



# Prof. Sami Rizkalla...the early years



#### Did you know...

- Sami still enjoys playing racket ball on the beach
- Sami served in the Egyptian Military in the early 1970's



# Sami from the pages of the ACI Structural Journal













1995 - 1997



1997 - 1998



"As Dr. Sami's very first victim (and survivor) from the University of Manitoba, I am immensely blessed that he has been my mentor and respected friend for many years. Like a good red wine that becomes more valuable as it matures, thankfully, he and I have both mellowed with age."

#### **Mohsen Shahawy**

(M.S. 1982, Ph.D. 1985) Principal and CEO SDR Engineering Consultants, Inc.





José A. Pincheira (M.S. 1988) Associate Professor University of Wisconsin-Madison



"Congratulations, Sami! With much appreciation and gratitude for your continued friendship over the years. Best wishes on your new chapter in life."



Robin Hutchinson (M.S. 1990, Ph.D. 1999) Instructor Red River College



"Dr. Rizkalla's expertise in structural engineering is exceeded only by his knowledge and understanding of people. He is an exceptional scholar, engineer, leader, mentor and human being."

#### Prof. Sami Rizkalla...Researcher



Shear strengthening of the Maryland Bridge in Winnipeg, Manitoba (1997) (left to right: Gamil Tadros, Sami Rizkalla, Robin Hutchinson, Lloyd McGinnis)



Jeff West, PhD, PE (B.Sc. 1991 & M.Sc. 1994) Associate Principal Wiss, Janney, Elstner Assoc., Inc. Austin, Texas

"Dr. Rizkalla taught me structural steel design in my junior (3<sup>rd</sup>) year. I was initially intimidated as he randomly called upon students to answer questions in class. I soon came to respect and admire his enthusiasm and technical excellence, and was fortunate to have him supervise me as an undergraduate researcher and for my M.Sc. I am indebted to Dr. Rizkalla for his Mentorship"



### Prof. Sami Rizkalla...Award Winner



Receiving Merit Award from the Association of Professional Engineers of Manitoba with wife Mary & mother-in-law Adria (1994)



**Amr Abdelrahman** (Ph.D. 1995) Professor Ain Shams University



"It was clear from the first day that our relation is not a teacher/student, but it was based on mutual understanding and friendship. Your support never ended, and again, you were keen to support me even when I'm back in Egypt. I learned a lot from you at the technical and social levels, and I owe you for your care, support, and guidance. I wish you a happy life, and to enjoy your small and big family. Thank you."

#### Prof. Sami Rizkalla...Friend & Mentor

ACI STRUCTURAL JOURNAL

TECHNICAL PAPER

Title no. 92-S43

Test Model for the First Canadian Smart Highway Bridge



by A. A. Abdelrahman, G. Tadros, and S. H. Rizkalla

With former students Dr. Amr Abdelrahman, Dr. Nahla Hassan family and friends.







**Craig Michaluk** (B.Sc. 1993, M.Sc. 1996) Senior Director Atomic Energy of Canada Ltd.

"Dr. Rizkalla, you reinforced the importance to never take short cuts, ensure my best quality product was put forth, and to be an innovative leader in my pursuits. Working with you was truly eye-opening when it came to "making my mark" in my field of study. Thank you so much for the worldly advice and guidance."

# PLEASEC - SPRING 2019

# Prof. Sami Rizkalla...Innovator



#### Beddington Trail Bridge, Calgary, Canada

Open to traffic 1994

First Bulb-Tee bridge girder pretensioned with CFRP tendons, CFRP stirrups, and monitored by FBG sensors



Amir Fam (MSc 1996, PhD 2000) Professor & Munro Chair Queen's University Canada

Canada

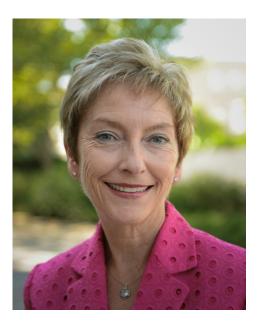
"Dr. Rizkalla, you have a remarkable ability to see the extent of the full potential of people very early on. You then 'customize' a mentorship program suited for each individual. Voluntarily, like a skilled physician, you gently treat weaknesses along the journey. You have always been my true inspiration. Your drive, enthusiasm, and experience allowed me to unlock my maximum potential. I owe you any success I achieved in my career."

