

NELLY M. ABOUD

UNIVERSITY OF CONNECTICUT
Dept. of Civil & Environmental Engineering

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EDUCATION

Ph.D.: Civil Engineering, University of Delaware, May 1989
Dissertation: "An analysis of Cake Filtration with Particle Bleeding"
Advisor: Dr. M. Yavuz Corapcioglu

MCE: Civil Engineering, University of Delaware, June 1985
Thesis: "Compressible Cake Filtration"
Advisor: Dr. M. Yavuz Corapcioglu

BCE: Civil Engineering, University of Delaware, December 1983
Senior Design
Project: "Dam Design and Wastewater Treatment"

PRESENT POSITION

Associate Professor with tenure

EXPERIENCE

-Director for Undergraduate Environmental Engineering Program, Storrs CT, April 2001-January 2005.

Responsible for the confirmation and approval of environmental engineering degrees and environmental minor, program policies, daily operation and management, strategic and budget planning, cost control. Also, prepared proposals, program brochures, program annual reports, management and operation of the program from approval of new courses or course changes and course petition, scheduling courses, university catalog requirement approval, senate approval, advising and supervising students, ABET plan of study forms approval, supervised new website design/layout along with posted program information. Outreach activities with high schools in New England and liaison linking the school of engineering with corporate industry, state, and federal government.

-Member and Active Participant of the Institute for Interdisciplinary Engineering Education, Design and Computing, The University of Connecticut, School of Engineering, 2004-present. Implementing and the EDS software and New Technology into the engineering courses and K-12 outreach activities.

-Administrative Specialist, The University of Connecticut, School of Engineering, Storrs CT, summer 1999-2002.

Chaired outreach activities to promote the school of engineering educational activities both within and beyond the University of Connecticut.

-Teaching The University of Connecticut, Department of Civil and Environmental Engineering, 1987- present.

Taught Applied Mechanics I (Statics) and II (Dynamics), Introduction to Engineering I (Fortran Programming, Graphics, Microsoft, e-mail, and Internet), ENGR 100 (Orientation to Engineering, creativity, Brainstorming, Problem Solving, Microsoft Word, Excel, PowerPoint, Data Analysis, Unigraphics/EDS, Ethics, Contracts, Laws and Safety and Projects) and II (General topics of Engineering), Mechanics of Materials, Physics, Unit Operations in Water Quality Engineering, Environmental Engineering Senior Design course, Environmental Senior Thesis, Environmental Issues and Regulations, and Numerical Methods for Engineers.

Undergraduate Research and Projects Supervised

-Supervisor for Gordon Devoe, Intern student, Undergraduate Project entitled "Module I for Unigraphics Version III", September 2005- 2006.

-Supervisor for Chris Shores honor student, Environmental Issues and Water Conservation" Phase II, May 27, 2005- 2006.

-Supervisor for Russ Ward, Senior Thesis and Independent Study entitled "Water Conservation at UConn" Phase I, January 2005 – May 20, 2005.

-Supervising Prateek Bahl, Undergraduate Project at Waterbury Campus "Unigraphics/EDS Module" for engineering courses and outreach, the project is supported by the School of Engineering, January 2005- August 2005.

-Supervisor for Ryan Buell, undergraduate independent study entitled "Cake Filtration and Biomedical Engineering", Waterbury campus, spring semester 2003.

-Supervisor for the Environmental Engineering Senior Design Project entitled "The Design and Analysis of Wastewater Recycled Water Treatment Plan in Al Koura", North Lebanon, Lebanon, University of Connecticut, Fall 2001 and Spring 2002.

-Supervisor for Erzsebet Pocsi, Honor Student Project" Brochure for Water Conservation" for CT community and the Ministry of Environment in Lebanon use for water conservation awareness, spring semester 2002.

- Senior Thesis Advisor for Kristen Keenan "Reducing Industrial Discharges of Toxic Chemicals into Local Receiving Waters", spring 2002.

-Undergraduate Research / Project Advisor for Jason Darmofal, "Remote Electronic Device that can save Lives", spring semester 2000. The project was supported by the School of Engineering, University of Connecticut.

Graduate Research Supervised

-Jim Nichols, M.S. student, University of Connecticut, December 1994.
Independent Study: "Recirculating Sand Filters".

Internship Coordinator for

-Central Water Authority of Connecticut, New Haven, CT, 2001-present
-Haestad Methods, Waterbury, CT, 2001-present
-Siemon Company, Watertown, CT, 1997-Present.

Co-op Coordinator for Woodbury, Telephone Company, Woodbury, CT, 1987-1990.

Visiting Professor Bern University, Bern Switzerland, spring 1995.

Consulting Activities Consulting Engineer for Mr. Peter Sydoriak, 1 Corrine Drive, Prospect, Connecticut 06712.

-*Expert witness* in a legal proceeding for a residential development project, 1988.

Consulting Engineer for Cedar Corporation, Road, Downingtown, Pennsylvania 19335.
Involved in real estate and land subdivision, 1985-1986.

Research Obtained a Mathematical Model and Solutions for Bacterial and Drilling Mud Contamination of Pore Sediment Samples, with Dr. Yavuz Corapcioglu, Battelle Pacific Northwest Laboratories, summer of 1989.

Research Assistant with Dr. M. Yavuz Corapcioglu, University of Delaware.
Applied Finite Difference Method and Fortran Programming and obtained solutions for Mathematical Models in Filtration, Spring of 1986.

Conducted a research on Fundamental of Transport Phenomena in Porous Media, 1984-1985.

Conducted a research on Deep Bed Filtration, winter of 1984.

