

CURRICULUM VITAE

Sherif El-Gamal

PERSONAL INFORMATION

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EDUCATION

2005 Ph.D. Civil Engineering (Structural), Sherbrooke University, Canada
Title: "*Behavior of Restrained Concrete Bridge Deck Slabs Reinforced with FRP Reinforcing Bars under Concentrated Loads*"
2000 M.Sc. in Civil Engineering (Structural), Menoufia University, Egypt
Title: "*Nonlinear Analysis of Reinforced Concrete Shells*"
1996 B.Sc. Hons. Civil Engineering (1st in the cohort), Menoufia University, Egypt

EMPLOYMENT HISTORY

6/2016 - Present Associate Professor
Department of Civil and Architectural Eng., Sultan Qaboos University, Oman
1/2012 – 5/2016 Assistant Professor
Department of Civil and Architectural Eng., Sultan Qaboos University, Oman
4/2009 - 1/2012 Assistant Professor
Department of Civil Engineering, King Saud University, Saudi Arabia
1/2006 - 3/2009 Post-Doctoral Fellow
Department of Civil Engineering, Sherbrooke University, Canada
1/2002 - 12/2005 Research Assistant & Ph.D. Graduate Studies
Department of Civil Engineering, Sherbrooke University, Canada
7/2000 - 12/2001 Lecturer
Department of Civil Engineering, Menoufia University, Egypt
3/1997 - 6/2000 Demonstrator
Department of Civil Engineering, Menoufia University, Egypt
8/1996 - 12/2001 Structural Engineer (Part-time)
Menoufia University, Egypt

AWARDS & RECOGNITION

2023	Certificate of Appreciation for outstanding performance in the academic year 2022-2023, College of Engineering, Sultan Qaboos University
2021	Scientific and Research Award for outstanding performance in the academic year 2020-2021, Sultan Qaboos University.
2020	Best Academic Paper in the International Conference on Civil Infrastructure and Construction (CIC 2020) Doha, Qatar, February 2-5, 2020.
2019	College of Engineering Appreciation Letter, Sultan Qaboos University, for winning with my students the first and second places in the 11 th Annual Wooden Truss Competition held at the American University in Dubai, UAE.
2019	Nominated by the Department for the College of Engineering Best Advisor Award, Sultan Qaboos University.
2018	Best Teacher Award for outstanding teaching during the academic year 2017-2018, Sultan Qaboos University.
2018	Awarded the College of Engineering Appreciation Certificate for outstanding efforts to the College during the academic year 2017-2018.
2017	College of Engineering Appreciation Letter, Sultan Qaboos University, for winning with my students the first and second places in the 9 th Annual Wooden Truss Competition held at the American University in Dubai, UAE.
2016	Scientific and Research Award for outstanding performance in the academic year 2016-2017, Sultan Qaboos University.
2016	College of Engineering Appreciation Letter, Sultan Qaboos University, for winning with my students the second place in the 8 th Annual Wooden Truss Competition held at the American University in Dubai, UAE.
2015	Nominated by the Department for the College of Engineering Best Teacher Award, Sultan Qaboos University.
2015	Best Research Paper Award in the academic year 2014-2015, Sultan Qaboos University.
2015	Keynote Speaker at the International Conference on Innovations in Civil and Structural Engineering (ICICSE'2015), Istanbul (Turkey), June 3-4, 2015.
2006	Best Poster Award (Theme One), ISIS Canada 11th Annual Conference, Calgary, Canada.
2006-2009	Post-doctoral research fellowship in Sherbrooke University, Department of Civil Engineering, Sherbrooke University, Canada.
2005	Most Creative Poster Award, ISIS Canada 10th Annual Conference, Ottawa, Canada.
2002 & 2004	Institutional award for Outstanding Academic Performance, Civil Engineering Department, Sherbrooke University, Canada.
1996	Graduated from the College of Engineering with High Distinction (1 st among all classmates), College of Engineering, Egypt.
1991	Completed High School with High Distinction (1 st among thousands of students in the Menoufia Governorate), Egypt.

FIELDS OF INTEREST

- Reinforced Concrete Structures.
- Rehabilitation and Strengthening of Concrete Structures.
- Use of Fiber-Reinforced Polymers (FRPs) in Concrete Structures.
- Structural Health Monitoring.
- Durability and Long-Term Behavior of FRPs.
- Effect of Elevated Temperatures of FRP Materials.
- Structural Analysis of Determinate and Indeterminate Structures.

TEACHING EXPERIENCE

Teaching Experience in Classroom

Over 20 years of teaching experience in several civil/structural engineering-related courses in four countries (Egypt, Canada, Saudi Arabia, and Oman). Winner of the Sultan Qaboos University **Best Teacher Award** for outstanding teaching during the academic year 2017-2018.

2012 – Present: Sultan Qaboos University, Muscat, Oman*

CIVL3036	Structural Analysis I	Spring (2012-2018), Fall (2015)
CIVL4016	Structural Analysis II	Spring (2012-2023)
CIVL4206	Concrete Design	Fall (2012-2022), Spring (2020-2023)
AREN5116	Graduation Project II	Fall (2012-2023)
CIVL3216	Basic Mechanics	Summer (2013)
CIVL3002	Engineering Drawing (Drawing I)	Fall (2018, 2021)
CIVL6110	Advanced Reinforced Concrete	Spring (2013)
CIVL6125	FRP-RC Structures	Fall (2023)
CIVL5993	Research Project I	Fall (2012-2022)
CIVL5994	Research Project II	Spring (2013-2022)

* Note: The College of Engineering programs at Sultan Qaboos University including the Civil Engineering program has been officially accredited by the Engineering Accreditation Commission of ABET (Accreditation Board for Engineering and Technology, Inc.) since 2009 until now.

2009 – 2011: King Saud University, Riyadh, Saudi Arabia

CE471	Reinforced Concrete I	Fall/Spring (2009-2011)
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2004 – 2008: Sherbrooke University, Sherbrooke, Canada

GCA717	Composite Materials in Construction and Rehabilitation of Structures	Teaching Assistant (Tutorials)
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1997 – 2001: Menoufia University, Egypt

CVE202	Reinforced Concrete Structures I	5 times
CVE317	Reinforced Concrete Structures II	4 times
CVE411	Reinforced Concrete Structures III	5 times
CVE102	Theory of Structures I	4 times
CVE201	Theory of Structures II	5 times
CVE301	Theory of Structures III	3 times
CVE101	Civil Engineering Drawing	5 times
CVE406	Final Year Project (Reinforced Concrete)	4 times

Teaching Activities Outside Classroom

- Led two teams of students from Sultan Qaboos University (SQU) to win first and second places in the 13th Annual Wooden Bridge Competition held at the American University in Dubai (AUD), March 2023, Dubai, UAE.
- Led two teams of students from Sultan Qaboos University (SQU) to win first and second places at the 11th Annual Wooden Bridge Competition held at the American University in Dubai (AUD), March 2019, Dubai, UAE.
- Led two teams of students from Sultan Qaboos University (SQU) to win first and second places at the 9th Annual Wooden Bridge Competition held at the American University in Dubai (AUD), 25 March 2017, Dubai, UAE.

- Organized the second Wood Truss Bridge Competition held at Sultan Qaboos University on March 2017, Muscat, Oman.
- Led two teams of undergraduate students from Sultan Qaboos University to win second place at the 8th Annual Wooden Bridge Competition held at the American University in Dubai on 19 March 2016, Dubai, UAE.
- Initiated and organized the first BBQ Sticks Truss Competition held at Sultan Qaboos University (SQU) on 14-16 March 2016.
- Arranged several field trips for my students to different construction sites to enhance their understanding and enlarge their experience.

Student/Trainee Advising and Supervision

Student Advising at SQU

- Academic advisor for 20 to 40 students/year in the faculty of engineering.
- Second academic advisor for the CAE department students during the registration period.
- Member of the Civil and Architectural Engineering department advising committee (2012-2017).
- Coordinator of the Civil and Architectural Engineering department advising committee (2017-2020)
- Member of the college of engineering advising committee from (2017-2020).

Student Supervision

At Sultan Qaboos University

- I have supervised several students in their final year research projects in the CAE department.
 - 1) Flexural strengthening of reinforced concrete beams with fiber-reinforced polymers, Khalid Al-Shanfari, 2013.
 - 2) Effect of High Temperature on the Performance of Concrete Cylinders Externally Confined with Carbon FRP Sheets, Saood Suleiman Al-Mahrouqi, 2014.
 - 3) Behaviour of Glass FRP-confined concrete cylinders after exposure to elevated temperature, Ahmed Al-Mahri, 2014.
 - 4) Rehabilitation and Strengthening of RC Beams Using Fiber Reinforced Polymers, Balaqis Mohammed Al-Farsi, 2014.
 - 5) Durability of Glass Fiber Reinforced Polymer Bars in Severe Environments, Mohammed Abdullah Salim Al Mahrouqi, 2015.
 - 6) Long-Term Flexural Performance of RC Beams Strengthened with FRPs, Aubad Said Salim Al Mashikhi, 2015.
 - 7) Investigating the Tensile and Bond Properties of Newly Developed Glass Fiber Reinforced Polymer Bars, Mohammed Rashid Al-Shibli, 2016.
 - 8) Developing of Sandwich Wall Panels for Use in Buildings, Adnan Said Ali Al Kalbani, 2017.
 - 9) Compressive Behavior of different Types and Diameters of FRP Bars after Exposure to Elevated Temperatures, Osama Naseem Abdulrahman Al Hanbali, 2017.
 - 10) Flexure Behavior of FRP Bars after Exposure to Elevated Temperatures, Abdulrahman Mohammed Said Al Fahdi, 2017.
 - 11) Strengthening of Reinforced Concrete One-Way Slabs using Fiber Reinforced Polymers, Riyadh Khalid Sulaiman Zahran Al Kharusi, 2017.
 - 12) Developing of Sandwich Wall Panels with Good Thermal Properties for Use in Buildings in Oman. Omar Salim Sulaiman Al Hatmi, 2018.
 - 13) Testing of Concrete Columns Reinforced with GFRP Bars and Spirals under Eccentric Loading. Omayyah Hussein Ayed Talahmeh, 2018.
 - 14) Mechanical and Thermal Properties of Lightweight Concrete with Expanded Polystyrene. Yousuf Salim Al-Jardani, 2019.

