**RAMI H. HADDAD**

Professor of Civil Engineering

Jordan University of Science and Technology

P.O. Box 3030, Irbid, Jordan

E-mail: rhaddad@just.edu.jo

Cellular Phone: 079-5049658

[*https://www.researchgate.net/profile/Rami\_Haddad*](https://www.researchgate.net/profile/Rami_Haddad)

*https://scholar.google.com/citations?view\_op=new\_profile&hl=en*

PERSONAL

Born: December 29, 1966 in Irbid, Jordan.

Marital Status: Married

Children: Son, Haythem; Daughters, Kareen and Laura

**SUMMARY AND QUALIFICATION**

Taught wide spectrum of courses in structures and concrete materials. An expert on concrete quality control, concrete durability and behavior and repair of concrete structures. Served as chairmen of the largest department on campus for three years, CE department, and chaired several departmental committees. Supervised more than 50 master's students served in more than 15 thesis defense committees and published more than 62 journal and conference technical papers in field of concrete materials, and durability, repair of structures using advance composite materials, and structural behavior. Referred more than two hundred international technical papers, several promotion applications, and master's and PHD theses for well-known international universities. Supervised several engineering consultations and serviced in ministry of works committees; especially that of bridge maintenance code.

**EDUCATION**

 **Ph.D., Civil Engineering, Virginia Polytechnic Institute and State University, Jan., 1996.** *Dissertation Title: Characterization of Portland cement Concrete and Deterioration Detection Using Electromagnetic Waves over a Wide Band of Frequency.*

 **M.Sc., Civil Engineering (Structure), Jordan University of Science and Technology, Irbid - Jordan August, 1991.**Thesis Title:*Effect of Early Damage of Concrete on Its Later Strength Development.*

**B.Sc., Civil Engineering, Jordan University of Science and Technology, Irbid - Jordan January 1989.**

### IMPORTANT GRADUATE COURSES

* Advanced Structural Mechanics
* Theory of Elasticity
* Fracture Mechanics
* Advanced Reinforced Concrete
* Advanced Concrete Technology
* Structural Dynamics
* Theory and Design of Plates and Shells
* Structural Stability
* Finite Element Method
* Characterization of cementitious Materials

**PROFESSIONAL EXPERIENCE**

Research Experience

**January 1993-1996, Ph.D student, Virginia Polytechnic Institute and State University, Blacksburg VA.Working on non-destructive evaluation project funded by NSF.**

1. Developing (member of a team) techniques to measure the dielectric properties of Portland cement concrete over radio and microwave frequencies; correlating concrete deterioration with changes in measured dielectric properties of concrete.
2. Utilizing ultrasonic waves in testing concrete infrastructures; evaluating the effect of different concrete mix parameters and forms of deterioration on the wave signature and lag time.
3. Assessment, rehabilitation and maintenance of infrastructures. This include treatments of deteriorated bridge decks as a result of steel corrosion; rehabilitation and design of flexible and rigid pavements; and design of overlays, drainage Systems, and hot-mix asphalt.

**August, 1989-June,1991, M.Sc. Student, Jordan University of Science and Technology, Irbid, Jordan.**

* Working on concrete behavior, specifically, effect of early loading of concrete on its later strength. Investigating the effect of early damage that concrete, in some structure, receives at early ages on its latter performance.

### *Teaching Experience*

* **Sept. 2014-Present,** Professor of civil engineering, Jordan University of Science and Technology, Irbid, Jordan.
* **Sept. 2013-2014,** Professor of civil engineering, Applied Science University, Amman, Jordan.
* **Sept. 2010-2013,** Professor and Chairman of civil engineering, Jordan University of Science and Technology, Irbid, Jordan.
* **Sept. 2009-Sept. 2010,** Professor of civil engineering, Applied Science University, Amman, Jordan.
* **Feb. 2009-Sept. 2009,** Professor of civil engineering, Jordan University of Science and Technology, Irbid, Jordan.
* **Feb. 2009-Sept. 2009,** Professor of civil engineering, Jordan University of Science and Technology, Irbid, Jordan.
* **Feb. 2004- Feb. 2009,** Associate Professor of civil engineering, Jordan University of Science and Technology, Irbid, Jordan.
* **March 1998-Feb. 2004,** Assistant Professor of civil engineering, Jordan University of Science and Technology, Irbid, Jordan.
* **January 1997-March 1998,** Full-Time Lecturer of civil engineering, Jordan University of Science and Technology, Irbid, Jordan,.
* **August 1994–January, 1996,** Teaching Assistant, Civil Engineering Department, Virginia Tech, Blacksburg, VA.
* **January 1990-June 1991,** Teaching Assistant, Civil Engineering Department, Jordan University of Science and Technology. Irbid, Jordan.