AWARDS / HONORS

- Listed in the "Who's Who in Engineering Academia", Environmental / Ecological.
- Awarded the Ministry of Higher Education of Egypt Medal by Dr. Abdullah S. Bazaraa, Cultural and Educational Counselor, Egyptian Cultural & Educational Bureau, Embassy of Egypt in Washington DC, June 16, 2005.
- Awarded a Certificate from the Institute for Teaching & Learning for attending and participating in the seminar "Active Learning", University of Connecticut, November 10, 2005.
- Awarded 2005 Women of Innovation Leaderships Finalist Certificate in Recognition of Outstanding Leadership as Innovator, Mentor and Role Model from the Connecticut Technology Council, sponsored by Pfizer-New Alliance Bank-, January 20, 2005.

- Awarded a Certificate from the American Academy of Environmental Engineers for successful completion of the 2004 ABET/EAC Evaluator Training Workshop, October 4, 2004.
- Awarded the Outstanding Teaching Award from the School of Engineering, The University of Connecticut, October 16, 2003.
- Received Certificate of Appreciation for Contributing to the Partners in Education Program from the Career Center at Woodstock Academy, Woodstock, Connecticut, June 13, 2003.
- Received Certificate of Appreciation from Woodstock Academy, Woodstock, Connecticut, November 8, 2002.
- Received "Partners In Education", Plaque Award from the Woodstock Academy, Woodstock, Connecticut, June 14, 2002.
- Awarded Lebanon Highest Honor by Lebanon's President General Emile Lahoud. Received the National Order of the Cedar Medal, Commander and Officer Order, Presidential Palace, August 2, 2001.
- Received Certificate of Appreciation from Multiply Your Option, Waterbury, CT, May 23, 2001.
- Received an Appreciation and Recognition Plaque from the American Alumni Association of Lebanon, Broumana, Lebanon, August 13, 2001.
- Received an Appreciation Plaque for Outstanding Services as President of the American Lebanese Engineering Society, presented in Providence, Rhode Island, July 22, 2001.
- Received an Appreciation Plaque for Outstanding and Dedication Services as President-Elect of the American Lebanese Engineering Society, presented in Beirut, Lebanon, July 22, 2000.
- Received a Special Recognition Plaque for convention Speaker at the National Conference of American Lebanese Engineering Society, presented in Titusville, Florida, June 5, 1999.
- Received an Appreciation Plaque for Outstanding Service as Treasurer of the American Lebanese Engineering Society, presented in Titusville, Florida, June 5, 1999.
- Received an Appreciation Plaque for Outstanding Service as Secretary of the American Lebanese Engineering Society, presented in Orlando, Florida, June 5, 1998.
- Received Certificate of Appreciation from the American Filtration Society for Support of the Educational Meeting held in Reno, January 6-18, 1993.
- Received Certificate of Appreciation from the American Filtration Society for Support of the Annual Meeting held in Chicago, May 10-14, 1992.

- Recipient of Delaware Education Scholarship, 1981-1984.

GRANTS / PROPOSALS

Principal Investigator, "Working and Supervising an Undergraduate Student at Waterbury Campus to develop EDS Module for K-12 Outreach Activities and ENGR 100 & 166 Courses, Awarded \$2000 from the School of Engineering, University of Connecticut, January 2005-June 2005.

Principal Investigator, "Environmental Issues and Water Conservation", Awarded \$100,000, (\$10,000/year for 10years) from the UConn Foundation, University of Connecticut, 2004-2014.

Principal Investigator, " US-Lebanon Workshop: Water Resources and Environmental Issues in Lebanon" with Samir Doumit, submitted to National Science Foundation, \$23,300, submitted, March 7, 2002.

Principal investigator "University International Relation", submitted to the Prime Minister of Lebanon, Minister Rafic Hariri, Beirut, Lebanon, May 16, 2002.

Principal investigator of proposal entitled "Lebanese Disability Act" with Mr. Samir Doumit, President of the Engineering Order of Engineers and Architects in Beirut, Lebanon, submitted to President Emile Lahoud and the First Lady, Andre' Lahoud, November 4, 2001. The new building codes implemented the proposed acts.

Awarded Educational Grant Consisting of twenty licenses of WaterCad, Water Distribution Modeling Software, \$16,756 from Haestad Methods, Waterbury CT, December 2001.

Awarded Educational Grant Consisting of twenty licenses of SewerCad, Sanitary Sewer Modeling Software, \$25,786 from Haestad Methods, Waterbury CT, December 2001.

"Hands-on Enhancements to the Freshman Engineering Courses," Awarded \$12,000 from the School of Engineering, University of Connecticut, January 20, 2000.

Awarded Educational Grant consisting of thirty licenses of H₂O NET version 2.0, \$32,550 from MW Soft, Inc., Pasadena California, November 18, 1998.

"A Theoretical Study of Pore Pressure and Porosity Variations along the Mud Cake Thickness" awarded \$1000 by the Research Foundation, University of Connecticut for the duration of February 1 - August 31, FRS # 441714, 1995.

"A Theoretical Study of Mass of Solid Particles Entering the Formation and its Effect on Cake Filtration", awarded \$23,000 by the Engineering Foundation, ERIG/ASCE, for the duration of September 1991 - August 1992.

PUBLICATIONS

Abboud, N.M., "Analytical Solution to an Advective-Dispersive Equation," in preparation..

Abboud, N.M., and P. Bahl "Unigraphics / EDS Module I", University of Connecticut, 2006.

Abboud, N.M., "Environmental Regulations and Management and the Impact on Human Health", Integrated Water, Health & Environment for the 21st Century Journal, WHE is the official publication of the Arab Healthy Water Association, to be submitted.

