



Curriculum Vitae
Hassan B. Diab

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“ Do not go where the path may lead, go instead
where there is no path and leave a trail ”

Ralph Waldo Emerson



PREFACE

My Vision

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Statement of Service

Statement of Research

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PREFACE

A. My Vision

My vision is nothing less than changing the world but I realize that the first step is to change oneself. I believe that education is the prime mover for change in today's complex world. Confucius said: "If your plan is for one year, plant rice. If your plan is for ten years, plant trees. If your plan is for one hundred years, educate children."

As I reiterate in many of my keynote speeches, "Education goes beyond career development to the development of students' mental capacities, including their ability to distinguish facts from opinions, be creative and critical, appreciate diversity, believe in equality, and embrace others." Accordingly, education should not only provide pedagogical instruction but also influence attitudinal reform. It should connect language, culture, and moral values to reshape the learner's identity, encourage free thinking and responsible citizenship, thus facilitating social unity and preparing the new generations for the social, political, and economic development of their countries. During my lifetime, I have lived through many wars. However, I believe that if there must be a war, it should be against exclusion, against lack of dignity, and against human degradation, of which we are oftentimes passive eyewitnesses.

New teaching methodologies are no longer only about transferring knowledge. They are about promoting analysis, synthesis, entrepreneurship and innovation skills. They are about creating global citizens that have the necessary "breadth" (soft skills) as well as "depth" (hard skills) in the area of specialization in a dynamic rapidly changing world and emerging markets. Transformation of education is the enabler of change in our social systems, not only with respect to technology but also to produce global citizens that promote multi-cultural and multi-religious tolerance, which perhaps is one of many parameters that will influence the future of our world.

International and national institutions have recognized my achievements as outstanding contributions I have made to the field of education based on equity, intercultural communication and cooperative learning. I received service and activism awards from international, non-profit organizations for educators who research and practice cooperation in education in order to promote student academic improvement and democratic social processes. My research, writing, and work with teachers, trainers and consultants at schools and universities across the Middle East demonstrate a strong commitment to service and activism in the spirit of cooperation and democratic social processes.

I aspire to create my own path and to leave my imprint as an influencer in the education field. I am certain that the solution to most of our economic, unemployment, social, financial, and even political challenges, lies in education in all its forms including: parents' education, K-12 school education, higher education, vocational and technical education, as well as continuing education and life-long learning. I am hoping that all my work, initiatives and achievements during my professional career as a Professor, Department Chair, Dean, university President, as well as Minister of Education and Higher Education will leave a ripple in the ocean of education. A ripple that will grow when it meets other ripples culminating into a wave to push for change in our educational systems so we graduate *agents of change* in our societies that are not only *work ready* but *world ready*.

I have no doubt that the wealth of any country is not in its natural resources; our main and foremost wealth is our youth. The youth represent the future. It is, therefore, our responsibility and duty to provide the best educational systems for them. I think that entrepreneurial and artificial intelligence techniques, cloud-based high-performance systems, use of technology including virtual and augmented reality, as well as novel teaching methodologies and innovative curricula will transform our educational systems in the coming years. We need to address the fundamental questions that improve the way we train and educate our youth. Graduates should be equipped with the necessary analysis, synthesis and research tools in order to find innovative answers to challenges and situations they will probably face for the first time in their professional careers. This should be at the highest priority of any nation's strategic plan.

My service and activism are wide and deep and have been sustained for a long time. It ranges from publishing articles to manuals and textbooks that range from the conceptual/theoretical to practical and specific. It includes my teaching, workshop development, and leadership — from the collegial teams I have formed to serve underrepresented populations throughout the region to my current leadership position as Vice President at the American University of Beirut.

Entrepreneurship is about galvanizing innovative solutions to unique problems. As an entrepreneur, I have learnt to address my disappointments and strengthen my resilience to increase my curiosity. As an entrepreneur, I always accepted failures by treating them as learning lessons to succeed in the next phase. I believe that innovation in higher education should entail more focus on case studies that link curricula to real-world challenges, create opportunities for students to be engaged in social entrepreneurship, encourage innovation parks in universities to empower students to launch their own startups, foster global exchange with other institutions, among others. Education is about triggering the minds of youth to think differently and find innovative solutions to improve our world and humanity. As Albert Einstein stated “Education is not the learning of facts but the training of the mind to think”. Accordingly, one should never settle for the knowledge acquired but rather seek the next level of the knowledge ladder.

“No one can prevent you from succeeding except yourself” (Deshun, 2016)¹. One of the secrets of success is empowerment of your team. No one succeeds on his or her own. As Robert Ingersoll said “We rise by lifting others.” When choosing your team, we look at many things in people including leadership, intelligence, energy, wisdom, and integrity. However, if they don’t have the last one, don’t even bother with the rest. Indeed, how lovely it is to walk amongst people and emanate the scent of your morals. One has to always remember that the function of leaders is to build more leaders, not followers, something that our region is in dire need of. Furthermore, congruency results from doing what you are saying, which means you are in agreement and harmony with yourself rather than pretending to be who you are not. The world needs more congruent leaders that clearly understand which way their true North lies.

I believe that two things will define you in life: your determination when you have nothing and your attitude when you have everything. Furthermore, doing what you like is freedom, however, liking what you do is happiness and I have been blessed with a professional career that fulfilled my desire to do the things I like. Furthermore, I have learnt that in life pure joy comes from giving not from taking keeping in mind that the best things in life are free: Family, friends, hugs, smiles, kisses, sleep, love, laughter, and good memories. Giving is not only about money, it is also a multitude of things including giving some of your time, your wisdom, your advice, your kindness, your support, etc. There is no doubt in my mind that when someone gives, it comes back to him or her in many folds one way or the other, and that the secret of living is giving. In fact, it is true to say that some people are very poor for all they own is money. The happiest people don’t have the best of everything; rather they just make the best of everything. Using the words of Martin Luther King Jr., “An individual has not started living until he can rise above the narrow confines of his individualistic concerns to the broader concerns of all humanity.”

Today, our lives includes a big household but a small family, more degrees but less common sense, cutting-edge medicine but poor health, we touched the distant planets but don’t know our neighbors, high income but less peace of mind, high IQ but less emotions, more knowledge but less wisdom, many virtual friends but few real friends, and lots of humans but less humanity. People get bored with childhood, then they rush to grow up and finally they want to be children again. They lose their health to make money, and then lose their money to restore their health. They think anxiously about their future and they forget about their present such that they live neither in the present or the future. They live as if they will never die and die as though they have never lived. I believe that what counts are not the years in your life, but rather the life in your years. As Oscar Wilde said, “To live is the rarest thing in the world. Most people exist, that is all.”

¹ Wang Deshun is an 80-year old Chinese model started his modeling career at 79.
<https://youtu.be/rFpdJsIG1UM> & <https://youtu.be/T97B3L1ysFo>

In my humble opinion, what the world needs today is *re-humanizing* humanity as people have lost so much of the values that are at the core of our humanity such as love, compassion, and passion. I trust that passion is one's auto-pilot button that will unleash one's true potential. My passion has been from the beginning to make a positive difference, not only a living. My goal throughout has perhaps been a form of *transcendence*. It is these characteristics of pursuing my dream with passion and being daring as well as the desire to influence and inspire the youth that has perhaps lead to my selection in 2018 to become one of 59 Lebanese to be selected as "Those Who Inspire". All of this adds up to a long career dedicated to improving the lives of many students and teachers at schools and universities throughout the Middle East.

B. My Story

I have been a seeker of the truth since my early days. Always intrigued, always inquisitive. I often envisioned ‘what-if’ scenarios. In a very strange clairvoyant way, I always felt since my early school years that I would be successful in whatever I aspire for, a feeling that comforted and empowered me to go the extra mile in everything I do. The source of this empowerment was that I did everything I planned for with passion. Additionally, one of the things that defined me is my courage and grit, my ability to take calculated risks, and my willingness to dive in the deep side of life. This attribute has enabled me to change my life and, I hope, that of those around me in a positive way.

Losing my father at the age of 10 only made me more adamant to push harder and leave my imprint in life. As the Lebanese civil war started, I suddenly found myself alone in the UK at the age of 17 making life-transforming decisions on my own. While I was completing my nine-year education in the UK, spanning from high school up to my PhD, including 1½ years at IBM as a trainee engineer, many of my peers lost track. However, I persevered, guided by my decision to succeed and my focus on that goal.

Usually, knowledge and experience among other aspects lead to wisdom. However, I was blessed with an innate sense of wisdom from my early years accompanied, I believe, by the grace of God to make the right choices since my teen years. Although many of my successes are attributed to my hard work; that was not my only enabler to reach the heights I have reached. It is also qualities such as challenging myself to do better all the time, taking calculated risks, believing in my sixth sense, and being patient. These qualities have helped me to be an outstanding student from my school years where, for example, I completed my high school program in the UK in just one year instead of three, mainly because I challenged myself.

I believe that success is mostly attributed to one’s emotional intelligence and personality: ability to communicate, negotiate, and lead, rather than to technical knowledge and subject matter expertise. This has been the driving force behind my many success stories during my student life as well as professional career. For example, when I was seconded by AUB to serve as Founding President of Dhofar University (DU) in the Sultanate of Oman, I was able to mobilize an excellent AUB team which enabled DU in a record time to be the first private university in Oman to receive the initial institutional accreditation from the Omani Accreditation Council, which was administered by a British team. Accordingly, except for the two years of full-time as Minister of Education and Higher Education in Lebanon (2011 – 2013), I have had only one employer since I received my PhD, namely the American University of Beirut (AUB).

An additional attribute that facilitated my success is that I remained wise enough never to let my success get to my head or my failure get to my heart. I have learnt that people tend to forget the days they prayed for the things they have now, so I always thanked God for the blessings I have received no matter how small or large.

Moreover, earning my BSc in Communications Engineering and PhD in Computer Engineering enabled me to play a pivotal role in introducing the very successful Computer & Communications Engineering (CCE) program at AUB in 1986 which has since been one of the most successful programs at the institutional level and was cloned in many universities in Lebanon and the region. Despite all obstacles faced during as well as in the aftermath of the Lebanese civil war, I managed to accumulate almost 150 publications including 11 books and book chapters as well as papers in internationally refereed journals. This research record may be considered by some ordinary when compared to the record of those that have spent many years in US universities before joining AUB. However, it is a considerable achievement when compared with those that spent their entire careers at AUB with all the limitations and difficulties that AUB and Lebanon faced since the 1980's that affected the research efforts of AUB faculty. So far, I have accumulated over 600 citations, with an h-index of 11 and an i10-index of 13. Additionally, other research engines such as "Research Gate" (RG), indicate that my publications have over 4,000 "reads" many of which are citations not captured in Google Scholar. My RG score is 23.6 (80th percentile of RG members, which includes most MSFEA faculty at AUB).

Equally relevant, if not more, to my citations record is the impact I had during my professional career, specifically at the national and regional levels, which includes the following:

- The pivotal role I played in launching the very successful CCE program at MSFEA, AUB. Since its launching in early 1986, the CCE program has been the most sought after in terms of the number of applicants.
- I played a major role in the empowerment of all CCE graduates to assume leadership positions who in turn played a pivotal role in impacting the region. The vast majority of the CCE graduates that I taught have assumed CXX (CEO, COO, CTO, CIO, etc.) positions in the region and beyond.
- When I was seconded by AUB in 2004 as President of Dhofar University (DU) in Oman, I played a critical role in the work that led to DU becoming the first private university in Oman to receive the initial phase of institutional accreditation.
- Since assuming the position of Vice President for Regional External Programs (REP) in 2006, I played a proactive role in making AUB more impactful in the region through the successful implementation of hundreds of REP projects. REP's portfolio of annual projects increased from around 20 projects in 10 countries in 2006 to 80 projects in 20 countries during my term as VP. Needless to say, AUB - through institutional REP projects - impacted the higher education map in the GCC and the region. Furthermore, REP established or assisted over 40 universities in 15 countries.
- I was the only AUB professor and senior administrator in the history of AUB to become Minister (June 13, 2011 - February 14, 2014) of Education & Higher

Education. The Ministry of Education and Higher Education (MEHE) is the largest ministry in Lebanon composed of five major directorates and offices and includes around 60,000 employees with a total of over 1.3 million students, practically affecting almost every household in the country. In fact, in addition to the many unprecedented achievements at MEHE (some for the first time in Lebanon), I was one of the rare technocrat ministers since Lebanon's independence. My unprecedented achievements included the following: Putting an "ICT in Education" Strategic Plan, setting a new law for K-9 compulsory education and giving free textbooks, passing a law requiring compulsory community service to all high school students culminating to almost one million hours of community service per year, and making major progress in vocational education. Another major achievement is a first-time award which the Government received as the winner of the "GSMA 2014 Connected Government Award", thanks to the efforts of the Lebanese Ministry of Telecommunications and the Ministry of Education and Higher Education in "actively encouraging the innovative use of mobile technologies that deliver long-term and sustainable socio-economic benefit and wellbeing for their citizens." Furthermore, a new higher education law was passed to replace a 40-year old one. Additionally, after almost two and half years of reform in Higher Education (HE) during my term, the 2013 World Economic Forum report gave Lebanon the following ranking in HE out of 144 countries: (i) Quality of Schools of Business ranked 13th, (ii) Quality of Education ranked 10th, and (iii) Quality of teaching Math & Science ranked 4th only preceded by Singapore, Finland, and Belgium.

As is evident, I was able to achieve many accomplishments in my life at a relatively early age. This included finishing my PhD and joining AUB as an Assistant Professor at 26. However, I could have done that at 24 if I had not chosen to enroll in a 4-year Bachelor undergraduate (Honors) program instead of the regular 3-year one, as well as completing grade 10 in the Lebanese Baccalaureate system which did not count towards my high school requirements in the UK. Furthermore, I was promoted to Professor of Computer Engineering at AUB at the age of 38 and was one of the youngest full Professors at the University. Later on, I was appointed Chairman of the largest department (Electrical & Computer Engineering) at AUB from 1998-2001. At the age of 34, I reached the prestigious *Senior Member* rank in IEEE, USA, with only 8% of 320,000 in this grade. At 36, I became *Fellow* of IEAust, with only 6.6% of its members in this grade; and *Fellow* of IET, UK at the age of 42, with only 6.6% of the 150,000 members holding this grade at the time and an average age of 66. It is worth noting at this point that IEEE, IET, and IEAust are the three largest and most prominent engineering institutes in the world. Furthermore, at 45 I was the youngest university president (Dhofar University) in the Sultanate of Oman and at 52, I was one of the few and youngest technocrat ministers since Lebanon's independence.

I have been described as an entrepreneur, innovator, and an academic leader in higher education. I was fortunate to have been exposed to our regional higher

educational systems from all perspectives: as a student, Professor, Department Chair, Dean, university Vice President and President, as well as Minister of Education and Higher Education. Since then, I returned to my position as Vice President at AUB and continued to aspire for more achievements and breakthroughs. For example, despite my long experience in negotiation, I successfully completed in 2017 one of the best executive education programs in the US in *leadership and negotiation* at Harvard Law School. Needless to say, my professional career, especially since I started my executive management roles as founding President in Oman (2004 - 2006), Vice President at AUB (2006 - 2011), Minister of Education and Higher Education (2011 - 2014), and back as Vice President at AUB (2013 - present), has allowed me to explore the world by visiting over 150 cities across more than 75 countries as shown on page 17. This was certainly a source of enrichment for me in so many ways.

I designed and implemented Lebanon's Education Reform Strategy and Action Plan (LERSAP) set in 2011. As a form of the educational reform the curricula underwent through focusing on promoting and employing Information and Communication Technology (ICT) tools. The LERSAP was launched to equip teachers with the expertise and competencies adopted to bridge the disparity between the 1997 curricula guidelines, general and instructional objectives on the one hand and the curricula implementation, textbooks, and pedagogical practices on the other hand.

I trust that everything happens for a reason, not by chance or luck. Ailment, grievance, love, greatness, and sheer senselessness, all occur to test the limits of one's soul. Without these tests, whatever they may be, life would be like a smoothly paved, straight road with few learning experiences. It would be safe and comfortable, but dull and utterly meaningless. Like many, I have had to make many difficult choices during my professional career. For example, one of the decisions I made during my term as founding president at Dhofar University in Salalah, Dhofar region, Oman, was to require that female students remove their veils¹ when they are inside the university campus. This triggered a wave of revolt and opposition, which put my life in danger. However, this was a test and I was adamant to instill the AUB spirit and implement my decision, not only because I believe in empowering women, but also because this will clearly identify the person sitting in the lecture or exam room. My persistence created a whole new amazing environment within the university campus, which in turn caused a ripple effect on many women working in Salalah's city center.

On the other hand, one of my major setbacks was losing my dear mother after a six-months' coma, only days before I was appointed as Minister during June 2011. Despite the great loss, I went on to face all the challenges that a technocrat minister would face in a holistically political government. It was this decision to succeed and of course, the prayers of my mom, that enabled me to fulfill many achievements.

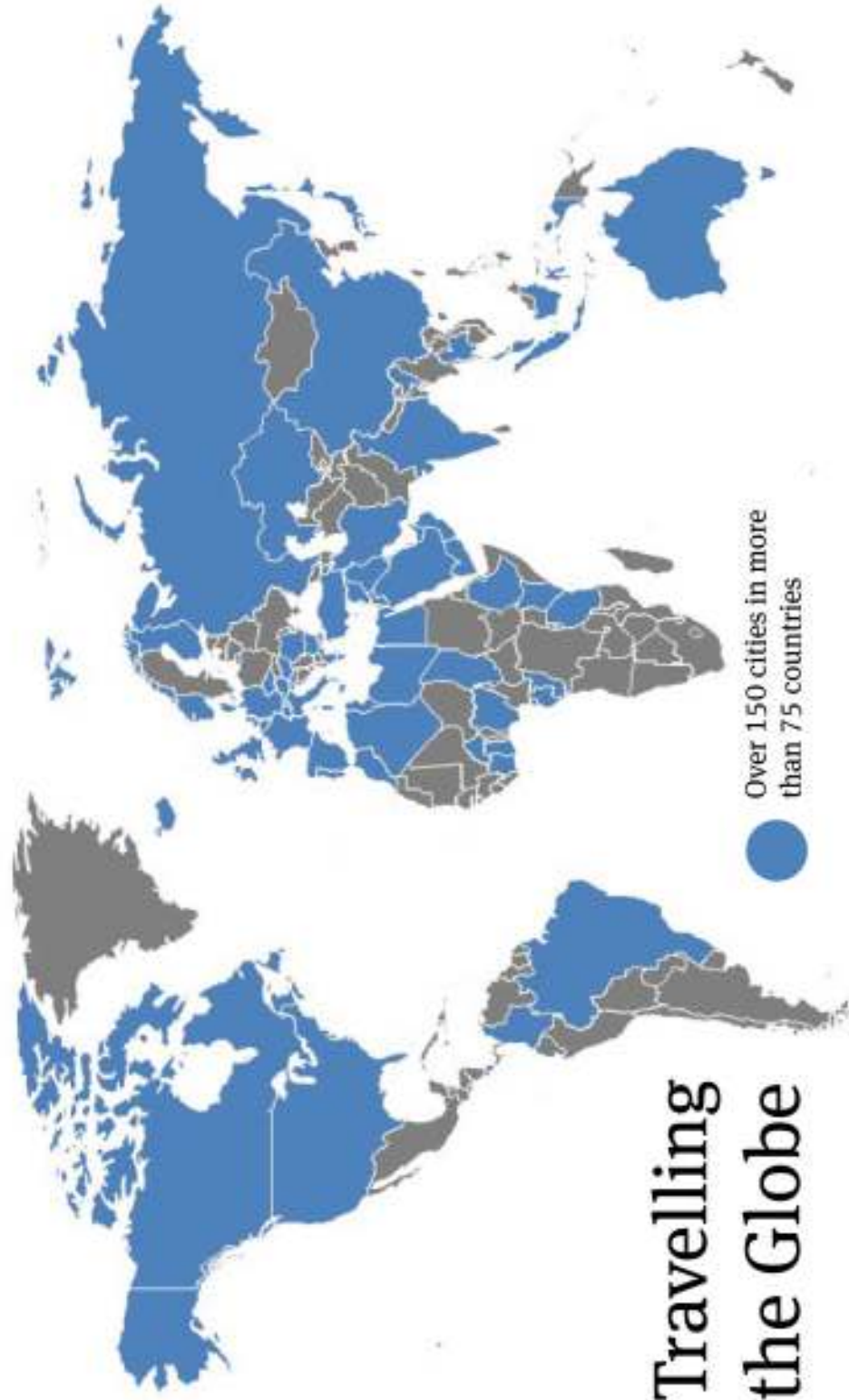
1 A piece of black cloth that women wear to cover their faces. It is part of their customs in the Dhofar region.