### FUNDED RESEARCH

* Behavior of Fiber Reinforced Concrete as Subjected to Thermal Cycling. M.Sc. Research. Funded by Dean of Scientific Research, Jordan University of Science and Technology.
* Arresting Alkali-Silica Reaction Cracks in Concrete Using Fiber Reinforcement. Funded by Dean of Scientific Research, Jordan University of Science and Technology.
* Self-Healing of High-Strength Concrete Damaged by Freezing and Thawing; Pozzolanic Effect. Funded by Dean of Scientific Research, Jordan University of Science and Technology.
* Bond Loss between Corroded Reinforcement and Fiber Reinforced Concrete. Funded by Dean of Scientific Research, Jordan University of Science and Technology.
* Effect of Durability Produced Cracks on the Bond Strength between Reinforcing Steel and Concrete; Alkali-Silica Reaction and Freezing Thawing Effects. Funded by Dean of Scientific Research, Jordan University of Science and Technology.
* Bond Recovery in Fire- Damaged Reinforced High Strength Concrete After Post-Fire-Curing. Funded by Dean of Scientific Research, Jordan University of Science and Technology.
* Repair of Durability Deteriorated or Damaged Reinforced Concrete Members Using Advanced Composite Materials. Funded by Dean of Scientific Research, Jordan University of Science and Technology.
* Effect of High Temperature on the Mechanical Properties of Confined and Unconfined Lightweight Aggregate Concrete.Funded by Dean of Scientific Research, Jordan University of Science and Technology.
* Effect of Elevated Temperature on Bond between reinforcing steel and lightweight aggregate Concrete.Funded by Dean of Scientific Research, Jordan University of Science and Technology.
* Behavior of Steel and Synthetic Fiber Reinforced Normal and High Strength Concrete in Seawater. Funded by Dean of Scientific Research, Jordan University of Science and Technology.
* Proportioning Jordanian Masonry Mortar for Different Applications. Funded by Jordanian Cement Manufacturing Company, Amman-Jordan (Fund value = JD 10, 000).
* Bond behavior between reinforcing steel and fiber reinforced concrete undergoing alkali-silica reaction. Funded by Dean of Scientific Research, Jordan University of Science and Technology.
* A threefold study of bond strength behavior between sound or damaged concretes and carbon fiber reinforced composites. Funded by Dean of Scientific Research, Jordan University of Science and Technology.
* Modeling chloride intrusion into self-compacting heat-damaged concrete. Funded by Dean of Scientific Research, Jordan University of Science and Technology.

### COURSES TAUGHT

* CE 201: Statics
* CE 202: Strength of Materials
* CE 203: Engineering Mechanics
* CE 231: Structure Analysis for Architect Students
* CE 324: Construction Materials
* CE 326: Construction Materials Laboratory
* CE 332: Structure Analysis I
* CE 431: Structure Analysis II
* CE 432: Reinforced Concrete I
* CE 521: Advanced Construction Materials
* CE 591-592: Graduation Project
* CE 721: Advanced Concrete Technology
* CE 783: Special Topics in Civil Engineering: Repair of Concrete Structures

