

At The Department of Civil and Architectural Engineering of University of Bahrain

- Head of Departmental Accreditation Committee (2011-2020)
- Head of Postgraduate and Research Committee (2011-2020)

At the Department of Engineering Sciences of Middle East Technical University, Ankara, Turkey

- Assistant Head of Department (February, 2006-2010)
- Member of Academic Program development Committee (2005-2010)
- Member of Planning and Self Evaluation Committee (2005-2010)

At The Department of Civil and Architectural Engineering of University of Bahrain

- Prepared the new Associate Diploma Program for Civil Engineering (2001)
- Prepared the new B.Sc. Program for Civil Engineering (1998)
- Coordinator of M.Sc. Program in Civil Engineering (1992-2005)
- Coordinator of Civil Engineering Section of the Department (2003-2005)
- Chairman of Research and Graduate Committee (1986-1998)
- Chairman of Academic Committee (1996-2001)
- Chairman of Academic Standards Committee (1984-1992)
- Chairman of Self-Evaluation Committee (1991-1992)
- Coordinator of Structures Laboratory (1984-1990)-(1997-2005)
- Coordinator of Microcomputer Laboratory (1986-1996)
- Coordinator of Senior Projects (1984-2000)
- Acting Head of Department (27th March-4th April 1988)

College Level:

At The College of Engineering of University of Bahrain

- Member of College Council (1993-2003)
- Secretary to The College Council (2003-2005)
- Chairman of College Academic Staff Promotion Committee (1990-2001)
- Member of College Self Evaluating Committee (1993-1994)
- Chairman of College Research Committee (1989-1991)
- Member of College Academic Standards Committee (1992-1993)

- ▪ Member of College Postgraduate Committee (1992-1998)
- ▪ Prepared rules and regulations for Ph.D. program in the College of Engineering (1997)
- • Advisor to the Dean for the promotion of Academic Staff Promotion (2003-2005)

University Level:

At The University of Bahrain

- ▪ Member of University Research Council (1989-1991)
- ▪ Representative of College of Engineering in the University Academic Staff Promotion Committee (1993-2001)
- ▪ Invited by the Dean of College of Business to take part in the College Council Promotion Committee for the promotion cases of two of their academic staff (22-23 June 2002)

TUBITAK (Turkish Scientific and Technical Research Council)

- ▪ Representative of Turkey in the Urban and Civil Engineering sub-committee of **COST** (European Cooperation in the field of Scientific and Technical Research) (2005-2006)

FINANCED RESEARCH PROJECTS UNDERTAKEN:

- • B. H. Ahmadi and **M.P. Saka,** "Improvement and Cost Saving for Composite Wood-Concrete Floor Construction in Bahrain" ,Technical Report No. 18 , Research Sponsored by Bahrain Center for Studies and Research , November 1991 , Bahrain

- • **M. P. Saka**, İ. Aydoğdu and A. Akın, "Optimum Design of Steel and Reinforced Concrete Structures under Earthquake Loads", **Turkish Scientific and Technical Research Council (TUBITAK),** Ankara, Turkey, Project No: 106M490, (50000US \$), Started on: 1st February 2007, Completed on: 1st February 2009.

- • O. Hasançebi**, M. P. Saka,** Ö.Kurç, S. Çarbaş, E. Doğan, F. Erdal, T. Bahçecioğlu, "Optimum Design of 3-D Steel Frames using Stochastic Optimization Techniques and Applications in Structural Engineering in Turkey", **Turkish Scientific and Technical Research Council (TUBITAK),** Ankara, Turkey, Project No: 108M070, (90000US \$), Started on: 1st June 2008, Completed on: 1st December 2010.