Preface

Needless to say, the people you meet affect your life, and the success and downfalls you experience help to create who you become. With all the criticism you will receive and the flattery too, it is important to remember one thing: If you listen to your inner voice, you can make a difference. Listen to it, rather than to the crowd around you, and you will find the true inner meaning of your life.

The story goes on...

Travelling the Globe



C. My Biography

I received my B.Sc. (with Honors) in Communications Engineering from Leeds Metropolitan University, U.K., in 1981, my M.Sc. (with Distinction) in Systems Engineering from the University of Surrey, U.K., in 1982, and my Ph.D. in Computer Engineering from the University of Bath, U.K., in 1985. I am a registered *Chartered Engineer* in the Engineering Council, UK, and a registered *Chartered Professional Engineer* in the National Professional Engineers Register, Australia. I am a Professor of Electrical and Computer Engineering at the Maroun Semaan Faculty of Engineering and Architecture (MSFEA), American University of Beirut (AUB), Lebanon with over 34 years of professional experience including 15 years of executive administration with almost three years as Minister of Education.

With around 150 publications in internationally refereed journals and conferences, I have supervised/co-supervised around 80 research projects, including 30 Masters Theses, 3 graduate-level research Special Projects and 45 senior undergraduate projects. I also led close to 30 research projects sponsored through local and international grants. My research interests include cryptography on high performance computer systems, modeling and simulation of parallel processing systems, embedded systems, reconfigurable computing, simulation of parallel applications, system simulation using fuzzy logic control, as well as the application of simulation for engineering education. More recently, my research interests, especially after serving as Minister of Education and Higher Education, also included higher education in the MENA region as well as global issues in education.

I chaired the First as well as the Second LAAS¹ *International Conference on Computer Simulation* held at the American University of Beirut, Lebanon during September 1995 and 1997 respectively. I was also the Program Committee Vice-Chair of the *ACS/IEEE International Conference on Computer Systems and Applications*, held in Tunisia during July 2003, the Program Committee Co-Chair of the *ACS/IEEE International Conference on Pervasive Services*, held at the American University of Beirut, Lebanon during July 2004, and the Track Chair on *Vocational and Tertiary Education*, of the *Microsoft in Education Global Forum*, held at Dubai, UAE on February 23, 2015. Since 1994, I served as member on over 50 organizing committees of international conferences. I also refereed over 300 papers for over 55 different international journals and conferences as well as acting as an external referee for many promotion applications and research proposals.

I am an external reviewer for the Oman Accreditation Council charged with assisting in the development of the Omani higher education sector through institutional quality audits and accreditation processes. In addition to serving on the advisory/editorial board of three journals, I served as the Associate Editor (2001-2005) of the *SIMULATION* Journal, Transactions of The Society for Modeling and Simulation

1 Lebanese Association for the Advancement of Science

International, USA, and as the Associate Editor (2008-2010) of the *Journal of Defense Modeling and Simulation*. During June 2005 – September 2006, I was a member of the Scientific Research Council of the Sultanate of Oman. Moreover, I received over 25 international and regional awards and scholarships including the *Fulbright research award (1988)*, and the *1992 Young Arab Scientists Shuman prize in Engineering*. Additionally, I am a Founding Member of the first Arab Computer Society established in 2001 as well as the Founding Member of the IEEE Student Branch at AUB in 1997. Furthermore, I am a *Fellow* in the IET (UK) and the IEAust (Australia), as well as a *Senior Member* of the IEEE (USA). I am also an honorary member of the Advisory Board in several international biographical organizations and have received over 80 invited international honors including *Who's Who in the World* and *Who's Who in Science and Engineering*.

I served as the Chairman of the Department of Electrical and Computer Engineering (600 students) at the American University of Beirut during 1998-2001. During 1986 - 2004, I served on 76 committees inside (37) and outside (39) AUB including *Task-Team-1* (Mission, Goals, & objectives) of the accreditation team for AUB institutional accreditation by the Commission on Higher Education (CHE) of the Middle States Association of Colleges and Schools (MSACS) as well as co-chair of the re-accreditation Working Group #7 (General Education and Related Educational Activities) Committee which was part of the reaccreditation team. Furthermore, I was seconded by AUB to serve as Founding President of Dhofar University (DU) and Founding Dean of the College of Engineering at DU, Salalah, Oman (August 2004 – September 2006). I was a member of the Board of Trustees of Dhofar University during 2004-2013. Effective October 2006, I was appointed as Vice President for Regional External Programs (REP) at AUB.

On June 13, 2011, I was appointed as Minister of the Ministry of Education and Higher Education (MEHE) in the Lebanese Cabinet to take over the largest ministry in Lebanon. MEHE is composed of major directorates and offices including Directorate of Education, Directorate of Higher Education, Directorate of Vocational and Technical Education (VTE), Directorate of Central Administration, Education Center for Research & Development, Education Sector Development Secretariat, etc. MEHE included around 60,000 employees across the country and controls or oversees around 3,000 schools, 50 higher education institutions, and 450 VTE institutes in both the public and private sectors culminating in over 1.3 million students.

During 2011-2013, an unprecedented number of accomplishments in MEHE were achieved, many of which for the first time in the history of MEHE. All these achievements have been recorded in the book¹ (written in Arabic) entitled: "Towards Modernization: Rescue Plan, Projects and Achievements of the Ministry of Education and Higher Education 2011-2013". This included for the first time in the history of Lebanon the following: producing an ICT in Education Strategic Plan

¹ Book can be downloaded (1,325 pages), written in Arabic from
<https://www.dropbox.com/s/ealrziinfmsenf1/Ministry-Book%20-ALL.pdf?dl=0>

(pp. 369-378), a new law for K-9 compulsory education (p 498) and free textbooks (pp. 475-476), compulsory community service to high school students culminating in 1 million hours of community service per year, major progress in vocational and technical education (pp. 596-600), and an award that the Government of Lebanon was the winner of the GSMA 2014 Connected Government Award which was the result of the Lebanese Ministries of Telecommunications and Education & Higher Education actively encouraging the innovative use of mobile technologies that deliver long-term and sustainable socio-economic benefit and wellbeing for their citizens.

Furthermore, a new higher education law was passed to replace a 40-year old one (pp. 652-666), and saving of LL billions through several ministerial decisions (pp. 470-471). Additionally, after almost two and half years of reform in higher education (HE) during his term, the 2013 World Economic Forum report gave Lebanon the following ranking (the best during the period 2010 - 2017) in HE out of 144 countries: (i) Quality of Schools of Business ranked 13th (regressed to 17th in 2015), (ii) Quality of Education ranked 10th (slipped back to 28th in 2015), and (iii) Quality of teaching Math & Science ranked 4th only preceded by Singapore, Finland, and Belgium.

I made valuable contributions to the research on Human Rights Education (HRE) in context of the work of the United Nations (UN) on HRE and how countries are attempting to focus on building a culture of human rights within their societies. It is particularly important that I conducted a study situated in Lebanon at a time when the Middle East and indeed the entire world are facing the biggest refugees' crisis since World War II and many of these refugees are now transiting through Lebanon seeking refuge in Europe and beyond. The inability of the Lebanese to accept the diversity and plurality of the Lebanese society resulted in the outbreak of civil war (1975-1990) which ended by virtue of the *Taif* accord which called for adopting a new curricula integrating HRE in one school subject, namely civics. However, I believe that in light of what Lebanon has been facing over the past decade, there is a new need for curricula reform to integrate HRE in the Lebanese school system.

Finally, in addition to around 30 academic keynote speeches I presented over the past 15 years, I also delivered over 200 keynote speeches¹ and interviews during my term as Minister of Education and Higher Education (June 2011 – February 2014).

1 Refer to published book: "Documentary of the Speeches by the Minister of Education and Higher Education 2011-2013" in publications list (section XIII). Book can be downloaded from the following: <https://www.dropbox.com/s/5v6uy5ihb1q2n2i/Book1-Full.pdf?dl=0>

D. My Statements

Statement of Service

Since joining AUB in 1985, my B.Sc. (with Honors) in *Communications Engineering* and Ph.D. in *Computer Engineering* enabled me to play a pivotal role in suggesting and introducing the very successful and, at the time, unique, Computer and Communications Engineering (CCE) program at AUB in 1986, which has since been one of the most successful undergraduate programs at AUB and was later cloned by many universities in Lebanon and the region. My research, writing, and work with teachers in schools and universities throughout the Middle Eastern region in particular, demonstrate a strong commitment to service and activism in the spirit of cooperation and democratic social processes.

From 1998-2001, I served as Chairman of the Department of Electrical and Computer Engineering (ECE) at AUB. During this period, the Department of ECE, the largest academic unit at AUB at the time, grew by around 37% with respect to number of students to reach 600, and by 20% with respect to number of faculty members to reach 36. Also, during my chairmanship, I initiated a new 12-member External Advisory Board to the ECE Department (the first academic department at AUB to do that); prepared and submitted 11 major reports; invited 5 Visiting Faculty; and held over 54 departmental meetings. Furthermore, in the same period, the ECE Department organized 56 seminars, restructured our three graduate programs, approved new mission statements for all five departmental graduate and undergraduate programs, transformed our two undergraduate programs so that they conform with ABET EC2000 in preparation for applying for accreditation, introduced a new graduate program in Electrical Engineering, introduced 16 new courses, proposed a new Ph.D. program in Computer Engineering, and recommended a proposal for a new undergraduate multidisciplinary program in Information Systems and in Software Engineering. Furthermore, I have been serving as Associate of the Center for Advanced Mathematical Sciences (CAMS) at AUB since 2002.

In 2004, I was seconded by AUB to serve as Founding President of Dhofar University (DU) and Founding Dean of their College of Engineering at Salalah, Oman (2004-2006). Due to the efforts AUB exerted in managing the university, DU was the first private university in the Sultanate of Oman to receive the initial institutional accreditation by the Omani Accreditation Council (OAC, now OAAA). Furthermore, from 2004 until 2013, I served on DU's Board of Trustees. In addition, while I held the position of Founding President of DU, I also took on non-academic appointments in Oman, including membership in the National Scientific Research Council (June 2005 - September 2006). The Council, established by Royal Decree No. 54/2005, was under the chairmanship of His Highness Sayyid Shihab bin Tariq al Said.

Effective October 2006, I was appointed as Vice President for Regional External Programs (REP) at AUB. REP represents the consulting, entrepreneurial,

ambassadorial, and professional development arm of AUB¹ and has its fingerprints all over the region. Over the past four decades, AUB, through the Office of REP, has successfully implemented over 1,100 projects with an outreach to 55 locations in 33 countries in the MENA region and beyond extending from Malaysia to USA and Costa Rica. Moreover, since my appointment as VP for REP in 2006, over 50% of those projects were implemented in only one decade. REP's annual projects portfolio has so far increased from around 20 projects in 10 countries in 2006 to 80 projects in 20 countries during my term as VP. Implemented REP projects include establishing universities (such as the American University of Sharjah, University of Sharjah, Bahrain University, Dhofar University, etc.); or assisting universities (such as Princess Noora University, Qatar University, Ahfad University for Women, etc.); reaching over 40 universities in 15 countries (30 universities in 11 countries in the MENA region). This not only allowed AUB to positively impact the higher education map of the region, but also secured additional revenue streams as well as resulted in many millions of dollars in endowments and fund-raising for AUB. In summary, REP growth since 2006 has been over 4-fold whether in terms of annual number of projects or geographic outreach.

The Continuing Education Center (CEC), which organizationally falls under my leadership of REP, will soon be the first unit at AUB to launch on-line e-learning certificates and diplomas during 2019. CEC received the International Star for Quality, Gold category, at the International Business Initiative Directions Quality Convention (Geneva, September 2017). The prize is for CEC's contribution in terms of leadership, quality, innovation, and excellence. CEC growth in terms of student count and offerings to the community has increased over 10-fold since 2006. The Accrediting Council for Continuing Education and Training (ACCET) is the main US accrediting council for continuing education centers. CEC at AUB has been working diligently for the past two years on preparing for this accreditation. The CEC Director has already attended the needed US conferences required by ACCET and CEC's application has already been accepted early 2018 as well as an Examination Team Readiness visit by ACCET last March which was successfully implemented. Furthermore, the on-site examination by the ACCET four-member team took place during 24-26 June 2018. The final accrediting commission action will be announced by end of 2018 and CEC is aiming to be the first university in the MENA region to receive ACCET accreditation.

In addition to serving AUB at home and in Oman, I contributed to putting AUB in the spotlight when I was selected to serve my country in my capacity as the 70th Lebanese Minister (June 13, 2011 - February 14, 2014) of the Ministry of Education and Higher Education (MEHE). MEHE is composed of major directorates and offices including Directorate of Education, Directorate of Higher Education, Directorate of Vocational & Technical Education (VTE), Directorate of Central Administration, Centre for Educational Research and Development (CERD), Education Sector Development (ESD) Secretariat, among others. Moreover, MEHE includes over

1 <https://www.dropbox.com/s/11ikhfsvnm6c11/AUB%20REP%2040th%20Anniversary%20Book.pdf?dl=0>

60,000 employees across the country and controls or oversees around 3,000 schools, almost 50 higher education institutions, and 450 VTE institutes in both the public and private sectors culminating in over 1.3 million students with an annual MEHE budget of \$1 Billion. I was the only technocrat minister in the Cabinet and one of the very few technocrat ministers since the Lebanese independence, who served their country. Needless to say, the challenges of a technocrat minister in a political cabinet were immense especially during the difficult time that Lebanon was facing, let alone the heavy burden inherited from previous ministers. Nevertheless, the achievements accomplished for the benefit of the education, higher education as well as VTE sectors were numerous as indicated below.

During my term as Minister, an unprecedented number of accomplishments in MEHE were achieved (see my *book of achievements* for a complete list of achievements), despite the political tsunamis that Lebanon was facing at the time, many of which for the first time in the history of Lebanon. Among the most important achievements are the following: a new MEHE strategic plan that was exceptionally inclusive of previous Lebanese and regional plans; a new higher education law that gave more control for established private universities in Lebanon (such as AUB), which was approved by the parliament and replaced an archaic 40-year old law; new decrees for curricula pertaining to pre-school (3 years) and cycle 1 (grades 1-3) for the first time since 1998; new strategies for integration of students with special needs; the signing of agreements with international NGOs worth over \$200 million; and the introduction of a National Qualifications Framework (NQF). As for first-time accomplishments in the history of Lebanon, here are a few:

- Introduction of an “ICT in Education” Strategic Plan which involved all stakeholders,
- A decree for compulsory community service for high school students in all public and private schools, culminating in almost 1 million hours of community service per year,
- Major progress in VTE on many fronts including the introduction of thousands of scholarships,
- A new law for K-9 compulsory education up to Brevet, and a new law for granting K-9 public sector students free textbooks, and
- An award titled the “GSMA 2014 Connected Government Award” that the Government of Lebanon won as a result of the cooperation between the Lebanese Ministry of Telecommunications and MEHE to actively encourage the innovative use of mobile technologies that deliver long-term, sustainable socio-economic benefit and wellbeing for Lebanese citizens.

Furthermore, many ministerial decisions that I made resulted in saving millions of dollars. Below are a few examples:

- When I took over as Minister, VTE degrees included the Technique Supérieur (TS), a 3-year post-secondary program, followed by a 2-year Licence Technique (LT) program. Therefore, a regular VTE (in over 150 specializations) post-high school degree (equivalent to an academic Bachelor degree) required five instead of three years to complete. After close scrutiny, I found out that there were many repeated courses under different titles introduced for political reasons and in order to contract more part-time instructors needlessly. Accordingly, I passed two decrees in the cabinet to make TS programs, two years, and the LT, one year. This saved a lot of waste in terms of recruiting unnecessary faculty and reducing the needed number of labs.
- Every year, many private press houses compete for several MEHE bids that amount to millions of dollars pertaining to stationary for public exams and other purchases. I noticed that the army press house was never included in the bidding process before, so I insisted that they bid too. Indeed, the army asked for a much lower price for better specifications, not to mention that the money spent belonged to the public sector and was returned it.
- Closed regular schools and VTE schools with a very low student enrolment, and sent its students to nearby public schools in order to save huge public expenses.

My hard work as Minister did not go unnoticed, as after almost two and half years of reforming the Lebanese higher education (HE) system, the 2013 World Economic Forum (WEF) report gave Lebanon the best rankings (during the period 2010-2018) in HE out of 144 countries: (i) Quality of Schools of Business ranked 13th (regressed to 17th in 2015), (ii) Quality of Education ranked 10th (slipped back to 28th in 2015), and (iii) Quality of teaching Math & Science ranked 4th and was only preceded by Singapore, Finland, and Belgium. All these achievements have been recorded in the book¹, entitled: “Towards Modernization: Rescue Plan, Projects and Achievements of the Ministry of Education and Higher Education 2011-2013”.

In July 2013, I returned to my previous position at the Office of REP, and since then have engaged in many activities to promote AUB’s name. I organized in 2016 four major events, including three gala dinners in Lebanon and the region, to celebrate the Office of REP’s 40th anniversary. This significantly elevated the visibility of AUB and REP. I also expanded REP projects’ portfolio and secured around \$5 million of gifts and endowments for REP, AUB over the past two years. This does not include securing a \$2 million scholarships endowment for nursing students from a REP client. Additionally, REP was able to provide a sustainable revenue stream for AUB exceeding \$5 million over the past 5 years despite the difficult situation in the region.

In April 4, 2014 – November 24, 2014, and in addition to my role as VP for REP, I was asked to serve as Interim Chief Operating Officer (COO) at AUB. The COO

1 Book can be downloaded (1,325 pages), written in Arabic from <https://www.dropbox.com/s/ealrziifmsenf1/Ministry-Book%202-ALL.pdf?dl=0>

oversees the administration of AUB's annual operating budget of more than \$350 million and a workforce of more than 6,000 employees between faculty and staff at AUB and AUBMC. The COO also has oversight responsibility for key areas of the administration including: Facilities, Finance, Human Resources, Information Technology, Legal Affairs, Physical Plant, Procurement and Contracts Administration, as well as Protection. Despite the heavy work load I was carrying in that period, I managed, as COO, to address issues related to AUB's budget as well as concerns related to faculty, staff and students.

In addition to the above, I have served on many committees and Boards over the past three decades (see section VII, pp. 64-77 in my CV). During 1986-2004, I served on 37 AUB committees at the departmental level (e.g. *Chairman*, External Advisory Board), the faculty level (e.g. Advisory and Administrative), and the university level (e.g. Senate, Board of Deans, and REP Committee of the BOT) not to mention chairing two international conferences on *computer simulation* held at AUB.

Furthermore, my affiliation to AUB has helped me propagate its name even when participating in non-AUB committees, such as my membership in three conference program committees, and membership in 40 international conferences program committees. I have also served on many committees at Dhofar University during 2004-13 at the University and Board of Trustees level. Moreover, during my tenure as Minister (2011-13), I served on seven cabinet ministerial committees (pp. 69-70 of CV), and chaired nine main committees (pp. 70 of CV), as well as chaired the 13th Conference of Arab Ministers for Higher Education & Scientific Research in Abu Dhabi, UAE on December 7, 2011.

Other activities that helped me propagate AUB's name are the following: Serving on the editorial boards of five journals including serving as Associate Editor for the "*Journal of Defense Modeling and Simulation*", and "*SIMULATION: Transactions of the Society for Modeling and Simulation International*", USA. Moreover, since September 2014, I have served as Member of the Executive Committee, International Association of University Presidents (IAUP) which meets twice a year and includes hundreds of university presidents from across the world.

As for affiliations to professional societies (see section XI, pp. 99-100 in my CV), I have been a *Fellow* of the Institute of Electrical Engineers (IEE, now IET), UK since 2002 (with only 6.6% of the members holding this grade); a *Fellow* of the Institute of Engineers, Australia (IEAust) since 1995 (with only 6.6% of the members in this grade); *Senior Member* of the Institute of Electrical and Electronic Engineers (IEEE), USA, the largest professional electrical engineering institute in the world, since 1993 (with only 8% of 320,000 in this grade); *Founding Member and Member of the Executive Committee* of the Arab Computer Society since 2000; *Member* of the Lebanese Association for the Advancement of Science since 1994; *Member* of the Order of Engineers, Beirut, Lebanon since 1992; a registered *Chartered Professional Engineer* in the National Professional Engineers Register, Australia since 1991; and a registered *Chartered Engineer* in the Engineering

Council, U.K. since 1988. Once again, through my participation in these societies, I was propagating AUB's name.

Moreover, I am an honorary member of Advisory Boards in several international biographical organizations and received over 80 invited international honors including *Who's Who in the World* and *Who's Who in Science and Engineering* (see section VI, pp. 61-63 in CV).