- 15) Modelling Weather Effects in Construction Operations. Maryam Ibrahim Mohammed Al-Ajmi, 2021
- 16) Physical, Mechanical, and Thermal Properties of Lightweight Foam Concrete (LFC) With Fly Ash. Al Adhraa Al Zakwani, 2023

- I have also supervised more than 100 architectural students in their final year graduation project (AREN5116 Graduation Project II) in the CAE department (Fall 2012 - 2022).

At Menoufia University, Egypt

- I have participated in the supervision of more than 50 students in their final year graduation projects in the Civil Engineering Department at Menoufia University, Egypt.

Examining Committee of Undergraduate Students

- Member of the examining committees for the final year research projects of several students in the Civil and Architectural Engineering Department (2012 - present). This includes:
 - 1) Durability of Sarooj-lime mixes, *Fatma Al-Ghailani*, 2013.
 - 2) Comparison between required and provided reinforcement in villa design in the Muscat area during the period 2005-2010, *Abdullah Ali Hassan Al Mujeini*, Sept. 2013
 - 3) Utilization of recycled tires in concrete for non-structural use, *Nehal Nasib Ali*, 2014.
 - 4) Strengthening of historical buildings using textile-reinforced mortar, *Majd Marwan Mohammad Dawed*, 2014.
 - 5) Durability of GFRP bars for reinforcing concrete structures in regions of severe environments, *Noor Khalfan Al Waheibi*, 2014.
 - 6) Use of recycled tires in concrete for fine aggregate replacement, *Hussain Mohammed Jawad Najwani*, 2015.
 - 7) Investigation of the Use of recycled glass as Coarse Aggregate in Concrete Production, *Hassan Mohammed Abdullah Aali Al Shehhi*, 2015.
 - 8) Seismic analysis of petroleum storage tanks, *Sulaiman Ali Khalfan Al Mahroqi*, 2015.
 - 9) Comparison between Required and Provided Reinforcement in Villa Design at Muscat Area, *Ahmed Amer Al Mahri*, 2016.
 - 10) Investigation of the Presence and Extent of Over Designed Villas Structures, *Hafsa Lhalaf Al Subhi*, 2016.
 - 11) Comparative study of progressive collapse analysis of reinforced concrete building between GSA and DoD guidelines, *Hatim Yahya Sulaiman Hamood Al Mahrouqi*, 2017.
 - 12) Seismic Capacity Analysis of School building in Oman, *Falah Salim Abdullah Al Alawi*, 2019.
 - 13) Evaluation of Potential for Sustainability Measures in Infrastructure Construction in Oman, *Majdi Yahya Moosa Tahayna*, 2019.
 - 14) Progressive collapse analysis of steel structures due to column loss scenario, *Mohammed Juma Said Al Anbari*, 2020.
 - 15) Influence of infill walls on building behavior, *Hamed Hamood Saleem Al Hadi*, 2020.
- Member of the examining committees for several students in the EIDAAD Cooperating Program (CIVL5002), College of Engineering, Sultan Qaboos University (2020 - present).

Participation in Curriculum Development/Review and Teaching Management

- I have been participating in several committees at the department and college levels where I have been participating in the development, revision, and modification of courses and degree plans. This includes the following:
 - Coordinator of Department Undergraduate Studies and Curriculum Committee (2019-present).
 - Member of the Department Modernization Committee (2022- present).
 - Member of the Department Undergraduate Curriculum Committee (2012-2019).

- Member of the College Undergraduate Studies and Curriculum Committee (2012-2014 and 2019-present).
- Member of the Architectural Engineering FYPs Review Committee (2016 - present).

One of the main duties of these committees is the development and/or modification of degree plans and courses.

- Member of the College Instructional Development Committee (CIDC) (April 2015 – present).
One of the main tasks of this committee is to improve the quality of teaching in the faculty of engineering.
- Have been continuously improving course materials and introducing new topics to meet new engineering challenges and to meet the ABET requirements. This can be highlighted as follows:
 - **CIVL6125 FRP Reinforced Concrete Structures:** Developed this new postgraduate course from scratch.
 - **CIVL6110 Advanced Reinforced Concrete:** Prepared/edited/updated course description, materials, and notes. In addition, I added some new topics to the course.
 - **CIVL3036 Structures I:** Developed a truss bridge competition project between students, which was considered by all students in the course as one of the best activities they have seen in the CAE department. They commented that it was very interesting for them and that they learned many things from this activity. They also asked to involve such activities in all courses.
 - **CIVL4016 Structures II:** Introduced new structural analysis software programs which were successfully used by students. This improved the course and gave the students good and fast tools for solving real problems.
 - **CIVL4206 Concrete Design:** Some finite element analysis and design programs were introduced to students. In addition, students were encouraged to make design programs. This resulted in some good quality programs developed by students.
 - **AREN5116 Graduation Project II:** Instead of the manual calculation the students usually use in the analysis and design of their structures in this course, I introduced some modern modeling and analysis software programs such as SAFE, SAP 2000, STAAD Pro., ETABS, and RCC. This greatly enhanced the quality of their final-year projects and gave them a fast and accurate tool to solve and design their projects.
 - Developed a short course (3 days) at King Saud University, Riyadh, Saudi Arabia, about modern analysis and design software programs. The course title is “*Introduction to SAP 2000*”, (in 2010 and 2011).

3.4 Personal Professional Development in University Teaching and Learning

I am always working on enhancing my teaching skills by attending educational and learning training workshops. Some of these workshops are listed below:

At Sultan Qaboos University:

- “Active Learning Workshop” Sultan Qaboos University, College of Agricultural & Marine Sciences, CAMS Conference Room 219, November 21, 2023.
- “Awareness Raising Sessions about the Strategies Used for Implementing SQU Teaching Philosophy and Teaching and Learning Methodologies - Open Day” Sultan Qaboos University, Avani Hotel, Muscat, 9 November 2023.
- “The Open Day for University Teaching Philosophy & Teaching Strategies” Sultan Qaboos University, Avani Hotel, Muscat, 27 April 2023.
- “Interactive Workshop Organized by SQU Project Team for Reviewing Academic Programs to Meet the Requirements of Future Technologies” Sultan Qaboos University, 24 November 2022.
- “Curriculum Modernization for Different Programs Workshop” College of Engineering Retreat, Sultan Qaboos University, Avani Hotel, Muscat, 20 October 2022.

- *"Capacity Building Workshop on Listing Qualifications on the Oman Qualification Framework (OQF)"* Holiday inn Hotel, Muscat, 10-12 October 2022.
- *"The Omani Building Code Workshop"* Panorama Mall, Muscat, 30-31 May 2022.
- *"Omantel Innovation Lab: Artificial Intelligence & Machine Learning"* 8 February 2022.
- *"STEAM without the Hot Air Research into Education of Innovative Graduate Engineers Entitled"* Seminar by Prof. Mark Dyer (Dean of the School of Engineering, University of Waikato, Hamilton, New Zealand), College of Engineering, Sultan Qaboos University, April 2019.
- *"Critical Thickening Skills for the 21st Century Workshop"* by Prof, Nikos Mourtous, Center for Excellence in Teaching and Learning, Sultan Qaboos University, May 2017.
- *"Alternative Instructional Strategies Workshop"* by Prof, Nikos Mourtous, Center for Excellence in Teaching and Learning, Sultan Qaboos University, May 2017.
- *"Introduction to CDIO Initiative Workshop"* by Prof. Juha Kontio, College of Engineering Workshop, Sultan Qaboos University, May 2016.
- *"How to Teach Engineering Students Process Skills Workshop"* by Prof, Nikos Mourtous, College of Engineering Workshop, Sultan Qaboos University, May 2015.
- *"More with Moodle Part 1 & 2"*, by Teaching and Learning Department, Sultan Qaboos University, January 2014.
- *"Creating Engaging Presentation with Prezi"*, by Teaching and Learning Department, Sultan Qaboos University, January 2014.
- *"Designing Learning Outcomes Pt1"*, by Teaching and Learning Department, Sultan Qaboos University, Sept. 2014.
- *"Experience Moodle as Learners"*, by Teaching and Learning Department, Sultan Qaboos University, Sept. 2014.
- *"Course General Settings & Administration"*, by Teaching and Learning Department, Sultan Qaboos University, Sept. 2014.
- *"Building Course – Adding Resources"*, by Teaching and Learning Department, Sultan Qaboos University, Sept. 2014.
- *"Building Course – Adding Activities: Chat, Forum"*, by Teaching and Learning Department, Sultan Qaboos University, Sept. 2014.
- *"Building Course – Adding Activities: Choice, Assignments"*, by Teaching and Learning Department, Sultan Qaboos University, Sept. 2014.
- *"Building Course – Adding Activities: Lesson"*, by Teaching and Learning Department, Sultan Qaboos University, Sept. 2014.