COMMUNITY SERVICE:

- Reports prepared for the Construction Industry in Bahrain as a coordinator of The structures Laboratory through Testing Services of the Department between the period of 1999-2001:

1. Calibration of Compression testing machine for **Magnum Industrial Services** on 13 Dec. 2001
2. Compressive testing of 26 Pieces of cube samples and 3 flexural tests for **Gulf Polyforms** on 18 Feb. 2001
3. Tensile test of reinforcement Bars for **Magnum Industrial Services** on 27 Feb. 2001
4. Calibration of Compression Testing Machine for **Union Technical Services (UTS)** on 4 Feb. 2001
5. Compressive strength tests for concrete cube samples for **Maher Contracting** Company on 25 Dec. 2000
6. Flexural tests on two manhole cover for **Magnum Industrial Services** on 9 Dec. 2000
7. Calibration of asphalt Laboratory equipment for **Eastern Asphalt & Mixed Concrete Company** on 6 Nov. 2000
8. Calibration of Compression testing machine for **Magnum Industrial Services** on 8 Oct. 2000
9. Compression test of 8 Concrete cube samples and 16 Insulated reinforced concrete Block for **Gulf Polyforms** on 4 Oct. 2000
10. Calibration of Compression testing machine for **Magnum Industrial Services** on 24 Sept. 2000
11. Testing of road curb samples for transverse and flexural strength for Al-Khalida Group on 6 Aug. 2000
12. Testing of road curb samples for transverse and flexural strength **Magnum Industrial Services** 22 May. 2000
13. Tensile test for 6 reinforcement bars for **Al-Khalida Group** on 22 March 2000
14. Tensile test for reinforcement bars for **International laboratories** on 12 Dec. 1999
15. Calibration of Schmidt Hammers for **Magnum Industrial Services** on 23 Nov. 1999
16. Calibration of Compression testing machine for **Magnum Industrial Services** on 4 Oct. 1999

SEMINARS:

- "Academic Staff Promotion According to University of Bahrain Promotion Rules", College of Engineering, May 2001
- "Decision Making in Civil Engineering by Mathematical Programming" organized by College of Engineering Student Society, April 2001
- "Can a University be only a Teaching Institution", The 2nd Symposium on Quality of Engineering Education, College of Engineering, 19th November 2000

AWARDS

- **TELFORD PREMIUM**: Awarded by the Institution of Civil Engineers, London in 1979 for the paper titled "**The Theorems of Structural Variation Generalized for Rigidly Jointed Frames**" published in Proceedings of ICE, London, U.K. together with Prof. K. I. Majid and Dr. T. Celik.
- Given an **Academic Excellence Award** by the University Administration for his outstanding academic performance in College of Engineering between 1994-1996
- Included in *Marquis Who's Who in Science and Engineering*, in each volume from 1998 to 2005.
- Included in *2000 Outstanding Scientists of the 20th Century*, International Biographical Center, Cambridge CB2 3QP, England.

INTERNATIONAL RECOGNITION

- Included in **the top 2 per cent of the most-cited scientists** in the world. The exhaustive list has 1,590,683 persons. The report was prepared by Prof. John P.A. Loannidis of **Stanford University**, USA and his team

MEMBERSHIP IN SCIENTIFIC AND PROFESSIONAL SOCIETIES

- Member of American Society of Civil Engineers
  (January 1991-present, ID # 284101)
- Member of the Association for International Cooperation and Research in Steel - Concrete Composite Structures, (January 1989-present)
- Member of International Association for Bridge and Structural Engineering ,
  (January 1997-present)
- Member of International Society for Structural and Multidisciplinary Optimization ,
  (January 1994-present)
- Member of Asian Center for Engineering Computations and Software , Asian Institute of Technology , (May 1996-present , ID # D51-0450-1096)
- Member of Society of Civil Engineers , Turkey , (January 1970-present)

MEMBERSHIP OF EDITORIAL BOARDS

International Journals:

- **Computers and Structures, An International Journal, Elsevier,** (2009-present)
- **Steel and Composite Structures, An International Journal, Techno-Press,** (2012-2018)
- **Advances in Engineering Software, An International Journal, Elsevier,** (2014-Present)
- **Structural and Multidisciplinary Optimization, An International Journal, Associate Editor, Springer,** (2014-Present)
- **Asian Journal of Civil Engineering**, **Associate Editor**, **Springe**r, (1999-present)

- **Design Optimization : International Journal for Product and Process Improvement**, UK, (1999-2000)
- **International Scholarly Research Network Applied Mathematics,** USA, (2011-present)
- **International Journal of Structural Engineering Review,** U.K. (1995-1997)
- **Asian Journal of Structural Engineering** , Iran, (1995-1996)
- **The Open Civil Engineering Journal**, Bentham Science Publishers, USA, (2007-2014)
- **The Open Construction and Building Technology Journal**, Bentham Science Publishers, USA, (2007-2014)
- **International Journal on Civil and Environmental Engineering,** The Association of Civil and Environmental Engineers (ACEE), (2012-2016)

International Conferences:

1. The First International Conference on Computational Structures Technology, 20-22 August 1991, Heriot-Watt University, Edinburgh, U.K.