#### MASTERS THESIS SUPERVISING

* Self-Healing of Cracked Fiber Reinforced Concrete, by **Ma’en Bsoul**, (1999).
* Behavior of Fiber Reinforced Concrete Subjected to Thermal Cycling, by **Karim Al-Sa’aed**, (1999).
* Effects of Curing and Mixing Temperature on the Mechanical Properties of Fiber Reinforced Concrete, by **EsamJa’far**, (1999).
* Bond Loss between Corroded Reinforcement and Fiber Reinforcement Concrete, by **Ahmed Ashteyat**, (2000).Mr. Ashteyat is currently an assistant professor of civil engineering, Applied Science University, Amman, Jordan.
* Role of Fibers in Maintaining Steel Bond with Concrete Subjected to Heating-Cooling Cycles, by **Ra’edAbendah**, (2000).Mr. Abendah is currently a PHD student at a German university.
* Static and Dynamic Analysis of Roller Compacted Concrete Dams”, by **Inmar Badwan,** (2000). Currently a PHD student at Iowa State University, USA.
* Bond Recovery in Fire- Damaged Reinforced High Strength Concrete After Post-Fire-Curing”, by **Linda Shannis**, (2003).
* Repair of Heat-Damaged Reinforced Concrete T-beams Using Fibrous Composite Materials by **Rami J. Hamad,** (2006).
* Repair of Heat-Damaged Reinforced Concrete Shallow Beams Using Advanced Composite Materials by **Ala'a M. Moh'd** (2006).
* Repair of Reinforced Concrete Beams Damaged by Alkali-Silica Reaction by **Mohammed Al-Hambout,** (2006).
* Effect of Elevated Temperature on Bond between Steel Reinforcement and Fiber Reinforced Concrete by **RaedAl-Saleh,** (2006).
* Effect of High Temperature on the Mechanical Properties of Confined and Unconfined Lightweight Aggregate Concrete by **Dima M. Ashour,** (2006).
* Effect of Elevated temperature on Bond between reinforcing steel and lightweight aggregate Concrete **by Zain Al-Kofahi (2006).**She is currently a part-time lecturer at Jordan University of Science and Technology, Irbid, Jordan.
* Bond Behavior between Reinforcing Steel and Fiber Reinforced Concrete Undergoing Alkali-Silica Reaction by **Ebtesam Al-Jammal** (2008). She is currently a part-time lecturer at Jordan University of Science and Technology, Irbid, Jordan.
* Role of Fibers in Controlling Expansion & Preventing Damage in Concrete Subjected to Sulfate Attack by **Abeer Andrawes** (2008). She is currently a part-time lecturer at Jordan University of Science and Technology, Irbid, Jordan.
* Repair of Heat-damaged One-way Reinforced Concrete Slabs Using Fibrous Composite Materials by **Nadmi AL-Mekhlafy** (December 2008).
* Repair of sulfate damaged reinforced concrete beams using advanced composite materials by **Moh’d Tahat**, (August 2009).
* Repair of shear-deficient reinforced concrete beams damaged by sulfate using composite materials by **Bashar Kh. AL-Sedyiri** (August, 2009).
* Modeling chloride intrusion into self-compacting heat - damaged concrete by **Ayat Hinawi** (2011).
* Repair of Shear-Deficient Light - Weight Aggregate Concrete Beams Damaged by Thermal Shock Using Advanced Composite Materials by **Ali Alsadi** (2011).
* Repair of Shear-Deficient Normal Weight Concrete Beams Damaged by Thermal Shock Using Advanced Composite Materials by **Alaa Swesi** (2011).
* FRP Plates As Shear Keys For Reinforced Concrete Composite Girders by **Ahmad Gazal** (2012).
* Size effect on carbon fiber reinforced polymers bond characteristics with concrete: Geometric configuration by **Lina Ghanma** (2012).
* On Bond Behavior between Carbon Fiber Reinforced Polymers and Concrete by **Zaid Nimri** (2012).
* Optimization of Cable-Stayed Bridges by **Mu'tazHajaj** (2012).
* Repair of Heat-Damaged Reinforced Concrete Columns Using Advanced Composite Materials by **Saad Afram** (2012).
* Bond - Slip behavior between Carbon Fiber Reinforced Polymers sheets and heat-damaged concrete by **Ashraf Almasry** (2012).
* Thermal performance of self-compacting concrete:Effect of relativ humidity **by Ruba Odeh** (2012).
* Non-destructive evaluation of fire damage in self compacting concrete by **Hala Amawi** (2012).
* Effect of sulfates on bond behavior between carbon fiber reinforced polymer sheets and concrete by **Khawla Al-Sa'di** (2012).
* Quality and Safety Assurance in Northern Quarries of Jordan by **Nisreen Al-Al-Daoud**(August, 2013).
* Modeling Bond Behavior between CFRPand Concrete Using Nonlinear FiniteElement Analysis by **Albra Mana** (2013).
* Bond- Slip Behavior Between Self-Compacting Concrete (SCC)and Carbon Fiber Reinforced Polymer Sheets by **Ahmad** [**Al-Halboni**](https://www.researchgate.net/researcher/2061938035_Ahmad_Al-Halboni) (2013).
* An Effective Anchorage System For Reinforced Concrete Beams with Fiber Reinforced Polymer Compositesby **Catreen Marji** (2013).
* Flexure Behavior of Heat Damaged Concrete Beams Reinforced with Fiber Reinforced polymers (FRP( by **Hanadi Al-Mahmoud** (2013)
* Shear repairing of heat-damaged reinforced concrete beams using near surface mounted CFRP strips by **Hatem Almasaeid**(July, 2015).
* Potential of Producing Structural Geopolymer Concrete Using Jordanian Natural Pozzolan (JNP)by **Odey Alshbuol** (August, 2015).
* An anchorage system of fiber reinforced polymer strengthened cantilever beams by **Mahmood Abdel-Wahab** (December, 2015).
* Critical Success Factors (CSFs) for Public-Private Partnership (PPP) of Construction Projects in Jordan by **Maymoon Al-Hami**(April, 2016).
* Impact of Corrosion Generated Cracks on Concrete's Bond with Carbon Fiber Reinforced Polymer (CFRP) Sheets by **Abeer AL Dalou'** (May 2016).
* Flexural performance of post-heated reinforced concrete beams repaired with near-surface mounted (NSM) carbon fiber reinforced polymer (CFRP) strips by **Oubaida Almomani** (May, 2016).
* Producing Structural Geopolymer Mortar Using Jordanian Oil Shale Ash by **Zeinab Lababneh**(July, 2016).