Abboud, N.M. and K. Keenan, "The Reduction of Industrial Discharges of Toxic Chemicals into Local Receiving Water due to Regulation", Civil Engineering Infrastructure Systems – CEIS International Conference Proceedings, Beirut, Lebanon, Environmental Section, 1-11, 2006.

Abboud, N. M., E. Pocsi, K. Keenan, and W. Krach, "The Design and Analysis of Recycled Wastewater Treatment Plan in El Koura, Lebanon", The 4th International Water Conference in the Arab Countries Proceedings Under the Slogan Rationalizing Water Use to Guarantee Sustainability, Arwatex, Beirut, Lebanon, 267-299, 2005.

Abboud, N.M. and K. Keenan, "Regulations and its Role in Reducing Industrial Discharges of Toxic Chemicals into Local Receiving Water in Connecticut", International Conference on Thermal Engineering Theory and Applications Proceeding, Lebanon, p.94, May 2004.

Abboud, N. M., E. Pocsi, K. Keenan, and W. Krach, "The Design and Analysis of Wastewater Recycled Water Treatment Plan in Al Koura, archived in the Order of Engineers & Architectures Beirut Library and the Ministry of Environment Library Lebanon, October 15, 2002.

Abboud, N.M., "Environmental Regulations and Management", Order of Engineers and Architectures in Lebanon proceeding, Beirut, Lebanon, Vol.1, 2002.

Abboud, N. M. and P. Bousader, "Recycled Wastewater and its Positive Impact on the Environment in Lebanon", Engineering Technology in the New Millennium, American Lebanese Engineering Society proceeding, 2000.

Abboud, N.M., "Sensitivity Analysis of Cake Porosity, Pressure, Concentration, and Solid Velocity with respect to Cake Compressibility and Membrane Impedance", Advances in Filtration and Separation Technology, Filtration and Separation Technology for 2000, AFSS proceeding, Vol.14, 455-464, 2000.

Abboud, N.M. and T.S., Boulattouf, "Sensitivity Analysis of Microbial Particle Concentration to Model Parameters", Advances Filtration & Separation Solutions for the Millennium, American Filtration & Separation Society proceeding, Vol. 13, 172-178, 1999.

Abboud, N.M., "A Model for the Transport of Microbial Particle in a Porous Column", Computer Methods and Water Resources IV, Vol.4, 205-214, 2000.

Abboud, N.M., "Numerical Solution and Sensitivity Analysis of Pore Liquid Pressure and Porosity to Model Parameters", Transport in Porous Media Journal, Vol. 30, 199-216, 1998.

Abboud, N.M., "Formation of Filter Cakes with Sedimentation", Rehabilitation and Development of Civil Engineering Infrastructure Systems Proceeding, Beirut, Lebanon, Vol.1, 529-540, 1997.

Abboud, N.M., "An Analysis of Pore Liquid Pressure and Cake Porosity Along the Cake Thickness", National Technical Conference & Exposition, Advancing Filtration Solutions Proceeding, AFS, Minneapolis, Minnesota, Vol. 11, 425- 433, 1997.

Abboud, N. M. and M. Y. Corapcioglu, "Modeling of Compressible Cake Filtration with Sedimentation", Fluid / Particle Separation Journal, Vol. 9, No.4, 1996.

Abboud, N.M., "A Theoretical Study of Pore Pressure and Porosity Variations along the Mud Cake Thickness", Computer Methods and Water Resources III, Beirut, Lebanon, 323-336, 1995.

Nichols, J. R., Jr. and N. M. Abboud, "Recirculating Sand Filters in Connecticut", Fluid/Particle Separation Journal, Vol. 8, No.3, October, 175-189, 1995.

Nichols, J. R., Jr. and N. M. Abboud, "Evaluation of Various Recirculating Sand Filters" Advances in Filtration and Separation Technology: Impact on the Future, edited by K. J. Choi, AFS, Vol. 9, 900-913, 1995.

Abboud, N.M. " Sensitivity Analysis of Cake Formation with Particle Penetration at the Filter Septum to Model Parameters" Advances in Filtration and Separation Technology: Filtration and Separation Processes and the Environment, edited by S.K. Sharma, AFS, Kingwood, Texas, Vol. 8, 182-187, 1994.

Abboud, N.M. "Formation of Filter Cakes with Particle Penetration at the Filter Septum" Particulate Science and Technology: an International Journal, Vol. 11, No. 3-4, 115-131, 1993.

Abboud, N.M. and M.Y. Corapcioglu "An Analysis and Validation of a Microbial Filtration Model" Fluid/Particle Separation Journal, Vol. 6, No. 4, 163-168, 1993.

Abboud, N.M. and M.Y. Corapcioglu, "Pore Liquid Pressure and Porosity Variations Along the Cake Thickness" the 6th World Filtration Congress Proceeding, Nagoya Congress Center, Nagoya, Japan, 164-169, May 18-21, 1993.

Abboud, N.M. and M.Y. Corapcioglu, "Modeling the Compressible Cake Filtration" Journal of Colloid and Interface Science, Vol. 160, 304-316, 1993.

Abboud, N.M. and M.Y. Corapcioglu, "The Effect of Mud Penetration on Borehole Skin Properties" Water Resources Research Journal, Vol. 29, No. 8, 2941-2950, 1993.

Abboud, N.M. and M.Y. Corapcioglu, "Numerical Solution and Sensitivity Analysis of Filter Cake Permeability and Resistance to Model Parameters" Transport in Porous Media Journal, Vol.10, No. 3, 235-255, 1993.

Abboud, N.M. and M.Y. Corapcioglu, "Comparison of a Bacterial Transport Model with Soil Column Data" Fine Particle Society, Proceeding of Symposium on Filtration and Separation Processes, Vol. 3, 59, 1992.