At Menoufia University, Egypt:

- *"Morals and Principles of the University Teacher"*, by Menoufia University Development Center, Egypt, July 2007.
- *"Communication Skills"*, by Menoufia University Development Center, Egypt, August 2007.
- *"Effective Presentation"*, by Menoufia University Development Center, Egypt, August 2007.
- *"Novel Trends in Teaching"*, by Menoufia University Development Center, Egypt, August 2007.
- *"Workshop for the University Teacher Qualification Program"*, by Menoufia University Development Center, Egypt, June 1999.

RESEARCH

My research is in the general field of reinforced concrete structures. I am investigating the use of fiber-reinforced polymers (FRP) in different concrete structures applications. Particularly, I am researching the use of FRP reinforcement in concrete bridges, parking garages, and continuous-reinforced concrete pavement (CRCP). My research includes also intelligent sensing and structural health monitoring of concrete structures using Fiber Optic Sensors (FOS), the durability of FRP bars and FRP-reinforced concrete elements, and rehabilitation/strengthening of concrete structural elements using FRPs.

I was the winner of the Sultan Qaboos University **Best Research Paper Award** in the academic year 2014-2015 and the winner of the Sultan Qaboos University **Scientific and Research Award** in the academic year 2016-2017.

I have more than 30 refereed journal papers, 40 conference papers, and several technical reports and posters.

Peer-Reviewed Journal Papers

- 1) Al-Saidy, A., Al-Busaidi, M., **El-Gamal, S.E.**, Abu Sohail, K., (2023) *Flexural Strengthening of Stone Masonry Walls Using Textile-Reinforced Sarooj Mortar*. *Materials* 2023, 16 (16), 5703; <https://doi.org/10.3390/ma16165703>
- 2) Al-Saidy, A., **El-Gamal, S.E.**, Abu Sohail, K., (2023) *Strengthening of Reinforced Concrete (RC) Beams using Textile Reinforced Mortars (TRMs)*. *Int J Civ Eng.* 21, 2023–2035. <https://doi.org/10.1007/s40999-023-00867-9>
- 3) **El Gamal S.E.**, Al-Jardani, Y. Meddah, MS, Abu Sohail, K., Al-Saidy, (2023) *Mechanical and Thermal Properties of Lightweight Concrete with Recycled Expanded Polystyrene Beads*, *European Journal of Environmental and Civil Engineering*. <https://doi.org/10.1080/19648189.2023.2200830>.
- 4) Abu Sohail K.M., Al-Hinai M.H., Alnuaimi A., Al-Shahri M., **El-Gamal S.E.** (2022) *Prediction of Flexural Fatigue Life and Failure Probability of Normal Weight Concrete*. *Journal of Materiales de Construcción*. Vol. 72 (343).
- 5) **El Gamal S.E.**, Al-Fahdi A.M., Meddah M., Al-Saidy A., Abu Sohail K.M., (2021) *Flexural Behavior of FRP Bars after Exposure to Elevated Temperatures*. *The Journal of Engineering Research*, Vol. 18 (1): 12-19.
- 6) **El-Gamal S.E.**, AlSheraida O., (2020) *Behavior of Axially Loaded Low Strength Concrete Columns Reinforced With GFRP Bars and Spirals*. *Engineering Structures*, Vol. 216, 110732.
- 7) **El-Gamal S.E.**, Al-Nuaimi A.S., Al-Saidy A.H., Al-Shanfari K., (2019) *Flexural Behavior of RC Beams Strengthened with CFRP Sheets using Different Strengthening Techniques*. *The Journal of Engineering Research*, Vol. 16 (1): 35-43.
- 8) Meddah M.S., Ismail M.A., **El-Gamal S.E.**, and Fitriani H., (2018) *Performances Evaluation of Binary Concrete Designed with Silica Fume and Metakaolin*. *Construction and Building Materials Journal*, Elsevier, Vol. 166: 400-412.
- 9) Al-Saidy A.H., Hago A., **El-Gamal S.E.**, and Dawood M. (2017) *Strengthening of Historical Stone Masonry Buildings in Oman using Textile Reinforced Mortars*. *The Journal of Engineering Research*, Vol. 14 (1): 23-38.
- 10) **El-Gamal S.E.**, Al-Nuaimi A.S., Al-Saidy A.H., Al-Lawati A. (2016) *Efficiency of Near Surface Mounted Technique Using Fiber Reinforced Polymers for the Flexural Strengthening of RC Beams*. *Construction and Building Materials Journal*, Elsevier, Vol. 118: 52-62.
- 11) Al-Saidy A.H., Saadatmanesh H., **El-Gamal S.E.**, Al-Jabri K.S., Waris B.M. (2015) *Structural Behavior Of Corroded RC Beams With/Without Stirrups Repaired With CFRP Sheets*. *Materials and Structures*, Volume 49 (9): 3733–3747.
- 12) AlSheraida O., **El-Gamal S.E.** (2015) *Performance of Modified Wedge Anchorage System for Pre-Stressed FRP Bars*, *International Journal of Civil, Environmental, Structural, Construction and Architectural Engineering*, Vol. 10 (9): 1187-1191.

- 13) **El-Gamal S.E.**, Al-Jabri K., Al-Mahri A, Al-Mahrouqi S. (2015) *Effects Of Elevated Temperatures on the Compressive Strength Capacity of Concrete Cylinders Confined with FRP Sheets: an Experimental Investigation*. International Journal of Polymer Science, Volume 2015, Article ID 549187, 10 pages.
- 14) Alnuaimi A.S., Al Mohsin M., Hago A., **El-Gamal S.E.** (2015) Overdesign of Villa Structures in Oman. The Journal of Engineering Research (TJER), 12 (2): 68–78.
- 15) **El-Gamal, S.E.** (2014) *Bond Strength of GFRP Bars in Concrete after Exposure to Elevated Temperatures*. Journal of Reinforced Plastics and Composites, Vol. 33 (23): 2151–2163.
- 16) **El-Gamal, S.E.** (2014) *Finite Element Analysis of Concrete Bridge Decks Reinforced with Fiber Reinforced Polymer Bars*. The Journal of Engineering Research (TJER), 11 (2): 49–62.
- 17) Al-Salloum, Y., **El-Gamal, S.**, Almusallam, T., Alsayed, S., Aqel, M. (2013) *Effect of Harsh Environmental Conditions on the Tensile Properties of GFRP Bars*. Composites: Part B, 45 (1): 835–844.
- 18) Almusallam, T., Al-Salloum, Y., Alsayed, S., **El-Gamal, S.E.**, and Aqel, M. (2013) *Tensile Properties of GFRP Bars Embedded In Concrete under Severe Laboratory and Field Environmental Conditions*. Journal of Composite Materials, 47 (4): 393-407.
- 19) **El-Gamal, S.E.**, Al-Salloum, Y., Alsayed, S., Aqel, M. (2012) *Performance of Near Surface Mounted GFRP Bars in Concrete*. Journal of Reinforced Plastics and Composites, 31 (22): 1501-1515.
- 20) Alsayed, S., Al-Salloum, Y., Almusallam, T., **El-Gamal, S.E.**, Aqel, M. (2012) *Performance of glass fiber reinforced polymer bars under elevated temperatures*. Composites: Part B, 43 (5): 2265–2271.
- 21) Bouguerra, K., Ahmed E.A., **El-Gamal, S.E.**, and Benmokrane, B. (2011) *Testing of Full-Scale Concrete Bridge Deck Slabs Reinforced with Fiber Reinforced Polymer (FRP) Bars*. Construction and Building Materials Journal, 25: 3956–3965.
- 22) Alsayed, S. Almusallam, T., Al-Salloum, Y., and **El-Gamal, S.E.** (2011) *Tensile Properties of GFRP Bars after Exposure to Harsh Laboratory and Field Environmental Condition*, Journal of Advanced Materials Research, Vols. 250: 3738-3742.
- 23) **El-Gamal, S.E.**, Benmokrane, B., and El-Salakawy, E.F., (2009) *Cracking and Deflection Behavior of One-Way Parking Garage Slabs Reinforced with CFRP Bars*. ACI Special Publication, SP-264-3: 33-52.
- 24) **El-Gamal, S.E.**, Benmokrane, B., El-Salakawy, E., Cousin, P., Wiseman, A., (2009) *Durability and Structural Performance of CFRP-RC Parking Garage's Slabs after Being in Service for Eight Years*. Canadian Journal of Civil Eng., 36 (4): 617-627.
- 25) Bao, X., Li, W., Zhang, C., Eisa, M., **El-Gamal, S.E.**, Benmokrane, B. (2008) *Monitoring the Distributed Impact Wave on Concrete Slab due to the Traffics Based on Polarization Dependence on the Stimulated Brillouin Scattering*. Smart Mater. Struct. 17: 015003.
- 26) Benmokrane. B., Eisa. M., **El-Gamel. S.E.**, Denis Thébeau, and El-Salakawy. E. (2008) *Pavement System Suiting Local Conditions*. ACI Concrete International Magazine, November 2008: 34-39
- 27) Benmokrane, B., El-Salakawy, E., **El-Gamal, S.E.**, Sylvain, G. (2007) *Construction and Testing of an Innovative Concrete Bridge Deck Totally Reinforced with Glass FRP Bars: Val-Alain Bridge on Highway 20 East*. ASCE, Journal of Bridge Engineering, Vol. 12, (5): 632-645.
- 28) Benmokrane, B., El-Salakawy, E., El-Ragaby, A., **El-Gamal, S.E.** (2007) *Performance Evaluation of Innovative Concrete Bridge Deck Slabs Reinforced with Fibre-Reinforced Polymer Bars*. Canadian Journal of Civil Engineering, Vol. 34, (3): 298-310.
- 29) **El-Gamal, S.E.**, El-Salakawy, E.F., and Benmokrane, B. (2007) *Influence of Reinforcement on the Behavior of Concrete Bridge Deck Slabs Reinforced with FRP Bars*. ASCE, Journal of Composites for Constructions, Vol. 11 (5): 449-458.
- 30) **El-Gamal, S.E.**, El-Salakawy, E.F., and Benmokrane, B. (2005) *Behavior of Concrete Bridge Deck Slabs Reinforced with FRP Bars under Concentrated Loads*. ACI Structural Journal, Vol. 102 (5): 727-735.