2. The Fifth International Conference on Civil and Structural Engineering Computing and Artificial Intelligence, CIVIL-COMP 93, 17th-19th August 1993, Heriot-Watt University, Edinburgh, U.K.

3. The Sixth International Conference on Civil and Structural Engineering Computing and Artificial Intelligence , CIVIL-COMP 95 , 28th-30th August 1995 , University of Cambridge , Cambridge , U.K.

4. The Mouchel Centenary Conference on Innovation in Civil and Structural Engineering, 19th-21st August 1997, University of Cambridge, Cambridge, U.K.

5. The Fifth International Conference on Computer Aided Optimum design of Structures OPTI-97, 8th-10th September 1997, Rome , Italy

6. The International Conference on Intelligent Information Systems , 8th-10th December 1997, Nassau, Bahamas

7. The Seventh International Conference on Civil and Structural Engineering Computing and Artificial Intelligence, CIVIL-COMP 99, 13-15 September 1999, University of Oxford, Oxford, U.K.

8. MSMS 2001, "Second International Conference on Mechanics of Structures, Materials and Systems, 14-16 February 2001, University of Wollongong, Australia

9. The Eight International Conference on Civil, Structural and Environmental Engineering Computing and Artificial Intelligence, CIVIL-COMP 2001, 19-21 September 2001, Eisenstadt, nr Vienna, Austria

10. The Ninth International Conference on Civil, Structural and Environmental Engineering Computing, CIVIL-COMP 2003, 2-4 September 2001, Egmond-Aan-Zee, The Netherlands

11. The Tenth International Conference on Civil, Structural and Environmental Engineering Computing and Artificial Intelligence, CIVIL-COMP 2005, 30th August-2nd September 2005, Rome, Italy.

12. The Eighth International Concrete Conference & Exhibition, Concrete in Hot & Aggressive Environments, 27th-29th November 2006, Bahrain Society of Engineers, Bahrain

13. The Eleventh International Conference on Civil, Structural and Environmental Engineering Computing and Artificial Intelligence, CIVIL-COMP 2007, 18th – 21st September 2007, St. Julians, Malta.

14. The Twelfth International Conference on Civil, Structural and Environmental Engineering Computing and Artificial Intelligence, CIVIL-COMP 2009, 1st – 4th September 2009, Madeira, Portugal.

15. The Tenth International Conference on Computational Structures Technology, CST 2010, 14-17 September 2010, Valencia, Spain

16. The Ninth International Congress on Advances in Civil Engineering, September 27-30, Karadeniz Technical University, Trabzon, Turkey, 2010

17. The Thirteenth International Conference on Civil, Structural and Environmental Engineering Computing, CIVIL-COMP 2011, 6-9 September 2011, Crete, Greece

18. The Eleventh International Conference on Computational Structures Technology, CST 2012, 4-7 September 2012, Dubrovnik, Croatia.

19. The Tenth International Congress on Advances in Civil Engineering, October 17-19, Middle East Technical University, Ankara, Turkey, 2012

20. MENDEL 12, 18th International Conference on Soft Computing, June 27-29, 2012, Brno, Czech Republic.

21. The Fourteenth International Conference on Civil, Structural and Environmental Engineering Computing, CIVIL-COMP 2013, 3-6 September 2013, Cagliari, Sardinia, Italy.

22. CST2014, The Twelfth International Conference on Computational Structures Technology, 2-5 September 2014, Naples, Italy.

23. ECT2014, The Ninth International Conference on Engineering Computational Technology, 2-5 September 2014, Naples, Italy.

24. CST2018, The Thirteenth International Conference on Computational Structures Technology, 4-6 September 2018, Sitges, Barcelona, Spain, Elsevier.

25. The Tenth International Conference on Engineering Computational technology, ECT2018, 4-6 September 2018, Sitges, Barcelona, Spain, Elsevier.