Abboud, N.M. and M.Y. Corapcioglu, "Analytical and Numerical Solutions for Suspended Particles in a Finite Soil Column" Advances in Filtration and Separation Technology: New

Filtration and Separation Equipment, edited by Robert Peters, American Filtration Society, Kingwood, Texas, Vol. 6, 261-267, 1992.

Abboud, N.M. and M.Y. Corapcioglu, "Simulation of Compressible Cake Filtration with Available Porosity and Pressure Variations Along the Cake Thickness" Advances in Filtration and Separation Technology: Separation Problems and the Environment, edited by B. Scheiner, American Filtration Society, Kingwood, Texas, Vol.5, 332-350, 1991.

Corapcioglu, M.Y. and N.M. Abboud, "Cake Filtration with Particle Penetration at the Cake Surface" Society of Petroleum Engineers /Reservoir Engineering, Vol. 5, No. 3, August, 317-326, 1990.

Corapcioglu, M.Y., N.M. Abboud and A. Haridas, "Governing Equations for Particle Transport in Porous Media" ADVANCES IN TRANSPORT PHENOMENA IN POROUS MEDIA, J. Bear and M.Y. Corapcioglu, ed., Martinus Nijhoff published BV, The Hague, The Netherlands, 269-342, 1987.

Abboud, N.M. and M.Y. Corapcioglu, "Well Clogging by Suspended Solid Particles" EOS, Transactions, American Geophysical Union, Vol. 67, No. 44, 955, 1986.

EDITOR FOR

Editorial Consultant for Water, Health and the Environment, WHE, the official publication of the Arab Healthy Water Association, September 2005-present.

Editor for the Engineering Technology in the New Millennium, American Lebanese Engineering Society Proceeding, Vol. 1, 2003.

Editorial Board Reviewer for the Fluid/Particle Separation Journal, 1998- present.

Associate Editor for the Fluid/Particle Separation Journal, June 1994- 1998.

Co-Editor for "Frontiers in Fluid-Particle Processes: The Education Challenge" with G. Chase and A. Chamkha, American Filtration & Separation Society Conference Proceeding, Reno, Nevada, January 6-10, 1993.

BOOK REVIEWER FOR

-Engineering Fundamental Books, Thomson/Nelson Publishing Company
-Kirk-Othmer Encyclopedia of Chemical Technology

PAPER REVIEWER FOR

-Multidisciplinary Division of American Society of Engineering Education, ASEE
-Emirates Journal for Engineering Research
-Engineering Fundamental Book for Thomson/Nelson Publishing Company
-Resources, Conservation and Recycling Journal, Elsevier
-European Journal of Soil Science
-Journal of Environmental Technology
-Waste Management Journal
-International Journal of Integrated Waste Management, Science and Technology

- Filtration and Separation Journal
- International Journal of Numerical Methods for Heat & Fluid Flow
- American Society of Civil Engineering, Environmental Journal
- Computer and Fluids, an International Journal
- Kuwait Journal of Science & Engineering
- Transport in Porous Media Journal
- Journal of Applied Mechanics
- The Journal of Theoretical Biology
- Fluid/Particle Separation Journal, (AFS)
- Journal of Contaminant Hydrology
- In Situ and On-Site Bioreclamation (International Proceedings)
- Journal of Fluids Engineering
- Chemical Engineering Communication Journal

PROPOSAL REVIEWER FOR

- NSF, IGERT Proposals, Arlington, VA
- NSF, Small Business Innovation Research (SBIR), Arlington, VA
- USEPA, Science to Achieve Results (STAR) Fellowship, Washington, DC
- USEPA, Fellowships and Internships, Washington, DC
- Petroleum Research Fund, (ACS)
- PSC - CUNY Grants
- Texas A & M University Sea Grant College Program
- Delaware Sea Grant Program

TENURE/ PROMOTION REVIEW

- Portland State University

PROFESSIONAL AND LEADERSHIP DUTIES

- **Chair for the Scientific Committee** for the Environmental sessions at the International Conference in the Arab Countries entitled Water Desalination and the Environment, ARWATEX conference 5th, will be held in Saudi Arabia, January 2007.
- **Peer Review Panelist for the US EPA**, Environmental Engineering- Pollution Prevention & Sustainability, United States Environmental Protection Agency, Washington, DC, January 17-18, 2006.
- Selected by the **United Nation** to serve as an **International Advisor to the ministry of public works and the ministry of Environment** in Lebanon. "Pollution Prevention, Policies and Regulations", May 2006.
- **Serve on the Scientific Committee** for "Healthy Water in the Arab Region", the Arab Healthy Water Association Conference, Cairo Egypt, June 7-9, 2006.
- **SCUP Grantee and presenter** "EPAC Compliance & Best Practices Subcommittee: Water Conservation", the Smart & Sustainable campuses Conference, November 3-4, 2005.