- 31) **El-Gamal, S.E.**, El-Salakawy, E.F., and Benmokrane, B. (2005) *A New Punching Shear Equation for Two-Way Concrete Slabs Reinforced with FRP Bars*. ACI Special Publication, SP-230-50: 877-894.
- 32) Soliman, M.H., Meleka, N.N., and **El-Gamal, S.E.** (2000) *An Experimental Study of Reinforced Concrete Cylindrical Shells With Opening*. Journal of Civil Engineering, Al-Azhar University (CERM), Egypt, Vol. 22.
- 33) Soliman, M.H., Meleka, N.N., and **El-Gamal, S.E.** (2000) *Nonlinear Finite Element Analysis of R.C. Shells with Variable Thickness*. Journal of Civil Engineering, Al-Azhar University (CERM), Egypt, Vol. 22.

Referred Conference Papers

- 1) **El-Gamal, S.E.** and Al-Saadi, S. (2022) *Developing of Lightweight Concrete Sandwich Wall Panels with Good Thermal Insulation Properties for Sustainable Buildings*. International Conference on Sustainability: Developments and Innovations (ICSIDI 2022), Prince Sultan University, Riyadh, KSA, 19 -22 February 2022.
- 2) **El Gamal, S.E.**, Al-Nuaimi, A., Al-Shukeili, H. (2022). *Behavior of Arch Slabs Reinforced with FRP Bars Under Concentrated Loads*. In: Proceedings of the 8th International Conference on Advanced Composite Materials in Bridges and Structures. Part of the Lecture Notes in Civil Engineering, vol 278. Springer, Cham. https://doi.org/10.1007/978-3-031-09632-7_55
- 3) El-Gamal, S.E., Al-Fahdi, A. (2022). *Effect of Elevated Temperatures on the Flexural Behavior of FRP Bars*. In: Proceedings of the 8th International Conference on Advanced Composite Materials in Bridges and Structures. Part of the Lecture Notes in Civil Engineering, vol 278. Springer, Cham. https://doi.org/10.1007/978-3-031-09632-7_56
- 4) **El-Gamal, S.E.**, Al-Shukeili, H., Al-Nuaimi, A. (2022). *Feasibility of Using Fiber-Reinforced Polymer Bars as Internal Reinforcement in Concrete Arch Slab Bridges*. In: Proceedings of the Canadian Society of Civil Engineering Annual Conference 2021. CSCE 2021. Lecture Notes in Civil Engineering, vol 240. Springer, Singapore. https://doi.org/10.1007/978-981-19-0507-0_56
- 5) **El-Gamal, S.E.**, Al-Kalbani, A., Al-Hatmi, O. (2022). *Developing and Investigating the Performance of Thermal Insulation Lightweight Sandwich Wall Panels*. In: Proceedings of the Canadian Society of Civil Engineering Annual Conference 2021. CSCE 2021. Lecture Notes in Civil Engineering, vol 240. Springer, Singapore. https://doi.org/10.1007/978-981-19-0507-0_57
- 6) **El-Gamal S.E.**, AlSheraida O., (2020) *Experimental Study on the Performance of Circular Concrete Columns Reinforced with GFRP under Axial Load*. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.
- 7) **El-Gamal S.E.**, Al-Nuaimi A., Al-Saidy A., Al-Shanfari K. (2017) *Flexural Behavior of Reinforced Concrete Beams Strengthened with Carbon Fiber Reinforced Polymer Sheets Using Different Bonding Techniques*. Proceedings of 8th International Conference on Structural Engineering and Construction Management (ICSECM2017), Kandy, Srilanka, 7-9 December 2017.
- 8) Al-Saidy A.H., **El-Gamal S.E.**, Al-Jabri K.S., Waris B.M. (2017) *Behavior of Corroded RC Beams without Stirrups Repaired with CFRP Sheets*. Proceedings of the Ninth International Structural Engineering and Construction Conference (ISEC-9), Resilient Structures and Sustainable Construction, Valencia, Spain, 24-29 July 2017.
- 9) Al-Saidy A.H., Hago A.W., **El-Gamal S.E.** (2017) *Textile Reinforced Mortars for Strengthening of Historical Stone Buildings in Oman*. Proceedings of the 3rd International Conference on Preservation, Maintenance and Rehabilitation of Historical Buildings and Structures (REHAB 2017), Braga, Portugal, 14-16 June 2017.
- 10) **El-Gamal S.E.**, Al-Jabri K.S., Al-Mahrouqi S.S., Al-Mahri A.S. (2015) *Performance of Concrete Cylinders Confined with FRP Sheets after Exposure to Elevated Temperatures*. Proceedings of the First International Conference on Structural Safety under Fire & Plast (CONFAB 2015), Glasgow, Scotland, UK. 2-4 September 2015.

- 11) AlSheraida O., **El-Gamal S.E.** (2015) *Performance of Modified Wedge Anchorage System for Pre-Stressed FRP Bars*, Proceedings of 17th International Conference on Construction Engineering and Management (ICCEM 2015), October 26 - 27, 2015, Barcelona, Spain.
- 12) AlSheraida O., **El-Gamal S.E.**, Al-Saidy A. (2015) *Wedge Anchorage System for Prestressed CFRP Reinforcement – A Literature Review*. Proceedings of the International Conference on Innovations in Civil and Structural Engineering (ICICSE 2015), Istanbul, June 3-4, 2015.
- 13) **El-Gamal S.E.**, Al-Nuaimi A., Al-Saidy A., Al-Lawati A. (2014) *Flexural Strengthening of RC Beams Using Near Surface Mounted Fibre Reinforced Polymers*. Proceedings of the Brunei International Conference on Engineering and Technology, Institut Teknologi Brunei, Brunei Darussalam, November 1-3, 2014.
- 14) Thébeau, D., Benmokrane, B., and **El-Gamal S.E.** (2010) *Three-Year Performance of Continuously Reinforced Concrete Pavement with GFRP Bars*. 11th International Symposium on Concrete Roads, Seville, Spain, October 13-15, 2010.
- 15) **El-Gamal, S.E.**, AbdulRahman, B., and Benmokrane, B. (2010) *Deflection Behaviour of Concrete Beams Reinforced with Different Types of GFRP Bars*. The 5th International Conference on FRP Composites in Civil Engineering, Beijing, China, Sept. 27-29, 2010.
- 16) Dulude, C., Ahmed, E., **El-Gamal, S.E.**, and Benmokrane, B. (2010) *Testing of Large-Scale Two-Way Concrete Slabs Reinforced with GFRP Bars*. The 5th International Conference on FRP Composites in Civil Engineering, Beijing, China, Sept. 27-29, 2010.
- 17) Benmokrane, B., Ahmed, E., Dulude, C., **El-Gamal, S.E.** (2010) *Testing of Full-Scale Bridge Barriers Reinforced with GFRP Bars*, 8th International Conference on Short and Medium Span Bridges (SMSB), Niagara Falls, Canada, August 3-6, 2010.
- 18) Youssef, T., **El-Gamal, S.E.**, Benmokrane, B., (2009) *Time-Dependent Deflection and Strain Variation of GFRP Reinforced Concrete Beams under Sustained Uniform Loads*. 4th International Conference on Construction Materials: Performance, Innovations and Structural Implications (ConMat'09), Nagoya, Japan, August 24-26, 2009.
- 19) **El-Gamal, S.E.**, Benmokrane, B., El-Salakawy, E., Wiseman, A., Chaallal, O., (2009) *Monitoring of an Innovative Concrete Parking Garage Reinforced with GFRP Composite Bars*. 4th International Conference on Structural Health Monitoring on Intelligent Infrastructure (SHMII-4), 22-24 July, Zürich, Switzerland.
- 20) Tremblay, J., **El-Gamal, S.E.**, Wattanasanticharoen, E., Benmokrane, B., (2009) *Reinforced Concrete Pile Load Testing with Fibre Optic Sensors*. 4th International Conference on Structural Health Monitoring on Intelligent Infrastructure (SHMII-4), 22-24 July, Zurich, Switzerland.
- 21) **El-Gamal, S.E.**, Benmokrane, B., (2009) *Design of Concrete Bridge Deck Slabs Using Different Types of GFRP Bars*. 9th International Symposium on Fibre Reinforced Polymer Reinforcement for Concrete Structures, (FRPRCS9), 13 –15 July, Sydney, Australia.
- 22) **El-Gamal, S.E.**, Bouguerra, K., Benmokrane, B., (2009) *Laboratory Investigation on the Behaviour of GFRP Reinforced Concrete Deck Slab*. 9th International Symposium on Fibre Reinforced Polymer Reinforcement for Concrete Structures, (FRPRCS9), 13 - 15 July, Sydney, Australia.
- 23) Youssef, T., Benmokrane, B., **El-Gamal, S.E.**, El-Salakawy, E., (2009) *Deflection and Strain Variation of GFRP Reinforced Concrete Beams after One-year of Continuous Loading*. 9th International Symposium on Fibre Reinforced Polymer Reinforcement for Concrete Structures, (FRPRCS9), 13 –15 July, Sydney, Australia.
- 24) Youssef, T., **El-Gamal, S.E.**, Benmokrane, B., (2009) *Long-Term Deflection of GFRP Reinforced Concrete Beams*. 38th CSCE Annual Conference, May 27-30, St-John's, Newfoundland-Labrador, Canada.
- 25) **El-Gamal, S.E.**, Benmokrane, B., and S. Goulet (2008) *Testing of Concrete Bridge Barriers Reinforced with New Glass FRP Bars*. Proceedings of the 37th Annual Conference of the Canadian Society for Civil Engineering, Québec City, Québec, Canada, June 10-13.
- 26) Youssef, T.A., **El-Gamal, S.E.**, El-Salakawy, E. and Benmokrane, B. (2008) *Experimental Results of Sustained Load (CREEP) Tests on FRP Reinforcing Bars for Concrete Structures*. Proceedings of the 37th Annual Conference of the Canadian Society for Civil Engineering, Québec City, Québec, Canada, June 10-13.