In addition to the above, I am a strong advocate of Intercultural and Inter-religious Dialogue (IID) and was invited, together with IID world leaders, to attend the establishment of the King Abdallah International Center for Intercultural and Inter-religious Dialogue (KAICIID) in Vienna in 2012. Besides the Founding States (the Kingdom of Saudi Arabia, the Republic of Austria, and the Kingdom of Spain), the establishment of this Center brought together representatives of Buddhism, Christianity, Hinduism, Islam and Judaism, under one roof.

Over my 33-year professional career, I have received 25 national, regional and international awards and scholarships including prizes, recognitions by national and international professional organizations, as well as academic distinctions (see section V, pp. 57-60 in my CV). More recently, I was honored at L'École Supérieure des Affaires (ESA), Beirut in June 2018 as one of 59 Lebanese selected as "Those Who Inspire Lebanon¹" same time I was celebrating with my family my 59th birthday as I was born in 1959.

My professional activities include many academic keynote addresses, invited presentations and media interviews, as well as other professional continuing education activities, in addition to over 200 keynote speeches², special occasion speeches, and interviews, most of which I gave during my term as Minister of Education and Higher Education over the period June 2011 – June 2013 (see section VIII, pp. 78-92 in my CV).

Finally, I have volunteered in many community service activities including serving on the Board of Trustees of the Social Welfare Institutions (SWI) since February 2011 (see section IX, pp. 93-95 in my CV). SWI, established in 1917, is the largest Lebanese NGO and provides diversified specialized services in over 54 institutions and programs spread over the five Lebanese governorates with 1,000 employees that cater for the needs of a vulnerable population including orphans, children with special needs, school drop outs, elderly, and empowering less fortunate women. SWI embrace over 13,000 beneficiaries from new born to the elderly.

Service to one's institution and country is not only a duty but a pleasure and an honor. I take great pride in all the activities I have participated in to give back to both AUB and Lebanon a token of my appreciation.

1 <http://executive-bulletin.com/other/those-who-inspire-lebanon>

<https://en.annahar.com/article/824969-those-who-inspire-honoring-60-lebanese-influential-figures>

2 Refer to published book: "Documentary of the Speeches by the Minister of Education and Higher Education 2011-2013". Can be download from the following:

<https://www.dropbox.com/s/5v6uy5ihb1q2n2i/Book1-Full.pdf?dl=0>

Statement of Research

Since joining AUB in 1985, I have accumulated 33 years of academic experience [including 17 years of administrative experience as department Chair, Dean, Vice President, President, and Minister of the Ministry of Education & Higher Education (MEHE)]. I have been a full Professor for almost 22 years and selected by AUB to carry out full-time executive management tasks for over 14 years. Despite my appointment to senior administrative positions since 2004, including my appointment as Minister, my interest in research has not waned. Indeed, during that period, I published 47 papers including 14 refereed journal papers, 4 books 5 book chapters, and 23 refereed conference papers. I am particularly proud of the following book, which I co-edited: H. Diab, & A.Y. Zomaya, (Eds.), *Dependable Computing Systems: Paradigms, Performance Issues, and Applications*, John Wiley & Sons, New Jersey, 2005, which was one of the first published in the field of dependable computing. Furthermore, since my previous 7-year contract appointment starting in 2011, I have had 24 publications, including 9 refereed journal papers, 4 authored books, 3 book chapters, and 7 refereed conference papers. As my research was well-received by graduate students as well as the public and private sectors, I got to supervise or co-supervise 30 Masters Theses; secure 26 competitive research grants from AUB and the National Council for Scientific Research, Lebanon, in addition to grants from Microsoft Research and CIES in the US (see p. 89 in CV).

My passion for research started in my Ph.D. days (1982-1985). My thesis entailed the design of a new multicomputer parallel processing architecture to implement the *visual systems of a flight training simulator* in real-time at a much lower cost than existing commercial systems at the time. In fact, my work culminated with a state-of-the-art parallel processing system based on the Motorola MC68000 CPU which was successfully marketed by the University of Bath, UK (my Alma Mater), under the trade name DARKSTAR.

From there on, I embarked on a range of research topics in high performance computing including parallel and distributed algorithms and architectures, real-time systems and applications, as well as reconfigurable computing (RC). More specifically, my research studies focused on: (1) Performance evaluation of parallel processing systems and parallel applications, (2) High performance RC for cryptographic algorithms (CAs), (3) Performance analysis of reconfigurable architectures (RAs), and (4) System simulation using fuzzy logic control. Moreover, being an educator for over three decades, research in the field of education was always of interest to me, an interest that intensified after serving as Minister of MEHE (2011-2013). My research areas in education include: Application of simulation to engineering education and educational development, as well as Global issues in education.

My current research in education is mainly on curricula development, teacher professional development, and educational planning with governments and

educational institutions in many of the MENA region countries. My future research plans include pursuing research areas, namely global issues in education, ICT and entrepreneurship in education. However, I will be concentrating more on the ICT and entrepreneurship in education and more particularly on intercultural-based learning.

What follows is a brief description of my research areas. One of them address RC architectures, as RC has received considerable interest in both its forms: the FPGA and coarse-grain hardware. An RC system is one that can be reconfigured during run time to efficiently execute an algorithm as a hardware circuit. Reconfigurable systems stand halfway between traditional computing systems and Application-specific Integrated Circuits (ASICs). In this research, I perform hardware analysis and evaluation of certain key applications on target RAs to identify potential limitations and improvements. Indeed, with today's high demand for secure data transfer mediums including wired and wireless networks, there is growing demand for real-time implementation of CAs. Below are samples of my publications in each of the above research areas, which fall into two research categories: computer engineering and education.

Computer Engineering

The work I carried out in this research area includes, as shown below, the following sub-specialization areas, namely, reconfigurable computing, parallel processing and parallel applications, dependable computing systems, and system simulation using fuzzy logic control.

- ***High performance reconfigurable computing for cryptographic algorithms***

This research explores parallelization of applications in the field of cryptography on parallel architectures. Data security plays a central role in the design of future IT systems, and cryptographic engines realized on parallel architectures are necessary for protecting these systems. The marriage of RC and cryptography exploits the potential advantages of implementing CAs on RC systems including algorithm agility, algorithm upload, architecture efficiency, resource efficiency, algorithm modification, throughput, and cost. The goal of this research is to gain insight of the potential that some parallel architectures offer for CAs. Here is a sample of publications resulting from this research so far. Please refer to the following publications in my CV.

- Under “*Book Chapters*” on page 109: *Items 3 & 4.*
- Under “*Refereed Journals*” on pages 110-111: *Items 8, 11, & 15.*

- **Performance analysis of reconfigurable computer architectures**

Processors vary from ASICs designed to perform specific predefined operations, to General-Purpose Processors (GPPs) designed to perform a wide range of applications. ASICs make use of the inherent quality of a certain application's algorithm to provide very high performance. On the other hand, GPPs are designed to execute any application. With that, comes the need for a system that combines the high performance of ASICs and the flexibility of GPPs. This has led to the introduction of RC that employs both reconfigurable hardware and programmable processors. RC allows the user to configure the hardware through software by defining the hardware resources needed for a certain application. In this research area, I investigate the mapping of new applications on RC architectures, which involves tuning the algorithm, pertaining to the application, to the hardware. The driving force of the above is to optimize the execution performance. Please refer to the following publications in my CV.

- Under “*Refereed Journals*” on page 111: Items 16 & 17.
- Under “*Refereed Papers in Conference Proceedings*” on pages 114-115: Items 6, 11, 12, 13, & 14.

- **Performance evaluation of parallel processing systems and parallel applications**

In either sequential or parallel systems, the architecture is characterized by functional components, the communication topology and facilities, as well as control structures and mechanisms. However, there are several issues related to parallelization that do not arise in sequential programming. One of the most important issues is task allocation; that is, the breakdown of the total workload into smaller tasks assigned to different processors, and the optimal sequencing of the tasks when some of them are interdependent and cannot be executed simultaneously. To achieve the highest level of performance, it is important to ensure that each processor is efficiently utilized. This process is called load balancing or scheduling and it is considered to be extremely challenging to solve. My aim in this research is to develop efficient techniques for mapping and scheduling of parallel tasks onto modular parallel architectures. Please refer to the following publications in my CV.

- Under “*Refereed Journals*” on pages 111-112: Items 20, 22, 28, & 29.
- Under “*Refereed Papers in Conference Proceedings*” on pages 114 & 118: Items 15 & 47.

- **Dependable computing systems**

This research area involves the specification, design, and assessment of dependable computer systems. The proliferation of complex problems in science and engineering increases the demand for a better understanding of highly dependable and available computing paradigms and their application. A sample publication resulting from this research is the following book, one of the first in the area.

- H. Diab, and A.Y. Zomaya, (Eds.), *DEPENDABLE COMPUTING SYSTEMS: Paradigms, Performance Issues, and Applications*, John Wiley & Sons, New Jersey, 2005, (638 pages).

- ***System simulation using fuzzy logic control***

Performance is one of the key factors that needs to be taken into account in the design, development, configuration, and tuning of a computer system. Hence, the quantitative evaluation of a Computer System Performance (CSP) is needed during the entire life cycle of a computer system. The methods that have been used can be divided into three main areas, namely, performance measurement, analytic performance modeling, and simulation performance modeling. These methods have been applied across the entire spectrum of computer systems. My research work introduces fuzzy logic methodology as an alternative CSP modeling technique. This novel and unique methodology has been successfully used in specific CSP application areas including performance evaluation of cache memory and of the arbiters used for multiple-bus multiprocessor systems. Please refer to the following publications in my CV.

- Under “*Refereed Journals*” on page 111: *Items 13, 19, & 21.*
- Under “*Refereed Papers in Conference Proceedings*” on pages 114 & 117: *Items 9, 40, & 41.*

Education

The work I carried out in this research area includes the following sub-specialization areas, namely, application of simulation to engineering education, and global issues in education and higher education in the MENA region. The first area is work I started in my early research days.

- ***Application of simulation to engineering education and educational development***

This research area is intended to promote effective instruction and pursue academic excellence through the use of simulators to improve students’ learning and performance. The practical implications of using simulators in the field of engineering education are immense. My work in this area resulted in the development of teaching tools that were made available to students in the corresponding courses which proved very useful in enhancing learning.

- Under “*Refereed Journals*” on pages 111-113: *Items 18, 25, 30, 35, & 46.*
- Under “*Refereed Papers in Conference Proceedings*” on page 118: *Items 44 & 45.*

The relevance of the below research area and my growing interest in it emanates from my involvement since 2004 in administrative roles in higher education within the MENA region, which provided me with an in-depth insight regarding the many factors that influence the quality of higher education programs and systems.

• ***Global issues in education and higher education in the MENA region***

My research in this area not only stems from the early days of my research years in the application of simulation to engineering education but also in a more concentrated manner after my appointment as Minister of Education and Higher Education. The research I carried out investigated relationships in different fields of higher education. I have researched a number of areas in education and have used active learning and and constructivism as the conceptual framework for my research. My current research focuses primarily on knowledge sharing processes in educational institutions and on the impact of using ICT in classrooms at school and university. More importantly, I have conducted research on curriculum reform at the school and university levels. I have been also interested in developing methods to assess knowledge sharing and its effects on examining interventions designed to improve different teaching/learning processes. My research is also grounded in the processes of communication, coordination and knowledge-sharing which are of utmost importance. My current research is mainly on curriculum development, teacher professional development, and educational planning with governments and educational institutions in many of the MENA region countries. Please refer to the following publications in my CV.

- Under “*Authored Books*” on page 108: *Item 1 is a published book on Human Rights Education.*
- Under “*Book Chapters*” on page 109: *Items 1 & 2.*
- Under “*Refereed Journals*” on pages 110: *Items 3, 5, 6, 7, 9, & 10.*

A summary of my research accomplishments include around 150 publications comprising seven books (four authored and three edited), four book chapters, around 50 papers in refereed journals, papers in international conference proceedings, and other publications (see section XIV, pp. 106-121 in my CV). My research was published in some of the top journals in the field, such as IEEE Transactions on Computers; IEEE Transactions on Systems, Man, and Cybernetics; IEEE Transactions on Nuclear Science; IEEE Transactions on Education; IEE Proceedings on Physical Science, Measurement and Education; Journal of Supercomputing; Advances in Engineering Software; Journal of Parallel Algorithms and Applications; and the Journal of Intelligent and Fuzzy System.

Despite the fact that over the past 15 years my heavy involvement in various executive management roles has significantly affected my research portfolio, Google Scholar shows that my h-index is 11, i10-index is 13, and my work has been cited in over 440 papers, with an average of over 8 citations per paper. Moreover, peer researchers have cited my publications around 600 times according to Scopus and Google Scholar. However, there are many undetected citations such as those of my 2005 co-edited book that sometimes cite one of the book’s 22 chapters without citing the book itself which is entitled “*Dependable Computing Systems: Paradigms, Performance Issues, and Applications*” published by Wiley. This was

one of the first books published at the time in the research area. Additionally, other research engines such as “Research Gate” (RG) indicates that my publications have around 4,000 “reads”. This includes over 100 reads of a paper that was recently published in *Curriculum Journal*, 1-17, February 2018, titled “A Call for Curriculum Reform to Combat Refugees Crisis: The Case of Lebanon,” based on the work I did as Minister of Education and Higher Education; as well as over 350 citations, many of which do not appear as captured citations in Google Scholar. My RG score is over 23.6 (around 80th percentile of RG members which includes most MSFEA faculty). In light of the above, I expect that my total citations has exceeded 1,000.

Moreover, my research accomplishments have allowed me to compete for and receive local, regional, and international research awards and prizes. On the local level, I have won the AUB Research award in Engineering (1990), and the 1st Prize in the Software category at the 4th Conference and Exhibition for Lebanese Industrial Research Achievements (2000). At the regional level, I received the very competitive Young Arab Scientists Shuman Prize in Engineering (1993). It is worth noting here that Lebanon was in a state of civil war when I joined AUB back in 1985, that the aftermath of the war lingered until late 1990s, and that AUB and the Lebanese government were the main, if not the only, sources of research funding for AUB faculty with an average research grant of less than \$5,000 per year.

On the international level, I won the Fulbright research award (1988), the German DAAD research scholarship twice (1999 & 2002), the “Microsoft Research Innovation Excellence Award for Embedded Systems” (2003), research scholarships, two fellowships and a senior membership (IEEE), as well as academic distinctions during my M.Sc. and B.Sc. studies. In total, I have received 25 national, regional, and international awards and scholarships including prizes, recognitions by national and international professional organizations (see section V, pp. 57-60 in my CV).

In light of my rich research portfolio, I have been invited to give many academic keynote addresses, and presentations and to participate in other professional activities (see section VIII, pp. 78-92 in my CV), in addition to over 200 keynote speeches, special occasion speeches, press conferences, and interviews I gave during my term as Minister of Education and Higher Education¹ over the period of June 2011 – June 2013. Among the 26 keynote addresses shown on page 4 of my CV are three I am very proud of, namely: “Promoting human rights through education”, “The role of MENA region universities in creating leaders: Liberal Arts Higher Education Model”, and “The Future of Higher Education in the Middle East”. Over the past three decades, I have reviewed over 350 papers for more than 16 journals, many considered top in the field, as well as papers for over 40 international conferences. I have also acted as an external referee for many promotion applications to the ranks of Associate Professor and Professor as well as reviewer of research proposals submitted to research organizations such as

1 <https://www.dropbox.com/s/5v6uy5ihb1q2n2i/Book1-Full.pdf?dl=0>

the Lebanese National Council for Scientific Research and the Franco-Lebanese Cooperative Program for the Evaluation and Development of Research, and am currently an external reviewer for the Omani Accreditation Council.

Equally relevant, if not more, to a researcher's citation record at the global level, is the impact he/she had during his/her professional career, specifically at the national and regional levels, especially that AUB leadership has been stressing for decades the essential role of AUB's impact on Lebanon and the region. My professional career at AUB, since joining in 1985, has been very impactful, illustrated in what follows:

- When I joined AUB back in 1985, I had a Bachelor degree in communications engineering and a PhD in computer engineering. Accordingly, I played a pivotal role in launching the Computer & Communications Engineering (CCE) program at FEA. Since its launching in 1986, the CCE program has been one of the most sought at AUB in terms of the number of applicants. Furthermore, since then, the CCE program was cloned by dozens of universities in the region.
- It is also important to consider the number of graduates a faculty member has played a role in their empowerment to assume leadership positions who in turn play a pivotal role in impacting the region as change agents that our region is in dire need of. The majority of the CCE graduates that I taught have assumed CXX positions (CEO, COO, CTO, CIO, etc.) in the region and beyond.
- When I was seconded by AUB in 2004 as Founding President of Dhofar University (DU) in Oman, I played a pivotal role in the multi-year work that led to DU becoming the first private university in Oman to receive the initial phase of institutional accreditation. Moreover, as Chair of DU's research board, I secured an annual research grant budget of around \$1M. All of this in the name of AUB which significantly increased AUB's visibility in Oman and the GCC.
- I played a major role in allowing AUB to be impactful in the region through the successful implementation of hundreds of REP projects since assuming the position of VP for REP in 2006. REP's annual projects portfolio increased from around 20 projects in 10 countries in 2006 to 80 projects in 20 countries with an average annual face value of over \$12 million during my term as VP. Needless to say, AUB through institutional REP projects has impacted the higher education map in the GCC and the region by establishing or assisting over 40 universities in 15 countries.
- I was the only AUB professor and senior administrator in the history of AUB to become Minister of MEHE (2011-2014) and one of the rare technocrat ministers in Lebanon since its independence. Needless to say, this represents a source of pride for AUB, as was attested by AUB's Board Chair when I was appointed. My achievements at MEHE (some for the first time in Lebanon) are recorded in my

book¹. This includes what was recorded in the 2013 World Economic Forum report which gave Lebanon the following ranking in HE out of 144 countries: (i) Quality of Schools of Business ranked 13th, (ii) Quality of Education ranked 10th, and (iii) Quality of teaching Math & Science ranked 4th only preceded by Singapore, Finland, and Belgium.

Finally, my future research plans include pursuing both research areas, namely high performance computing as well as global issues in education. However, I will be concentrating more on the latter with focus on ICT and entrepreneurship in education and more particularly on intercultural-based learning. My journey with democratic, intercultural-based learning began years ago when I participated in and conducted many classes and workshops on Cooperative Learning (CL) approaches. I quickly perceived in CL a potentially effective approach for the development of proficiency in my classes. CL also appealed to my commitment to democratic education, peace, social justice, civic responsibility, and equal opportunities for success and participation of all learners.

I have been implementing a systematic and sustained series of research studies that revealed the relative superiority of democratic, intercultural-based learning and CL in developing the cognitive and non-cognitive outcomes of instruction, including acquisition of skills and motivation for learning, decreasing school alienation, and enhancing academic self-esteem. The CL methods that I keep encouraging my team to implement range from the Structural Approach² to the Together Model³, including the Group Investigation Method⁴ and the Student Team Learning Model⁵. I have been also proposing a democratic, intercultural-based learning and CL-based theoretical approach for teacher professional development (Diab & Awada, 2016; Awada, Diab & Faour, 2017; Diab & Awada 2018 in CV) and have devised a curriculum framework for the integration of peace education into instruction (Awada & Diab, 2017 in CV), and assessment (Diab & Awada 2018 in CV). Likewise, I have been studying the challenges that hinder the use of CL and democratic, intercultural-based learning in different disciplines despite its proven methods and theoretical relevance (e.g., Awada, Diab & Faour, 2017; and Awada, Diab & Faour, 2018 in CV).

The findings of my research are disseminated widely and are broadly cited. Specifically, my findings helped very much the theoretical and practical relevance of democratic, intercultural-based learning in teaching and learning in different

1 Towards Modernization: Rescue Plan, Projects and Achievements of the Ministry of Education and Higher Education 2011-2013, Typopress, Beirut, Lebanon, December 2013, (1,315 pages)

2 Kagan, S. (1985). Dimensions of cooperative classroom structures. *Learning to cooperate, cooperating to learn*, 67-96.

3 Johnson, D. W., & Johnson, R. T. (2002). Cooperative learning and social interdependence theory. In *Theory and research on small groups* (pp. 9-35). Springer US.

4 Sharan, Y., & Sharan, S. (1992). *Expanding cooperative learning through group investigation*. Teachers College Press, New York, NY 10027.