#### THESIS COMMITTEE SERVING

* Effect of Cracking and Material Non-Linearities on the Dynamic Behavior of Reinforcement Concrete Beams”, by Sa’adJubeer, (2000).
* Forced Vibration of Sandwich Beams”, by Yousef Al-Rjoub, (2000).
* Pozzolanic Reactivity of Wheat Straw Ash Concrete, by Bilal Abu-Alfoul, (2000).
* Local Buckling of Delaminated Composite Beams, by Muhannad Suleiman, (1999).
* An Experimental study of Properties of Concrete Incorporating Rubber as Fine Aggregate, by Mohamed Al-Satari, (1998).
* Free Vibration of Composite Plates using Finite Difference Method, by Madhar Haddad, (1998).
* On Coupled Bending and Torsional Vibration of Beams, by Husam Al-Qablan, (1998).
* Three Dimensional Micromechanical Model to Predict the Compressive Strength of Fibrous Composites, by Ma’an Al-Jundi, (1998).
* Free Vibration of Composite Beams using the Finite Difference Method, by AmerAyoub, (1997).
* Structural Behavior of Repaired Reinforced Concrete Beams Undergoing Reinforcement Corrosion, by Suzan Al-Ateek, (2003).
* Upgrading the Structural Seismic Behavior of GLD-Frames with HPFRC-Jackets, by Mohammed Alhassen, (2003).

##### ACTIVITIES

* American Society of Civil Engineering, ASCE, Associate Member**.**
* Jordanian Engineering Association, Member.
* Civil Engineering Department Committees: higher studies; scientific Research, students Affair.

### CONFERENCES

* Haddad, R.H. Deterioration detection of Portland cement concrete using Electromagnetic waves, 5th International Conference on Composite Engineering, Las Vegas, July 5-11, 1998.
* Haddad R.H., Shannis L. Bond recovery in reinforced high strength concrete after post-heating recurring, ISEC-02, Rome, Italy, Dept 23-26, 2003.
* Haddad R.H., Qudah A. Statistical modeling of post-heating residual strength for Portland cement concrete, 11th International Conference on Civil, Structural, and Environmental Engineering Computing, Malta, Sept. 18-21, 2007.
* Haddad, R.H., Ashour D. Thermal mechanical behavior of confined fibrous lightweight aggregate concrete, 12th International Conference on Mechanics of Composite Materials, Varna, Bulgaria, Sept. 22-24, 2009.
* Haddad R.H., Al-Rousan R.Z., and Al-Sedyiri B. Kh. Repair of shear-deficient and sulfate-damaged concrete beams using composite materials, 9th International congress on Advances in Civil Engineering (ACE 2010), Trabzon, Turkey Sept. 27-30, 2010.
* Haddad R. H., Al-Rousan R.Z., Almasry A. Bond-slip behavior between carbon fiber reinforced polymer sheets and heat-damaged concrete, Advanced Composited in Construction (ACIC) 2011, Coventry, England, and Sept. 6-8, 2011.
* Haddad R. H., Al-Rousan R.Z., Almasry A. Analytical prediction of bond-slip behavior between CFRP sheet and hear-damaged concrete, 7th Asian Symposium on Polymer in Concrete, Istanbul, Turkey Oct. 3-5, 2012.
* Haddad R.H., Al-Rousan R.Z., Al-Asadi A. Repair of shear-deficient LWAC beams damaged by thermal shock, 17th International Conference on Composite Structures, Porto, Portugal, June 17-21, 2013.
* Haddad R.H. Retrofit steel corroding RC beams using CFRP composites: NLFE analysis, ASEA-SEC2, Bangkok, Thailand, Nov. 3-5, 2014.
* Haddad R.H., Hinawi, A. Chloride intrusion into thermally damaged self-compacting concrete, International conference materials, methods and Technologies, Elenite, Bulgaria, June 7-11, 2015.