#### Prof. Sami Rizkalla...Educator



With Graduate students, Faculty and staff at the University of Manitoba (1996)

# Messages from Prof. Rizkalla's colleagues...



Joanne Keselman, Ph.D. Provost and Vice-President Emeritus University of Manitoba



"In my 11 years as vice-president (research), Dr. Rizkalla was one of the most inspiring and energetic researchers and scientific leaders that I had the pleasure of knowing and supporting. His ability to build and mobilize a world-class multidisciplinary and multi-sectoral research and development network yielding real benefits for universities, government and industry has been nothing short of remarkable."



Zaki I. Mahmoud (Ph.D. 1997) Professor of Concrete Structures Alexandria University, Egypt

"I would like to submit my heartiest gratitude to my respected advisor Prof. Rizkalla for his sincere guidance and generous help during my PHD study (1993-1997) I am deeply indebted to him for his invaluable and

continuous support to me and to the Egyptian

Engineering Society"

# PURPLE CONCRETE



Haney Louka (M.Sc., 1998) Principal Crosier Kilgour & Partners Ltd.

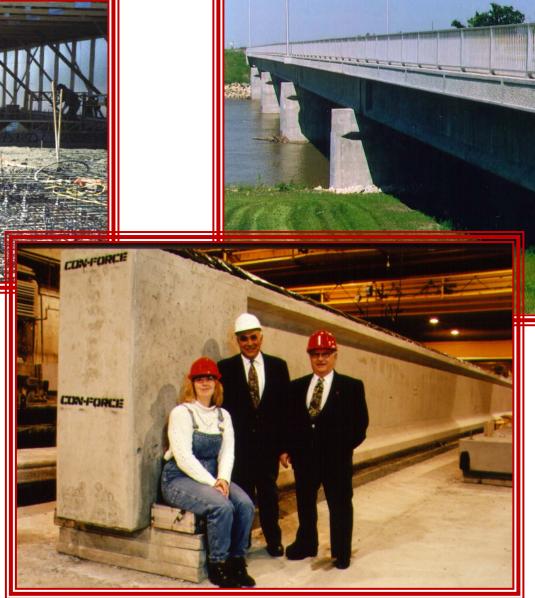


"I was fortunate to have the benefit of Dr. Rizkalla's technical guidance while I pursued my graduate degree. But even more significantly, he instilled in me a work ethic that stays with me to this day."

#### Prof. Sami Rizkalla...Innovator



Canada's award winning "smart", bridge Headingly, MB (1997).



GFRP reinforced barrier and deck reinforcement & CFRP prestressing



**Emile Shehata** (Ph.D. 1999) Senior Vice President Tetra Tech Canada Winnipeg, Manitoba



"Do not stop learning new things every day, regardless what you achieved."

This key advice from Dr. Rizkalla inspired me to reach that far in my professional career.

Thanks Sami!"



**Darren Eddie, P.Eng.** (B.S. 1996, M.S. 1999) Owner



Dauphin, Manitoba



"Dr. Rizkalla, Gratulations! I regard my time at the University of Manitoba under your guidance as a special time in my education and professional development. The multiple projects going on at the same time was impressive. Your faith in your students to deliver results, to present their projects, and to be adaptable is more than words can express. Thank you."

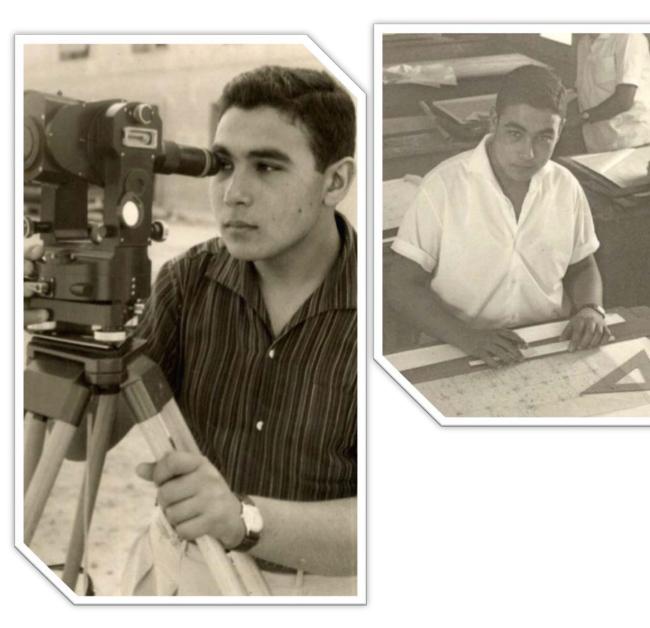


"I will forever be grateful for the knowledge and skills that I have gained working with you. I really enjoyed every singly moment. Thank you."

