

Curriculum Vitae

Sameh Youssef Mahfouz Yassin
Assoc. Professor of Steel Structures
Head of Construction and Building Engineering Department,
Arab Academy for Science, Technology and Maritime Transport.



1- Qualifications

- B.Sc.: Civil Engineering Department (Major: Structural Engineering), **MTC**, Cairo, Egypt, 1988, Excellent with Distinction.
- M.Sc.: Civil Engineering Department (Major: Structural Engineering), **MTC**, Cairo, Egypt, 1993.
- Ph.D.: Civil and Environmental Engineering Department, Bradford University, UK, (www.brad.ac.uk/staff/vtoropov/burgeon/), 1999

2- Career

- Demonstrator: Civil Engineering Department, **MTC**, Cairo, Egypt, 1989-1993 (Full Time).
- Assistant Lecturer: Civil Engineering Department, **MTC**, Cairo, Egypt, 1989-1993 (Full Time).
- Assistant Lecturer: Civil and Environmental Engineering Department, Bradford University, UK, 1996-1999 (Part Time).
- Lecturer: Civil Engineering Department, **MTC**, Cairo, Egypt, 1999-2005 (Full Time)
- Associate Professor: Civil Engineering Department, **MTC**, Cairo, Egypt, 2005-2013 (Full Time).
- Head of Construction and Building Engineering Department (**AASTMT**), Cairo, Egypt, 2013-Present.
- Visiting Professor: Civil and Environmental Engineering, College of Engineering, Florida A&M University - Florida State University Civil, USA, Jan-July 2008 (Full Time).
- Head of Construction and Building Engineering Dept., **AASTMT**., 2015-present

3- Other

- Member of the Egyptian Committee for the Preparation of the Egyptian Code of Practice for Steel Structures and Bridges (2006-present).
- Member of the Association for Structural and Multidisciplinary Optimization in the UK (**ASMO-UK**) (1999-present)
- Advisory Member of Bradford University Research Group (1999-present)
- Member of the Egyptian Engineers Syndicate (1988-Present)

4- Fields of Research Interests

- (1) Design Optimization of Steel Structures (Size, Shape and Topology)
- (2) Structure Health Monitoring
- (3) Composite Structures
- (4) Naval Architecture and Marine Structures

5- Teaching Activities

a) Undergraduate Courses (1999-Present)

No.	Course Title	Course Code (Location)
1	Theory of Structures I, II, III and IV	STR204 - STR205 - STR208 and STR307 (MTC)
2	Steel Structures and Bridges I, II, III and IV	STR409- STR410 – STR509 and STR510 (MTC)
3	Metal Structures I and II	STR401 - STR414 (MTC)
4	Structural Analysis I	CB 241 (AASTMT)
5	Strength of Material	CB 242 (AASTMT)
6	Structural Analysis II	CB 343 (AASTMT)
6	Structural Dynamics	CB 545 (AASTMT)

b) Postgraduate Courses (1999-Present)

No.	Course Title	Course Code (Location)
1	Stability of steel structures	AST 607 (MTC)
2	Structural analysis	AST 613 (MTC)
3	Finite element analysis of structures	AST 613 (MTC)
4	Structural dynamics I, II and III	AST 614, AST 717 and AST 734 (MTC)
5	Structural Optimization	AST 621 (MTC)
6	Design of Steel Structures	AST 735 (MTC)
7	Design of Steel Bridges	AST 736 (MTC)

6- Theses Supervised

a) Master Degree

- (1) Osman, A., (2003-2007) "Optimum Design of Orthotropic Metallic Deck Bridge" **MTC**, Cairo, Egypt.
- (2) El-hussien, M. (2004- 2006)" Structural Dynamics of Reinforced Concrete Structures" **MTC**, Cairo, Egypt.
- (3) Elamiry, Y. (2006-2008) "Environmental Management and Risk Analysis for Thermal Power Plants", **MTC**, Cairo, Egypt.
- (4) Fadel, Z. (2007-2009), "Economic Design of Steel Frames Taking into Consideration Different Bracing Systems and Joint Rigidity", **MTC**, Cairo, Egypt.
- (5) Abdel Kader, M. (2009-2012) "Behavior of Different Types of Steel Work Connection", **MTC**, Cairo, Egypt.
- (6) Ziad, M.(2009-2012), "Study of Concrete Resistance against Products of Nuclear Explosion" **MTC**, Cairo, Egypt
- (7) Rashad, M. (2009-2013), "Study the Behavior of Composite Sandwich core Structural panels under explosion using FEM ", **MTC**, Cairo, Egypt.
- (8) Taha, A K. (2011- 2013) "Using of Ferro Cement Technology to Resist Penetration" **MTC**, Cairo, Egypt.
- (9) Mostafa, M. (2013-2015)"Improvement of the structural performance of Buried Structures", **MTC**, Cairo, Egypt.