5 Slavin, R. (1995). *Cooperative learning: Theory, research, and practice*, 2nd ed. Boston: Allyn and Bacon.

disciplines as well as establish its efficacy as a proven instructional approach in the Lebanese context and in similar multilingual contexts characterized by competitive teaching and lack of social interaction in the target language of English. This facilitated my efforts to introduce democratic, intercultural-based learning as an instructional framework in the educational systems of numerous countries in the Middle East and North Africa (MENA) region

I conducted studies in Lebanon to utilize the practices of some countries, such as Scotland and Australia, in integrating HRE into the school subjects. Scotland and Australia in collaboration with the UN have endeavored to adopt Education for Democratic Citizenship and HRE as main features of education reform and development (Kerr and Losito, 2010). Lebanon, which adopts democracy and plurality, needs to benefit from HRE experiences of Scotland and Australia which also encompass plural societies. Hence, in an attempt to benefit from the HRE experience in Scotland and Australia, I modified the BEMIS survey to fit into the Lebanese context. My policies are also based on the assumption that employing the whole-school approach and the transformative model could transform the Lebanese curricula and textbooks in a way that could build a culture of peace, tolerance, democracy, and citizenship. The whole-school approach focuses on integrating HRE into the curricula and teaching materials that could help teachers incorporate human rights subjects into their teaching practices. Teacher training should also incorporate human rights values. The role of HRE in supporting democracy was also emphasized in changing citizenship, democracy and participation in education. Learning for cosmopolitan citizenship makes young citizens able to identify common culture and experiences needed to function effectively in settings of cultural diversity and change. I focused on the obligations of young people rather than their rights.

Being a Minister of Education and Higher Education, I designed and implemented policies that affected Lebanon's school education system which includes 1,300 public schools, 300 private free schools, and 1,300 private schools. I set plans for schooling and curricula development, which call for the integration of HRE into the curricula. I also elicited data to investigate teachers' and educators' perceptions of developing a new curricula integrating HRE into most school subjects; my research is the only research that intended to shed light on the HRE good practices that have been implemented to provoke suggestions on what should be done in Lebanon to ensure having similar good HRE practices needed to address the tremendous Syrian influx into Lebanon. My research is also significant for being the only research highlighting the Lebanese strategic plans launched in 2011, 2012, 2013 and 2014 as well as the decrees that were issued to ensure HRE practices in Lebanon.

Statement of Teaching

My teaching portfolio since 1985 entailed the preparation and teaching of 22 different courses at the Department of Electrical and Computer Engineering (ECE) - AUB, 15 of which (68%) were in computer engineering which is my area of specialization. Furthermore, nine (42%) of the courses, all of which I had introduced, were either final year undergraduate electives open to graduate students or were graduate courses, such as Advanced Computer Architecture (ACA), Computer Graphics (CG), Modeling and Simulation, and Computer System Analysis (CSA), among others. The average class size of all the courses I taught from 1985-2004 was around 55 students with 63% of the 75 courses taught during that period having an enrollment of more than 40 students and sometimes reaching as high as 158 students. Teaching the above courses shaped my understanding of the teaching profession and the methods to use to achieve students learning.

Teaching is the promotion of active learning. It is inspiring students to personalize ideas and concepts through active engagement rather than passive reception and to think creatively especially when it comes to analysis, synthesis, and design in all work needed inside or outside the classroom. Many research studies have proven that students learn better when they are agents of their own learning. I consider myself very lucky to have taught some of the brightest AUB students admitted to the Computer and Communications Engineering (CCE) as well as the Electrical and Computer Engineering (ECE) majors.

My goals as a professor are to provide my students with a strong foundation of knowledge in the subject matter taught, to encourage them to reflect on the course material, and to kindle their enthusiasm to think “outside the box”. I always try to incorporate active learning techniques in each course I give including group discussions, research papers, small design assignments, and group projects, among others. Moreover, it is essential to help students sharpen their critical thinking skill, guide them to obtain knowledge independently, and find viable solutions for difficult problems as many of the technical problems they will face in their future jobs would not have existed during their study years. Hence, I believe that my prime responsibility as a professor is to unleash the potential of my students and to nurture their abilities through various ways, including the assignment of research-related and design-oriented tasks. Equally important is how to convey that knowledge in an effective and clear manner in the classroom as well as engage students in case studies and in state-of-the-art research.

Equally significant is testing the presentation and communication skills of students when they present their work to the whole class (research papers, projects, etc.) These soft skills are essential to their future success as engineers and managers as has been demonstrated by the many surveys carried out with international companies regarding the skills fresh graduates need to have when joining the workforce.

Furthermore, assessment of student performance is an important aspect in teaching. I would like my exams to evaluate not only how much content knowledge my students have grasped, but also evaluate their analysis, synthesis, and design skills related to the course subject matter. Accordingly, most of my exams were open-book capitalizing on design questions in order to extrapolate each student's ability to analyze, synthesize and design rather than his/her ability to memorize the material.

I am proud to say that I have succeeded in achieving my goals in the courses I taught, as evident from the following sample of Faculty Appraisal results (out of 5) provided by students for some of the courses I regularly taught (shown in brackets): 4.6 (ACA), 4.6 (CSA), 4.45 (CG), etc. Furthermore, some of the comments made by students are as follows: (a) EECE 611C (Spring 2004): "The instructor enhanced my learning by encouraging research which is considered a major issue in the academic process", (b) ELEG797: "The course was very helpful & contributed a lot to my research skills", (c) "Dr. Diab is one of the best professors we have had so far. He shows a great deal of experience and expertise in his domain", (d) "This is one of the few courses I was happy to take at AUB. I being a computer enthusiast and willing to improve my already increasing knowledge, enjoyed this course extremely", and (e) Ways in which the instructor enhanced my learning in the course: "Professor Diab is by far the best professor to teach me until now. He gives great advice and presents the material very clearly."

I also believe that professors should play a proactive role in engaging students outside the classroom. Accordingly, I have spearheaded the design, development, and implementation of web sites pertaining to several courses including: Microprocessor Systems, Computer Architecture, CG, ACA, to mention a few. I was also involved in the supervision of lab courses including Electronics Laboratory (1987-1989), and Microprocessor Systems Laboratory (1990-2002), among others. Moreover, I was the *Founder and Counselor* (July 2, 1997 - June 30, 2003) of the Institute of Electrical & Electronic Engineers (IEEE) Student Branch (IEEESB) at AUB. The IEEESB, established on July 2, 1997, started out with 77 members and grew to over 400 members in 2003. It was among the first IEEE Student Branches established in the Middle East and the first in Lebanon. The IEEESB website received the: (i) 1st place (May 2003) in the IEEE Region 8 (Europe, Africa, Middle East) among 26 contestants, and (ii) 3rd place (June 2003) in the IEEESB Web Site Contest. Furthermore, I was the coordinator for the final year projects for CCE and ECE students for a period of 11 years (1985-1996), as well as the supervisor of 42 final-year undergraduate projects and 13 Masters Theses in the ECE Department (1985-2004). Moreover, during the period 1987-2004, I was advisor to an average of over 70 students per year.

More recently, the Continuing Education Center (CEC), which organizationally falls under the Office of Regional External Programs and represents AUB's community outreach and life-long learning arm, will be the first unit at AUB to launch on-

line distance learning professional certificates and diplomas by the end of 2018. I expect that this will allow exponential growth of CEC students over the next decade. This will make AUB go global in terms of its CEC outreach in the future.

Finally, I strongly believe that a faculty member should act as a role model for his or her students, treat them with respect, guide them, and care about their future success. As such, I always presented myself as a role model to my students and acted with full professionalism and integrity. I was cordial, encouraged questions, and was accessible to all my students and advisees during and outside office hours. In my opinion, the most worthwhile goal for a university professor is to leave a legacy of students who can competently apply what their professor had taught them and become lifelong independent learners: “That they may have life and have it more abundantly.”

I truly cherish the experience I had with my students whom I meet all the time in Lebanon and all over the region as I travel extensively in my capacity as AUB’s VP for Regional External Programs. The outstanding majority of them hold very good posts in reputable companies as CXOs (i.e., CEOs, COOs, CAOs, CTOs, CIOs, CFOs, etc.) which always brings to my heart a sense of pride and satisfaction having accomplished my duty towards my students. Students that transformed into agents of positive change in our region and beyond.

I.


PERSONAL




Hassan B. DIAB

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¹ Fellow of the Institute of Electrical Engineers (FIEE) later changed name to Institute of Engineering & Technology (IET); Fellow of the Institute of Engineers, Australia (FIEAust); Senior Member of the Institute of Electrical & Electronics Engineers (IEEE), USA; Chartered Professional Engineer (CPEng), Australia; and Chartered Engineer (CEng), UK

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II.

EDUCATIONAL BACKGROUND

- **June 2017**

Executive Education Program on Negotiation & Leadership, Harvard Law School, Harvard University, 1563 Massachusetts Avenue, Cambridge, MA 02138, USA.

- **October 1982 - June 1985**

Doctor of Philosophy (Ph.D.) in Computer Engineering, Department of Electrical Engineering, University of Bath¹, Bath BA2 7AY, Avon, UK.

Thesis title: *Microprocessor Based Real-Time Modeling in Relation to the Visual Systems of an Aircraft Flight-Training Simulator*².

- **October 1981 - September 1982**

Master of Science (M.Sc. with Distinction) in Systems Engineering, Department of Electronic and Electrical Engineering, University of Surrey, Guildford GU2 5XH, Surrey, United Kingdom.

Thesis title: *Efficient utilization of power consumption for rotating machines and associated systems*.

1 University was ranked 7th in the UK in 2014 by the Guardian in the “University guide 2014: University league table” <http://www.guardian.co.uk/education/table/2013/jun/03/university-league-table-2014> University was ranked 144th in the world by the Times Higher Education-QS World University Rankings 2009 and 27th in the world based on employer review.

<http://www.bath.ac.uk/news/2009/10/08/world-rankings/> and

<http://www.timeshighereducation.co.uk/Rankings2009-Top200.html>

University named as the ‘University of the Year 2011/12’ by The Sunday Times.

The University of Bath was ranked as the third best university in 2012 in the UK out of 126 in the new edition of The Sunday Times University Guide.

<http://www.bath.ac.uk/news/2012/09/28/sunday-times-guide-2012/>

The Guardian University Guide 2010 league table ranked University of Bath ninth out of 117 universities and colleges in the UK and once again top of the regional ranking for universities in South-West of the UK. <http://www.guardian.co.uk/education/table/2009/may/12/university-league-table>

The 2009 Good University Guide ranking, published by The Independent newspaper, places the University of Bath 14th in the UK which ranks it as the best in the South West, ahead of Bristol, Southampton and Exeter. (<http://www.thecompleteuniversityguide.co.uk/single.htm?ipg=6524>)

In summer 2006 Bath was rated as the ninth best university in the UK in both The Times and The Guardian’s annual university guides (<http://www.bath.ac.uk/alumni/newsite/Pdfs/ba2%2009.pdf>)

The University of Bath is in the top five of the best 100 UK universities in The Times newspaper’s league tables for 2003. <http://www.bath.ac.uk/pr/releases/bath-ranked5> A study “UK Universities 2001 / FT league tables” ranks University of Bath, based on 18 criteria, as number 7 (in 2001) in the UK. It is recognized as a world-class, research-based university. Link can be found at: <http://specials.ft.com/universities2001/FT3HLLAN6LC.html>

2 The multicomputer architecture that resulted from the PhD research was marketed by the University of Bath as a high performance computing system under the name Darkstar in 1985.

- **September 1977 - July 1981**

Bachelor of Science (B.Sc. with Honors) in Communications Engineering (including 14 months as trainee engineer at IBM UK Labs, Winchester), School of Electrical Engineering, Leeds Beckett University¹ (<http://www.leedsbeckett.ac.uk/>), Leeds LS1 3HE, Yorkshire, United Kingdom.

Final Year Project: *An advanced speech synthesizer*

- **September 1976 - July 1977**

Attended two schools in the same year and completed the O'levels and A'levels in one year² at Homefield College, Christchurch (day time) and Bournemouth College of Technology, Bournemouth (night time), United Kingdom.

- **September 1968 - June 1976**

Completed (June 1976) grade 10 (with Honors) at Brummana High School, Brummana, Lebanon.

¹ https://en.wikipedia.org/wiki/Leeds_Beckett_University

Leeds Beckett University (LBU), formerly known as Leeds Metropolitan University (LMU) and before that as Leeds Polytechnic, is a public university in Leeds, West Yorkshire, with campuses in the city center and Headingley. The University's origins can be traced back to 1824, with the foundation of the Leeds Mechanics Institute. Leeds Polytechnic was formed in 1970, and was part of the Leeds Local Education Authority until it became an independent Higher Education Corporation on 1 April 1989. In 1992, the institution gained university status. The current name was adopted in September 2014.

² Usually takes three years to complete

III.

EMPLOYMENT RECORD

A. Academic Appointments

Full-time Appointments

- **July 1, 1997 – June 30, 2025**

Professor, Department of Electrical and Computer Engineering, Faculty of Engineering and Architecture, American University of Beirut, Beirut, Lebanon.

- **August 17, 2004 – September 30, 2006**

Professor of Electrical and Computer Engineering, College of Engineering, Dhofar University, Salalah, Sultanate of Oman. On secondment from the American University of Beirut, Beirut, Lebanon.

- **July 1, 1991 – June 30, 1997**

Associate Professor, Department of Electrical and Computer Engineering, Faculty of Engineering and Architecture, American University of Beirut, Beirut, Lebanon.

- **December 1, 1985 – June 30, 1991**

Assistant Professor, Department of Electrical Engineering, Faculty of Engineering and Architecture, American University of Beirut, Beirut, Lebanon.

Visiting Appointments

- **September 3, 1991 - October 24, 1991**

Visiting Fellow, Center for Educational Development and Academic Methods, Australian National University, Canberra, Australia.

- **May 20, 1989 – June 20, 1989**

Visiting Professor, University of Sanaa', Sanaa', Yemen.

B. Government of Lebanon Appointments

- **June 13, 2011¹ – February 14, 2014**

Minister of Education and Higher Education, & Acting Minister of Social Affairs in the Lebanese Cabinet.

The Ministry of Education and Higher Education (MEHE) is the largest ministry in Lebanon and is composed of major directorates and offices including Directorate of Education, Directorate of Higher Education, Directorate of Vocational and Technical Education (VTE), Education Center for Research & Development, Education Sector Development Secretariat, Directorate of Central Administration, etc. MEHE includes around 60,000 employees across the country and controls or oversees over 3,000 schools, 50 higher education institutions, and 450 VTE institutes in both the public and private sectors culminating in over 1.3 million students. During 2011-2013, an unprecedented number of accomplishments in MEHE were achieved, many of which for the first time in the history of MEHE. All these achievements have been recorded in the book (written in Arabic) entitled: "Towards Modernization: Rescue Plan, Projects and Achievements of the Ministry of Education and Higher Education 2011-2013". Book can be downloaded from: <https://www.dropbox.com/s/earziinfmsenf1/Ministry-Book%202-ALL.pdf?dl=0>

*Some of the achievements included for the first time in the history of Lebanon are the following: producing an ICT in Education Strategic Plan (pp. 369-378), a new law for K-9 compulsory education (p. 498) and free textbooks (pp. 475-476), compulsory community service to high school students culminating in 1 million hours of community service per year, major progress in vocational and technical education (pp. 596-600), and an award that the Government of Lebanon was the winner of the GSMA 2014 Connected Government Award which was the result of the Lebanese Ministries of Telecommunications and Education & Higher Education actively encouraging the innovative use of mobile technologies that deliver long-term and sustainable socio-economic benefit and wellbeing for their citizens. Furthermore, a new higher education law was passed to replace a 40-year old one (pp. 652-666), and saving of LL billions through several ministerial decisions (pp. 470-471). **Additionally, after almost two and half years of reform (2011-13) in higher education (HE) during his term, the 2013 World Economic Forum report gave Lebanon the following ranking in HE out of 144 countries: (i) Quality of Schools of Business ranked 13th, (ii) Quality of Education ranked 10th, and (iii) Quality of teaching Math & Science ranked 4th only preceded by Singapore, Finland, and Belgium.***

¹ June 13, 2011 (decree signed for formation of new cabinet), July 7, 2011 (Parliamentary vote of confidence), April 21, 2012 (2nd Parliamentary vote of confidence), March 23, 2013 (decree signed for resignation of cabinet), and February 14, 2014 (handing over to new minister upon formation of new cabinet)..

- **June 2011 – Dec 2011**

- **Chair of the Council of Arab Ministers of Higher Education**

- *Lebanon chaired the 12th Conference of Arab Ministers for Higher Education & Scientific Research on “Correlation between Higher Education Outcomes and Societal needs in the Arab Region” held in Beirut, and Minister Diab handed over the chairmanship to Sheikh Nahyan Al Nahyan, UAE Minister of Higher Education & Scientific Research, in the Regional Conference for Arab Ministers for Higher Education & Scientific Research on “Development of Higher Education Management in the Arab region” held in Abu Dhabi, UAE on December 7, 2011.*

C. Administrative Appointments

- **July 9, 2013 – present**

- **Vice President, Regional External Programs (REP), American University of Beirut, Lebanon.**

- *Returned to my previous position at the Office of REP, which represents the consulting and entrepreneurial arm of AUB. Organized during 2016 four major events, including three galas in Lebanon and the region, to celebrate the Office of REP’s 40th anniversary. This significantly elevated the visibility of AUB and REP. Managed to expand REP’s projects portfolio and secured around \$7 million of endowments and gifts for AUB.*

- **April 4, 2014 – November 24, 2014**

- **Chief Operating Officer, American University of Beirut, Lebanon**

- *The Office of the Chief Operating Officer (COO) was established in February 2013 with responsibility for the overall leadership, management and organization of the university’s administrative affairs. The COO oversees the administering of AUB’s annual operating budget of more than \$350 million and a workforce of more than 4800 employees between faculty and staff at AUB and AUBMC. The COO Office also supports special initiatives that have a university-wide impact. The COO serves as a key member of the University’s senior leadership team and reports directly to the President. The COO has oversight responsibility for key areas of the administration including: Facilities, Finance, Human Resources, Information Technology, Legal Affairs, Physical Plant, Procurement and Contracts Administration, as well as Protection. The COO collaborates with the Provost, Vice Presidents and members of the Executive Team to foster strong relationships between academic and administrative areas, ensuring strong and sustainable resources to finance academic excellence.*

- **September 2014 – present**

Member of the Executive Committee, International Association of University Presidents (IAUP).

The IAUP Executive Committee meets twice a year and includes fifty-sixty presidents from across the world. IAUP has been the lead partner in the United Nations Academic Impact [<http://academicimpact.org>] with around 1000 participants from around the world [www.AcademicImpact.org]. IAUP has continued to be an adviser and partner organization to the Qatar Foundation for the World Innovative Summit in Education (WISE). As a consequence, IAUP, with the Institute of International Education (IIE), has collaborated with the WISE Institute for Education Leadership to new university presidents.

- **December 2012 – present**

Member of the Advisory Board, Institute of Cultural Diplomacy (ICD),

Ku'damm Karree (Third Floor - Hochhaus), Kurfürstendamm 207-208, Berlin, Germany. http://www.culturaldiplomacy.org/index.php?en_advisoryboard The Institute for Cultural Diplomacy (www.culturaldiplomacy.org) is an international, not-for-profit, non-governmental organization with headquarters in Berlin, Germany. The ICD's ultimate goal is to promote global peace and stability by strengthening and supporting intercultural relations at all levels. Over the past decade the ICD has grown to become one of Europe's largest independent cultural exchange organizations, hosting programs that facilitate interaction among individuals of all cultural, academic, and professional backgrounds, from across the world. The major objectives of the ICD are to extend current research, programs and practices in the field of cultural diplomacy and create a platform to promote and sustain inter-cultural dialogue at all levels. The ICD sees the role of researching, promoting and developing the field of cultural diplomacy as an integral part of its mission.

- **October 1, 2006¹ – July 7, 2011**

Vice President, Regional External Programs (REP), American University of Beirut, Lebanon.

The Office of REP represents the consulting and entrepreneurial arm of AUB in the MENA region and beyond. During the first four years (2006-10) of my term as VP for REP, the following was accomplished: (a) Re-establishing AUB as a leading consultant on higher education with the most projects (running concurrently) in higher education, (b) Played a pivotal role in ensuring that Dhofar University is the first university in Oman to complete the Quality Audit process which is the first phase of institutional accreditation, (c) Secured the largest number of almost 80 projects in any one year with a record geographic spread of 20 countries and 24 locations, the largest in REP's history of over three decades, (d) Secondment for

¹ <http://website.aub.edu.lb/news/Pages/63380.aspx>

library and student affairs technical assistance for the first time, (e) Moving into the old Medical Sciences building, next to the Medical Gate, and in turn unifying REP operations into one location yielding a long-term space stability for REP offices after being scattered for years in many locations, (f) Largest number of projects with International Organizations, such as UNICEF and UNDP, (g) Highest number of multi-year contracts, (h) Initiation of a new and successful “University for Seniors” program, (i) Re-design and launching of the new REP and CEC web sites with largest number of CEC students in its history, (j) Introduction of a new and very successful journalism training program (JTP) after fund-raising around \$1 million for the initiative, (k) Fund-raising \$100,000 for CEC which facilitated over 20 scholarships per term for AUB employees, (l) Fund raising an endowment for the first REP Service Excellence Award, (m) Implementation of REP’s 5-year Strategic Plan (2006-11), and (n) Among the first AUB units to implement the Balanced Scorecard in 2006–07 with REP activities assessed using around 50 KPIs aligned to its strategic plan. REP performance with respect to these KPIs was the best since its inception in 1975.