### WORKSHOPS AND SEMINARS

* Attending a one- day seminar on invasive testing of materials organized by Civil Engineering Department, Virginia Tech, VA (August 1993).
* Participated in Workshop on Teaching and Evaluation Technology, Jordan University of Science and Technology (September 6-10, 1997).
* Participated in Workshop on Teaching and Evaluation Technology (specialized), Jordan University of Science and Technology (January 24-26, 1998).
* Joint supervision on a workshop concerned with Maintenance and Rehabilitation of Concrete structures, Irbid Municipal (February 22-25, 2001).
* Supervised A Workshop on Bridge Deteriorations & Rehabilitation, Ministry of Public Works and Housing (Jan. 23-27, 2011).
* Supervised A Workshop on Design of Bridge Rehabilitation, Ministry of Public Works and Housing (Jan. 20-Feb 3, 2011).
* Supervised A Workshop on Rehabilitation of Concrete Structure, Jordan University of Science and Technology (June 21-23, 2011).

##### PUBLIC SERVICE

* Carried our specialized experimental and field consultation for regional and local parties; including live full-scale loading tests of different buildings under construction in Irbid region, Jordan.
* A cement special committee member, ministry of general works (2006- 2007).
* A member of a special committee member for developing a bridge rehabilitation code, Ministry of Public Works, Jordan (2010-2015). Tasks included preparing an Arabic version of this code relaying on different existing universal codes; while incorporating state of art knowledge related to evaluation and repair of concrete bridges.