26. 6th International Conference on Engineering Optimization, ENGOPT2018, 17-19 September 2018, Lisboa, Portugal.

27. The Sixteenth International Conference on Civil, Structural and Environmental Engineering Computing, CIVIL-COMP 2019, Riva del Garda, near Lake Garda, Italy 16-19 September 2019, Elsevier.

28. The Fifth International Conference on Soft Computing and Optimization in Civil, Structural and Environmental Engineering, CIVIL-COMP 2019, Riva del Garda, near Lake Garda, Italy ,16-19 September 2019, Elsevier

National Conferences:

1. The Second National Conference on Steel structures, Chamber of Civil Engineers Eskişehir Branch, 3-4 May 2007, Eskişehir, Turkey.

REFEREE FOR INTERNATIONAL JOURNALS

1. Journal of Structural Engineering , American Society of Civil Engineers , USA
2. Journal of Computing in Civil Engineering, American Society of Civil Engineers, USA
3. ACI (American Concrete Institution), Structural and Material Journals, USA.
4. AIAA (American Institute of Aeronautics and Astronautics) Journal, USA
5. Journal of Engineering Mechanics, American Society of Civil Engineers, USA
6. Computers and Structures, An International Journal, Elsevier
7. Computers and Concrete, An International Journal, Elsevier
8. International Journal for Numerical Methods in Engineering , USA
9. Engineering Structures, The Journal of Earthquake, Wind and Ocean Engineering, Elsevier
10. Advances in Engineering Software, Elsevier
11. Communications in Numerical Methods in Engineering, John Wiley
12. eJSE, Electronic Journal of Structural Engineering, Australia
13. Structural Engineering and Mechanics, An International Journal, Techno-Press
14. Structural Engineering Review, An International Journal, U.K.

15. Design Optimization: International Journal for Product and Process Improvement, U.K.
16. Journal of King Saud University [Engineering Sciences] , Kingdom of Saudi Arabia
17. The International Journal of Microcomputers in Civil Engineering, USA
18. International Journal of Solids and Structures,
19. Engineering Optimization, An International Journal, U.K.
20. Finite Element analysis and Design, The International Journal of Applied Finite Elements and Computer Aided Engineering
21. Civil Engineering and Environmental Systems, Taylor and Francis, U.K.
22. Automation in Construction, An International Research Journal, Elsevier.
23. Scientia Irania, Iran
24. World Applied Sciences Journal, Iran
25. Journal of Systems and Software, Elsevier.
26. Steel and Composite Structures, Techno-Press.
27. International Journal of Non-Linear Mechanics, Elsevier.
28. Neurocomputing, Elsevier.
29. ISRN Applied Mathematics, Hindawi Publications, USA
30. Sigma Journal of Engineering and Natural Sciences, Yıldız Technical University, Istanbul, Turkey
31. Turkish journal of Engineering and Environmental Sciences, TÜBİTAK, Ankara, Turkey.

MEMBER OF PANEL TO JUDGE THE BEST PAPER FOR the K. J. BATHE AWARD

1. Member of Panel for judging **The K. J. Bathe Award** for the best paper published in **Computers and Structures, International Journal** during 2008 or 2009. This award includes a certificate and 2,000 Euros donated bt the publishers of Computers and Structures, Elsevier Ltd. The authors should be under the age of 40 on January 1, 2009. A short list is required to be prepared by each member after reviewing 26 candidate papers.
2. Member of Panel for judging **The K. J. Bathe Award** for the best paper published in **Computers and Structures, International Journal** during 2010 or 2011. This award includes a certificate and 2,000 Euros donated by the publishers of Computers and Structures, Elsevier Ltd. The authors should be under the age of 40 on January 1, 2012. A short list is required to be prepared by each member after reviewing 26 candidate papers.
3. Member of Panel for judging **The K. J. Bathe Award** for the best paper published in **Computers and Structures, International Journal** during 2012 or 2013. This award includes a certificate and 2,000 Euros donated by the publishers of Computers and Structures, Elsevier Ltd. The authors should be under the age of 40 on January 1, 2014. A short list is required to be prepared by each member after reviewing 70 candidate papers.
4. Member of Panel for judging **The K. J. Bathe Award** for the best paper published in **Computers and Structures, International Journal** during 2014 or

2015. This award includes a certificate and 2,000 Euros donated by the publishers of Computers and Structures, Elsevier Ltd. The authors should be under the age of 40 on January 1, 2016. A short list is required to be prepared by each member after reviewing 36 candidate papers.