- 27) Eisa, M., **El-Gamal S.E.**, El-Salakawy, E. and Benmokrane, B. (2008) Design and Construction of First GFRP-CRCP Slabs Implemented on Highway 40 East (Montreal). Proceedings of the 37th Annual Conference of the Canadian Society for Civil Engineering, Québec City, Québec, Canada, June 10-13.
- 28) Eisa, M., **El-Gamal S.E.**, El-Salakawy, E. and Benmokrane, B. (2008) *Design and Construction of First Continuous Reinforced Concrete Pavement using GFRP Reinforcing Bars*. Proceedings of the Fifth Middle East Symposium on Structural Composites for Infrastructure Applications (MESC-5), Hurghada, Egypt, May 23-25.
- 29) Youssef, T.A., **El-Gamal, S.E.**, El-Salakawy, E. and Benmokrane, B. (2008) *Assessment of Long-term Performance of FRP Bars under Different Sustained Load Levels*. Proceedings of the Fifth Middle East Symposium on Structural Composites for Infrastructure Applications (MESC-5), Hurghada, Egypt, May 23-25.
- 30) Benmokrane, B., Eisa, M., **El-Gamal, S.**, El-Salakawy, E., Thébeau, D., (2008) *First Use of GFRP Bars as Reinforcement for Continuous Reinforced Concrete Pavement in Canada*. Proceedings of the 4th International Conference on FRP Composites in Civil Engineering (CICE2008), Zurich, Switzerland, July 22-24.
- 31) **El-Gamal, S.E.**, B. Benmokrane, E. El-Salakawy, P. Cousin, and A. Wiseman (2007), *Durability and Structural Performance of CFRP-RC Parking Garage's Slabs After Eight Years in Service Conditions*. Proceedings of Third International Conference on Durability and field applications of reinforced polymers (FRP) composites for construction (CDCC 2007), Quebec City, Quebec, Canada, May 22-24, pp. 49-58.
- 32) Benmokrane, B., El-Ragaby, A., **El-Gamal, S.E.**, and El-Salakawy, E.F. (2007). *Innovative FRP Reinforced Concrete Bridges with Extended Service Life*. Proceedings of the Transportation Research Board 86th Annual Meeting, Washington, USA, January 21-25.
- 33) **El-Gamal, S.E.**, El-Salakawy, E.F., and Benmokrane, B. (2006). *Analytical and Experimental Investigation on FRP Reinforced Concrete Bridge Deck Slabs*. Proceedings of the International Conference on Civil Engineering Infrastructure Systems (CEIS 2006), American University of Beirut (AUB), Beirut, Lebanon, June 12-14, 10 p.
- 34) Benmokrane, B., Debaiky, A., El-Ragaby, A., Roy, R., **El-Gamal, S.E.**, El-Salakawy, E. (2006) *Laboratory and Field Performance of FOS Sensors in Static and Dynamic Strain Monitoring in Concrete Bridge Decks*. Proceeding, 13th International Society for Optical Engineering, SPIE, Annual Symposium on Smart Structures and Materials, San Diego, California, USA, Feb.-Mar. 10 p.
- 35) Benmokrane, B., El-Salakawy, E.F., **El-Gamal, S.E.**, and El-Ragaby, A. (2006). *Use of GFRP Bars as Reinforcement for Concrete Bridge Deck Slabs*. Proceedings of the 3rd International Conference on FRP Composites in Civil Engineering (CICE), Miami, Florida, December, pp. 319-322.
- 36) Amr El-Ragaby, **El-Gamal, S.E.** Ehab El-Salakawy, and Brahim Benmokrane (2006) *Static and Fatigue Performance of Concrete Bridge Deck Slabs Reinforced With Glass FRP Bars*. Proceedings of the 7th international conference in short and medium bridges, Montreal, Quebec, Canada, August 23-25, 10 p.
- 37) El-Ragaby, A., **El-Gamal, S.E.**, El-Salakawy, E.F., and Benmokrane, B. (2006) *Performance of Concrete Bridge Deck Slabs Reinforced with Glass FRP Composite Reinforcing Bars*. Proceedings of the 3rd International Conference on Bridge Maintenance, Safety, and Management, (IABMAS), Porto, Portugal, Jul. 9 p.
- 38) **El-Gamal, S.E.**, El-Salakawy, E.F., and Benmokrane, B. (2005). *Analytical and Experimental Study on the Behaviour of FRP Reinforced Concrete Bridge Deck Slabs under Wheel Load*. Proceedings of the 33rd Annual General Conference of the Canadian Society for Civil Engineering, Toronto, Ontario, Canada, June 2-5.
- 39) **El-Gamal, S.E.**, El-Salakawy, E.F., and Benmokrane, B. (2004) *Behaviour of FRP Reinforced Concrete Bridge Decks under Concentrated Loads*. Proceedings of the 4th International Conference on Advanced Composite Materials in Bridges and Structures, Calgary, Alberta, July 20-23, 8 p.
- 40) **El-Gamal, S.E.**, El-Salakawy, E.F., and Benmokrane, B. (2004) *Behaviour of Bridge Decks Slabs Reinforced with Glass FRP Composite Bars*. Proceedings of the 32nd Canadian Society of Civil Engineering Annual Conference, Saskatoon, Saskatchewan, Canada, June 2-5, ST-222: 1-10.

- 41) **El-Gamal, S.E.**, El-Salakawy, E., and Benmokrane, B. (2003) *Shear Behavior of FRP-Reinforced Concrete Bridge Decks under Concentrated Loads*. Proceedings of the Second International Workshop on Structural Composites for Infrastructure Applications, Cairo, Egypt, December 17-18, 10 p.