##### PUBLICATIONS

1. Haddad R., Almomani O. Flexural performance and failure modes of NSM CFRP-strengthened concrete beams: A parametric study, International Journal of Civil Engineering, 2018. <http://doi.org/10.1007/s40999-018-0342-8>.
2. Haddad R. H., Obaidat Y.T. A nonlinear finite element model for shear deficient heat-damaged concrete beams repaired using NSM CFRP strips, Construction and Building Materials, 170:314-325, 2018.
3. Haddad R., Almomani, O. [Recovering flexural performance of thermally damaged concrete beams using NSM CFRP strips](https://www.researchgate.net/publication/318999873_Recovering_flexural_performance_of_thermally_damaged_concrete_beams_using_NSM_CFRP_strips?_iepl%5BviewId%5D=lGafJj0QGOrwjmGdRAbrZ0Ar&_iepl%5BprofilePublicationItemVariant%5D=default&_iepl%5Bcontexts%5D%5B0%5D=prfpi&_iepl%5BtargetEntityId%5D=PB%3A318999873&_iepl%5BinteractionType%5D=publicationTitle), Construction and Building Materials, 154: 632–643, 2017.
4. Haddad R., Al Dalou A. Experimental study on bond behavior between corrosion-cracked reinforced concrete and CFRP sheets, Journal of Adhesion Science and Technology, 2017, http://doi.org/10.1080/01694243.2017.1371912.
5. Hamad R., Megat M., Haddad R. Mechanical properties and bond characteristics of different fiber reinforced polymer rebars at elevated temperatures, Construction and Building Materials, 142: 521–535, 2017.
6. Haddad R., Al-Rousan R. An anchorage system for CFRP strips bonded to thermally shocked concrete, International Journal of Adhesion & Adhesives, 71:10-22, 2016.
7. Haddad, R. H. Hybrid repair configurations with CFRP composites for recovering structural performance of steel-corroded beams, Construction Building Materials, 124:508-518, 2016.
8. Haddad R. H., Alshbuol O. Production of geopolymer concrete using natural pozzolan: A parametric study, Construction Building Materials, 114:699-707, 2016.
9. Obaidat Y., Haddad R. Prediction of residual mechanical behavior of heat-exposed LWAC short column: a NLFE model Structural Engineering and Mechanics 57(2): 265-280, 2016.
10. Haddad R. H. Almasaeid H. Recovering shear capacity of heat-damaged beams using NSM-CFRP strips, Construction Building Materials, 105:448-458, 2016.
11. Ramadan K. Z, and Haddad R. H. [Self-healing of overloaded self-compacting concrete of rigid pavement, European Journal of Environmental and Civil Engineering, 2015, P15.](https://www.researchgate.net/publication/282250286_Self-healing_of_overloaded_self-compacting_concrete_of_rigid_pavement?ev=prf_pub)
12. Haddad R. H. and Hinawi A. Chloride Intrusion into Thermally Damaged Self-Compacting Concrete, Canadian Journal of Civil Engineering 42(10):720-727, 2015.
13. Haddad R. , Al-Rousan R. Ganma L., Nimry Z. Modifying CFRP-Concrete bond characteristics from pull-out testing, Magazine of Concrete Research, 67(13)-707-717, 2015.
14. [Irshidat](https://www.researchgate.net/researcher/2076100287_Mohammad_R_Irshidat) M. R., Haddad R. H., and [Almahmoud](https://www.researchgate.net/researcher/2068783512_Hanadi_Almahmoud) H. Post-heating behavior of concrete beams reinforced with fiber reinforced polymer bars, Structural Engineering & Mechanics 53(6), 2015, P17.
15. [Al-Rousan](https://www.researchgate.net/researcher/2032858635_Rajai_Al-Rousan)R., Haddad R., [Al-Halboni](https://www.researchgate.net/researcher/2061938035_Ahmad_Al-Halboni) A. Bond–slip behaviour between self-compacting concrete and carbon-fibre-reinforced polymer sheets, Magazine of Concrete Research 67(2):89-103, 2014.
16. [Al-Rousan](https://www.researchgate.net/researcher/2032858635_Rajai_Al-Rousan)R., Haddad R. H., [Al Hijaj](https://www.researchgate.net/researcher/2070264307_Mutaz_A_Al_Hijaj) M. A. [Optimization of the economic practicability of fiber-reinforced polymer (FRP) cable-stayed bridge decks](https://www.researchgate.net/publication/274192477_Optimization_of_the_economic_practicability_of_fiber-reinforced_polymer_%28FRP%29_cable-stayed_bridge_decks?ev=prf_pub)  Bridge Structures 10(4):129–143, 2014.
17. [Al-RousanR. Z.,](https://www.researchgate.net/researcher/2032858635_Rajai_Z_Al-Rousan) Haddad R. H., [Swesi](https://www.researchgate.net/researcher/2058065899_Alaa_O_Swesi)A. O. [Repair of shear-deficient normal weight concrete beams damaged by thermal shock using advanced composite materials](https://www.researchgate.net/publication/268112590_Repair_of_shear-deficient_normal_weight_concrete_beams_damaged_by_thermal_shock_using_advanced_composite_materials?ev=prf_pub)  Composites Part B Engineering 70:20-34, 2014.