• **February 25, 2011 – present**

Member of the Board of Trustees (BOT), Social Welfare Institutions – Dar Al Aytam Al Islamiya¹, Beirut, Lebanon.

The Social Welfare Institutions (SWI) established in 1917 is a Lebanese NGO which provides diversified specialized services in over 54 institutions and programs spread over the five Lebanese governorates. SWI caters for the needs of the vulnerable population including orphans, children with special needs, school drop outs, elderly, and empowering less fortunate women. SWI embrace around 11,000 beneficiaries from new born to the elderly. <http://www.daralaytam.org/en-SWI.htm>

• **January 2012 – 2014**

Member of the Advisory Board, The Alexandria Trust, 96 High Street Kensington, London, UK.

The Alexandria Trust is a new charitable venture that aims to strengthen tomorrow’s leadership across the Arab world and beyond by providing access to outstanding teaching and thinking in the social sciences. The Trust will work by incubating high caliber projects in three main fields:

- *mobilizing talent through competitions, fellowships and placements which offer young future leaders opportunities to engage in social, economic and political change;*
- *transforming teaching methods, targeting both initial training and continuing professional development, equipping teachers with the confidence to become champions of change; and*

¹ <http://www.daralaytam.org/post=3>

– maximizing access to the best possible education to the widest population of learners across the Arab world, drawing wherever possible on developments in educational technology.

• **August 17, 2004 – September 30, 2013**

Member of the Board of Trustees (BOT), Dhofar University, Salalah, Oman.

Served on several standing BOT committees during 2004-2006 including the Executive Committee; the Academic Affairs Committee as well as the Finance, Administrative, and Buildings Committee. Also, a member of the BOT since 2004 which meets four times annually.

• **August 1, 2005 – September 30, 2006**

Founding President and Acting Dean of the College of Engineering, Dhofar University (www.du.edu.om), Salalah, Sultanate of Oman. On secondment from the American University of Beirut, Beirut, Lebanon.

By September 2006 (only two years after its initiation), DU offered 37 diploma and bachelor majors, one postgraduate program, as well as 5 minors. With over 90 faculty members from 25 nationalities and around 1700 students, the student-to-faculty ratio was around 18:1. The 2005-2006 President's annual report can be downloaded from the following link: <http://www.du.edu.om/PresidentOffice/AnnualReport.htm>

• **August 17, 2004 – July 31, 2005**

Founding Dean of the College of Engineering and Acting President, Dhofar University (www.du.edu.om), Salalah, Sultanate of Oman. On secondment from the American University of Beirut, Beirut, Lebanon.

Dhofar University (DU) is one of three private universities in the Sultanate of Oman and the only one in the southern region (Dhofar) of the Sultanate. Even in its early years of its official take off, DU was set apart as a high-quality institution of higher learning. In addition to the four minors, 15 undergraduate Diplomas, 18 undergraduate Bachelor degrees, and one postgraduate major offered in the three colleges, the University includes an Orientation Program which offers the following subjects: Arabic language, English language, mathematics, computer sciences, and study skills. The Orientation Program is designed for students who are not sufficiently prepared to join the four-year bachelor programs at DU. The number of DU faculty and staff has increased from 50 in 2003-2004 to 190 employees during the 2005-2006 academic year. The University in its first year of commencement included around 1,400 students with 57% being female and an overall student-to-faculty ratio of 25:1. A new campus which is being built, with a total area of 450,000 m², will have a unique and attractive landscaped design.

- **August 17, 2004 – September 30, 2006**

Dhofar University, Salalah, Oman. On secondment from the American University of Beirut, Beirut, Lebanon.

- *Member of the Board of Trustees (BOT).*
- *Member of the Executive Committee of the BOT.*
- *Member of the Academic Affairs Committee of the BOT.*
- *Member of the Finance, Administrative, and Buildings Committee of the BOT.*

- **September 1, 2002 – October 1, 2005**

International Membership Advisor (for Iraq, Syria & Lebanon), The Institution of Electrical Engineers (<https://www.theiet.org/index.cfm>), UK.

- **September 14-16, 2002**

Acting Chairman, Department of Electrical and Computer Engineering, Faculty of Engineering and Architecture, American University of Beirut (AUB), Lebanon.

- **August 1, 1998 – August 31, 2001**

Chairman, Department of Electrical and Computer Engineering, Faculty of Engineering and Architecture, American University of Beirut (AUB), Lebanon. During this period, the Department of ECE, the largest academic unit at AUB, has grown over the three-year period by around 37% with respect to number of students to reach 600 students, and by 20% with respect to number of faculty members to reach 36.

During my chairmanship, I have initiated a new 12-member External Advisory Board to the ECE Department, prepared and submitted 11 major reports, invited 5 Visiting Faculty, and held over 54 departmental meetings. Furthermore, the ECE Department organized 56 seminars, restructured our three graduate programs, approved new mission statements for all five departmental graduate & undergraduate programs, transformed our two undergraduate programs so that they conform with ABET EC2000 in preparation for applying for accreditation, introduced a new graduate program in Electrical Engineering, introduced 16 new courses, proposed a new PhD program in Computer Engineering, and recommended a proposal for a new undergraduate multidisciplinary program in Information Systems

- **July 2, 1997 – June 30, 2003**

Founder and Counselor, IEEE Student Branch (IEEESB) at the American University of Beirut, Lebanon.

The IEEESB established on July 2, 1997, started out with 77 members and grew to over 400 members (2003). The IEEESB is among the first established in the Middle East and the first in Lebanon. The IEEESB website received the:

- 1st place (May 2003) in the IEEE Region 8 (Europe, Africa, Middle East) among 26 contestants.
- 3rd place (June 2003) in the 2004 IEEE Student Branch Web Site Contest.
- **November 1, 1991 – March 20, 2001**
IEAust (Institution of Engineers in Australia) Coordinator in the Middle East, Beirut, Lebanon.
- **March 1986 – June 1990**
IT Department Head, Hariri Foundation, Beirut, Lebanon.
The work involved computerizing manual systems and database applications.
- **1986 - 2001**
Chaired many committees at the departmental and faculty levels (Section VII-A) including (listed chronologically): a Committee for the Reappointment of a Full Professor in the ECE Department (May 2003), the External Advisory Board to the Department of Electrical and Computer Engineering (January 2000 – August 2001), Student Aid Committee (October 1988 - June 1989), and Student Affairs Committee (July 1987 - June 1995). I have also served as the Coordinator for the final (4th) year projects for a period of 11 years (1985-1996) in the Department of Electrical and Computer Engineering.

D. Non-Academic Appointments

- **October 2014 – February 2017**
CEO, Healthy Basket SARL, AUB
Healthy Basket (HB) SARL (represented by H. Diab) deals with certified organic food and operates in Beirut. HB is formed by the following three limited liability companies (also represented by H. Diab) incorporated in Delaware, USA:
 1. Start Up LLC (which owns 33 shares in Healthy Basket SARL).
 2. Jump Start LLC (which owns 33 shares in Healthy Basket SARL).
 3. New Ideas LLC (which owns 34 shares in Healthy Basket).Prof. Diab took over the company in 2014 at a time when an AUB decision was made to dissolve it due to the huge debits it has accumulated over the years. The company was turned around in less than two years and sold with a positive return.
- **June 22, 2005 – September 30, 2006**
Member, National Scientific Research Council, Sultanate of Oman.
Council established by Royal Decree No. 54/2005 under chairmanship of His Highness Sayyid Shihab bin Tariq al Said with the following members: Minister

*of Higher Education, Minister of Health, Minister of Oil & Gas, Minister of Social Development, Secretary-General of the National Economy Ministry, Chairman of Oman Chamber of Commerce and Industry, President of Sultan Qaboos University, President of Sohar University, President of Nizwa University, **President of Dhofar University (Hassan Diab)**, Chairman of Knowledge Oasis Muscat, Shiekh Salem bin Mustahail al Maashani, Dr. Ali bin Saud al Bimani, Dr. Tahir bin Abdul-Rahman Ba'Omar, Dr. Hilal bin Ali bin Zahir al Hinai, and Dr. Hamad bin Saidal Aufi.*

- **June 2005 – September 30, 2006**

Managing Director, ICDL¹ Center for Dhofar University, Salalah, Oman. *The ICDL program defines the skills and competencies necessary to use a computer and common computer applications. It offers a wide range of modules including Computer Essentials, Word Processing and IT Security. Candidates take tests in the modules which are most relevant to their educational and professional requirements, thereby creating their ICDL Profile. Whether in school, university or in the workplace.*

- **November 2002 – present**

Associate, Center for Advanced Mathematical Sciences (CAMS), American University of Beirut, Beirut, Lebanon.

CAMS was founded in 1999 through the efforts of an international group of scientists with the primary goal of becoming the premier center of excellence for research in the mathematical sciences in the Middle East. By creating opportunities for top-quality research and teaching, and by encouraging academic collaboration and interdisciplinary research at AUB and in the region, CAMS has served as flagship institute within AUB's academic plan to revitalize scholarship and research in mathematical sciences. CAMS has a unique role to play as the leading regional institute for research in the mathematical sciences. <http://www.aub.edu.lb/cams/Pages/index.aspx>

- **January 15, 1986 – June 30, 1990**

System Analyst Consultant, Hariri Foundation, Beirut, Lebanon. The work involved computerizing manual systems and database applications.

- **June 30, 1982 – September 30, 1982**

Systems Engineer, IBM U.K. Ltd., Portsmouth, U.K. The work involved improving the efficiency of a power plant.

- **July 2, 1979 – August 22, 1980**

Trainee Engineer, IBM U.K. Labs Ltd., Winchester, U.K. The work involved carrying out environmental and EMC tests for IBM computer systems and peripherals.

¹ ICDL: International Computer Driving License

IV.

ACADEMIC EXPERIENCE

A. Teaching

Preparation and teaching of over 22 different courses (1985-2009) at the Department of Electrical and Computer Engineering (ECE), Faculty of Engineering and Architecture (FEA), American University of Beirut (AUB) in the following subjects.

Over my academic career, I taught 15 courses (68%) in my area of specialty in computer engineering. Furthermore, nine (42%) of the courses were either graduate level or final year undergraduate electives open to graduate students. The average class size of all the courses I taught during 1985-2004 was around 55 students with 63% of the 75 courses taught during that period with an enrollment of more than 40 students and sometimes reaching as high as 158 students.

Graduate Courses (6)

- Advanced Computer Architecture.
- Computer Graphics.
- Modeling and Simulation.
- Computer System Analysis.
- Special Topics
- Special Project. Given several times in the following topics:
 - Parallel RC Implementation of Routing Algorithms.
 - Design and Implementation of Synchronization Architecture between Handheld Devices and Computers.
 - Serpentine Encryption Algorithm Implementation on the MorphoSys Reconfigurable System.

Undergraduate Courses (13)

- Computer Networks (4th year course).
- Computer Graphics (4th year course).
- Computer Devices and Peripherals (4th year course).

- Computer Architecture (3rd year course).
- Operating Systems (3rd year course).
- Systems Software (3rd year course).
- Rotating Machinery (3rd year course).
- Microprocessor Systems (2nd year course).
- Electronic Devices (2nd year course).
- Numerical Analysis and Computer Applications (2nd year course).
- Computer Literacy (1st year course).
- Basic Electronics (1st year course).
- Electronic Circuits (1st year course).

Design, development, and implementation of web sites pertaining to the following courses. These courses were updated and designed for on-line availability to students through moodle at <https://moodle.aub.edu.lb/>.

1. Microprocessor Systems:
2. Computer Architecture:
3. Computer Graphics:
4. Advanced Computer Architecture:

Teaching Evaluation

A sample of the Faculty Appraisal (FA) results (out of 5) provided by students for the courses I have been regularly teaching is shown in the following table. All FA results are handled by the Office of Institutional Research & Assessment at the American University of Beirut (<http://webfaculty.aub.edu.lb/~weboira/>).

Course	Level	Term	FA score	
			/ 5	Equiv.%
Advanced Computer Architecture	Graduate	Spring 2003	4.6	92%
Computer Systems Analysis	Graduate	Spring 2004	4.6	92%
Computer Graphics	Graduate	Fall 1995	4.45	89%
Microprocessor Systems	Undergraduate	Summer 2003	4.3	86%

Some of the comments made by students that took the above-mentioned courses include:

- *EECE 611C (Spring 2004): “The instructor enhanced my learning by encouraging research which is considered a major issue in the academic process.”*
- *“It has been a pleasure for me to take this course with such a good and competent teacher”*
- *“Dr. Diab is a very good professor. ... He encourages students to think.”*
- *“The course is very interesting and the teacher is doing a perfect job.”*
- *ELEG797: “The course was very helpful & contributed a lot to my research skills.”*
- *“Well organized, knowledgeable and he has a pleasant attitude towards students, ...”*
- *“Good professor, talks fluently, and explains material well. The exams are very fair in content & grading.”*
- *“Dr. Diab is one of the best professors we have had so far. He shows a great deal of experience and expert in his domain.”*
- *“The instructor is very knowledgeable about the subject and can answer all questions with confidence.”*
- *“This is one of the few courses I was happy to take in AUB. I being a computer enthusiast and willing to improve my already increasing knowledge enjoyed this course extremely.”*
- *Ways in which the instructor enhanced my learning in the course: “Available during office hours,” “Explained well in class,” “By relating material to everyday life,” “Increased my interest in the material,” “Well prepared for the course,” “Encouraging us to look things up for ourselves,” “Freedom to choose the projecttopic.”*
- *Ways in which the instructor enhanced my learning in the course: “External speakers,” “Activities,” “Visits to CAMS,” “Design problems.”*
- *Ways in which the instructor enhanced my learning in the course: “Professor Diab is by far the best professor to teach me until now. He gives great advice and presents the material very clearly.”*

B. Laboratory Supervision

Preparation and supervision of the following 1-credit laboratory courses at the Department of ECE, FEA, AUB:

- Electronics Laboratory (1987-1989).
- Microprocessor Systems Laboratory (1990-2002).

C. Coordination

- Coordinator for the final year projects for a period of 11 years of the final-year Electrical Engineering (EE) and Computer and Communications Engineering (CCE) students (1985-1996), and the supervision of 42 final-year undergraduate projects and 13 Masters Theses in the ECE Department (1985-2004). Proposed new rules and regulations for the evaluation of final-year projects and implemented during 1992-1998.
- Coordinator for a period of two years for the EECE 321 (Microprocessor Systems) and EECE 421 (Computer Organization) courses during Fall 2002-2003 Term until Spring 2003-2004.

D. Student Advising

I carried out student advising during the period 1987 until 2004. On average, I have been the advisor to over 70 students per year during the period 1987-2004.

- During 1987-1991, I was the advisor of the CCE class of 1991, which started out (1987-1988) with 95 students, out of which 54 graduated in 1991.
- During 1991-1995, I was the advisor of the CCE class of 1995, which started out (1991-1992) with 100 students, out of which 84 graduated in 1995.
- During 1995-1996, I was the advisor of the EDS ¹ and EPE ² graduate programs (30 students).
- During 1996-1998, I was the advisor of the EE class of 2000 (32 students).
- During 2000-2001, I was the advisor of the EE class of 2002 (57 students).
- During 2001-2002 (Fall), I was the advisor of the CCE class of 2005 (90 students).

¹ EDS: Electronics, Devices, and Systems

² EPE: Electric Power Engineering

Academic Experience

- During 2001-2002 (Spring), I was the advisor of the EE class of 2002 (57 students).
- During 2002-2003, I was the advisor of the EE graduate program (12 students).
- During 2003-2004, I was the advisor of ECE students:
 - EE & CCE class of 2005: students that completed their summer training during summer 2004 (149 students), and
 - EE & CCE class of 2004: students that completed their summer training during summer 2003 (136 students) in handling the correction of their reports.

V.

AWARDS, SCHOLARSHIPS AND RECOGNITIONS

Received 25 national, regional and international awards and scholarships including prizes, recognitions by national and international professional organizations, as well as academic distinctions. This included two international research awards, three international research scholarships, two *fellowships* (IEE and IEAust) and *Senior membership* (IEEE), two prizes at the regional and national levels, an AUB research award, and academic distinctions during the M.Sc. and B.Sc. studies.

1. June, 2018

Those who inspire Lebanon: One of around eighty people profiled to inspire youth. Produced, written and published by Those Who Inspire Ltd.

<http://executive-bulletin.com/other/those-who-inspire-lebanon>,
<https://en.annahar.com/article/824969-those-who-inspire-honoring-60-lebanese-influential-figures>

2. February 4, 2014

During my term as minister of the Ministry of Education & Higher Education (MEHE), the Government of Lebanon was the winner of the **GSMA 2014 Connected Government Award**, which was the result of the work carried out by the Lebanese Ministries of Telecommunications as well as MEHE which actively encouraged the innovative use of mobile technologies that deliver long-term and sustainable socio-economic benefit and wellbeing for their citizens:

<https://www.dropbox.com/s/4s50o6006k309nz/2014%20Award%20-%20GSMA%20Government%20Mobile%20Excellence.pdf?dl=0>

3. July 12, 2013

Naming of the highest GPA award during the Notre Dame University graduation ceremony on July 12, 2013 as the: "Hassan Diab Best GPA Award in Engineering".

4. June 2013

"Outstanding Contribution to Education" award for leadership and contribution to the field of Education. Delivered at the WORLD Education CONGRESS held during June 28-29, 2013 at Taj Lands End, Mumbai, India. The theme for WEC2013 was "Teaching & Learning in a Globalized World".

5. **March 22, 2013**

“Community Service Medal” for contribution to the community delivered at the Fourth Arab Conference to Promote a Culture of Voluntary Work, organized by the Lebanese Center for Voluntary Work, held during March 22-23, 2013 at Adnan Kassar Building for Arab Economy, Beirut. The theme for the conference was “Volunteering in the Service of the Economy”.

6. **October 2012**

Medal of the Ministry of Foreign Affairs of Uruguay in consideration of the special cooperation with the Ministry of Education and Higher Education, Lebanon which culminated in establishing the Uruguay Public School in Beirut.

7. **June 6, 2012**

Recognized “in appreciation for valuable contribution” to research by the National Council for Scientific Research (CNSR) during its Golden Jubilee Ceremony at the Grand Serail, Beirut on Wednesday, June 6, 2012.

8. **January 27, 2012**

The O.S.A. Shield awarded in appreciation of his career path and achievements by Brummana High School (BHS), Old Scholars Association (OSA).

9. **December 24, 2008**

Certificate of Recognition awarded by The International Arab Journal of Information Technology (IAJIT) in recognition and appreciation of outstanding service in the Technical Committee of IAJIT as one of the most active reviewers during the year 2008. IAJIT is indexed in Elsevier’s A&I database SCOPUS.

10. **July 23, 2004**

Recognition of Service Award in appreciation of contribution as program committee chair, IEEE International Conference on Pervasive Services (ICP 2004), Beirut, Lebanon, July 19-23, 2004.

11. **June 2003**

Received the **“Microsoft Research Innovation Excellence Awards for Embedded Systems”** Award (\$25,000) for the proposal entitled: “Accelerating Next-Generation Windows CE Applications Using Run-Time Configurable Coprocessors,”

12. **June 2002**

Awarded the **DAAD Research Scholarship**, German Academic Exchange Service (Deutscher Akademischer Austauschdienst - DAAD).

13. **25 April 2002**

Fellowship of the Institution of Electrical Engineers (IEE), U.K. at the age of 42. **Only 6.6% of the 150,000 IEE members held this grade.** The average age distribution by grade in 2000 was 66 for Fellows , 55 for Members and 44 for all grades.

14. **July 2000**

1st Prize in the Software category, at the 4th Conference & Exhibition for Lebanese Industrial Research Achievements (LIRA), UNESCO, Beirut, July 18-23, 2000, for the project entitled “Performance testing and evaluation of refrigerators using fuzzy inference methodology under LABVIEW.” Accomplished by I. Damaj and supervised by Profs. J. Saade, and H. Diab.

15. **July-August 1999**

Awarded the **DAAD Research Scholarship**, German Academic Exchange Service (Deutscher Akademischer Austauschdienst - DAAD). I carried out research at the University of Koblenz-Landau, Koblenz, Federal Republic of Germany.

16. **22 November 1995**

Fellowship of the Institution of Engineers, Australia (IEAust). **Only 6.6% of the total IEAust members held this grade.**

17. **December 1993**

Senior Member in the IEEE (Institute of Electrical and Electronics Engineers). **Only 8% of the over 320,000 IEEE members held this grade in 1993.**

18. **August 25, 1993**

1992 Young Arab Scientists Shuman Prize in Engineering, Amman, Jordan. Eligibility for nomination for the prize included all Arab Scientists under the age of 40. It is worth noting that I am only one of two out of 35 recipients of the engineering prize during the 25-year period of 1985-2009.