Selected Technical Reports

- 1) **El-Gamal, S.E.** and Al-Saadi S. (2022) *Developing of Thermal Insulation Sandwich Wall Panels using Byproduct Materials for Electric Power Saving in Buildings and Constructing Affordable Houses*. Final report for TRC funded research grant, Project No RC/RG-ENG/CAED/18/02, Department of Civil and Architectural Engineering, Sultan Qaboos University, Sultanate of Oman, March 2022.
- 2) **El-Gamal, S.E.**, (2021) *Developing of Thermal Insulation Sandwich Wall Panels using Byproduct Materials for Electric Power Saving in Buildings and Constructing Affordable Houses*. Technical second progress report for TRC funded research grant, Project No RC/RG-ENG/CAED/18/02, Department of Civil and Architectural Engineering, Sultan Qaboos University, Sultanate of Oman, November 2021.
- 3) **El-Gamal, S.E.**, (2020) *Developing of Thermal Insulation Sandwich Wall Panels using Byproduct Materials for Electric Power Saving in Buildings and Constructing Affordable Houses*. Technical first progress report for TRC funded research grant, Project No RC/RG-ENG/CAED/18/02, Department of Civil and Architectural Engineering, Sultan Qaboos University, Sultanate of Oman, November 2020.
- 4) Al-Nuaimi, A., Hago, A., **El-Gamal, S.E.**, Mohamedzein, Y., and Al-Alawi M., (2020) *Report of the Technical Committee at Sultan Qaboos University Submitted to the Administrative Court Case No. (AB-352-19): Diwan of Royal Court versus Carillion Alawi Company regarding the implementation of the Omani Botanical Garden Project (Phase Two)*. Technical report, Department of Civil and Architectural Engineering, Sultan Qaboos University, Sultanate of Oman, March 2020, (In Arabic).
- 5) **El-Gamal, S.E.**, Al-Jabri K., Al-Saidy A., (2018) *Behavior of Concrete Columns Reinforced with FRP Reinforcement*. Second progress report submitted to the Deanship of research, Sultan Qaboos University, December 2018.
- 6) **El-Gamal, S.E.**, Al-Jabri K., Al-Saidy A., (2017) *Behavior of Concrete Columns Reinforced with FRP Reinforcement*. First progress report submitted to the Deanship of research, Sultan Qaboos University, December 2017.
- 7) **El-Gamal, S.E.**, Al-Nuaimi A., Al-Saidy A., (2016) *Short and Long Term Flexural Performance of Reinforced Concrete Beams Strengthened with Near Surface Mounted and Externally Bonded Fiber Reinforced Polymers*. Final report submitted to the Deanship of research, Sultan Qaboos University, December 2016.
- 8) **El-Gamal, S.E.**, Al-Nuaimi A., Al-Saidy A., (2015) *Short and Long Term Flexural Performance of Reinforced Concrete Beams Strengthened with Near Surface Mounted and Externally Bonded Fiber Reinforced Polymers*. Second progress report submitted to the Deanship of research, Sultan Qaboos University, December 2015.
- 9) **El-Gamal, S.E.**, Al-Nuaimi A., Al-Saidy A., (2014) *Short and Long Term Flexural Performance of Reinforced Concrete Beams Strengthened with Near Surface Mounted and Externally Bonded Fiber Reinforced Polymers*. First progress report submitted to the Deanship of research, Sultan Qaboos University, December 2014.
- 10) **El-Gamal S.E.**, Al-Salloum Y., Alsayed S., Almusallam T. (2011) *Performance of the Newly Available Glass Fiber Reinforced Polymer Bars Subjected to Flexural Stresses under Severe Environmental Conditions*. Technical Report, Civil Engineering Department, King Saud University, October, 166 pp.
- 11) **El-Gamal, S.E.**, Almusallam, T., Al-Salloum, Y., Alsayed, S., (2011) *Performance of the Newly Available Glass Fiber Reinforced Polymer Bars under Severe Environmental Conditions and High Temperatures*. Technical Report, Civil Engineering Department, King Saud University, Mars, 158 pp.

- 12) **El-Gamal, S.E.** and Benmokrane, B. (2010) *Construction of CRCP-Slabs Reinforced with GFRP Bars Implemented on Highway 40 East (Montréal): Performance After Three Years and Half in Service*. Technical Report, submitted to the Ministry of Transportation of Quebec, July, 31 pp.
- 13) **El-Gamal, S.E.**, Ehab, A., and Benmokrane, B. (2009) *Laboratory Testing of Concrete Bridge Barriers Reinforced with New GFRP Bars (Types 311 and 210)*. Technical Report, submitted to the Ministry of Transportation of Quebec, 101 pp.
- 14) **El-Gamal, S.E.**, S. Soliman, H. Tobbi, and Benmokrane, B. (2008) *Bond Dependent Coefficient (k_b) of Asian GFRP Bars*. Technical progress report No. 1. September, 25 pp.
- 15) **El-Gamal, S.E.**, El-Salakawy, E., and Benmokrane, B. (2008) *Monitoring of the Structural Slabs Reinforced with Fiber Reinforced Polymer Rods (Laurier-Taché Parking Garage - Addendum 2)*. Final Technical Report, submitted to Public Works and Government Services (PWGSC), Ottawa, April, 47 pp.
- 16) **El-Gamal, S.E.**, and Benmokrane, B. (2007) *Evaluation of the Performance of Glass Fiber Reinforced Polymer (GFRP) Reinforcement, an Innovative Material, in the Superstructure of Bridge 213 over the Ryder Brook on VT 100 in Morristown, Vermont*. Final Report, submitted to Vermont Agency of Transportation, Vermont, USA, December, 41 pp.
- 17) **El-Gamal S.E.**, Tobbi, H., El-Sayed, A. and Benmokrane, B. (2007) *Impact Testing of Concrete Bridge Barriers Reinforced with New GFRP Bars*. Technical Report, submitted to the Ministry of Transportation of Quebec, October, 84 pp.
- 18) Eisa, M., **El-Gamal S.E.**, El-Salakawy, E. and Benmokrane, B. (2007) *Construction of CRCP-Slabs Reinforced with GFRP Bars Implemented on Highway 40 East (Montréal)*. Technical Report, submitted to the Ministry of Transportation of Quebec, July, 279 pp.
- 19) **El-Gamal, S.E.**, Cousin, P., El-Salakawy, E., and Benmokrane, B., (2007). *Laboratory Testing on the Durability and Structural Performance of Slab Specimens Reinforced with FRP Bars of Laurier-Taché Parking, - Addendum 3*. Technical Report, submitted to Public Works Government Services Canada, Gatineau, Quebec, Feb., 60 pp.
- 20) **El-Gamal, S.E.** and Brahim Benmokrane (2007) *Calculation Note of Marie de L'incarnation Bridge in Quebec City*. Technical Report, submitted to Pultrall Inc., Thetford Mines, Quebec, May, 28 pp.
- 21) **El-Gamal, S.E.** and Benmokrane, B. (2006) *Monitoring of the Structural Slabs Reinforced with Fiber Reinforced Polymer Rods (Laurier-Taché Parking Garage - Addendum 2)*. Technical Report No. 2, submitted to Public Works and Government services (PWGSC), Ottawa, November, 17 pp.
- 22) **El-Gamal, S.E.** and Benmokrane, B. (2006) *Design of a Flat Slab Reinforced with GFRP Bars*. Technical Report, submitted to Dr. Cory Zurell, Blackwell-Bowick Partnership Limited, August, 63 pp.
- 23) **El-Gamal, S.E.**, El-Salakawy, E.F. and Benmokrane, B. (2006) *Design of Concrete Bridge Deck Slabs using Different Types and Diameters of GFRP Bars*. Technical Report, submitted to Pultrall Inc., Thetford Mines, Quebec, March, 54 pp.
- 24) El-Salakawy, E.F., **El-Gamal, S.E.** and Benmokrane, B. (2005) *Evaluation of the Performance of Glass Fiber Reinforced Polymer (GFRP) Reinforcement, an Innovative Material, in the Superstructure of Bridge 213 over the Ryder Brook on VT 100 in Morristown, Vermont*. Technical Report, No. 3, submitted to Vermont Agency of Transportation, Vermont, USA, December, 41 pp.

Student/Trainee Supervision in Research

➤ Final Year Research Projects Students

I have supervised several undergraduate students in their final year research projects in the CAE department, SQU.

Khalid Al-Shanfari	2013	Flexural Strengthening of Reinforced Concrete Beams with Fiber-Reinforced Polymers
Saood Suleiman Al-Mahrouqi	2014	Effect of High Temperature on the Performance of Concrete Cylinders Externally Confined with Carbon FRP Sheets

Ahmed Al-Mahri	2014	Rehabilitation and Strengthening of RC Beams Using Fiber-Reinforced Polymers
Balaqis Mohammed Al-Farsi	2014	Behavior of FRP-Confined Cylinders after Exposure to Elevated Temperatures
Abdullah Salim Al Mahroqi	2015	Durability of Glass Fiber Reinforced Polymer Bars in Severe Environments
Aubad Said Salim Al Mashikhi	2015	Long-Term Flexural Performance of RC Beams Strengthened with FRPs
Mohammed Rashid Al-Shibli	2016	Investigating the Tensile and Bond Properties of Newly Developed Glass Fiber Reinforced Polymer Bars
Adnan Said Ali Al Kalbani	2017	Developing of Sandwich Wall Panels for Use in Buildings
Osama Naseem Abdulrahman Al Hanbali	2017	Compressive Behavior of different Types and Diameters of FRP Bars after Exposure to Elevated Temperatures
Abdulrahman Mohammed Said Al Fahdi	2017	Flexure Behavior of FRP Bars after Exposure to Elevated Temperatures
Riyadh Khalid Suliaman Al Kharusi	2017	Strengthening of Reinforced Concrete One-Way Slabs using Fiber Reinforced Polymers
Omar Salim Sulaiman Al Hatmi	2018	Developing of Sandwich Wall Panels with Good Thermal Properties for Use in Buildings in Oman
Omayyah Hussein Ayed Talahmeh	2018	Testing of Concrete Columns Reinforced with GFRP Bars and Spirals under Eccentric Loading
Yousuf Salim Al-Jardani	2019	Mechanical and Thermal Properties of Lightweight Concrete with Expanded Polystyrene
Maryam Ibrahim Mohammed Al-Ajmi	2021	Modeling Weather Effects in Construction Operations
Al Adhraa Al Zakwani	2022	Mechanical and Thermal Properties of Light-Weight Foamed Concrete with Fly Ash

➤ **Master Students**

Since joining SQU (January 2012), I have supervised and co-supervised several master's students at the CAE Department, Sultan Qaboos University.