b) Ph. D. Degree

- (1) Elamiry, Y. (2011-2014) "Methodology for selecting the optimal contract type for construction projects", **MTC**, Cairo, Egypt.
- (2) Shahan, A. (2011- 2014) "Structural analysis of fortified structures subjected to Nuclear Explosion ", **MTC**, Cairo, Egypt.

7- Published papers:

- Mahfouz, S.Y., Salem, A.H. and Raslan, M.S. (1994), "Best location of stiff elements in multi-bay frameworks for maximum buckling strength", Annual Conference of the Canadian Society for Civil Engineering, Winnipeg, Manitoba, Canada, P. 512-541.
- Mahfouz, S.Y., Salem, A.H. and Raslan, M.S. (1994), "Optimum location and proportioning of stiff elements in multistory frameworks for maximum buckling strength", Second Alexandria Conference on Structural and Geotechnical Engineering, pp. 611-626.
- Mahfouz, S.Y., Toropov, V.V. and Westbrook, R.K. (1998), "Improvements in the performance of a genetic algorithm: application to steelwork optimum design", Proceedings of 7th AIAA /USAF/NASA/ISSMO Symposium on Multidisciplinary Analysis and Optimization, pp. 2037-2045.
- Mahfouz, S.Y., Toropov, V.V. and Westbrook, R.K. (1998), "Optimum design of steelwork using a genetic algorithm", In: Parmee, I. (ed.), Poster Proceedings of Adaptive Computing in Design and Manufacture, pp. 13-16.
- Mahfouz, S.Y., Toropov, V.V. and Westbrook, R.K. (1999), "Modification, tuning and testing of a GA for structural optimization problems", In: Toropov, V. (ed.), Proceedings of 1st AMSO UK/ISSMO Conference on Engineering Design Optimization, pp. 271-278.
- Toropov, V.V., Mahfouz, S.Y. and Westbrook, R.K. (1999), "Discrete design optimization of 3-dimensional steel structures using a genetic algorithm", 3rd World Congress of Structural and Multidisciplinary Optimization, Buffalo, NY, USA, May.
- Toropov, V.V. and Mahfouz, S.Y., 2001, "Design optimization of structural steelwork using a genetic algorithm, FEM and a system of design rules, Eng. Compu., 437-460(24).
- Shawky, K., Mahfouz, S.Y. and Abdel A. Z. (2001) "Structural optimisation technique based on a modified genetic algorithm " 4th Alexandria International conference on Structural and Geotechnical Engineering, Alexandria, Egypt, pp.
- Mahfouz, S. Y. and Toropov, V.V. (2001), "Anti-Optimisation problems arising in optimisation of structural steelwork " 9th International Conference on Aerospace sciences and Aviation Technology, MTC , Cairo, Egypt.
- Mahfouz, S.Y. (2002) " Validation of 3D modeling of a steel portal structure using a modified genetic algorithm " 14th U S National Congress of Theoretical and Applied Mechanics, Virginia , USA.
- Mahfouz, S.Y. and Alqedra, M. (2002) "Parameter identification using parallel genetic algorithm" 4th International Conference on Civil and Architecture Engineering, MTC, Cairo, Egypt.
- Mahfouz, S.Y. (2002) "Maximization of the ratio of the effective buckling length Evaluated by FEM and BS5950" 4th International Conference on Civil and Architecture Engineering, MTC, Cairo, Egypt.