EXTERNAL EXAMINER

- Acted as an external examiner for the PhD thesis titled **"Optimal Passive and Active Control Mechanisms for Seismically Excited Buildings"** Yoyong Arfiadi, School of Civil, Mining and Environmental Engineering, University of Wollongong, Wollongong, Australia, April, 2000.
- Acted as an external examiner for the Master of Engineering Thesis titled "**Discrete optimization of plane and space truss structures based on geometrically non-linear analysis using genetic algorithm**" by K.S. Alvani, School of Civil, Mining and Environmental Engineering, University of Wollongong, Wollongong, Australia, May, 2002
- Acted as an external examiner for the PhD thesis titled **" Seismic History analysis of Asymmetrical Adjacent Buildings linked by Supplemental damping Devices with Consideration soil-structure Interaction"** Mehmet Eren Uz, School of Civil, Mining and Environmental Engineering, University of Wollongong, Wollongong, Australia, April, 2013.
- Acted as an external examiner for the PhD thesis titled **"Cost optimization of Preliminary Layout Design of Framed reinforced Concrete buildings""** Pezhman Sharafi, Civil, mining and Environmental Engineering Department of University of Wollongong, Wollongong, Australia, April, 2013.

REFEREE FOR THE PROMOTION CASES

- Acted as referee for the promotion of Dr. M. Ulker from Associate Professorship to Professor at the Civil Engineering Department of University of Firat, Elazig, Turkey, May, 2000
- Acted as referee for the promotion case of Dr. Abdel-Kareem Al-Rawdan from Assistant Professor to Associate Professor at Mu'tah University, Jordan, December 2003
- Acted as referee for the promotion case of Dr. Mohammed Hadi from Associate Professor to Full Professor at the School of Civil, Mining and Environmental Engineering, University of Wollongong, Wollongong, Australia, October, 2016

INTERNATIONAL CONFERENCES ORGANIZED

- Secretary of the organizing committee of **The First International Conference in Civil Engineering**, 11th-13th March 1989 , University of Bahrain , Bahrain
- Chairman of the organizing committee of **The Second International Conference in Civil Engineering on Computer Applications , Research and Practice** , 6th-8th April 1996 , University of Bahrain , Bahrain

CONSULTANCIES

- Designed a steel framed structure for a hazelnut factory (36m x 60m) in the Black Sea Region of Turkey in 1976.
- Carried out inspection and adjustment of projects of steel framed building of animal food factory in the Black Sea Region of Turkey in 1977.
- Designed and inspected the erection of a space truss (16m x 80m) for the roof of the Department of Architecture in the Black Sea Technical University, Trabzon, Turkey, 1983.
- Designed the steel frame of Central Heating Unit (30m x 80m) of the Faculty of Medicine of Black Sea Technical University, Trabzon, Turkey , 1984
- Acted as a consultant in number of steel and concrete structures in Bahrain.

Special Lectures:

1. Invited to give a special lecture in the **Ninth International Conference on Civil and Structural Engineering Computing, 2-4 September 2003**, Egmond-aan-Zee, The Netherlands, titled **"Optimization Design of Skeletal Structures- A Review".**
2. Invited to give a special lecture in the **Eleventh International Conference on Civil and Structural Engineering Computing, 18-21 September 2007**, St. Julians, Malta, titled **"Optimum Design of Steel frames Using Stochastic Search Techniques- A Review".**
3. Keynote Speech titled "**Optimum Design of Steel Skeletal Structures Using Natural Optimization Techniques**" in **9th International Congress on Advances in Civil Engineering**, September 27-30, Karadeniz Technical University, Trabzon, Turkey, 2010
4. Invited to give a special lecture in the **Eight International Conference on Engineering Computational Technology, 4-7 September 2012**, Dubrovnik, Croatia, titled **"Recent Developments in Metaheuristic Algorithms - A Review".**
5. Invited to give a special lecture in the **Twelfth International Conference on Engineering Computational Technology, 2-5 September 2014**, Naples, Italy, titled **"Shape and Topology Optimization Design of Skeletal Structures using Metaheuristic Algorithms: A Review"**