**Tarek Hassan** (M.S. 1999, Ph.D. 2002) Professor Ain Shams University, Egypt



#### Prof. Sami Rizkalla...as a student



# **Alexandria University** Faculty of Engineering





**Brea Williams** (M.Sc. 2000) Instructor Red River College, Winnipeg "Dr. Rizkalla is equal parts brilliance, patience, kindness and mischief. And he does one heck of an impression of a bridge deflecting under vehicular loads.

You left a strong legacy in Winnipeg, and I'm proud that I got to be a small part of it."





Jurgen Becque (M.Sc. 2000) Lecturer The University of Sheffield "What has always made the most lasting impression on me is not Dr. Rizkalla's outstanding technical abilities or his ground-breaking work in research, but his disarming friendliness and abundant generosity. Thanks for all the support over the years, Dr. Rizkalla, in particular getting me my first job at Reid-Crowther."





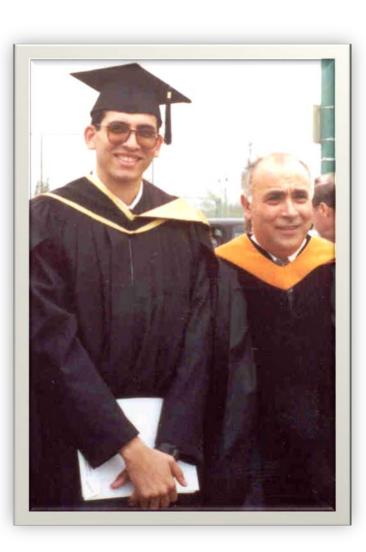
Chris Gentile, P.Eng. (M.Sc. 2000) Acting Director, Valley Line LRT Expansion & Renewal City of Edmonton

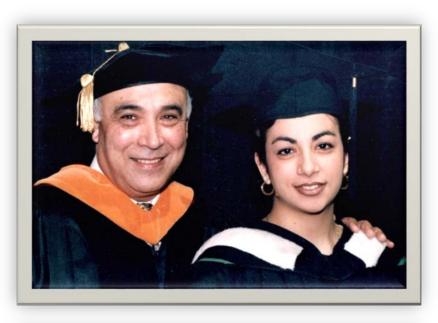


"Thank you for the mentorship and guidance that you provided me at the University of Manitoba. The critical thinking skills that you helped foster have formed the foundation of my engineering career.

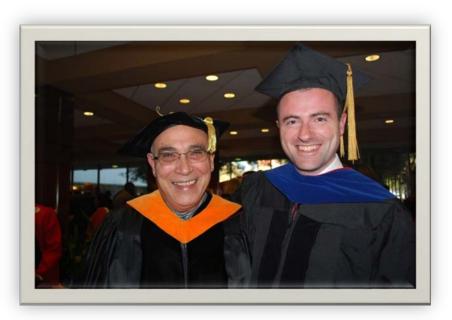
Congratulations on receiving this prestigious honour from ACI!"

#### Prof. Sami Rizkalla...Educator









#### **Celebrating graduation:**

Amir Fam, 1996 (left) Natalie Rizkalla, 1998 (mid. top ) Mohamed Nafadi, 2016 (mid. bottom) Dillon Lunn, 2012 (top right)



"Dr. Rizkalla's enthusiasm for his work is contagious. His continuous pursuit for excellence inspires his students to strive for greatness. He teaches his students that success is the direct result of hard work and dedication."

Anna Teague (M.S. 2002) Bridge Group Manager (Raleigh, NC) HDR Engineering





"The measure of success should be the number of people you want to have love you actually do love you". From this prospective, I firmly believe Dr. Rizkalla is one of the most successful professors in this world. Thanks, Dr. Rizkalla, for everything I received from you and NCSU.

#### Zhenhua Wu

(M.S. 2003, Ph.D. 2006) Senior Engineer WorleyParsons Group





Lee Nelson (M.S. 2005) Program Manager Defense Threat Reduction Agency

"I recall receiving an unexpected email from you as I was finishing a 6 month backpacking trip. I came to your office five days before classes with an application and quickly became your first student at NC State. Those years at the CFL really inspired my love for research and testing which is the basis for my career today. Thank you for everything and congratulations!"

# PORDIQUE CONCRETE

# Messages from Prof. Rizkalla's colleagues...



**Ken Neale** Université de Sherbrooke Sami,

My sincerest wishes for a fruitful and enjoyable retirement.