18. Haddad R. H., Al-Rousan R. Z., Al-Sedyiri B. K. [Repair of shear-deficient and sulfate-damaged reinforced concrete beams using FRP composites](http://scholar.google.com/citations?view_op=view_citation&hl=en&user=j7L3jccAAAAJ&sortby=pubdate&citation_for_view=j7L3jccAAAAJ:M3ejUd6NZC8C), Engineering Structures 56, 228-238, 2013.
19. Al-Nimry H., Haddad R., Afram S., Abdel-Halim M. [Effectiveness of advanced composites in repairing heat-damaged RC columns](http://scholar.google.com/citations?view_op=view_citation&hl=en&user=j7L3jccAAAAJ&sortby=pubdate&citation_for_view=j7L3jccAAAAJ:KlAtU1dfN6UC), Materials and structures 46 (11), 1843-1860, 2013.
20. Haddad R. H., Al-Rousan R., Almasry A. [Bond-slip behavior between carbon fiber reinforced polymer sheets and heat-damaged concrete](http://scholar.google.com/citations?view_op=view_citation&hl=en&user=j7L3jccAAAAJ&sortby=pubdate&citation_for_view=j7L3jccAAAAJ:aqlVkmm33-oC), Composites Part B: Engineering 45 (1), 1049-1060, 2013.
21. Al-Rousan R., Haddad R. [NLFEA sulfate-damage reinforced concrete beams strengthened with FRP composites](http://scholar.google.com/citations?view_op=view_citation&hl=en&user=j7L3jccAAAAJ&sortby=pubdate&citation_for_view=j7L3jccAAAAJ:0EnyYjriUFMC), Composite Structures 96, 433-445, 2013.
22. Al-Rousan R., Haddad R., Al-Sa’di K. [Effect of sulfates on bond behavior between carbon fiber reinforced polymer sheets and concrete](http://scholar.google.com/citations?view_op=view_citation&hl=en&user=j7L3jccAAAAJ&sortby=pubdate&citation_for_view=j7L3jccAAAAJ:roLk4NBRz8UC), Materials & Design 43, 237-248, 2013.
23. Haddad, R. H., and Al-Mekhlafi N. Ashteyat A.M. Repair of heat-damaged one-way reinforced concrete slabs using composite materials , Construction and Building Materials, 25 (2011): 1213-1223.
24. Haddad, R. H., Shannag, M. J., and Al-Hambouth, M. T. Repair of reinforced concrete beams damaged by alkali-silica reaction, ACI Structural Journal, 105(2) (2008): 145-153.
25. Haddad, R. H., Shannag, M. J., and Moh's, A. Repair of heat-damaged shallow beams using advanced campsites, Materials and Structures, 41 (2008): 287-299.
26. Haddad,R. H., Shannaq, M. J., and Hamad, R. J. Repair of heat-damaged reinforced concrete T-beams Using FRC Jackets, Magazine of Concrete Research 59 (4) (2007): 223-231.
27. Shannag, M. J., and Haddad, R. H. Properties of metakaolin high-strength cementitious grouts, Journal of ASTM International, 2(7) (2005): P 8.
28. Ashteyat A. M., Ramadan K. Z., Haddad R. H., Qudah A. [Properties of Portland cement mortar incorporating white cement bypass dust](http://scholar.google.com/citations?view_op=view_citation&hl=en&user=j7L3jccAAAAJ&sortby=pubdate&citation_for_view=j7L3jccAAAAJ:3fE2CSJIrl8C), Canadian Journal of Civil Engineering 38 (12), 1355-1362, 2011.
29. Haddad R. H., Odeh R. A., Amawi H. A., Ababneh A. N. [Thermal performance of self-compacting concrete: destructive and nondestructive evaluation](http://scholar.google.com/citations?view_op=view_citation&hl=en&user=j7L3jccAAAAJ&sortby=pubdate&citation_for_view=j7L3jccAAAAJ:5nxA0vEk-isC), Canadian Journal of Civil Engineering 40 (12), 1205-1214, 2013.
30. Ashteyat A. M., Haddad R. H., Ismeik M. [Prediction of mechanical properties of post-heated self-compacting concrete using non-destructive tests](http://scholar.google.com/citations?view_op=view_citation&hl=en&user=j7L3jccAAAAJ&sortby=pubdate&citation_for_view=j7L3jccAAAAJ:ULOm3_A8WrAC), European Journal of Environmental and Civil Engineering, 1-10, 2013.
31. Haddad R. H., Ashour D. M. [Thermal performance of steel fibrous lightweight aggregate concrete short columns](http://scholar.google.com/citations?view_op=view_citation&hl=en&user=j7L3jccAAAAJ&sortby=pubdate&citation_for_view=j7L3jccAAAAJ:4TOpqqG69KYC), Journal of Composite Materials 47 (16), 2013.
32. Haddad, R. H., and Andrawes, A. T. Performance of Fibrous Concrete under Sulfate Cyclic Treatment, Journal of ASTM international 6 (5) (2009): 1-14.
33. Haddad, R. H., and Al-Kofahi Z. G. 2008. Post-heating bond behaviour between lightweight fibrous concrete and steel, Structural Concrete 9, (4): 189-197, 2008.