19. **October 17, 1991**

A registered **Chartered Professional Engineer** in the National Professional Engineers Register, Australia.

20. **July 31, 1990**

Research award in Engineering for 1989-1990, American University of Beirut, Lebanon.

21. **July 7, 1988 - September 24, 1988**

FULBRIGHT research award (\$9,500), grant #88-11362, from the United States Information Agency (USIA), Council for International Exchange of Scholars (CIES). I carried out research at the Department of Electrical and Computer Engineering, University of Illinois at Urbana-Champaign, Urbana, Illinois, U.S.A. during that period.

22. **May 1988**

A registered **Chartered Engineer** in the Engineering Council, U.K.

23. **October 1983 - June 1985**

Received the **Overseas Research Scholarship (ORS)**, awarded by the "Committee of Vice-Chancellors and Principals of the Universities of the United Kingdom," United Kingdom during my Ph.D. studies. The award is given to a few selected "international postgraduate students of outstanding merit and research potential."

24. **September 1982**

Distinction in the M.Sc. degree in Systems Engineering (1981-1982), University of Surrey, Guildford, U.K.

25. **June 1979**

Prize for the **most outstanding student of B.Sc.2** (1978-1979), School of Electrical Engineering, Leeds Metropolitan University, Leeds, U.K.

VI.

HONORS (Invited)

Invited (unsolicited) for inclusion in 30 international biographies with over 80 citations as well as honorary membership on boards of three biographical institutions.

1. **The Dictionary of International Biography, 39th Edition**, 2018-2019, International Biographical Centre, Great Britain
2. **Who's Who in the Arab World 2017- 2018, Volume 1**, Asia Pacific InfoServ Pty Ltd, Sydney, Australia <https://ulib.aub.edu.lb/eserials/wwaw/wwaw-v1-2017-18.pdf>
3. **Who's Who in the World**, Marquis Who's Who, New Jersey, U.S.A., <https://www.marquiswhoswho.com>
 - (a) 25th Ed., 2008 (Silver Ann. Ed.)
 - (b) 24th Ed., 2007
 - (c) 23rd Ed., 2006
 - (d) 22nd Ed., 2005
 - (e) 21st Ed., 2004
 - (f) 20th Ed., 2003
 - (g) 19th Ed., 2002
 - (h) 18th Ed., January 2001
 - (i) Millennium 17th Ed., Jan. 2000
 - (j) 16th Ed., January 1999
4. **Who's Who in Science & Engineering**, Marquis Who's Who, New Jersey, U.S.A., <https://www.marquiswhoswho.com>
 - (a) 10th Edition, 2008-2009.
 - (b) 9th Edition, 2006-2007.
 - (c) 7th Edition, 2003-2004.
 - (e) Millennium 5th Edition, 2000-01
5. **Who's Who in America**, 2009 Edition, Marquis Who's Who, New Jersey, U.S.A., <https://www.marquiswhoswho.com>
6. **Strathmore's Who's Who Worldwide**, <http://www.strathmoreworldwide.com/>, 2007-2008, Strathmore Directories, New York 11791, USA.
7. **International Who's Who of Professionals**, <http://www.whoswho.com/>, 2004-2005, International Who's Who Historical Society, Washington D.C 20006, USA.
 - (a) 2011 Edition.
 - (b) 2005-2006.
 - (c) 2004-2005.
8. **Dictionary of International Biography**, International Biographical Center (IBC), Cambridge, U.K., <http://www.internationalbiographicalcentre.com>
 - (a) 34th Edition, 2008
 - (b) 32nd Edition, 2005
 - (c) 31st Edition, 2004
 - (d) 29th Edition, 2002.
 - (e) 28th Edition, April 2000.

9. **Who's Who in Finance and Industry**, Marquis Who's Who, New Jersey, U.S.A.
(a) 33rd Edition, December 2002. (b) 32nd Edition, 2001-2002.
10. **Outstanding People of the 21st Century**, International Biographical Center, Cambridge, U.K. <http://www.internationalbiographicalcentre.com>
(a) 2nd Edition, 2003. (b) 1st Edition, 2001.
11. **Outstanding People of the 20th Century**, International Biographical Center, Cambridge, U.K. <http://www.internationalbiographicalcentre.com>
(a) 2nd Edition, 2000 (b) Grand Edition, 1999
12. **Who's Who in the 21st Century**, 1st Edition, 2001, International Biographical Center, Cambridge, U.K. <http://www.internationalbiographicalcentre.com>
13. **2000 Outstanding People**, Dec. 2003, International Biographical Center, Cambridge, U.K. <http://www.internationalbiographicalcentre.com>
14. **2000 Outstanding Intellectuals of the 21st Century**, International Biographical Center, Cambridge, U.K. <http://www.internationalbiographicalcentre.com>
(a) 2008. (b) 4th Edition, 2005.
(c) 3rd Edition, 2004. (d) 2nd Edition, 2003.
(e) 1st Edition, 2001.
15. **2000 Outstanding Academics of the 21st Century**, 2004, International Biographical Center, Cambridge, U.K. <http://www.internationalbiographicalcentre.com>
16. **2000 Outstanding Scholars of the 21st Century**, 1st Edition, 2001, International Biographical Center, Cambridge, U.K. <http://www.internationalbiographicalcentre.com>
17. **2000 Outstanding Scientists of the 21st Century**, International Biographical Center, Cambridge, U.K. <http://www.internationalbiographicalcentre.com>
(a) 2004. (b) 1st Edition, 2001.
18. **2000 Outstanding Intellectuals of the 20th Century**, 2000, International Biographical Center, Cambridge, U.K. <http://www.internationalbiographicalcentre.com>
19. **2000 Outstanding Scientists of the 20th Century**, 2nd Edition, 2000, International Biographical Center, Cambridge, U.K. <http://www.internationalbiographicalcentre.com>
20. **Biography Fame International**, Special Issue (Vol. VII), 2004, Biography International, Delhi, India.

21. **Asian Admirable Achievers**, Rifacimento International, Delhi, India.
http://www.rifacimento.in/Asian_Admirable_Achievers.html
(a) Vol. VIII, 2014. (b) Vol. VII, 2012. (c) Vol. VI, 2011.
(d) Vol. V, 2010. (e) Vol. IV, 2009. (f) Vol. III, 2008.
22. **Asian/American Who's Who**, Rifacimento International, Delhi, India.
http://www.rifacimento.in/Asian_American.html
(a) Vol. V, 2007. (b) Vol. IV, 2004.
(c) Vol. III, 2003. (d) Vol. II, 2001.
23. **Asia/Pacific Who's Who**, Rifacimento International, New Delhi, India.
http://www.rifacimento.in/Asia_Pacific.html
(a) Vol. XII, 2012. (b) Vol. XI, 2011. (c) Vol. X, 2010.
(d) Vol. IX, 2009. (e) Vol. VIII, 2008. (f) Vol. VII, 2006.
(g) Vol. VI, 2005. (h) Vol. V, 2004.
24. **Afro-Asian Who's Who**, 2006, Rifacimento International, Delhi, India.
<http://www.asianbiographies.in/about.php>
25. **Reference Asia: Asia's Who's Who of Men & Women of Achievement**, December 2003, Rifacimento International, Delhi, India. <http://www.asianbiographies.in/about.php>
26. **Distinguished & Admirable Achievers**, 2nd Edition, 2005, South Asia (Intl.) Publication Co., Delhi, India.
27. **The Cambridge Blue Book of Foremost International Scientists**, 2008, International Biographical Center, Cambridge, U.K.
<http://www.internationalbiographicalcentre.com>
28. **ABI Fellow**, 1999-present, The American Biographical Institute Research Association, USA. <http://www.abiworldwide.com/>
29. Honorary Appointment, **Research Board of Advisors**, 1999-present, The American Biographical Institute Research Association, USA.
<http://www.abiworldwide.com/>
30. Honorary Member, **IBC Research Council**, 2003-present, International Biographical Center, Cambridge, United Kingdom.
<http://www.internationalbiographicalcentre.com>

VII.

SERVICE ON BOARDS AND COMMITTEES

A. At the American University of Beirut (AUB)

The following table shows that during the 19-year period (1986-2004), I served on 37 different committees (over four committees per year) with an average period of over two years of service per committee accumulating to an equivalent of 79 years of total committee service. The following sections provide the detail information shown in the table above including 6 years on the University Senate.

Committees	Number of Committees	During the Period	Number of Years Served	
			Average per Committee	Accumulated Total
Departmental	8	1990-2001	0.85	6.8
Faculty	14	1986-2001	2.45	34
University	15	1989-2004	2.55	38.3
Overall	37	1986-2004	2.1	79

Summary Table of Services on Committees within AUB (1986-2004)

(1) Departmental¹ Committees

1. January 2000 – August 2001

Chairman, External Advisory Board to the Department of Electrical and Computer Engineering.

2. May 1997 - December 1997

Member, Ad-Hoc Committee for proposing a new BS program in Information Technology.

3. May 1995 - June 1995

Member, Ad-Hoc Graduate Programs Committee.

4. November 11, 1994 - January 30, 1995

Member, Ad-Hoc EE Program Comm.

5. November 1991 - June 1993

Chairman, Final Year Projects Committee.

¹ Department of Electrical and Computer Engineering at AUB
<https://website.aub.edu.lb/fea/publicprofile/Pages/profile.aspx?memberid=diab#>

6. November 1991 - June 1993

Chairman, Computer Hardware Committee.

7. July 1990 - January 1991

Member, Ad-Hoc Committee for proposing a new Masters program in Computer and Communications Engineering..

8. November 1990

Member, Summer Training sub-committee.

(2) Faculty Committees

1. July 1, 1999 – September 30, 2001

Member, Advisory Committee.

2. August 1, 1998 - August 31, 2001

Member, Administrative Committee.

3. August 1, 1998 - August 31, 2001

Member, Academic Committee.

4. September 1996 - November 1996

Member, Career Fair Committee.

5. August 1995 - November 1995

Member, Career Fair Committee.

6. July 1, 1993 - June 30, 1997

Member and Secretary (July 1, 1993 - June 30, 1994), Advisory Committee.

7. October 1988 - June 1989

Chairman, Student Aid Committee.

8. October 1987 - June 1992

Member, Academic Committee.

9. July 1987 - June 1995

Chairman, Student Affairs Committee. Proposal and implementation of new rules and regulations on Disciplinary Action (1992). Proposed the new Student Evaluation for Academic Performance form (1992). Organized faculty/students tennis tournaments (1990-1991).

10. July 1987 - June 1988

Member, Admissions Committee.

11. October 1986 - October 1988

Member, Graduate Studies Committee.

12. October 1986 - June 1988

Member, Student Aid Committee.

13. July 1986 - July 1987

Member, Ad-Hoc Computer Committee.

14. January 1986 - June 1987

Member, Student Affairs Committee.

(3) University Committees, Boards & Councils

1. October 2016 – present

Member, AUB Steering Committee of the Strategic Partnerships Initiative (SPI).

2. May 2016 – present

Member, AUB Steering Committee of the Strategic Health Initiatives (SHI).

3. April 2016 – present

Chair, REP Steering Committee.

4. October 2006 – present

Member, Board of Deans.

5. October 2006 – present

Ex-officio Member, Senate.

<http://website.aub.edu.lb/senate/members/Pages/17-18.aspx>

6. October 2006 – present

Member, REP Interfaculty Advisory Committee (RIAC).

7. April 2014 – November 2014

Member, Executive Leadership Team (ELT).

8. February 2010 – June 2011

Founding Member, Council of Community Leaders intended to mentor Tomorrow's Leaders scholars funded by MEPI.

9. March 2007 – June 2011

Member, Graduate Recruitment Ad-hoc Committee.

10. March 2007 – June 2011

Member, Financial Aid Diversity Ad-hoc Committee.

11. October 2006 – June 2011

Member, Vice Presidents' Group.

12. October 2006 – June 2011

Member, President's Cabinet.

13. October 2006 – June 2011

Member, University Strategic Planning Committee.

14. October 2006 – June 2011

Member, Positioning Committee.

15. **October 2006 – June 2011**
Member, AUB Master Planning Committee.
16. **November 2006 – March 2009**
Co-Chair, Re-accreditation Working Group # 7 (General Education and Related Educational Activities) Committee. Part of the reaccreditation team for AUB institutional accreditation by the Commission on Higher Education (CHE) of the Middle States Association of Colleges and Schools (MSACS)
17. **January 2002 – May 2003**
Member, Self-Study Task Team # 1 (Mission, Goals and Objectives) Committee. Part of the accreditation team for AUB institutional accreditation by the Commission on Higher Education (CHE) of the Middle States Association of Colleges and Schools (MSACS)
18. **October 2001 – June 2004**
Member, Financial Services Advisory Committee.
19. **October 1997 - June 2002**
Member, University Athletics Committee.
20. **July 2, 1997 – June 30, 2003**
Founder and Counselor, IEEE Student Branch at the American University of Beirut, Lebanon. Branch's web site at: <http://sites.ieee.org/sb-aub/about-ieee/branch-history/>
21. **December 1996 – October 1998**
Member of the Executive Committee, AUB Faculty Association.
22. **October 1995 - June 1997**
Member, Senate Steering Committee.
23. **April 1995 - June 1995**
Member, Liaison Faculty Athletics Committee.
24. **July 1994 - June 1997**
Member, University Senate.
25. **July 1992 - June 1993**
Member, PC Support Unit.
26. **April 1991 - June 1993**
Member of the Executive Committee and Treasurer, AUB Faculty Association.
27. **October 1990 - June 1997**
Advisor, University Students' Cine Club.
28. **October 1990 - June 1994**
Member, University Parking Committee.

29. **October 1989 - June 1992**
Member, University Senate.
30. **October 1989 - June 1990**
Member, Senate Steering Committee.
31. **October 1988 - October 1989**
Member, University Admissions Committee.

(4) Board of Trustees Committees

1. **June 1, 2017 – present**
Member of the REP Committee of the BOT

B. At Dhofar University, Salalah, Oman (2004-2006)

(1) University Committees

1. **September 1, 2004 – September 30, 2006**
Chairman of the University Council.
2. **December 20, 2004 – September 30, 2006**
Chairman of the University Research Board.

(2) Board of Trustees Committees

1. **August 17, 2004 – September 30, 2013**
Member of the Board of Trustees (BOT).
2. **August 17, 2004 – September 30, 2006**
Member of the Executive Committee of the BOT.
3. **August 17, 2004 – September 30, 2006**
Member of the Academic Affairs Committee of the BOT.
4. **August 17, 2004 – September 30, 2006**
Member of the Finance, Administrative, and Buildings Committee of the BOT.

C. While Serving as Minister of Education & Higher Education (2011-2014)

(1) Ministerial Committees

1. September 21, 2011

Ministerial Committee for defining the history subject curricula in the first three cycles (grades 1-9) of basic education (subjects, content, learning objectives, activities, and educational methods). Committee included minister of state (Fattouch) as chair, minister of state (Kanso), minister of public health, minister of social affairs, minister of state for administrative development, minister of tourism, minister of law, minister of information, minister of education and higher education, minister of culture, and minister of youth & sports

2. October 5, 2011

Ministerial Committee for the amendment of the Lebanese University faculty salary scale. Committee included minister of finance, minister of labor, minister of state for administrative development, and minister of MEHE.

3. October 5, 2011

Ministerial Committee for proposing recommendations for public wages and salaries. Committee included minister of finance, minister of economy, minister of state for administrative development, and minister of MEHE.

4. October 5, 2011

Ministerial Committee for proposing recommendations for the amendment of public sector wages and salaries. Committee included minister of finance, minister of state for administrative development, minister of labor, and minister of MEHE.

5. October 12, 2011

Ministerial Committee to study all the existing UNDP programs and projects in the various ministries and submit recommendations. Committee included minister of state for administrative development (chair), minister of labor, minister of MEHE, and other ministers that are involved in UNDP projects.

6. January 25, 2012

Ministerial Committee to study a draft law for initiating a “National Authority for counteracting steroids in sports”. Committee included minister of public health (chair), minister of MEHE, and minister of youth & sports.

7. June 27, 2012

Ministerial Committee to study draft law related to increasing the minimum wages and salaries in the public sector, the Lebanese University, municipalities, municipality union, public institutions not subject to labor law, and update public administration tenured salary scale, public authority benefits, and

granting high cost of living. Committee included prime minister (chair), minister of public health, minister of finance, ministers of state (Fnech & Kheireddine), minister of law, minister of defense, minister of economy, minister of interior, and minister of MEHE.

(2) Committees Chaired at the Ministry of Education & Higher Education

1. Higher Education Council (رئيس مجلس التعليم العالي)
2. Colloquiums Exam Committees (رئيس لجان امتحانات الكولوكيوم)
3. Committee for Granting Permission to Practice Engineering (رئيس لجنة مزاولة مهنة الهندسة)
4. Higher Consulting Council for Universities (رئيس المجلس الاستشاري الأعلى للجامعات)
5. Executive Committee for the Development of the Education Sector (الانماء التربوي- رئيس اللجنة التنفيذية لبرامج تطوير القطاع التربوي)
6. Vocational & Technical Education Strategic Planning Committee (رئيس لجنة وضع استراتيجية التعليم المهني و التقني)
7. Entrepreneurship Teaching Committee (رئيس لجنة تعليم ريادة الأعمال)
8. Converging Teaching Methods Project Committee (رئيس مشروع طرائق التدريس المتلاقية)
9. National Assessment Board (رئيس لجنة الجهاز الوطني للتقييم)

(3) Council Chaired at the Level of Arab Ministers

Lebanon chaired the 12th Conference of Arab Ministers for Higher Education & Scientific Research on “Correlation between Higher Education Outcomes and Societal needs in the Arab Region” held in Beirut. Overlapping Minister Diab’s term, Lebanon chaired the council of Arab ministers of higher education during June – December 2011. Furthermore, Minister Diab chaired the 13th Conference of Arab Ministers for Higher Education & Scientific Research in Abu Dhabi, UAE, then handed over the chairmanship to Sheikh Nahyan Al Nahyan, UAE Minister of Higher Education & Scientific Research, at the same Conference on “Development of Higher Education Management in the Arab region” held in Abu Dhabi, UAE on December 7, 2011.

D. Services to The Community and Conference Committees

Summary Table of Services on Committees Outside AUB (1994 - June 2004)

Committees		Number of Committees	During the Period	Number of Years Served	
				Average per Committee	Accumulated Total (equiv.)
Services to the Community		13	1994-2004	2.5	33
Conferences	General Chair /Program Chair/Co-Chair	5	1995-2004	2	10
	Organizing/Program	20	1994-2004	1	20
	Session Chair	6	2000-2003		
Associate Editor		1	2001-2004	4	4
Overall		39	1986-2004	1.8	67

The following sections provide the detail information shown in the table above.

(1) Services to the Community

1. April 2009 – 2011

Member of the Planning and Advisory Board, Middle East Institute of Higher Education (MEIHE), American University of Cairo, Egypt.

2. October 2007 – present

Consulting Editor, International Profiles of Accomplished Leaders, American Biographical Institute (ABI), Raleigh, North Carolina, USA.

3. March 2003 – present

Honorary Member, IBC Research Council, International Biographical Center, Cambridge, United Kingdom.

4. June 2002 – present

Consulting Editor, The Contemporary Who's Who, American Biographical Institute (ABI), Raleigh, North Carolina, USA.

5. October 2000 – present

Founding Member and Member of Executive Committee, Arab Computer Society (ACS), Lebanon, established on October 2000. (<http://www.arabcomputersociety.org/>)

6. November 1999 – present

Honorary Member, IBC Advisory Council, International Biographical Center, Cambridge, United Kingdom.

7. October 1999 – present

Honorary Member, Research Board of Advisors, American Biographical Institute (ABI), Raleigh, North Carolina, USA.

8. **October 1999 – 2011**
Member of the Advisory Board, World Association for Case Method Research & Application (WACRA), Boston, USA. (<http://www.agecon.uga.edu/~wacra/r-advbrd.htm>).
9. **December 3, 1998 – 2011**
Member, Commission of Telecommunications and Information Technology, International Chamber of Commerce (ICC), Beirut, Lebanon.
10. **August 12, 2003 – August 2004**
Member, LBN-WSIS Committee (Lebanese Committee for the World Summit on the Information Society) chaired by Minister Jean-Louis Cordahi, Ministry of Post and Telecommunications, Lebanon. Also, a member of one of the task groups, namely TG1: Action Plan, of this committee.
11. **October 2003 – June 2004**
Chairman, Parent's Committee, City International School (CiS), Beirut, Lebanon.
12. **January 2000 – September 2001**
Member, Scientific Committee, Friends of Ibrahim Abdel Al Association, Beirut, Lebanon.
13. **February 26 – March 10, 1998**
Member of the Examining Committee for interviewing engineers applying for the Electricite Du Liban (EDL), Civil Service Board, Beirut, Lebanon.
14. **November – December 1997**
Member of the Examining Committee for interviewing engineers applying for engineering positions in the public sector, Civil Service Board, Beirut, Lebanon.
15. **March – April 1997**
Member of the Examining Committee for interviewing engineers applying for engineering positions in the public sector, Civil Service Board, Beirut, Lebanon.
16. **July 11, 1994 – October 1997**
Member of the Executive Committee, The Lebanese Association for the Advancement of Science, Beirut, Lebanon.