I am forever grateful for our past collaborations, and especially for our deep friendship.





Engin M. Reis (Ph.D. 2005) Senior Civil/Structural Engineer Siemens



"Dr. Rizkalla,

Thank you for all your support and guidance for the opportunity to be able to pursue my goals in the professional life. Your contribution to the society will be continued for several years through your numerous students enlightened by your knowledge and mentorship.

Congratulations."

# Prof. Sami Rizkalla...Hands on



Placing CFRP stirrups for Taylor bridge girder (1996)

Casting (2009)

Checking concrete (2009) Stud welding (2004)



David Schnerch (Ph.D. 2005) Associate Principal Wiss, Janney, Elstner Associates

"As a student in your undergraduate class, I thought that all I would learn from you was the subject of reinforced concrete. Little did I know, the even more important lessons I would learn about mentoring, professionalism, and constantly committing to the highest standards of excellence. Thank you and best wishes Dr. Rizkalla."

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#### Prof. Sami Rizkalla...Friend & Mentor



With the CFL Family at the Annual Picnic held at the Rizkalla residence



**Bryan Lanier, PE, SE** (M.S. 2005) Director, Broadcast Engineering American Tower Corporation

Congratulations on a stellar career and for your contributions both professionally and personally. My understanding of the practice of engineering fundamentally changed with our concrete class and the research I completed under your direction is one of my proudest achievements. Additionally, your humble treatment of others profoundly and positively influenced me. Thank you for these gifts.





Mina Dawood (M.S. 2005, Ph.D. 2008) Associate Professor University of Houston

"Dr. Rizkalla, it is rare to find people in this world whose primary interest is to invest in the character of others. You pour out of yourself and fill others. Your example is an inspiration. Thank you for taking me under your wings and teaching me how to fly on my own. Words cannot express my gratitude."



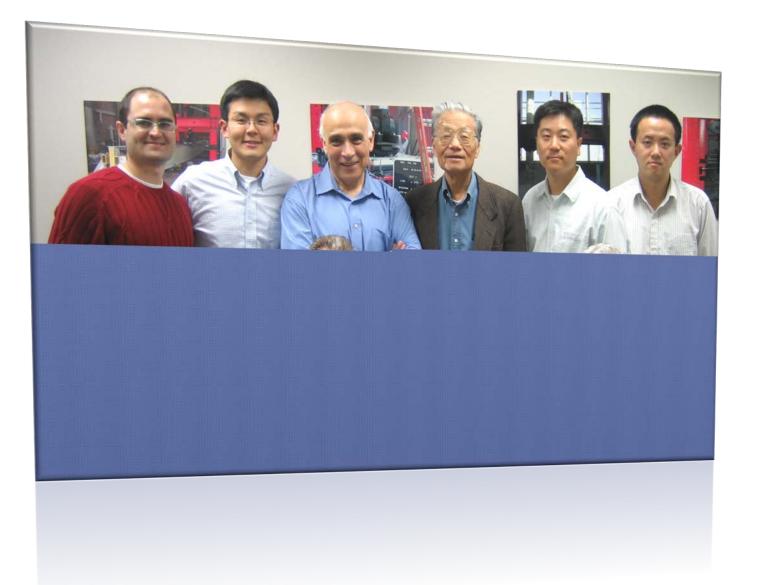


Wonchang Choi (Ph.D. 2006) Associate Professor University of Gachon (South Korea)



"No message could replace my appreciation. I am grateful to be your student. Thanks you for challenging me to be my best and instilling in me a passion for learning."

#### Prof. Sami Rizkalla...Educator & Researcher



With NCHRP project team members (students & colleagues) (2006)

Also in Photo: ACI Past Presidents Paul Zia (1989) & Robert Mast (1995)

**Gregory Lucier** (M.S. 2006, Ph.D. 2012) Associate Research Professor NC State University

"Every aspect of my career has been guided by Dr. Rizkalla. He is a fantastic teacher, scholar, researcher, mentor, and friend. His endless motivation and enthusiasm are coupled with an exceptional technical ability and a strong practical knowledge. It has been a tremendous privilege to work with him for so many years. I thank him for everything he has done (and continues to do) for me and for many others."



### Prof. Sami Rizkalla...Researcher



**Distinguished PCI industry** guests attend precast concrete tests at NCSU (Left to Right: Gregory Lucier, Mohamed Nafadi, Gary Klein, Paul Zia, Harry Gleich, Doug Sutton, Don Logan, Tom D'Arcy, Alan Mattock, Sal Capobianco, Sami Rizkalla)



"Dr. Rizkalla is a role model, not only for his knowledge and experience, but also for being a father and a friend.