Name	Completed in	Research Topic
Khoulia Moosa Salem Al-Mazrui (Co-Supervisor) with Dr. Ali Alnuaimi and Abdulwahid Hago	9/2012	Comparison between Required and Provided Reinforcement in Villa Design in Muscat Area During the Period 2000-2005
Ahmed Mahmood Abdul Khaliq Al Lawati (Supervisor) with Dr. Ali Alnuaimi and Dr. Abdullah Al-Saidy	6/2014	Flexural Strengthening of RC Beams Using Near Surface Mounted (NSM) Fiber Reinforced Polymers (FRPs)
Sultan Mohammed Saif Al-Mazroui (Supervisor) with Dr. Abdullah Al-Saidy and Dr. Ali Alnuaimi	9/2015	Upgrading the Flexural Capacity of RC Beams Using Glass Fiber Reinforced Polymers
Othman Sattii Mustafa Al-Shareedah (Supervisor) with Dr. Abdullah Al-Saidy and Prof. Khalifa Al-Jabri	7/2016	Performance Evaluation of Axially Loaded Circular GFRP-Reinforced Concrete Columns
Muhanad Khalid Hilal Al-Nabhani (Co-Supervisor) with Dr. Ali Alnuaimi and Abdulwahid Hago	2/2017	Numerical analysis of High-rise Buildings subjected to Wind Load

<i>Marwan Hamed Al Ruhaili</i> (Supervisor) with Dr. Abdullah Al-Saidy and Prof. Khalifa Al-Jabri	7/2018	Behavior of High Strength Concrete Circular Columns Reinforced with Fiber Reinforced Polymer Bars and Spirals
<i>Hind Salim Hamed Al Shukeili</i> (Supervisor) with Dr. Ali Al-Nuaimi	1/2019	Behavior of Arch Slabs Reinforced with FRP Bars under Concentrated load
<i>Shadha Saud Sulaiman Al Hinai</i> (Co-Supervisor) with Dr. Ali Al-Nuaimi	6/2019	Optimization of Length and Thickness of Shear Wall in Relation to Building Height
<i>Thuraya Ahmed Saleh AL-Harhi</i> (Supervisor) with Dr. Ali Al-Nuaimi and Dr. Abdullah Al-Saidy	6/2019	Flexural Behavior of Concrete Beams Reinforced with Hybrid FRP and Steel Bars
<i>Mohammed Abdelwahid Hago</i> (Co-Supervisor) with Dr. Yahia Mohamedzein	6/2019	Investigation of Building Damages due to Expansive Soils
<i>Manal Al Buasaidi</i> (Co-Supervisor) with Dr. Abdullah Al-Saidy and Dr. Mohammed Meddah	12/2019	Strengthening of Stone Masonry Structures using Textile Bonded with Sarooj Mortar
<i>Safa Ali Akbar Al- Balushi</i> (Supervisor) Dr. Abdulwahid Hago and Prof. Khalifa Al-Jabri	7/2020	Determining the Optimum Block Type for Use in Buildings in Oman
<i>Mashaal Al Bahri</i> (Supervisor) with Dr. Ali Al-Nuaimi	1/2021	Developing and Testing of Full-Scale Lightweight Sandwich Wall Panels with High Thermal Insulation Properties
<i>Osama Al Wahaibi</i> (Co-Supervisor) with Dr. Mohammed Meddah and Dr. Abdullah Al-Saidy	5/2021	Engineering Properties of Concrete Reinforced with Recycled Waste Fibers (Steel and Polymer)
<i>Ahmed Al Shibli</i> (Co-Supervisor) with Dr. Ali Al-Nuaimi and Dr. Abdulwahid Hago	1/2021	Development of Compressed Blocks for Low-Cost Housing using Dune Sand
<i>Obaida Taha Tilat</i> (Supervisor) with Prof. Ali Al-Nuaimi and Dr. Mohammed Meddah	1/2021	Developing of Non-Load Bearing Lightweight Concrete Wall Panels Using Local and Byproduct Materials in Oman
<i>Sara Abdulrahim Al-Balushi</i> (Supervisor) with Prof. Khalifa Al-Jabri and Dr. Abdullah Al-Saidy	1/2022	Residual capacity of GFRP-reinforced concrete columns after exposure to elevated temperatures
<i>Sana Aydani Abdolnasser</i> (Supervisor) with Prof. Ali Al-Nuaimi	9/2022 - present	Flexural and shear capacity of the prefabricated truss-beam slabs
<i>Yasser Al Saidi</i> (Co-Supervisor) with Dr. Abdullah Al-Saidy and Dr. Kazi Abu Sohel	9/2023 - present	????????????????
<i>Mohammed Al Housni</i> (Supervisor) with Dr. Kazi Abu Sohel and Dr. Abdullah Al-Saidy	9/2023 - present	Mechanical and thermal properties of lightweight foamed concrete with fly ash

➤ Ph.D. Students

I co-supervised 2 Ph.D. students in the Civil Engineering Department, at the University of Sherbrooke.

Name	Completed in	Research Topic
Mohamed Eisa (Co-Supervisor) with Prof. Brahim Benmokrane and Dr. Ehab El Salakawy	9/2008	Experimental and Analytical Investigations on Continuous Reinforced Concrete Pavement (CRCP) Using GFRP Reinforcing Bars
Tarik Youssef (Co-Supervisor) with Prof. Brahim Benmokrane and Dr. Ehab El Salakawy	9/2010	Creep Behavior of GFRP Bars and GFRP Reinforced Concrete Elements

➤ **Theses Examination Committee Member**

- 1) Chair of a Ph.D. thesis oral exam of Mr. Abdullah Al-Sayegh from the Department of Petroleum and Chemical Engineering, 18/6/2014.
- 2) Member of the MSc thesis examination of Mr. Hasan Saeed, Comparison of Omani Seismic Code with International Counterparts", 8/9/2015.
- 3) Chair of the MSc thesis examination of Mr. Yousuf Said Al Jabri, "Voltage Stability Assessment of a Micro-Grid, Case Study: Khassab Power System in Oman", 15/2/2015.
- 4) Chair of the MSc thesis examination of Ms. Sarah Salman Al Balushi, "Investigation of Polymer and Surfactant Adsorption on Glass Slides and Crushed Cores in ASP EOR Technique", 01/09/2016.
- 5) Chair of the MSc thesis examination of Ms. Kholood Al-Nofli, "Effect of Initial Wettability on the Performance of Low Salinity Waterflooding for Carbonate Reservoirs" 16/05/2017.
- 6) Chair of the MSc thesis examination of Ms. Rahma Al Shaqsi, "Investigating and Assessing the Sustainability Indexes in Oil and Gas Industry", 18/06/2017.
- 7) External examiner and member of the master's degree thesis examination of Mr. Ibrahim Mohammed Al Fori "Development and Characterization of a Hybrid Aluminum Metal Matrix Composite through Squeeze Casting Process", 28/12/2017.
- 8) Member of the MSc thesis examination of Ms. Uhoud Salim Al Rawahi "Comparison of Seismic and Wind Actions on Buildings in Oman", 31/12/2017.
- 9) Chair of the MSc thesis examination of Mr. Haitham Yousuf Al Ajmi, "Magnetically Coupled Generator Fed from Composite PV System", 02/01/2019.
- 10) Chair of the MSc thesis examination of Ms. Nusiba Al Kharusi, "An EMG-Based Servo Control System for a Knee Orthotics Control", 19/05/2019.
- 11) Chair of the MSc thesis examination of Ms. Amira Al Jadeedi, "Investigation of Automatic Digital Modulation Identification", 10/06/2019.
- 12) Chair of the MSc thesis examination of Ms. Hawraa Al Ajmi, "Thermal Wellbore Stability Analysis during Steam Injection in Vertical Wells", 05/12/2019.
- 13) Chair of the MSc thesis examination of Ms. Maryam Al Gharibi, "Visible light photocatalytic treatment of medical wastewater using Ag nanoparticles decorated ZnO nanorods" 01/10/2020.
- 14) Chair of the MSc thesis examination of Mr. Awadh Al Shehemi, "Defining Artificial Neural Network Hyperparameters for Forecasting Spare Parts: Case Study in the Oil and Gas Industry in Oman", 28/01/2021.
- 15) Member of the MSc thesis examination of Ms. Safia Al Shereiqli, "Investigation of the Use of Ground Seashell as a Filler Material in Mortar", 01/09/2021.
- 16) Chair of the MSc thesis examination of Ms. Sheikha Al Oufi, "Design and Analysis of a Smart Home Energy Management System Employing Smart Functionalities", 07/04/2022.
- 17) Member of the MSc thesis examination of Ms. Maryam Al-Salmiyah, "Experimental and Numerical Study on the Behaviour of Angle Connections under Tension", 03/09/2023.
- 18) Member of the MSc thesis examination of Ms. Maha Almanji, "Flexural fatigue life analysis and fatigue life distribution of plain and fiber-reinforced lightweight aggregate concrete", 19/11/2023.