Keynote speaker:

1. **4th International Conference On Buildings, Construction and Environmental Engineering, 7 to 9 October 2019, Istanbul Technical University, Istanbul, Turkey.** Organized by **University of Technology, Iraq and Istanbul Technical University, Turkey.** Title of the speech "**Optimum Design of Steel Skeletal Structures Using Swarm Intelligence Techniques**".
2. **8th International Steel Structures Symposium, 24 to 26 October 2019, Karatay University, Konya, Turkey. Organized by Turkish Chamber of Civil Engineers Konya Branch.** Title of the speech "**Optimum Design of Steel Skeletal Structures Using Metaheuristic Techniques**".

PUBLICATIONS:

Thesis (Unpublished):

1. **M. P. Saka**, "Optimum Design in Structures" , Ph.D. Dissertation , University of Aston in Birmingham, Birmingham, U.K., 1975
2. **M. P. Saka**, "Optimum Design of Steel Grillages", Associate Professorship Dissertation, Black Sea Technical University, Trabzon, Turkey, 1982

International Refereed Journal:

1. K.I. Majid , **M.P. Saka** and T. Celik , "The Theorems of Structural Variation Generalized for Rigidly Jointed Frames" , Proceedings of Institution of Civil Engineers , London , Vol. 65 , Dec., pp: 839-856 , 1978
2. K.I.Majid, P. Stojanovsky and **M.P.Saka** , "Minimum Cost Topological Design of Steel Sway Frames" , The Structural Engineer , Vol. 58 B , March , No.1, pp:14-20 , 1980
3. **M. P. Saka**, "Shape Optimization of Trusses", Journal of Structural Division, ASCE Vol. 106 , ST5 , May , pp:1155-1174 , 1980
4. **M. P. Saka,** "Optimum Design of Rigidly Jointed Frames", J. of Computers and Structures, Vol. 11, No. 5, May, pp:411-419 , 1980
5. **M. P. Saka**, "Optimum Design of Nonlinear Space Trusses", J. of Computers and Structures, Vol. 30 , No. 3 , pp:545-551 , 1988
6. **M. P. Saka**, "Optimum Design of Pin Jointed Steel Structures with Practical Applications", J. of Structural Engineering, ASCE, Vol. 116, No.10 ,Oct. pp:2599-2620 , 1990
7. **M. P. Saka**, "Optimum Geometry Design of Roof Trusses by Optimality Criteria Method", J. of Computers and Structures , Vol. 38 , No.1 , pp:83-92 , 1991
8. **M. P. Saka** and M. S. Hayalioglu, "Optimum Design of Geometrically Nonlinear Elastic-Plastic steel Frames", J. of Computers and Structures , Vol. 38 , No. 1 , pp:329-344, 1991

9. **M. P. Saka**, "Finite Element Application of Theorems of Structural Variation", J. of Computers and Structures, Vol. 41, No.3, pp:519-530, 1991

10. **M. P. Saka** and M. Ulker , "Optimum Design of Geometrically Nonlinear Space Trusses", J. of Computers and Structures , Vol. 41, No. 6, pp:1387-1396, 1991

11. **M. P. Saka**, "Optimum Design of Steel Frames with Stability Constraints", J. of Computers and Structures, Vol. 41, No. 6 , pp:1365 - 1377, 1991

12. **M. P. Saka**, "Optimum Design of Multi-story structures with Shear Walls" , J. of Computers and Structures, Vol. 44, No. 4, pp:925-936, 1992

13. M. S. Hayalioglu and **M. P. Saka** , "Optimum Design of Geometrically Nonlinear Elastic-Plastic Steel Frames with Tapered Members", J. of Computers and Structure , Vol. 44, pp: 915-924, 1992

14. B. Ahmadi and **M. P. Saka** , "Behavior of Composite Timber Concrete Floors", J. of Structural Engineering , ASCE , Vol. 119, Nov., pp:3111-3130 , 1993