- **Faculty Advisor/Mentor for the Engineers without Borders Chapter** at the University of Connecticut, Storrs, CT, November 1, 2005-2007
- **Faculty Advisor/Mentor for the Lebanese Club** at the University of Connecticut, Storrs, CT, October 6, 2005-present.
- **Invited as a Keynote Speaker**, "Water Regulations, Management, and Education" at the 4th International Water Conference in the Arab Countries, Beirut, Lebanon, June 27, 2005.
- **Public Relations Chair** for the "**Engineers without Borders**" Connecticut Professional Chapter, Connecticut, March 2005-present.
- **Peer Reviewer Panelist for the NSF, Integrative Graduate Education and Research Traineeship (IGERT) program**, at NSF, in Arlington, VA, on April 18-19, 2005.
- **Serve on the Steering Board**, Arab Union of Scientists & Researchers, February 2005-present.
- **Peer Review Panelist for US EPA STAR & GRO Fellowships**, United States Environmental Protection Agency, Washington, DC, February 22-24, 2005.
- **Serve on the Nominating Committee**, Arab Union of Scientists & Researchers, 2004-present.
- **Serve on the Steering Committee** for the CEIS International conference "Civil Engineering Infrastructure Systems", Beirut, Lebanon, 2004-2006.
- **Serve on the Goldwater Committee National Scholarship**, University of Connecticut, Storrs, CT 2004-2006.
- **Member of UConn Advocate**, University of Connecticut, Storrs, CT, December 2004-present.
- **Serve on the Compliance & Best Practices C&BP Subcommittee**, Water Conservation, Environmental Policy Advisory Council, 2004- present.
- **Serve on both of the Environmental Outreach EPAC Subcommittees (Recycling & Reuse Workgroup and Environmental Education Literacy Workgroup)**, Environmental Policy Advisory Council, 2004 - present.
- **Invited Speaker**, talked about "*The application of Engineering in everyday life*" August 27, 2004 at the Lodewick Visitors Center's tour to educate/train over 40 LVC students. This information will be shared with the 32,000 people who annually take part in campus tours. Uconn Storrs, CT
- **Member and co-Founder of the Abroad Advisors** for the Arab Healthy Water Association, March 2004 – Present.

- **Serve on the Executive Board** for the Faculty and Staff Association, Waterbury campus, The University of Connecticut, Waterbury, CT, February 11, 2004-present.
- **Chair** for the Environmental session, at the International Conference on Thermal Engineering Theory and Applications, Beirut, Lebanon, May 31-June 4, 2004.
- **Chair** for the sessions entitled "Filtration Modeling" and "Cake Filtrations Topics", at the 9th World Filtration Congress, New Orleans, Louisiana, April 18-24, 2004.
- **Chair and Organizer**, School of Engineering booth at the Connecticut CPTV Science EXPO, Expo Center, Hartford, Connecticut, April 2-3, 2004.
- **Peer Review Panelist for US EPA Fellowships**, United States Environmental Protection Agency, Washington, DC, February 24-25, 2004.
- **Serve on the Alumni & Service Awards Committee**, School of Engineering, The University of Connecticut, Storrs, CT, May 2003- present.
- **Serve as Delegate for the School of Engineering on the Environmental Policy Advisory Council**, University of Connecticut, Storrs, CT, May 2003 - present.
- **Invited Panel Speaker**, Society of Women Engineers-Hartford Certificate of Merit Event, to be held at Trinity College in Hartford, CT, April 23, 2003.
- **Chair and Organizer**, School of Engineering at the Connecticut CPTV Science EXPO, Expo Center, Hartford, Connecticut, April 4, 2003.
- **Organizer**, Engineering Booth at the Girls Scout Event entitled "Women in Technology: A Growing Mind", University of Connecticut, Storrs, CT, February 8, 2003.
- **Served on the steering committee**, "Connecticut Water Policy Adopted or Orphaned?" Natural Resources Council of Connecticut, October 8, 2002.
- **Serve on the Mentorship Committee**, American Arab Engineers and Scientists Society (AAESS), June 2002-present.
- **President and Founder** of the American Arab Engineers and Scientists Society (AAESS), June 2002-present.
- **Treasurer** the American Arab Engineers and Scientists Society (AAESS), June 2002-present.
- **Chair and Organizer**, School of Engineering booth at the Connecticut CPTV Science EXPO, Expo Center, Hartford, Connecticut, May 1, 2002.
- **Chair and Co-Organizer**, Lebanese Culture events for students, faculty and staff at the University of Connecticut, Waterbury campus, April 17, 2002.

- **Chair and Organizer**, Environmental Engineering Program, Connecticut Invention Convention hosted by School of Engineering, University of Connecticut, Storrs, April 6, 2002.
- **Serve on the Civil & Environmental Engineering Industrial Advisory Council Committee**, Three Rivers Community Technical College, Connecticut, January 2001-present.
- **Faculty Advisor for Tau Beta Pi Honor Society**, Environmental Chapter, University of Connecticut, Storrs, CT, 06269, August 2001-January 2006.
- **Serve on the School of Engineering Open House Committee**, University of Connecticut, Storrs, CT, 2001-2005.
- **Serve on the CEE undergraduate Recruitment and Open House Committee**, University of Connecticut, Storrs, CT, 2001-2005.
- **Served on the School of Engineering Course and Curriculum Committee**, University of Connecticut, Storrs, CT, 2001-2003.
- **Member of the American Media Watch Group Consortium**, Washington, DC, 2001-present.
- **Peer Review Panelist for USEPA Fellowships**, United States Environmental Protection Agency, Washington, DC, February 19-20, 2002.
- **Chair and Organizer**, Haestad WaterCad and SewerCad Workshop, University of Connecticut, Storrs, December, 12, 2001.
- **Board Member** of the Natural Resources Council of Connecticut, September 2001-present.
- **Keynote Speaker** "Environmental Regulations and Management", International Engineering convention, Order of Engineers & Architectures, UNESCO, Beirut, Lebanon, August 1-3, 2001.
- **Served as a Liaison** between Beirut Municipality Mr. Menhem Maroun and Minister Michel Moussa, Minister of Environment, Lebanon, where I solved an environmental issue. Lebanon, August 2001.
- **Chaired** for the Stamford Faculty Search Committee, University of Connecticut, Storrs, CT, 2001-2002.
- **President** for the American Lebanese Engineering Society, July 2000-2001.
- **Chair and Organizer** for the Engineering Technology in the 21st Century, American Lebanese Engineering Society Conference, Providence RI, July 20-22, 2001.