It is a blessing knowing an outstanding man like him."

Hatem Seliem, PhD, PE, PMP (Ph.D. 2007) Senior Bridge Engineer/Project Manager, SDR Engineering Consultants, Inc.



## Messages from Prof. Rizkalla's colleagues...



Mark F. Green PhD PEng Professor and Vice Dean (Recruitment and Graduate Studies) Engineering and Applied Science Queen's University



"Sami Rizkalla is truly an inspiring and visionary leader, especially in the area of fiber-reinforced polymers. Along with his strong and focussed leadership, he is always compassionate and takes time to support and encourage younger academics. In the early part of my career, I benefitted immensely from his guidance, and I am very glad to see how this mentorship has grown into a lasting friendship. Congratulations on a very deserving recognition from ACI!"

#### **Reception Honoring Sami Rizkalla**

March 25, 2019



Sungjoong Kim (Ph.D. 2007) Lead Engineer Pyunghwa Engineering Consultants (PEC)



"You have definitely made a positive difference in my life. Thank you for helping to prepare me for the real world!"



Jason Patrick (M.S. 2007) Assistant Professor NC State University



"Your guidance and mentorship in my early days of research were monumental to my drive and development as a faculty member. I'll never forget asking if I could continue a PhD under you and your unselfish response was "if you ever want to return to NC State as professor you'll need to go elsewhere for your doctorate..." I didn't fully appreciate your wisdom until joining the CCEE faculty at NCSU in Fall 2017. Thank You for helping me reach my life's goal!"

### Prof. Sami Rizkalla...Family Man

Visiting the Pyramids of Giza with Mary and grandson, Jacob.





Matt Sumpter, P.E. (M.S. 2007) Associate Kimley-Horn and Associates, Inc.

"I am so thankful to have been under Dr. Rizkalla's tutelage, both as a research assistant and in his prestressed concrete class. Dr. Rizkalla had the unique ability to reduce complicated concepts into basic principles. Many of those principles I still use today as a practicing engineer! Thank you for your tireless devotion to students and to the industry."



# Messages from Prof. Rizkalla's colleagues...



"A much deserved honour. With his intellect, energy and enthusiasm, Sami enriches the lives of those around him. I am most grateful for the benefits he bestowed on me."

Dr. Lloyd McGinnis, O.C., P. Eng, Founding chair of IISD Chief Executive Officer for ISIS Canada Research Network from 1997 to 2009





"Never come to me with just a problem, if I knew the solution to everything, you wouldn't be doing your research. Come to me with a problem and possible ways to solve it and then we can discuss the way to move forward."

#### **Amr Hosny** (M.S. 2007, Ph.D. 2010) Project Manager American International Contractors, Inc.



Thank you Dr. Rizkalla for everything and especially for teaching me how to think!



Kirk A. Stanford (M.S. 2008) Senior Engineer SKA Consulting Engineers



"Dr. Rizkalla loves people as much as he loves concrete, and it shows whenever you spend time with him. His passion for excellence is contagious! His laughter is pretty contagious too!"

### The lady behind the success, Mrs. Mary Rizkalla



#### Still smiling after more than 40 years!



**Catrina Walter** (M.S. 2008, B.S. 2006) Senior Project Engineer BergerABAM



"The daily example you set, your professional drive and guidance helped me forge my own path to an extremely rewarding career as a waterfront engineer at BergerABAM."

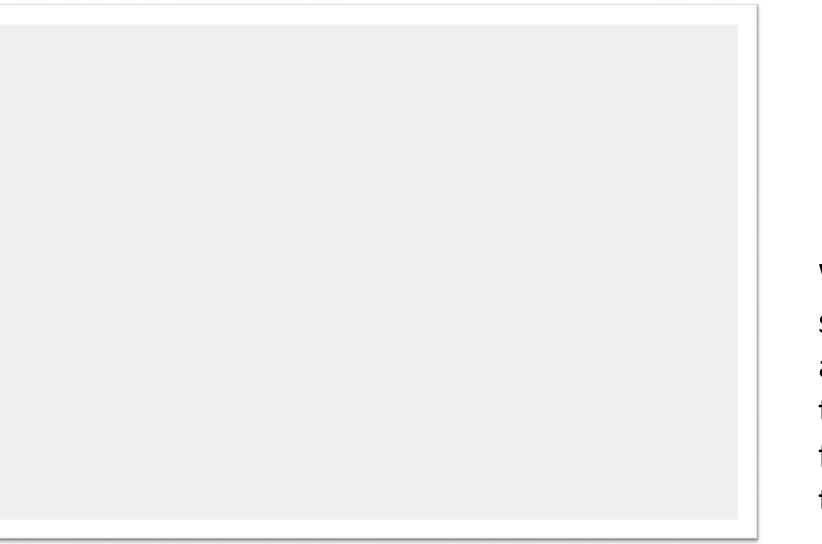
"Dr. Rizkalla, I want to express my gratitude for the opportunity that you gave me and the honor of being part of your research team at NC State. I've always admired your work and contribution to the industry and the number of professionals that you have formed. Congratulations and Thank you again!"