(2) Conference Committees

General Chair, Co-Chair, Vice-Chair, Program Chair

1. **Chair**, Track on Vocational and Tertiary Education, held at the Microsoft in Education Global Forum, Grand Hyatt, Dubai, UAE, February 23, 2015.
2. **Co-Chair**, Program Committee, *ACS/IEEE International Conference on Pervasive Services (ICPS'2004)*, American University of Beirut, Beirut, Lebanon, July 19-23, 2004.

3. **Vice-Chair**, Program Committee, *ACS/IEEE International Conference on Computer Systems and Applications*, Tunisia, July 14-18, 2003.
4. **Exhibits Chair**, Organizing Committee, *7th IEEE International Conference on Electronics, Circuits and Systems (ICECS'2K)*, Jounieh, Lebanon, December 17-20, 2000.
5. **General Chair**, *The Second LAAS International Conference on Computer Simulation*, (ICCS'97), held at the Faculty of Engineering and Architecture, AUB, September 1-4, 1997. This conference attracted 77 participants including 6 keynote speakers.
6. **General Chair**, *The First LAAS International Conference on Computer Simulation*, (ICCS'95), held at the Faculty of Engineering and Architecture, AUB, September 1-4, 1995. This conference attracted 68 participants including 4 keynote speakers. This refereed conference on computer simulation was the first of its kind in Lebanon and the region, which provided participants with the opportunity to meet with their peers. The conference provided an international forum for acquiring and sharing unpublished papers on state-of-the-art methods and techniques of solution using computer simulation.

Organizing Committees, Program Committees, and Others

7. **Member**, Technical Program Committee, *The 2011 International Conference on the Current Trends in Information Technology (CTIT'11)*, Dubai, UAE, October 26-27, 2011. <http://www.ctit.ae/>
8. **Member**, International Program Committee, *The 1st International Conference on Simulation and Modeling Methodologies, Technologies and Applications (SIMULTECH 2011)*, Noordwijkerhout, The Netherlands, July, 29-31 2011. <http://www.simultech.org>
9. **Member**, *The 2009 International Conference on the Current Trends in Information Technology (CTIT09)*, Dubai, UAE, December 15-16, 2009. <http://www.ctit.ae/>
10. **Member**, Program Committee, *Second International Symposium on Innovation in Information and Communication Technology (ISIICT 2009)*, Philadelphia Univ, Amman, Jordan, Dec. 15-17, 2009 <http://www.philadelphia.edu.jo/isiict2009/>
11. **Member**, International Technical Program Committee, *International Conference on Convergence and Hybrid Information Technology (ICHIT 2008)*, Daejeon, South Korea, August 28-29, 2008. www.ichit2008.org
12. **Member**, International Technical Program Committee, *2008 High Performance Computing & Simulation Conference (HPCS 2008)*, held in conjunction with the 22nd European Conference on Modeling and Simulation (ECMS'08), Nicosia, Cyprus, June 3-6, 2008. <http://cisedu.us/cis/hpcs/08/index.html>

13. **Member**, Program Committee, *2008 International Conference on Computational Science and Applications (ICCSA 2008)*, Perugia, Italy, June 30 - July 3, 2008. <http://www.iccsa.org>
14. **Member**, Program Committee, *2007 International Conference on Computational Science and Applications (ICCSAC 2007)*, Kuala Lumpur, Malaysia, August 26 - 30, 2007. <http://www.iccsa.org>
15. **Member**, Technical Program Committee, *2006 International Conference on Hybrid Information Technology (ICHIT06)*, South Korea, November 9-11, 2007. www.ichit2007.org
16. **Member**, Program Committee, *International Conference on Computational Science 2006: "Advancing Science through Computation" (ICCS 2006)*, University of Reading, UK, May 28-31, 2006. <https://www.iccs-meeting.org/iccs2006/index.html>
17. **Member**, Program Committee, *2006 International Conference on Hybrid Information Technology (ICHIT'06)*, Cheju Island, Korea, November 9-11, 2006. <http://www.serg.or.kr/index.html>
18. **Member**, International Technical Program Committee, *International Conference on Computational Science and its Applications (ICCSA 2006)*, Glasgow, UK, May 8-11, 2006.
19. **Member**, Steering Committee, *IEEE International Conference on Pervasive Services (ICPS'2005)*, Santorini, Greece, July 11-14, 2005. <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1506374>
20. **Member**, International Technical Program Committee, *2005 High Performance Computing & Simulation (HPC&S 2005) Conference*, Riga, Latvia, June 1-4, 2005.
21. **Member**, Program Committee, *Workshop on Protection by Adaptation (PBA'05)*, held in conjunction with the 7th International Conference on Enterprise Information Systems (ICEIS'2005), Miami, USA, 24-28 May 2005. <http://www.iceis.org/ICEIS2005/workshops/pba/pba2005-cfp.html>
22. **Member**, Program Committee, *International Conference on Computational Science 2005: "Advancing Science through Computation" (ICCS 2005)*, Atlanta, USA, May 22-25, 2005.
23. **Member**, International Technical Program Committee, *International Conference on Computational Science and its Applications (ICCSA 2005)*, Singapore, May 9-12, 2005, www.iccs-meeting.org/iccs2005/

24. **Member**, Technical Program Committee, *2004 International Symposium on Performance Evaluation of Computer and Telecommunication Systems (SPECTS 2004)*, San Jose, California, USA, July 25-29, 2004.
25. **Member**, Steering Committee, *ACS/IEEE International Conference on Pervasive Services (ICPS'2004)*, American University of Beirut, Beirut, Lebanon, July 19-23, 2004.
26. **Member**, International Program Committee, *The IASTED International Conference on Applied Simulation and Modelling (ASM 2004)*, Rhodes, Greece, June 28-30, 2004
27. **Member**, Program Committee, *2004 International Conference on Embedded Systems and Applications (ESA'04)*, Las Vegas, Nevada, USA, June 21-24, 2004.
28. **Member**, International Program Committee, *2004 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'04)*, Las Vegas, USA, June 21-24, 2004.
29. **Member**, International Technical Program Committee, *2004 High Performance Computing & Simulation (HPC&S 2004) Conference*, Magdeburg, Germany, June 13 - 16, 2004.
30. **Member**, Program Committee, *International Conference on Computational Science 2004 (ICCS 2004)*, Krakow, Poland, June 6-9, 2004.
31. **Member**, Program Committee, *Second International Symposium on Innovation in Information and Communication Technology (ISIICT 2004)*, Philadelphia Univ., Amman, Jordan, April 21-22, 2004.
32. **Member**, International Technical Committee, *2003 High Performance & Large Scale Computing Conference (HP&LSC 2003)*, Nottingham, UK, June 9-11, 2003.
33. **Member**, Organizing Committee, *International Conference on Computational Science (ICCS 2003)*, Melbourne (Australia) and St. Petersburg (Russian Federation), June 2-4, 2003.
34. **Member**, Technical Program Committee, *2003 International Symposium on Performance Evaluation of Computer and Telecommunication Systems (SPECTS 2003)*, Montreal, Canada, July 20-24, 2003.
35. **Member**, International Technical Program Committee, *2003 High Performance & Large Scale Computing (HP&LSC'03) Conference, in conjunction with the 17th European Simulation Multiconference (ESM 2003)*, Nottingham, UK, June 9-11, 2003.

36. **Member**, Scientific Committee, *Arab Symposium for Communications, 23rd Arab Engineering Conference, (Development and Integrity of the Communications and Information Technology Networks in The Arab Region)*, Order of Engineers, Beirut, Lebanon, October 30-31, 2002.
37. **Member**, International Program Committee, *15th International Conference on Parallel and Distributed Computing Systems (PDCS 2002)*, Louisville, Kentucky, USA, September 19-21, 2002.
38. **Member**, International Program Committee, *The 2002 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'02)*, Las Vegas, USA, June 24-27, 2002.
39. **Member**, Organizing Committee, *The ACS International Conference on Computer Systems and Applications (AICCSA)*, Beirut, Lebanon, June 26-29, 2001. <http://www.lau.edu.lb/news-events/conferences/aiccsa2001/confcom.html>
40. **Member**, Technical Committee, *2000 SCS Symposium on Performance Evaluation of Computer and Telecommunication Systems (SPECTS'2000)*, Vancouver, BC, Canada, July 16-20, 2000.
41. **Member**, International Program Committee, *The 2000 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'2000)*, Monte Carlo Resort, LA, June 26-29, 2000
42. **Member**, Scientific Committee, *The 13th Science Meeting*, organized by The National Council for Scientific Research and The Lebanese Association for the Advancement of Science (LAAS), held at AUB, November 2-4, 1999.
43. **Member**, Program Committee, *MICCT'99: First Mediterranean International Conference on Computer Technology*, Tizi-Ouzou, Algeria, May 3-5, 1999.
44. **Member**, Organizing Committee, *The 12th Science Meeting*, organized by The Lebanese Association for the Advancement of Science (LAAS), held at AUB, May 4-6, 1994.

(3) Other Conference Activities

1. **Session Chair**: *IEEE International Conference on Pervasive Services (ICPS'2004)*. Keynote III Session: Reconfigurable Supercomputing. American University of Beirut, Beirut, Lebanon, July 19-23, 2004.
2. **Session Chair**: *International Conference on Applied Simulation and Modelling (ASM 2004)*. Session 3: Manufacturing I. Rhodes, Greece, June 28, 2004.
3. **Session Chair**: *IEEE International Conference on Computer Systems and Applications (AICCSA'2003)*. Session: Architecture (1). Tunisia, July 15, 2003.

4. **Session Chair:** *The Third Yearly Economic Forum: Financial Integration and Economic Volatility*. Session: How Technology Will Transform Arab Banking Over The Next 5 Years: Integration Problems. Organized by Data & Investment Consult, held at Crown Plaza Hotel, Beirut, Lebanon, February 27, 2003.
5. **Session Chair:** *ACS International Conference on Computer Systems and Applications (AICCSA'2001)*. Session: Analysis of Distributed Systems. Lebanese American University, Beirut, Lebanon, June 27, 2001.
6. **Session Chair:** *On The Use of Information Technology in Higher Education In Arab Countries Conference*. Session: Technology in Literary Studies and Design Arts. Notre Dame University, Louaize, Lebanon, March 13, 2001.
7. **Session Chair:** *2000 Symposium on Performance Evaluation of Computer and Telecommunication Systems (SPECTS 2000)*. Session 5: Routing II. Coast Plaza Hotel, Vancouver, Canada, July 16-20, 2000.
8. **Session Chair:** *7th IEEE International Conference on Electronics, Circuits and Systems (ICECS'2K)*. Session: Adaptive Signal Processing. Jounieh, Lebanon, December 18, 2000.

(4) Journal Editorial Board

1. **Member of the Advisory/Editorial Board**, *International Journal of Hybrid Information Technology*, ISSN: 1738-9968, Science & Engineering Research Support Center (June 2007 – present). <http://www.sersc.org/journals/IJHIT/>
2. **Member of the Editorial and Scientific Committee**, *Lebanese Scientific Journal*, National Council for Scientific Research, Lebanon (March 2007 – present).
3. **Member of the Technical Committee**, *The International Arab Journal of Information Technology (IAJIT)*, Jordan (July 2004 – present). One of the Most Active Reviewers of IAJIT during 2008. IAJIT is indexed in Elsevier's A&I database SCOPUS.
4. **Associate Editor**, *Journal of Defense Modeling and Simulation*, (July 2008 – March 2010).
5. **Associate Editor, SIMULATION: Transactions of the Society for Modeling and Simulation International**, USA (July 2001 – September 2005).

VIII.

PROFESSIONAL ACTIVITIES

The following include the academic keynote addresses, presentations and other professional activities, in addition to over 200 keynote speeches¹ and interviews provided during my term as minister of Education and Higher Education over the period June 2011 – 2013.

A. Invited Keynote Addresses

1. December 5, 2017

Keynote address entitled *“Promotion of Innovation and Technology in Higher Education in the MENA Region: Past, Present, and Future”* at the Expert Group Meeting (EGM) on Innovation and Technology for achieving the 2030 Development Agenda, ESCWA, Beirut, December 5 - 7, 2017.

2. October 9, 2017

Keynote address entitled *“The Culture of Scientific Research from an Academic Perspective”* at the International Conference on Scientific Research and Sustainable Development (ICSRSD17), held at the Quality Inn Hotel, Tripoli, Lebanon, October 9-11, 2017.

3. December 16, 2016

Keynote address entitled *“Promoting human rights through education”* at the *Annual Conference on Cultural Diplomacy*, organized by the Institute of Cultural Diplomacy (ICD), held during December 15-18, 2016 at Berlin, Germany.

4. November 26, 2016

Invited speaker at the *National Education Forum in the occasion of 15 years since the initiation of the “Student Exchange Project between Lebanese Schools,”* Notre Dam School, Zouk Mosbeh, Lebanon.

5. October 24, 2016

Invited speaker in the opening *Ministers panel at the 18th Global Women in Leadership Economic Forum*, organized by naseba, held during October 24-25, 2016 at the Ritz DIFC, Dubai, UAE.

6. July 27, 2016

Keynote address entitled *“Graduating Global Citizens Open to Intercultural Dialogue”* at the *International Symposium on Cultural Diplomacy in the Arab*

¹ Refer to published book: “Documentary of the Speeches by the Minister of Education and Higher Education 2011-2013” in publications list (section XIII). Book can be download from the following:
<https://www.dropbox.com/s/5v6uy5ihb1q2n2i/Book1-Full.pdf?dl=0>

World “*The Political, Economic and Cultural Dimensions*” organized by the Institute of Cultural Diplomacy (ICD), held during July 28-30, 2016 at Berlin, Germany.

7. June 3, 2016

Keynote address at the *3rd Graduation Ceremony for vocational and technical education graduates* from the Azm Institute held at Azm Education Center, Tripoli, Lebanon.

8. November 11, 2015

Keynote address on “*The role of MENA region universities in creating leaders: Liberal Arts Higher Education Model*” at the MENA HELF Conference held during November 9-11, 2015 at Abu Dhabi, UAE

9. June 16, 2015

Keynote address at the *15th Graduation Ceremony* held at The National Evangelical School, Nabatieh, Lebanon.

10. May 24, 2015

Keynote address on “*Regional Perspectives on the Future of Higher Education: The Future of Higher Education in the Middle East,*” at the International Association of University Presidents (IAUP) Semi-Annual Meeting & 50th Anniversary Conference, “Higher Education in 2065,” Oxford & Wroxton, United Kingdom.

11. May 7, 2015

Keynote address on “*AUB’s Regional External Programs*” at the Annual Gala Dinner organized by the WAAAUB Abu Dhabi Chapter, St. Regis Hotel, Abu Dhabi, UAE.

12. April 21, 2015

Keynote address on “*ICT Innovation for Education*” at the Higher Education Academic Conference organized by the Ministry of Education & Higher Education at Phoenicia Hotel, Beirut, Lebanon.

13. April 16, 2015

Keynote address entitled “*International Case Studies of Cultural Diplomacy*” at the Institute of Cultural Diplomacy (ICD), Berlin, Germany.

14. April 16, 2015

Keynote address entitled “*Cultural Diplomacy in Lebanon and the Middle East: The Importance of Interreligious and Intercultural Education*” at the Institute of Cultural Diplomacy (ICD), Berlin, Germany.

15. February 23, 2015

Keynote address at the *Microsoft in Education Global Forum: Vocational and Tertiary Education*, organized by Microsoft, held at Grand Hyatt, Dubai, UAE.

16. **March 5, 2014**

Keynote address entitled “*Education as a Tool to Address Regional Challenges, Case study: Lebanon*” at the Second Sulaimani Forum: Navigating Challenges in the Middle East, organized by the Institute of Regional & International Studies (IRIS), American University of Iraq – Sulaimani (AUIS), (Panel Chaired by Minister of Foreign Affairs, Hoshyar Zebari), held at AUIS, Sulaimanyya, Iraq.

17. **December 1, 2013**

Keynote address at the *Arab Entrepreneurial Network in Education Conference: Entrepreneurial Initiatives in Education*, organized by GIZ, held at Amman, Jordan.

18. **November 18, 2013**

Keynote address at *King Abdullah Bin Abdulaziz International Center for Interreligious and Intercultural Dialogue (KAICIID) Global Forum “The Image of the Other”*: Interreligious and Intercultural Education, held at Vienna, Austria.

19. **November 7, 2013**

Keynote address at the *Arab Summit for Educational Development on “Arab language in Lebanon”*, organized by the Arab Thought Foundation, held at InterContinental Hotel, Amman, Jordan

20. **June 9, 2013**

Keynote address at the *140th Graduation Ceremony* held at Brummana High School (BHS), Brummana, Lebanon.

21. **January 29, 2013**

Keynote speech at the *Education World Forum (EWF) 2013* themed “*Policy Making for Quantity, Quality and Impact*” held during January 28-31, 2013 at the Central Hall Westminster, London, UK. EWF is the largest gathering of education ministers in the world.

22. **December 16, 2012**

Keynote speech at the *ICD Annual International Conference on Cultural Diplomacy 2012* themed “*The Power of Art & Culture to Promote Democracy & Global Peace*,” held during Dec. 13-16, 2012 at the Institute for Cultural Diplomacy, Berlin, Germany. <http://www.youtube.com/watch?v=Qeq9vmDgSsM> <http://www.culturaldiplomacy.org/academy/index.php?Education-Cultural-Diplomacy>

23. **October 28, 2011**

Keynote speech at the *16th annual international conference of the Arab-US Association of Communication Educators (AUSACE)*, themed “*Digital and Media Literacy: New Directions*,” held during Oct 28-31, 2011 at the American University of Beirut, Lebanon.

24. **November 30, 2007**
Keynote address at the *first Founder's Day* held at Brummana High School (BHS), Brummana, Lebanon.
25. **December 12, 2005**
Keynote address at the *Scientific Symposium on Development & Environment* entitled "The role of private universities in advancing eco-technology for development & the environment," held at the College of Education, Ministry of Higher Education, Salalah, Sultanate of Oman.
26. **July 8, 2005**
Keynote address in the *CiS Graduation Ceremony* held at City International School, Beirut, Lebanon.
27. **June 27, 2005**
Keynote address in the *Dhofar University Workshop* entitled "Vision for the future: Towards a constructive partnership between the university and its local community," in cooperation with the Chamber of Commerce & Industry held at Salalah, Sultanate of Oman.
28. **June 21, 2001**
"Future of Information Technology," in the *Carrier Oriented Curriculum in IT and Telecom Conference* organized by the IT and Telecom Commission of the International Chamber of Commerce (ICC), held at ICC, Beirut, Lebanon.

B. Invited Visits, Presentations and Seminars

1. **September 15, 2018**
A panelist in the panel entitled "*Academic Innovation: Stakeholders, Impediments, and Opportunities*" at the "*Higher Education for the Age of Transformation*" Workshop, organized by Professors Without Borders in association with Gulf Futures Center, held during September 15-16, 2018 at the London School of Economics & Political Science, London, UK.
2. **November 30, 2017**
Presentation, as part of a panel, on "*The Role of Universities in Designing the Future*" at the 8th Bosphorus Summit, which was on "Design of the Future: The New Challenge of Globalization" held during 27-30 November 2017 in Istanbul, organized by the International Cooperation Platform.
3. **October 24, 2017**
A panelist in the 19th Global Women in Leadership Economic Forum, held during October 2017 at the Ritz DIFC, Dubai, UAE.
4. **October 12, 2017**
Presentation to the University for Seniors (UfS) entitled "*Technocrat Minister of Education: Challenges and Achievements*" held at Bathish auditorium, West Hall, AUB.