- **Keynote Speaker** for Multiply Your Options Program, Waterbury CT, May 23, 2001.
- **Chair and Judge** for the Student Poster Session at the American Filtration & Separation Society Conference, Tampa, Florida May 1-4, 2001.
- **Co-Chair** for the Fundamental of Filtration, American Filtration & Separation Society Conference, Tampa, Florida, May 1-4, 2001.
- **Co-Chair** for New Advances in Filtration, American Filtration & Separation Society, Tampa, Florida, May 1-4, 2001.
- **Served as A Judge** at the Connecticut Invention Convention, Storrs, CT, April 7, 2001.
- **Served on the Search Committee** for the Diversity Engineering Program Director position, 2000-2001.
- **Co- Chair** for the Engineering Technology in the New Millennium, American Lebanese Engineering Society Convention, Beirut Lebanon, July 20-23, 2000.
- **Served on the Easement Project Committee**, Ehdn Lebanese American club, Waterbury, CT, January 2000- 2001.
- **Served on the Search Committee** for the Associate Vice Chancellor Position for the Tri-campus, The University of Connecticut, 1999-2000
- **Served on the International Scientific Advisory Committee**, American Lebanese Engineering Society, July 1999 - July 2000.
- **Served as A Judge** at the Connecticut Invention Convention, Storrs, CT, April 8, 2000.
- **President –Elect** for the American Lebanese Engineering Society, June 1999- 2000.
- **President** for the American Filtration and Separation Society, New England chapter, March 1995- December 30, 1999.
- **Organizer/chair** of the American Lebanese Engineering Society, "Engineering Technology in the New Millennium", Beirut Lebanon, July-20-23, 2000.
- **Organizer/chair** of the American Filtration and Separation New England Conference, South Walpole, MA, October 7, 1999.
- **Represented the School of Engineering** at the fall and Spring Open houses at Waterbury, 1987-present.
- **Co- chair of** the Cake Filtration Session at the American Filtration and Separation Society, "Filtration and Separations Technologies", Myrtle Beach , South Carolina, March 14-17, 2000

- **Represented the School of Engineering** at the UCONN Fair, Brass Mill Mall, Waterbury, Connecticut, June 26, 1999.
- **Co-chair** for Cake Filtration and Applications Session, Advances Filtration & Separation Solutions for the Millennium, AFSS, Boston, Mass., April 6, 1999.
- **Served on the Waterbury Campus brochure committee**, University of Connecticut, Waterbury campus, August 1998- March 1999.
- **Served on the board for the American Lebanese Engineering Society**, Treasurer, June 1998-1999.
- **Served on the Scholarship Committee** for the Ehden Lebanese American Club, Waterbury, Connecticut, February 1998- January 2006.
- **Served on the Board for the American Lebanese Engineering Society**, Secretary, June, 1997 - 1998.
- **Served on the Advisory Board for the Institute of Business, Manufacturing, and Public Services**, University of Connecticut, 1995 - 1999.
- **Served on the International Scientific Advisory Committee**, The Fourth International Conference on Computer Methods and Water Resources, August 1996 - June 20, 1997.
- **Served on Planning Committee** for the Engineering Academy of Southern New England, University of Connecticut, August 1996 - 1998.
- **Served on the Publication Committee**, American Lebanese Engineering Society, Orlando, Florida, July 1996 - 2001.
- **Chaired** the session entitled "Pollution", The 3rd International Conference on Computer Methods in Water Resources, Beirut, Lebanon, September 28, 1995.
- **Served on the "Fluid Particle Mechanics"** session # 2, Fluid/Particle Processing and Separation, AFS society, Pittsburgh, PA, March 8-12, 1995.
- **Serving on the Environmental Engineering Core Group**, University of Connecticut, Storrs, May 1994-present
- **Chair for the Archives Committee**, American Filtration and Separation Society, April 1994-2000.
- **Served on the "Fluid Particle Mechanics"** session # 2, The Frank Tiller and Particle Separation Educational Seminar, Houston, Texas, January 5-7, 1994. Duties: preparing an outline for the Fluid Particle Mechanics course and providing materials and problems with solutions that will be edited in the form of a text book

- **Vice President** for the American Filtration & Separation Society, New England Chapter, November 1991 - March 1995.
- **U.S.A. delegate**, 6th World Filtration Congress, Nagoya, Japan, May 19, 1993.
- **Co-chairperson and organizer** for the "Frank Tiller and Particle Separation Educational Seminar" Reno, Nevada, January 6-10, 1993.
- **Organizer and Chairperson** for the Solid-Liquid Separation Processes Session, Fine Particle Society, Las Vegas, Nevada, July 13-17, 1992.
- **Co-Chairperson** for a student poster session, American Filtration & Separation Society, Chicago, Illinois, May 10-14, 1992.
- **Chaired** the sessions for the Fluid/Particle Processing and Separation Conference, American Filtration & Separation Society, Gainesville, Florida, January 14, 1992.
- **Serve on the Editorial Board** for Fluid/Particle Separation Journal, June 1992-present.
- **Serve on the Education Committee**, American Filtration & Separation Society, January 1992- present.
- **Served on the Fellowship Committee**, AFS Society, May 1992- 1995.
- **Served on the Symposium Committee**, Fine Particle Society, January 1992-July 1992.
- **Chaired** the Annual Engineering Reception, University of Connecticut, Waterbury, 1987-1991.
- **Served on the Torrington Faculty Search Committee**, University of Connecticut, Storrs, 1990-1991.
- **Faculty Advisor** for the Computer Science and Engineering Club, University of Connecticut, Waterbury, 1988-1991.