Oscar Fabricio Montesdeoca, P.E., PMP

(M.S. 2008) Project Manager Morrison Energy



#### Prof. Sami Rizkalla...Researcher



With CFL students, staff, and faculty after successfully testing a novel, full-scale all GFRP tractor trailer



Vivek Hariharan (M.S. 2009) Project Manager Turner Construction

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"Dr. Rizkalla had the greatest impact to my graduate education and continues to be a positive influence in my working career with his unique ability to approach each idea/thought with simplicity and clarity. His infectious smile, humility and continuous search of knowledge are values that I revere and I am forever in gratitude for the opportunity to have him as a professor and mentor"



Amir Ardalan Mosavi (Ph.D. 2010) Senior Engineer Arup

NORDIQUE CONCRETE

"Dr. Rizkalla has been an inspirational instructor, visionary mentor, and motivating advisor for me who taught me discipline, critical thinking and invaluable life lessons. His remarkable methodical approach to research has resulted in so many innovative achievements. He is an incredibly good cook too."

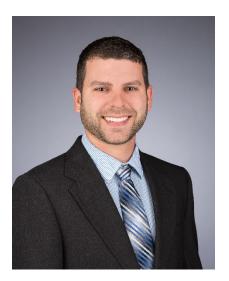
Thanks Dr. Rizkalla



"As an advisor, Dr. Rizkalla measures his success not by what his students have done for his career, but by what he has done for theirs. No matter what else was fighting for his attention, he always made time for his students. It was one of the greatest privileges of my life to be counted among them."

#### **Dillon Lunn** (M.S. 2009, Ph.D. 2012) Project Engineer Tower Engineering Professionals





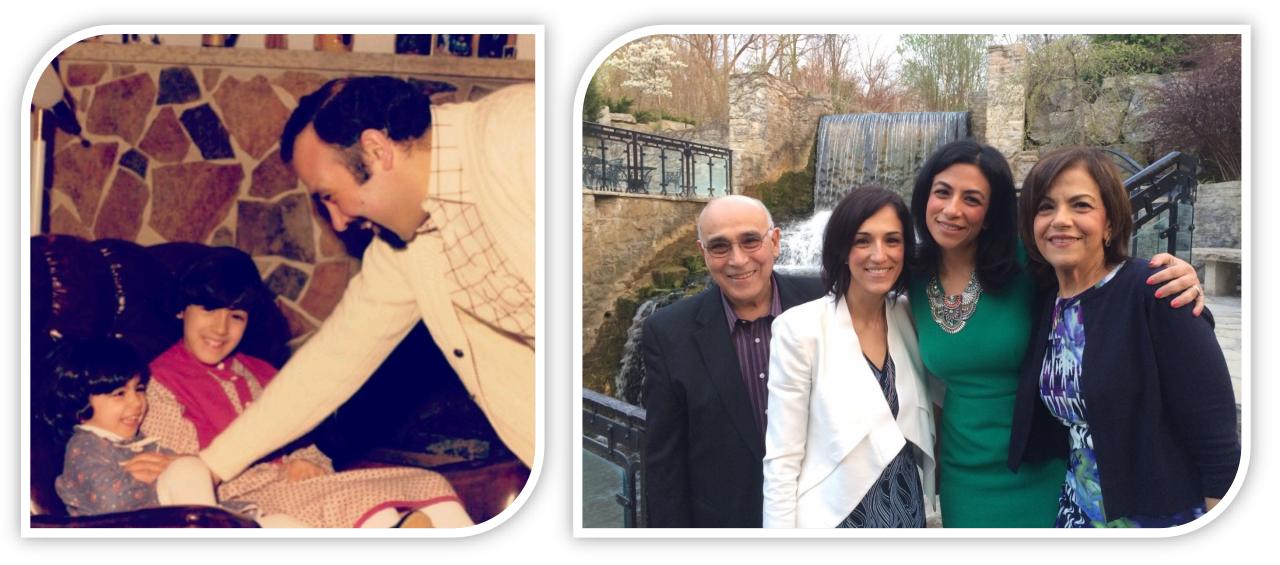
**Tyler Storm, P.E.** (M.S. 2011) Project Engineer Thornton Tomasetti