34. Haddad, R. H., Al-Saleh, R.J., Al-Akhras, N. M. Effect of elevated temperature on bond between steel reinforcement and fiber reinforced concrete, Fire Safety Journal 43 (2008): 334-343.
35. Haddad, R. H, and Numyar, K. Effect of alkali-silica reaction and freezing and thawing action on concrete-steel bond, Construction and Building Materials 21 (2007): 428-435.
36. Haddad, R. H., Qudah, A. Statistical modeling of post-heating residual strength for Portland cement concrete, Proceedings of the eleventh international conference on civil, structural and environmental engineering computing, Topping, B. H. (editor), civil-comp press, Stirlingshire, Scotland, 2007.
37. Haddad, R. H., and Qudah A. Alkali-silica reactions in high-performance and normal-strength cement grouts reinforced with steel and synthetic fibers, Journal of Mechanics of Composite Materials, 41(1) (2005): 87-94.
38. Haddad, R. H, Shannis, L. G. post-fire behavior of bond between high strength pozzolanic concrete and reinforcing steel, Construction and Building Materials, 18 (2004): 425 – 435.
39. Haddad R. H., and Abendah, R. Effect of thermal cycling on bond between reinforcement and fiber reinforced concrete, Cement and Concrete Composites 26 (2004): 743-752.
40. Haddad, R. H., and Smadi, M. Role of fibers in controlling unrestrained expansion and arresting cracking in Portland cement concrete undergoing alkali-silica reaction, Cement and Concrete Research 34(1) (2004): 103-108.
41. Haddad, R. H., and Shannis, L.G. Bond recovery in reinforced high strength concrete after post-fire recuring, Proceedings of the International Conference on Structural and construction Engineering, Rome, Italy, 23-26 Sept., 2003.
42. Haddad, R. H., and Ashteyate, A. Role of synthetic fibers in delaying steel corrosion cracks and improving bond with concrete, Can. J. Civ. Eng. 28 (2001): 787-793.
43. Haddad, R. H. &Shannag, M. J. Performance of Jordanian Masonry Cement for Construction Purposes, Jordan Journal of Civil Engineering, (2008) 2(1):20-31.
44. Smadi, M., and Haddad, R.H., The use of oil shale ash in Portland cement concrete, Cement and Concrete Composites, 25 (2003): 43-50.
45. Qudah, A., Haddad, R. H., and Jafar, E. A. Effect of mixing, curing, and testing temperatures on compressive and tensile strengths of fiber reinforced concrete, 27th Conference on Our World in Concrete and Structures, Singapore, 29-30 August 2002.
46. Smadi, M., Haddad, R. H., and Akou,r A. Potential use of phosphogypsum in concrete, Cement and Concrete Research, 29 (1999):1419-1425.
47. Abel-Jawad, Y., and Haddad, R. H. Effect of early overloading of concrete on strength at later ages, Cement and Concrete Research, 22 (1992): 927-936.
48. Haddad, R. H., and Al-Qadi, I., Deterioration detection of Portland cement concrete using electromagnetic waves, presented at the ICCE, Las Vegas, July 5-11, 1998.
49. Haddad, R. H., and Al-Qadi, I., Characterization of Portland cement using electromagnetic waves over microwave frequencies, Cement and Concrete Research, 28 (10) (1998): 1379-1391.
50. Al-Qadi, I., Haddad, R. H., and Riad, S. M. Detection of chlorides in concrete using low radio frequencies, Journal of Materials in Civil Engineering, Vol. 9 (1) (1997): 29-34.
51. Al-Qadi, I., Riad S., Su, W., and Haddad, R. Detecting flaws in Portland cement concrete using horn antennae, SPIE, vol. 2446, (1996): 28-38.
52. Haddad, R. H., and Al-Qadi, I., Measuring dielectric properties of concrete over low RF, presented at the ASCE conference at Washington, D.C., Nov., 1996.
53. K. Numayr and R. Haddad. 2009. Static and dynamic analytical and experimental analysis of 3D reinforced concrete panels, Structural Engineering and Mechanics, Vol. 32, No. 3, pp. 399-406.
54. Numayr, K. S., Haddad, R.H., and Haddad M. Free vibration of composite plates using the finite difference method. Thin-Walled Structures 42 (2004): 399-414.
55. Numayr, K. S., and Haddad, R. H. Analytical solution of buckling of beams with two delaminations, Mechanics of Composite Materials and Structures, 8 (2001): 283-297.

**AWARDS**

Honor degrees in undergraduate and Graduate Studies; three times on the Dean honor list.

**COMPUTER SKILLS**

1. Microsoft word, Excel, Word Perfect, Freelance.
2. FORTRAN Programming
3. Statistical Packages such as SAS and SPSS
4. Finite Element Packages

**REFERENCES:**

Available upon request.