15. **M. P. Saka**, "Optimum Design of Steel Frames with Tapered Members" , J. of Computers and Structures , Vol.63, No. 4 , pp. 797-811 , 1996

16. **M. P. Saka**, "Optimum Design of Grillage Systems Using Genetic Algorithm", Journal of Computer aided Civil and Infrastructure Engineering , Vol. 13, pp:223-238 , 1998

17. **M. P. Saka** and E. Kameshki , "Optimum Design of Nonlinear Elastic Framed Domes" , Journal of Advances in Engineering Software , Vol. 29, No.7-9, pp. 519-528 , 1998

18. **M. P. Saka**, "The Theorems of Structural Variation for Solid and Cubic Elements", Journal of Computers and Structures, Vol. 68, pp: 89-100, 1998.

19. **M. P. Saka** and E. Kameshki, "Optimum Design of Unbraced Rigid Frames" Journal of Computers and Structures, Vol. 69, pp: 433-442, 1998.

20. S. S. Al-Mosawi and **M. P. Saka** , "Optimum Design of Single Core Shear Walls" Journal of Computers and Structures , Vol. 71, No.2, pp:143-162, 1999

21. S. Weld Ali and **M. P. Saka** , "Optimum Geometry and Spacing Design of Roof Trusses According to BS5950 Using Genetic algorithm" , Design Optimization, International Journal for Product and Process Improvement, Vol. 1, No. 2, pp.198-219, 1999

22. U. Uzman , A. Daloglu and **M. P. Saka** , " Optimum Design of Parabolic and Circular Arches with Varying Cross-Section", Structural Engineering and Mechanics, An International Journal , Vol. 8, No. 5, Nov. , pp.465-476, 1999

23. **M. P. Saka,** "The theorems of Structural Variation for Grillage systems", Journal of Computers and Structures, Vol. 77, pp:413-421, 2000

24. S.S. Al-Mosawi and **M. P. Saka**, "Optimum Shape Design of Cold-Formed Thin-Walled Steel Sections", Advances in Engineering Software, Vol. 31, No. 11, pp:851-862, 2000

25. **M. P. Saka**, A. Daloglu and F. Malhas, "Optimum Spacing Design of Grillage Systems using Genetic Algorithm", Advances in Engineering Software, Vol. 31, No. 11, pp:863-873, 2000

26. A. Sanad and **M. P. Saka**, "Prediction of the Shear Strength of Reinforced Concrete Deep Beams by Artificial Neural Networks" , Journal of Structural Engineering, The American Society of Civil Engineers, Vol. 127, No. 7, pp:818-828, 2001

27. E. S. Kameshki and **M. P. Saka**, "Optimum Design of Nonlinear Steel Frames with Semi-Rigid Connections Using a Genetic Algorithm", Journal of Computers and Structures, Vol. 79, pp:1593-1604, 2001

28. E.S. Kameshki and **M. P. Saka**, "Genetic Algorithm Based Optimum Bracing Design of Non-Swaying Tall Frames ", Journal of Constructional Steel Research, An International Journal, U.K., Vol. 57, pp:1081-1097, 2001

29. E.S. Kameshki and **M. P. Saka**, "Genetic Algorithm Based Optimum Design of Nonlinear Steel Frames with Various Semi-Rigid Connections", Journal of Constructional Steel Research, An International Journal, U.K., Vol. 59, 1,pp:109-134, 2003

30. **M. P. Saka**, "Optimum Design of Pitched Roof Steel Frames with Haunched Rafters by Genetic algorithm", Journal of Computers and Structures, Vol. 81, pp: 1967-1978, 2003.

31. I. Amayreh and **M. P. Saka,** "Failure Load Prediction of Castellated Beams Using Artificial Neural Networks", Asian Journal of Civil Engineering, Vol. 6, No. 1, pp:35-54, 2005

32. **M. P. Saka,** "The theorems of structural variation for rectangular finite elements for plate flexure", J. of Computers and Structures, Vol. 83, pp:2442-2452, 2005

33. **M. P. Saka,** Discussion of "Design of Steel frames Using Ant Colony optimization" by C. V. Camp, B. J. Bichon and S. P. Stovall, Journal of Structural Engineering, ASCE, Vol. 132, No. 7, July, pp:1179-1180, 2006.

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