"Thank you Dr. Rizkalla for giving me the opportunity to perform research with you and for being a wonderful mentor and advisor. I consider my time as your student to be one of the most valuable experiences of my education and career.

Congratulations on your retirement and best wishes!"

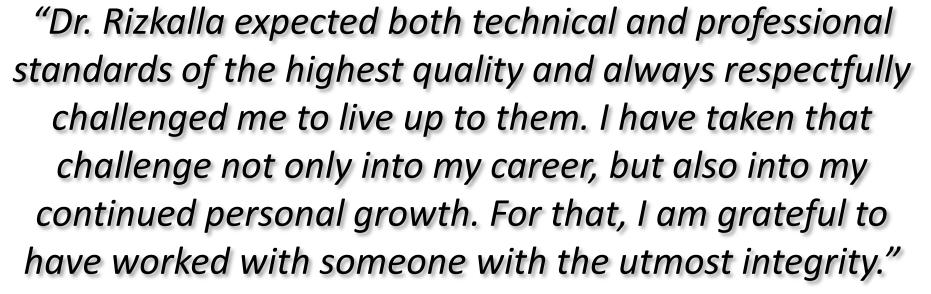
## **Prof. Sami Rizkalla...Loving Father**



Dr. Carolyn Deck, D.M.D. & Mrs. Natalie Rizkalla-Kamel, J.D.



**David Ragan, PE** (M.S. 2011) Senior Structural Engineer RK&K



"Thank you Dr. Rizkalla for the opportunity you gave me and the lasting lessons you taught me. Congratulations on your retirement!"





"I would not be in the position I am today without Dr. Rizkalla. His ability to explain complex theory so that all could comprehend was unparalleled. Not only was he a brilliant educator, he also took great pride in the success of his students."

**Benjamin Mielke** (M.S. 2011) Structural Engineer LHC Structural Engineers



### Messages from Prof. Rizkalla's colleagues...



**Dr. Luke Bisby** Professor of Fire & Structures The University of Edinburgh



"I cannot express how lucky I was to interact with Sami during my formative graduate student years, when I was a young MSc student and Sami was President of ISIS Canada. Here was a man who showed me - by his example - precisely the kind of academic that I wanted to be. Unbridled enthusiasm. Technical excellence. True collaboration. Unwavering ethics. And personified joy in engineering research, education, and application. Sami's example and actions set me up for success. He welcomed me into his world with open arms, and he has unwaveringly supported me in my professional and personal development... now for more than two decades. Thank you Sami!"

# Prof. Sami Rizkalla...Family Man



Rizkalla, Deck, and Kamel families



**Brian Mielke** (M.S. 2011) Structural Engineer LHC Structural Engineers

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"Dr. Rizkalla was instrumental in my development as a structural engineer. He took the time to explain not only the "hows" but the "whys". He took great pride in the success of his students and it showed in the way he treated them with such kindness. He is a great engineer and even better person."



Jonathan Soriano, PE (M.S. 2012) Structural Engineer II Celtic Engineering, Inc. (FL)

"Thank you so much for the knowledge, wisdom, and professional practices you've instilled in me. You are a great leader by example, and I'm honored to say that you played a big role in my career development while still putting family first. To this day I tell anyone who asks about higher education that my experience under your mentorship was one of the most rewarding of my life. Thanks again Dr. Rizkalla! I'm engineering roller coasters now!"





"My success in Structural engineering is a direct result of the interest and attention Dr. Rizkalla extended to me and each one of his students. Dr. Rizkalla always set a great example of mentorship, continuous learning, and curiosity. Thank you for everything! I owe it all to you!"

Michael B Forsyth, PE (M.S. 2013) Structural Engineer Kimley-Horn (Raleigh, NC)



#### **Prof. Sami Rizkalla...four academic generations**



Dr. Paul Zia Dr. Sami Rizkalla Dr. Gregory Lucier Michael Forsyth



Mohamed Nafadi (M.S. 2013, Ph.D. 2016) Assistant Professor Assiut University, Egypt

"No enough words can describe my deep indebtedness to you. Thank you for being a father before being an academic advisor. Thank you for all your endless inspiration and unconditional support. Thank you for all the knowledge and valuable experiences you shared and keep sharing with me. Being among your numerous students is always an honor I admire forever. I wish you much happiness, health and prosperity."