- Mahfouz, S.Y. (2003) "The use of genetic algorithm for validation of 3D simplified model of a steel clad structure", 10th International Colloquium on Structural and Geotechnical Engineering, Ain-shams university, Cairo , Egypt.
- Mahfouz, S.Y. (2003) "Topology optimisation of trusses using modified genetic algorithm", 10th International Colloquium on Structural and Geotechnical Engineering, Ain-shams university, Cairo, Egypt.
- Mahfouz, S.Y. and Raslan, M. S. (2004), "Structural shape optimization using modified genetic algorithms " 5th International Conference on Civil and Architecture Engineering, MTC, Cairo, Egypt.
- Mahfouz, S. Y. and Seleem, M. A. (2006),"Combined genetic and sequential quadratic programming algorithms for vibration- based structural health monitoring " 6th International Conference on Civil and Architecture Engineering, MTC, Cairo, Egypt.
- Mahfouz, S.Y. (2007)" Shape optimization of shell structures", 12th International Conference on Aerospace sciences and Aviation Technology, MTC, Cairo, Egypt.
- Mahfouz, S.Y., Toropov, V and Tawfeek, K. (2008)" Design optimization of deployable steel bridges", Proceedings of 5st AMSO UK/ISSMO Conference on Engineering Design Optimization, **2008**.
- Fadel, Z., , Salem, A. H., Abdel Wahab, M and Mahfouz, S.Y. (2010), "Economic design of multi-bay steel frames taking into consideration different bracing systems ", " 6th International Conference on Civil and Architecture Engineering, MTC, Cairo, Egypt
- Mahfouz, S.Y. (2011)" Parameter Identification of Finite Element Model Using a Genetic Algorithm ", Proceedings of 14th International Conference on Aerospace sciences and Aviation Technology, MTC , Cairo, Egypt.
- Rashad, M., Elwahab, M., Mahfouz, S. Y. and Amin, M (2012) " Numerical Study of Lightweight Sandwich Panels under Explosion using Rigid Polyurethan Foam and Vulcanized Rubber" 9th International Conference on Civil and Architecture Engineering, MTC, Cairo, Egypt
- Selema, Z., Farag, H.M., Mahfouz, S. Y. and Mazek, S.A. (2012) " Using Different Mitigation to increase the Resistance of Underground Concrete Subjected to Blast Loads " 9th International Conference on Civil and Architecture Engineering, MTC, Cairo, Egypt
- Shaheen, A., Mahfouz, S. Y., Amin, M. S. and Abu Hamd, M. (2014) " Shape Optimization of Concrete Slab subjected to Blast Load " 10 th International Conference on Civil and Architecture Engineering, MTC, Cairo, Egypt
- Shaheen, A., Mahfouz, S. Y., Amin, M. S. and Abu Hamd, M. (2014) " Design Optimization Problem for concrete " 10 th International Conference on Civil and Architecture Engineering, MTC, Cairo, Egypt.
- El-Amiri, Y., Mahfouz, S. Y., Amer, N., and Emam, M., (2014) "The Best Criteria for the Selection of Consultant Offices in Libyan Construction Industry", 10 th International Conference on Civil and Architecture Engineering, MTC, Cairo, Egypt.
- El-Amiri, Y., Mahfouz, S. Y., Amer, N., and Emam, M., (2014) "Consultant Offices Selection using the Analytic Hierarchy Process", 10 th International Conference on Civil and Architecture Engineering, MTC, Cairo, Egypt.

8- Civil Engineering Projects (Designed – Supervised- Technical Reports)

- Number of Projects (Steel and Reinforced Concrete Projects): more than 114 among them:
 - Strategic Stock Refrigerators Steel Buildings (Alexandria and Suze)
 - El Yusr Water Planet 160.000 m³ (Hurgada City)
 - El-Sherif Factory (Al Asher City)
 - Al Amal for plastic pipes (Al-Asher city)
 - ITS building (Free Zone, Nasr City)
 - Different projects for Schneider Electric Egypt (Al Asher city, Badr City)
 - Organo Technique Company-Samir Areef (6th October City)
 - Bahgat Naser Factory (Al-Asher city)
 - Hily food Factory (Egypt-Alex Desert Rood)
 - Ibn Sina-1 Resort (El-Dabaa- Matroh_Alex Rood)
 - Ibn Sina-2 Resort(Sidy Abdel Rahman, Matroh_Alex Rood)
 - Wedding Hall of Montaza El-Zieton (Cairo)
 - The Youth Hotel (Sharm El-shekh City)
 - Montza Badr 3 Club (Suze City)
 - Administrative Building of sewage station (Bani- Soief City)
 - Renovation of Training Stadium (El-Salam city)
- Number of Technical Reports: more than 123

9- Personal Information

Nationality : Egyptian

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