CONFERENCES / SEMINARS

- Participated in the "Connecticut Water Law Conference, Fish & Faucet Ensuring a Healthy Future", held at Northeast Utilities, Berlin, CT, December 2, 2005.
- Participated in the Seminar entitled "Active Learning" conducted by Dr. Keith Barker, Director of the Institute for Teaching & Learning, University of Connecticut, November 10, 2005.
- Invited by SCUP as one of the team presenter/workshop entitled "EPAC Compliance & Best Practices Subcommittee: Water Conservation" at the Smart & Sustainable campuses

Conference, November 3-4, 2005.

- Keynote Speaker, "Water Regulation, Management, Education" at the 4th International Water Conference in the Arab Countries, Beirut, Lebanon, June 27, 2005.
- Invited Speaker, "The Design and Analysis of Recycled Wastewater Treatment Plan in El Koura", the 4th International Water Conference in the Arab Countries, Beirut, Lebanon, June 28, 2005.
- Participated and Completed the ABET/EAC Evaluator Training Workshop by the American Academy of Environmental Engineers, New Orleans, October 4, 2004.
- Invited Speaker, talked about "Environmental Issues" on Live Radio talk show program, Lebanon El- Harr Radio Station, 2 hours live interview in Arabic, Lebanon, August 10, 2002.
- Keynote Speaker "Environmental Regulations and Management", International Engineering Convention, Order of Engineers & Architectures, UNESCO, Beirut Lebanon, August 1-3, 2001.
- Participated in the "Classroom Management and Culture Workshop" by Keith Barker, University of Connecticut, Waterbury Campus, April 19, 2001.
- Presented " Recycled Wastewater and its Positive Impact on the Environment in Lebanon" Engineering Technology in the New Millennium, American Lebanese Engineering Society convention, July 20-22, 2000
- Presented "Sensitivity Analysis of Cake Porosity, Pressure, Concentration, and Solid Velocity with respect to Cake Compressibility and Membrane Impedance", American Filtration and Separation Conference, Myrtle Beach, South Carolina, March 14-17, 2000
- Guest Speaker at the American Lebanese Engineering Society, "Environmental Issues in Lebanon" Orlando, Florida, June 5, 1999.
- Present "Sensitivity Analysis of Microbial Particle Concentration to Model Parameters", at the Advances Filtration & Separation Solutions for the Millennium, American Filtration and Separation Society proceeding, Boston, Mass, April 6, 1999.
- Presented "A Model for the Transport of Microbial Particle in a Porous Column" at the 4th International Conference on Computer Methods and Water Resources, Byblos, Lebanon, June 16-18, 1997.
- Presented "Formation of Filter Cakes with Sedimentation" at the International conference on Rehabilitation and Development of Civil Engineering Infrastructure Systems, Beirut, Lebanon, June 9-11, 1997.
- Presented "An Analysis of Pore Liquid Pressure and Cake Porosity Along the Cake Thickness", at the National Technical Conference & Exposition, Advancing Filtration Solutions Proceeding, AFS, Vol. 11, Minneapolis, Minnesota, April 29-May 2, 1997.

- Participated in the 6th Frank Tiller Education Conference entitled "Fluid Particle Processing and Separation", Houston, Texas, February 24-27, 1997.
- Participated in the Engineering Academy of Southern New England Workshop, University of Connecticut, Storrs, October 4-5, 1996.
- Attended the Fedler Effective Teaching Workshop, University of Connecticut, Storrs, CT, September 20-21, 1996.
- Attended the ALES Annual Conference, American Lebanese Engineering Society, Orlando, Florida, July 6-8, 1996.
- Participated in the short courses entitled "Multiphase Flows through Porous Media" and "Fluid/Particle Processing", University of Akron, Akron, Ohio, May 14-17, 1996.
- Participated in the AFS Annual Technical Conference & Exposition, American Filtration and Separation Society, Valley Forge, PA, April 21-24, 1996.
- Presented "A Theoretical Study of Pore Pressure and Porosity Variations Along the Mud Cake Thickness" at the 3rd International Conference on Computer Methods and Water Resources, Beirut, Lebanon, September 24-28, 1995.
- Participated in the short course entitled "Fluid/Particle Processing", University of Pittsburgh, Pittsburgh, PA, June 5-9, 1995.
- Presented two hours seminar on "Formation of Filter Cakes with Particle Penetration at the Filter Septum", Bern University, Bern Switzerland, May 18, 1995.
- Presented "Sensitivity Analysis of Cake Formation with Particle Penetration at the Filter Septum to Model parameters" at the 8th annual meeting, Advances in Filtration and Separation Technology, American Filtration and Separation Society, Chicago, Illinois, May 8-12, 1994.
- Presented "Pore Liquid Pressure and Porosity Variations Along the Cake Thickness" at the 6th World Filtration Congress, Nagoya Congress Center, Nagoya, Japan, May 18-21, 1993.
- Presented one hour seminar on "Comparison of a Bacterial Transport Model with Soil Column Data", Department of Civil Engineering, The University of Connecticut, Storrs, CT, March 24, 1993.
- Presented "Comparison of a Bacterial Transport Model with Soil Column Data" at the International Symposium on Recent Developments in Filtration and Separation Process/Fine Particle Society Conference, Las Vegas, Nevada, July 13-17, 1992.
- Presented "Analytical and Numerical Solutions for Suspended Particles in a Finite Soil Column" at the 5th Annual Meeting on New Filtration and Separation Equipment/American Filtration Society Conference, Chicago, Illinois, May 10-14, 1992.