Funded Research Projects and Contracts

2022-present	University Internal Grant (IG/ENG/CAED/22/03) Principal Investigator	Development of Concrete Arch Slab Bridges Reinforced with Fiber Reinforced Polymer Reinforcement for Corrosive Environments	USD 9,000
2020-present	TRC Research Grant, Oman (RC/RG-ENG/CAED/18/02) Principal Investigator	Developing of Thermal Insulation Sandwich Wall Panels using Byproduct Materials for Electric Power Saving in Buildings and Constructing Affordable Houses	USD 51,500
2019	Consultancy agreement with Pultron Composites, Dubai, United Arab Emirates (CR/ENG/CAED/19/03) Principal Investigator	Mechanical Properties of Glass Fiber Reinforced Polymer Bars - Phase II	USD 12,950
2019	Consultancy agreement with Pultron Composites, Dubai, United Arab Emirates (CR/ENG/CAED/19/02) Principal Investigator	Mechanical Properties of Glass Fiber Reinforced Polymer Bars	USD 11,400
2019-2021	University Internal Grant (IG/ENG/CAED/19/01) Co. Investigator	Development of Compressed Blocks for Low-Cost Housing by using and Recycling Local Materials	USD 16,900
2018-2019	Consultancy agreement with Pultron Composites, Dubai, United Arab Emirates (CR/ENG/CAED/18/08) Principal Investigator	Tensile Strength and Modulus of Glass Fiber Reinforced Polymer Bars with Big Diameters	USD 6,200
2018	Consultancy agreement with Pultron Composites, Dubai, United Arab Emirates (CR/ENG/CAED/18/01) Principal Investigator	Investigating the Tensile Properties of Newly Developed Screwed Glass Fiber Reinforced Polymer Bars	USD 1,560
2017-2018	University Internal Grant (IG/ENG/CAED/17/02) Principal Investigator	Behavior of Concrete Columns Reinforced with FRP Reinforcement	USD 15,300
2017-2018	University Internal Grant (IG/ENG/CAED/17/01) Co. Investigator	Strengthening of Stone Masonry Structures using Textile Bonded with Sarooj Mortar	USD 19,500
2017	Consultancy agreement with Pultron Composites, Dubai, United Arab Emirates (CR/ENG/CAED/17/04) Principal Investigator	Durability of GFRP Bars after Being Subjected to Harsh Laboratory Environment	USD 3,500
2016	Consultancy agreement with Pultron Composites, Dubai, United Arab Emirates (CR/ENG/CAED/16/02) Principal Investigator	Tensile, Shear, and Bond Properties of Newly Developed Glass Fibre Reinforced Polymer (GFRP) Bars	USD 33,900
2015	Consultancy agreement with Pultron Composites, Dubai, United Arab Emirates (CR/ENG/CAED/15/01) Principal Investigator	Tensile Properties of New Generation of Glass Fibre Reinforced Polymer (FRP) Bars	USD 10,390
2014-2016	University Internal Grant (IG/ENG/CAED/14/01) Principal Investigator	Short and Long-Term Flexural Performance of Reinforced Concrete Beams Strengthened with Near Surface Mounted and Externally Bonded Fiber Reinforced Polymers	USD 26,000

2013-2016	UAEU/SQU Joint research project (CL/SQU-UAEU/13/05) Co. Investigator	Composite Rebars for Reinforcing Concrete Structures in Regions of Severe Environment	USD 104,000
2009-2011	A grant from the Center of Excellence for Research in Engineering Material, King Saud University Co. Investigator	Performance of the Newly Available Glass Fiber Reinforced Polymer Bars Subjected to Flexural Stresses under Severe Environmental Conditions	USD 180,000

COMMUNITY SERVICES

Committee Membership

Civil and Architectural Engineering Department, SQU:

2023 - present	Coordinator of the CAE Department Probation Advisory Committee
2021 - 2022	Coordinator of the CAE Department Human Resources (Staff Recruitment and Development) Committee
2019 - present	Coordinator of Department Undergraduate Studies and Curriculum Committee
2015 - present	Member of the Department Quality Assurance and Accreditation Committee
2020 - 2021	Member of the Department Publication Committee
2018 - 2019	Member of the Department Examination Committee
2017 - 2019	Coordinator of the Department Advising Committee
2012 - 2019	Member of the Department Undergraduate Curriculum Committee
2012 - 2017	Member of the Department Student Advising Committee
2012 - 2014	Timetabling Coordinator of the Department
2014 - present	Acting HOD for the CAE Department Several Times

College of Engineering, SQU:

2023 - present	Member of the College Probation Advisory Committee
2019 - present	Member of the College Undergraduate Studies and Curriculum Committee
2015 - 2021	Member of the College Instructional Development Committee
2018 - 2020	Member of the College Media Committee
2017 - 2019	Member of the College Advising Committee
2017 - 2019	Member of the College Publication and Web Committee
2012 - 2014	Member of the College Curriculum and Timetabling Committee
2012 - 2015	The focal point of the college regarding any academic statistics/reports for the Civil and Architectural Engineering department
2014	Member of the Ad-Hoc committee regarding the distinguished teacher award system in the College of Engineering

Sultan Qaboos University:

2014 - 2021	Member of the editorial board of The Journal of Engineering Research (TJER) published by SQU
2019	Organized in collaboration with the CAED society the third Wood Truss Bridge Competition at Sultan Qaboos University (SQU) on April 2019.
2017	Organized the second Wood Truss Bridge Competition held at Sultan Qaboos University (SQU) on March 2017.
2016	Initiated and Organized the first BBQ Sticks Truss Competition held at Sultan Qaboos University (SQU) on 14-16 March 2016.

National Level:

2016 – 2022	Member of the National Committee of the Omani Building Code (Structural Scientific Committee)
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Professional Services

2021 - present	Member, Academic representative in the program advisory committee (PAC),
2023	Middle East College, Muscat, Oman. Reviewer of Internal Grant Proposals (2024 Cycle), College of Engineering, Sultan Qaboos University.
2022	Reviewer of Internal Grant Proposals (2023 Cycle), College of Engineering, Sultan Qaboos University.
2018	External reviewer of several academic programs from the Ministry of Higher Education.
2005 - present	Acting as a referee for several international journals such as the Canadian Journal of Civil Engineers, Journal of Reinforced Plastics and Composites, ACI Materials Journal, ACI Structural Journal, and Engineering Structures, The Journal of Engineering Research (TJER), and Journal of Structural Fire Engineering.
2015	Keynote Speaker at the International Conference on Innovations in Civil and Structural Engineering (ICICSE'2015), Istanbul (Turkey), June 3-4, 2015.
2015	Session Chair in International Conference on Innovations in Civil and Structural Engineering (ICICSE'2015), Istanbul (Turkey) June 3-4, 2015.
2014	Invited Speaker for the 5 TH Brunei International Conference on Engineering and Technology (BICET), Brunei Darussalam, 1 st - 3 rd November 2014.
2014 - 2021	Member of the editorial board of The Journal of Engineering Research (TJER), Sultan Qaboos University.
2014	Chair of the Structural Engineering and Construction Materials session in the 5 TH Brunei International Conference on Engineering and Technology (BICET) 2014, Brunei Darussalam, 1 st - 3 rd November 2014.
2009 - 2012	Acted as a reviewer for research proposals in the Faculty of Engineering – at King Saud University (2009-2012).
2008	Member of the International Scientific Committee of the 2009 Asia-Pacific Conference on FRP in Structures, APFIS 2009, 9-11 December, Seoul, Korea.

Participation in Actual Field Projects

2012 - present	Consultation Work of Several FRP-Reinforced Concrete Structures in the Arabian Gulf Area. (Ex.: Umm Lafina Link Road Project, Dubai, UAE; Souq Waqif Station, Qatar Integrated Railway Project, Doha Metro, Qatar; Fabrication and Provision of Concrete Sleepers, Supports and Saddles for Saudi Aramco Hasbah Project, Saudi Arabia; Improvement and Upgrading of Al-Badee Interchange on Emirates Road (E611), UAE,....etc.)
2009 - 2011	Involved in the Design of Several Reinforced Concrete Structures in Riyadh, Saudi Arabia.
2007 - 2009	Participation in the Design, Construction, and Monitoring of <i>Laurier-Taché</i> Parking Garage, Gatineau, Canada.
2006 - 2009	Participation in the Design, Construction, Monitoring, and Testing of the First Continuous Reinforced Concrete Pavement (CRCP) on HW 40 EAST, Montreal, Canada.
2002 - 2009	Participation in the Design, Construction, Monitoring, or Load Testing of Several Concrete Bridges in Canada and the USA (Ex.: Magog Bridge, located on Highway 55 North over the Magog River, Quebec, Canada; Morristown Bridge, located over the Ryder Brook on Route 100 in Morristown, Vermont, USA; Wotton Bridge, located in the Municipality of Wotton, over the Nicolet-Center River in Quebec, Canada; Cookshire-Eaton Bridge, located over Eaton River in downtown Cookshire, Quebec, Canada).

1996 - 2002 Design and Consultation of Several Buildings at Menoufia University (Ex.: University Hospital in Shebeen El-Kom, Menoufia, Egypt; Faculty of Home Economics, Shebeen El-Kom, Menoufia, Egypt; Faculty of Education, Sadat City, Menoufia, Egypt,...etc. plus several consultations of other private and government buildings off campus), Menoufia, Egypt.