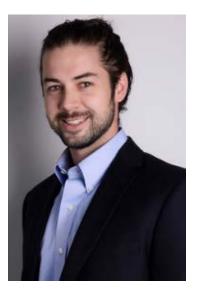


#### Prof. Sami Rizkalla...Researcher





The consummate teacher explaining behavior of precast spandrel beams



"Dr. Rizkalla, congratulations on an exceptional career! I am forever grateful for the opportunity I had to work with you. Thank you for guidance, wisdom and friendship."

**Cory High, PE** (M.S. 2014) Structural Project Engineer Stewart





Amir Botros (Ph.D. 2015) Assistant Professor Ain Shams University Cairo, Egypt.



"I would like to express my deepest gratitude to my dear supervisor Dr. Sami Rizkalla for the knowledge and skills he has given me and continue to give me every day. Your remarkable achievements and contributions to the field of structural engineering will remain unforgettable and inspiring to the next generations to come. You will always be a role model to me."

#### Prof. Sami Rizkalla...Award Winner



#### **ACI Recognitions**

Elected Fellow of ACI (1993) Delmar L. Bloem Award (2004) Joe W. Kelly Award (2008) Arthur Boase Award (2010) Chester Paul Siess Award (2014) Charles S. Whitney Medal Award (2016)

Receiving ASCE's T.Y. Lin Award with student Amir Botros (2014)



Lucas Guaderrama, PE (M.S. 2015) Project Engineer Chavez-Grieves Consulting Engineers

"Dr. Rizkalla's passion and attention to detail in his instruction and research was instrumental in the success of numerous academic research ventures. I am grateful that his contagious drive and outstanding tutelage helped shaped my abilities as a structural engineer. It is of no surprise to me the amount he has accomplished during his career because of these attributes. Well done, Dr. Rizkalla!"



#### Prof. Sami Rizkalla...Friend & Mentor



With the CFL Family at the Annual Picnic held at the Rizkalla residence

#### **MOTHER AND SON**



**Omar Khalafalla** (M.S. 2015, Ph.D. 2018) Structures Engineer Kisinger Campo & Assoc.

Nahla Hassan (Ph.D. 1995) Professor . Ain Shams University

We were privileged and honored to have earned our doctoral degrees under your supervision. We believe this is a true living testimony of how impactful your mentorship and devotion are towards your students. It would be an understatement to say that you have created a legacy of knowledge for every eager learner in this profession. Living up to your standards we hope to inspire others, as you have inspired us.





**Diana Artero** (M.S. 2016) Structural Engineer, El Stewart Engineering

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"The concept behind the formula is what counts"

Thank you Dr. Rizkalla for your support throughout the research. It has been a great experience to work under someone so wise and humble.

#### Prof. Sami Rizkalla...Friend & Colleague



Reunion with Former students and colleagues in Winnipeg, MB (left to right: Emile Shehata, Brea Williams, Robin Hutchinson, Ruth Eden, Sami Rizkalla, Dimos Polyzois)

# Messages from Prof. Rizkalla's colleagues...



"As a new faculty member at the University of Manitoba, Sami was an exceptional role model and mentor. Thank you, Sami! Congratulations on receiving this well-deserved honour."

Jay Doering, FCSCE, FEC, FCAE AVP (Partnerships), Professor, & Dean Emeritus University of Manitoba





#### Hamid Kazem

(Ph.D. 2016) Bridge Engineer Kleinfelder, San Diego, CA "Dr. Rizkalla,

I never forget, the very first day we met each other you expressed your goal is teaching me how to be distinguished like you. You are always my role model and I thank you for anything you did for me. <u>God Bless You and Your Family</u>"



### Prof. Sami Rizkalla...Loving Father



Dr. Carolyn Deck (DMD) & Mrs. Natalie Rizkalla-Kamel (JD)



"Thank-you for being my lifetime mentor as my dad and undergraduate professor. Although I changed my career path, you have always shown me to strive to be passionate about my work – success will follow. It was and always will be an honor to be the daughter of Dr. Rizkalla."

Natalie Rizkalla-Kamel (B.Sc. 1998) Partner Gowling WLG (Canada) LLP