- Presented "Simulation of Compressible Cake Filtration with Available Porosity and Pressure Variations along the Cake Thickness" at National Meeting on Separation Problems and the Environment/American Filtration Society Conference, Atlanta, Georgia, October 20-23, 1991.
- Presented one-hour seminar on "An Analysis of Cake Filtration with Particle Bleeding" Department of Civil Engineering, University of Delaware, Newark, DE, March 17, 1989.
- Attended the Environmental Symposium by New England Water Pollution Control Association, Brandies University, Waltham, MA. on the following:
 - "Using Risk Assessment as a Decision-Making Tool" October 7, 1992.
 - "Application and Misapplication of Aquifer Characterization Techniques" November 4, 1992.
 - "Planning for the Inevitable: Soil Management Plans for Construction in Contaminated area" December 2, 1992.
 - "Practical Groundwater Treatment Alternatives: A review of Available In-Situ Techniques", March 3, 1993.
- Attended the American Geophysical Union Meeting, Convention Center, Baltimore Maryland, May 12-17, 1989.
- Presented "Governing Equations for Particles Transport in Porous Media", NATO/ASI Conference, Newark, Delaware, July 1985.

SPECIAL SKILLS

- Fluent in Arabic, English and French.
- Extensive programming in Fortran, WordPerfect and Microsoft Words, Excel, PowerPoint, Internet, MS Publisher, Acrobat Writer, Axum, Unigraphics, and Golden plot Software on PC and CMS on Mainframe.
- Extensive knowledge in Applied Mathematics in Engineering.

PROFESSIONAL SOCIETIES

- Engineers without Borders-USA, Founder of the Engineers without Borders UCONN section.
- Qatar National Research Foundation
- NACUBO, National Association of College and University Business Officers
- SCUP, Society for College and University Planning
- American Society of Engineering Education
- Society of Women Engineers
- Association of Environmental Engineering Professors
- Arab Union Scientists and Researchers
- American Society of Civil Engineers
- American Filtration and Separation Society
- Arab Healthy Water Association, Advisory Abroad
- American Arab Engineers and Scientists Society

- The E- Mentoring Network for Diversity in Engineering and Science
- Lebanese American Professional Society Network
- American Lebanese Engineering Society
- Poroelasticity Resources Network
- Saltwater Intrusion and Coastal Aquifers Network
- Solid/Liquid Separation Applied Theory Network
- American Association of University Professors
- Waterbury Campus/Faculty Association

INTERNATIONAL OUTREACH ACTIVITIES, 2000-present

- Met with Ambassador Vincent Battle, Ambassador of US to Lebanon, August 22, 2003.
- Met with Minister Fares Boueiz, Minister of Environment, Lebanon, August 25, 2003. Obtained the partnership for the upcoming conference in Beirut, Lebanon.
- Met with Ambassador Haimari, Chief Protocol, Presidential Palace, Baabda, Lebanon, August 29, 2003.
- Met with Ambassador Haimari, Chief Protocol, Presidential Palace, Baabda, Lebanon, August 22, 2003.
- Met with Mr. Joseph Feghali, the President of the American Alumni Engineers in Lebanon, August 25, 2003.
- Met with the President of the Order of Engineers & Architecture of Beirut, August 24, 2003.
- Met with Mr. Samir Doumit, President of the Federation of Arab Engineers, August 24, 2003
- Met with the First Lady of Lebanon, Andree' Lahoud, Lebanon, August 24, 2001.
- Met with Head of the Ministry of Foreign Affairs, Mr. Fares Eid, Lebanon, August 21, 2001.
- Met with Minister of Environment in Lebanon, Dr. Michel Moussa, Lebanon, August 13, 2001.
- Met with Elizabeth Ann Fritschle, Economic & Commercial Officer, Embassy of the USA in Beirut, Lebanon, August 10, 2001.
- Met with President of Lebanon, General Emile Lahoud, Lebanon, August 10, 2001.
- Met with the Minister Internal Affairs, Minister Fouad Saad, Lebanon, August 8, 2001.
- Met with President of Lebanon, General Emile Lahoud, Lebanon, August 2, 2001.
- Met with the Prime Minister of Lebanon, Rafic Hariri, Lebanon, August 1, 2001.
- Met with the Ambassador of Lebanon to the USA, Dr. Farid Abboud, Washington, D.C., July 21, 2001.
- Discussed Environmental issues, I was interviewed, Live on Air, by Lebanon El-Har Radio show, 2 hours, Jouneih, Lebanon, August 10, 2001.
- Appeared on different Lebanese TV channels that are broadcasted in Lebanon and overseas on July 18, 2000, August 2000, and August 10, 2001.
- Interviewed by magazines and newspapers and appeared in over 24 Lebanese Newspapers, Lebanon, August 2001.
- Met with the President of the Order of Engineers & Architectures, Mr. Samir Doumit, Beirut Lebanon, August 10, 2000.
- Met with Dr. Hatjian, Director of the Ministry of the Environment, Lebanon, August 7, 2000.
- Met with Minister of Environment, Arthur Nazarian, Lebanon, August 1, 2000.
- Met with the President of the American Alumni Association in Lebanon, Mr. Joseph Feghali, July 26, 2000.
- Met with President of Lebanon, General Emile Lahoud, Lebanon, July 18, 2000.

Work done overseas and meetings with officials in the USA and Lebanon are done to establish an international projects / relation between the two countries and to discuss future International collaboration on environmental projects and international university relations between the USA and Lebanon.

Similarly, I have met and spoke with other high officials and individuals in other 3rd world Arab Countries for the same goals as listed above and to educate them about the environment. Some of the accomplishment and information are stated in the Professional and Leadership Duties and Awards Sections of the resume.