5. **April 26, 2017**
A panelist in the session entitled “*Transforming Education, Transforming Lives*” held at the IHEF 2017 – International Higher Education Fair, held at Manpho Convention Center, Bengaluru, Karnataka, India.
6. **April 22, 2017**
A panelist in the session entitled “*Future of Learning: Sharing Knowledge and Innovation*” held at the IHEF 2017 – International Higher Education Fair, held at Hitex Exhibition Center, Hyderabad, Telangana, India.
7. **April 22, 2017**
A panelist in the session entitled “*Transforming Education, Transforming Lives*” held at the IHEF 2017 – International Higher Education Fair, held at Hitex Exhibition Center, Hyderabad, Telangana, India.
8. **March 2, 2017**
Event Rapporteur, *UNESCO Regional Meeting on Quality Assurance in Higher Education in the Arab States*, held at Gulf Hotel, Kingdom of Bahrain.
9. **December 18, 2016**
A panelist in the session entitled “*Promoting global human rights through cultural diplomacy*” held at the Annual Conference on Cultural Diplomacy 2016, organized by the Institute of Cultural Diplomacy (ICD), held at Berlin, Germany.
10. **December 16, 2016**
A panelist in the session entitled “*Hard but fair: Global human rights & sustainability or another conflict – It is now all in the hands of the USA, Europe, Russia and China*” held at the Annual Conference on Cultural Diplomacy 2016, organized by the Institute of Cultural Diplomacy (ICD), held at Berlin, Germany.
11. **July 29, 2016**
A panelist in the session entitled “*Empowering women, empowering cultures*” held at the International Symposium on Cultural Diplomacy in the Arab World: The Political, Economic and Cultural Dimensions, organized by the Institute of Cultural Diplomacy (ICD), held at Berlin, Germany.
12. **July 28, 2016**
A panelist in the session entitled “*Developing Economic Cooperation between Germany and the Arab World*” held at the International Symposium on Cultural Diplomacy in the Arab World: The Political, Economic and Cultural Dimensions, organized by the ICD, held at Berlin, Germany.
13. **July 28, 2016**
A panelist in the session entitled “*Developing a Culture of Peace through Parliaments and the Educational Systems*” held at the International Symposium on Cultural Diplomacy in the Arab World: The Political, Economic and Cultural Dimensions, organized by the ICD, held at Berlin, Germany.

14. July 26, 2016

A panelist in the session entitled “*Best Practices of Cultural Diplomacy in the Arab World*” held at the International Symposium on Cultural Diplomacy in the Arab World: The Political, Economic and Cultural Dimensions, organized by the ICD, held at Berlin, Germany.

15. April 21, 2015

Panel Chair of the “*ICT Innovation for Education*” Session in the Higher Education Academic Conference held on April 21-22, 2015 & organized by the Ministry of Education & Higher Education at Phoenicia Hotel, Beirut, Lebanon.

16. February 23, 2015

A panelist in the session entitled “*Challenges to System-wide Change*” held at the Keynote address at the Microsoft in Education Global Forum, organized by Microsoft, held at Grand Hyatt, Dubai, UAE.

17. September 15, 2011

A panelist in the session entitled “*What Does the Unrest in the Arab World Mean for Higher Education?*” European Association for International Education (EAIA), 23rd Annual EAIA Conference, September 13–16, Copenhagen, Denmark.

18. December 17, 2009

“Presentation of Vice President Hassan Diab on behalf of AUB President Dorman at the *International Symposium on Science and Higher Education in the Middle East*,” Yeditepe University, Istanbul, Turkey.

19. April 27, 2009:

A presentation entitled “*Regional perspectives and priorities for research agenda, strategies for capacity building, and initiatives for technical assistance*,” at the Middle East Institute of Higher Education (MEIHE) Advisory Council held during April 27-29, 2009 at the American University of Cairo, Cairo, Egypt.

20. April 24, 2008

“Speech of Vice President Hassan Diab on behalf of President Waterbury at the *AUB Omani Alumni Chapter Gala Dinner*,” Muscat, Sultanate of Oman

21. October 20-25, 2007

“The Second Biennial Festival of Thinkers,” and the mobile Nobel Museum’s traveling exhibition ‘*Cultures of Creativity*’ in Abu Dhabi, U.A.E. Invited as one of 90 *World Thinkers* as well as 20 NOBEL Prize Laureates.

- a) *Moderator*, Theme 1: “Future Challenges – Protecting the Environment,” October 22, 2007.
- b) *Chair*, Theme 2: “Future of the World: Water and Energy and Sustainable Development,” October 22, 2007.
- c) *Panelist with four Nobel Laureates*, Theme 9: “Preparing Creative and Responsible Citizens: Role of Educators,” October 24, 2007.

22. **November 13, 2003**
“R&D Potentials in ICT: Case of Lebanon,” within the Session entitled: “The Future Financing of RTDI” at the *4th eForsee International Conference: “The Role of Foresight in Implementing the EU Wider Neighbourhood Policy, and in the Structuring of a Euro-Mediterranean Research and Innovation Area”*, organized by the European Commission, November 13-14, 2003, Malta.
23. **June 9, 2003**
“*ICT Capacity Building for Public Schools in South Lebanon*,” EASL (ESCWA Assistance for South Lebanon): A Pilot Project for Post-Conflict Reconstruction, 9 June 2003, UN House, Beirut, Lebanon.
24. **February 5, 2003**
“Standardization Related To Arabic Language Use In ICT,” Western Asia Preparatory Conference for the World Summit on the Information Society (WSIS), 4 - 6 February 2003, UN House, Beirut, Lebanon
25. **October 29, 2002**
“*Harmonization of ICT Standards Related To Arabic Language Use in Information Society Applications*,” Information and Communications Technologies Division (ICTD), Economic and Social Commission for Western Asia (ESCWA), Beirut, Lebanon.
26. **April 23, 1993**
“*Interactive Computer Graphics*,” Architecture Department, Faculty of Engineering and Architecture, American University of Beirut, Lebanon.
27. **December 22, 1992**
“*Multimedia in Education*,” Beirut University College (BUC), Beirut, Lebanon, presented by N. Sabah, **H. Diab**, and W. Ali-Ahmad.
28. **October 22, 1991**
“*Simulation of Parallel Processing Architecture Systems*,” Department of Computer Science and Computer Engineering, University of New South Wales, Sydney, Australia.
29. **October 18, 1991**
“*Computer-Assisted Learning in Multimedia Techniques*,” Center for Educational Development and Academic Methods (CEDAM), Australian National University (ANU), Canberra, Australia.
30. **April 3, 1991**
“*Computer and Communications Engineering: Admission Requirements into the B.E. Program at AUB, and Future Prospects*,” Career Guidance Center, O.P.D., American University of Beirut, Lebanon.

31. September 12, 1988

“Parallel Computer Graphics Simulation of the Lebanese Electrical Power System,” Electrical and Computer Engineering Department, University of Illinois at Urbana-Champaign, U.S.A.

32. September 6, 1988

“A Screen Processor for Image Compression,” Electrical and Computer Engineering Department, University of Illinois at Urbana-Champaign, U.S.A.

C. Invited Media Interviews (TV, Radio, etc.)

In addition to the list below, during my term as Minister of Education and Higher Education (2011-13), I was invited to many media interviews, some of which are reported in the following book I published: *Documentary of Events during Minister Hassan Diab’s Term at the Ministry of Education & Higher Education*, Typopress, Beirut, Lebanon, May 2013. <https://www.dropbox.com/s/5v6uy5ihb1q2n2i/Book1-Full.pdf?dl=0>

1. November 2, 2016

Interview with Christine Ma’alouf in the “النور معنا” (translated: The light is with us) program on Noursat TV (www.noursat.tv) to discuss: “The outlook beyond the presidential election”, Beirut, Lebanon. Link: <https://www.dropbox.com/s/lknmgr11jk6d3db/Interview%20with%20Christine%20Maalouf%20on%20Noursat%20TV%202-11-2016.m4v?dl=0>

2. July 29, 2016

Interview with the Institute for Cultural Diplomacy at the International Symposium on Cultural Diplomacy in the Arab World “The Political, Economic and Cultural Dimensions” held in Berlin, Germany.

3. December 16, 2012

Interview with the Institute for Cultural Diplomacy on “Entrepreneurship and the technology industry in the Middle East” in Berlin, Germany. http://www.youtube.com/watch?v=zg7JB_Kr9LQ

4. September 7, 2012

Interview at the «نقطة عالسطر» (translated: period or full stop) program on Radio Voice of Lebanon, Beirut, Lebanon.

5. May 11, 2012

Interview with Wardeh at the *Salon al-Sabt* (translated: Saturday Lounge) program on Radio Orient, Beirut, Lebanon.

Part 1: <https://www.dropbox.com/s/eq4yjn837sh88ak/Wardeh%20with%20Diab%201.aiff?dl=0>

Part 2: <https://www.dropbox.com/s/mgco4v1923bc4iu/Wardeh%20with%20Diab%202.aiff?dl=0>

6. **April 4, 2012**
Television Interview with CNN regarding the official program pertaining to the unified history book in the Lebanese schools curricula.
7. **March 28, 2012**
Interview al-Afkar magazine regarding the progress of work at the Ministry of Education & Higher Education. <http://www.alafkar.net/details.php?type=local&id=402>
8. **December 17, 2009**
Television Interview pertaining to the opening of the “International Symposium on Science and Higher Education in the Middle East” at Yeditepe University, Istanbul on TRT1 (National Turkish Television) channel, Turkey.
9. **December 7, 2009**
Interview with L’Economiste newspaper in Casablanca on Higher Education in Morocco. Article printed on 28 December 2009.
10. **December 7, 2009**
Interview with Al-sabah magazine in Casablanca on Higher Education in Morocco. Article printed on 20 January 2010.
11. **December 7, 2009**
Television Interview on Atlantic Radio, Casablanca on Higher Education in Morocco.
12. **November 15, 2009**
Television Interview (*Good Morning KSA*) in a program entitled “Professional and health sector services in the region” on KSA2 channel, Saudi Arabia.
13. **June 13, 2005**
Television Interview (together with another three university presidents) in a program entitled “The role of institutions of higher learning in scientific research and community service” on Omani TV, Oman.
14. **August 24, 2004**
Television Interview in the *Alnass Wal-Khareef* (translated: People and Autumn) program on Omani TV, Oman. The program introduced Dhofar University as well as the application procedure, admission requirements and entrance exams.
15. **September 5, 2004**
Radio Interview in the *Masa’ Al-Khair* (translated: Good Evening) program on Omani Radio, Oman. The program introduced Dhofar University and discussed the registration system, orientation program, specializations offered, and entrance exams for new students.
16. **September 7, 2004**
Television Interview in the *Qahwet Al-Sabah* (translated: Morning Coffee) program on Omani TV, Oman. The program introduced the various programs and Colleges at Dhofar University as well as the graduation requirements.

17. September 25, 2004

An article in the Al Shabiba (Omani) newspaper entitled: “Dr. Hassan Diab: The University will represent a significant event in the Omani academic map.”

18. February 20, 2001

Television Interview for the *Chababez* program on LBCI (Lebanese Broadcasting Company International) TV, Beirut, Lebanon. The program addressed electrical engineering and computer engineering education: undergraduate and graduate programs, research opportunities, etc.

19. April 2000

Television Interview for the *Open University* program on NBN (National Broadcasting Network) TV, Beirut, Lebanon. The program addressed employment opportunities for electrical and computer engineering graduates.

D. Continuing Education & Improvement Activities

1. Attended the Education Leaders sessions at the Microsoft in Education Global Forum, held in Barcelona, Spain during March 11-14, 2014.
2. Received an invitation from Microsoft Research, Cambridge, UK to attend the “Microsoft Research .NET Regional Crash Course”, held in Dubai, UAE during June 21-23, 2003.
3. The first Middle East/North Africa Summer School (MENASS) in Computing on: Parallel, Distributed, Mobile & Internet Computing Theory, Methods, Applications and Research Directions, held at The Centre for Advanced Mathematical Sciences (CAMS), AUB, 8-19 July, 2002.
4. Workshop on “Service Excellence,” American University of Beirut, April 10, 2001.
5. Workshop on “Meeting the Energy Challenge of Lebanon” organized by ERG, FEA, AUB, held at Jefinor Rotana Hotel, Beirut on May 30, 2001.
6. Workshop on “Inventing Technology” by HP, organized by CIS, held at Phoenicia Hotel on June 20, 2000.
7. Workshop on Enhancing Teacher Effectiveness, presented by Associate Provost Y. Bhada, Georgia State University, June 6, 2000, American University of Beirut.
8. Seminar on High Performance Computer Network, September 14-18, 1999, Faculty of Engineering, Saint-Joseph University.
9. Attended the 1999 Spring Seminar by Ericsson entitled “Ericsson Data and IP Solutions” on June 12, 1999 at the Marriott Hotel. The seminar addressed state-of-the-art solutions for access to end-users and for the backbone network.

10. Adaptive Networking for the Enterprise, by Bay Networks and Computer Information Systems (CIS) s.a.l., Marriott Hotel, 30 April 1998.
11. Workshop on Creating HTML-Based Internet Course Materials for Science Education using the Course Management System WebCT, Collaboratively Organized by UNESCO Cairo Office and The Lebanese University, Lebanese University, Fanar, Beirut, 27-30 May 1998.

E. Refereeing and External Review

Over a 30-year period (1986-2016), I have refereed over 350 papers for the following 16 journals and over 40 international conferences. I have also acted as an external referee (assessor) for many promotion applications to the ranks of Associate Professor and Professor as well as the reviewer for research proposals submitted to research organizations such as the Lebanese National Council for Scientific Research and the Franco-Lebanese Cooperative Program for the Evaluation and Development of Research. I am also an external reviewer for the Oman Accreditation Council.

Journals

1. *IEEE Transactions on Systems, Man, and Cybernetics, USA.*
2. *IEEE Transactions on Fuzzy Systems, USA.*
3. *IEEE Transactions on Computers, USA.*
4. *IEEE Transactions on Parallel and Distributed Systems, USA.*
5. *IEEE Transactions on Education, USA.*
6. *International Journal of Hybrid Information Technology*
7. *Transactions on Simulation, USA.*
8. *International Journal of Modelling and Simulation, U.S.A.*
9. *Journal of Applied Meteorology and Climatology, U.S.A.*
10. *Advances in Engineering Software, UK.*
11. *International Journal of Parallel and Distributed Systems and Networks, ACTA Press, Canada.*
12. *Journal of Parallel and Distributed Computing, Elsevier Science, Academic Press, USA. (<http://www.elsevier.com/locate/yjpdcc>).*
13. *Lebanese Science Journal, National Council for Scientific Research, Lebanon.*
14. *International Journal of Computers and Applications, ACTA Press, Canada.*

15. *The International Arab Journal of Information Technology (IAJIT)*, Jordan
16. *International Journal of Hybrid Information Technology (IJHIT)*, Science & Engineering Research Support Society, Korea.

Conferences

17. *The 2016 IEEE 59th International Midwest Symposium on Circuits and Systems (MWSCAS)*, 16-19 October 2016, Hotel Fairmont Bab Al Bahr, Abu Dhabi, United Arab Emirates.
18. *The 2009 International Conference on the Current Trends in Information Technology (CTIT09)*, December 15-16, 2009, Dubai, UAE.
19. *2008 High Performance Computing & Simulation Conference (HPCS 2008)*, held in conjunction with the *22nd European Conference on Modeling and Simulation (ECMS'08)*, Nicosia, Cyprus, June 3-6, 2008.
20. *The 2007 International Conference on Computational Science and Its Applications ICCSA 2007*, Kuala Lumpur, Malaysia, August 26-29, 2007.
21. *Parallel and Distributed Computing (PDC 2006)*, a workshop of *ICCSA 2006 (The 2006 International Conference on Computational Science and its Applications)*, Glasgow, Scotland, UK, May 8-11, 2006.
22. *2006 IEEE International Symposium on Circuits and Systems (ISCAS 2006)*, Island of Kos, Greece, May 21-24, 2006.
23. *20th International Conference on Computers and Their Applications (ISCA2005)*, New Orleans, Louisiana, March 16-18, 2005.
24. *2005 High Performance Computing & Simulation (HPC&S 2005) Conference*, Riga, Latvia, June 1 - 4, 2005.
25. *International Conference on Computational Science 2005: "Advancing Science through Computation" (ICCS 2005)*, Atlanta, USA, May 22-25, 2005.
26. *3rd FEA Student Conference (FEASC 2004)*, Faculty of Engineering & Architecture, American University of Beirut, Lebanon, May 27-28, 2004.
27. *2004 International Symposium on Performance Evaluation of Computer and Telecommunication Systems (SPECTS 2004)*, San Jose, California, USA, July 25-29, 2004.
28. *The IASTED International Conference on Applied Simulation and Modelling (ASM 2004)*, Rhodes, Greece, June 28-30, 2004.
29. *2004 International Conference on Embedded Systems and Applications (ESA'04)*, Las Vegas, Nevada, USA, June 21-24, 2004.

30. *2004 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'04)*, Las Vegas, USA, June 21-24, 2004.
31. *2004 High Performance Computing & Simulation (HPC&S 2004) Conference*, Magdeburg, Germany, June 13 - 16, 2004.
32. *International Symposium on Performance Evaluation of Computer and Telecommunication Systems (SPECTS'2004)*, San Jose, California, USA, July 25-29, 2004.
33. *ACS/IEEE International Conference on Pervasive Services (ICPS'2004)*, Beirut, Lebanon, July 19-23, 2004.
34. *International Conference on Computational Science 2004 (ICCS 2004)*, Krakow, Poland, June 6-9, 2004.
35. *2nd International Symposium on Innovation in Information and Communication Technology (ISIICT 2004)*, Philadelphia Univ., Amman, Jordan, April 21-22, 2004.
36. *10th IEEE International Conference on Electronics, Circuits and Systems (ICECS 2003)*, Sharjah, United Arab Emirates, December 14-17, 2003.
37. *IEEE 2003 Global Communications Conference (GLOBECOM 2003)*, San Francisco, CA, USA, December 1-5, 2003.
38. *International Symposium on Performance Evaluation of Computer and Telecommunication Systems (SPECTS'2003)*, Montreal, Canada, July 20-24, 2003.
39. *ACS/IEEE International Conference on Computer Systems and Applications (AICCSA'2003)*, Tunisia, July 14-18, 2003.
40. *2003 High Performance & Large Scale Computing (HP&LSC'03) Conference*, Nottingham, UK, June 9-11, 2003.
41. *The 14th International Conference on Microelectronics (ICM'2002)*, Beirut, Lebanon, December 11-13, 2002.
42. *Arab Symposium for Communications, 23rd Arab Engineering Conference*, (Development and Integrity of the Communications and Information Technology Networks in The Arab Region), Order of Engineers, Beirut, Lebanon, October 30-31, 2002.
43. *15th International Conference on Parallel and Distributed Computing Systems (PDCS 2002)*, Louisville, Kentucky, USA, September 19-21, 2002.
44. *International Symposium on Performance Evaluation of Computer & Telecommunication Systems (SPECTS'2002)*, San Diego, California, July 14-19, 2002.

45. *The 2002 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'02)*, Las Vegas, USA, June 24-27, 2002.
46. *14th International Conference on Parallel and Distributed Computing Systems (PDCS 2001)*, Anaheim, CA, August 21-24, 2001.
47. *International Symposium on Performance Evaluation of Computer and Telecommunication Systems (SPECTS'2001)*, Orlando, Florida, July 15-19, 2001.
48. *The ACS International Conference on Computer Systems and Applications (AICCSA)*, Beirut, Lebanon, June 26-29, 2001.
49. *The 7th IEEE International Conference on Electronics, Circuits and Systems*, Jounieh, Lebanon, December 17-20, 2000.
50. *2000 SCS Symposium on Performance Evaluation of Computer and Telecommunication Systems (SPECTS'2000)*, Vancouver, Canada, July 16-20, 2000.
51. *The 2000 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'2000)*, Monte Carlo Resort, LA, June 26-29, 2000.
52. *The 13th Science Meeting, organized by The National Council for Scientific Research and The Lebanese Association for the Advancement of Science (LAAS)*, held at AUB, November 2-4, 1999.
53. *The 1st Mediterranean International Conference on Computer Technology*, Algeria, May 3-5, 1999.
54. *The 2nd LAAS International Conference on Computer Simulation*, AUB, Lebanon, Sept. 1-4, 1997.
55. *The 1st LAAS International Conference on Computer Simulation*, AUB, Lebanon, Sept. 1-4, 1995.
56. *The 12th Science Meeting, organized by The Lebanese Association for the Advancement of Science (LAAS)*, held at AUB, May 4-6, 1994.

Promotion Committees

57. External referee (2006), selected by Provost, for a promotion case (to the rank of Associate Professor) at the Department of Computer Engineering, American University College of Science & Technology, Beirut, Lebanon.
58. External referee (2006), selected by Vice President, for a promotion case (to the rank of Associate Professor) at the Department of Computer Science, Faculty of Computer and Information Technology, Applied Sciences University, Amman, Jordan.

Professional Activities

59. External referee (2006), selected by President, for a promotion case (to the rank of Associate Professor) at the Department of Computer Engineering, Hijjawi Faculty for Engineering Technology, Yarmouk University, Irbid, Jordan.
60. External referee (2005), selected by President, for three promotion cases (two to the rank of Professor and the other to Associate Professor) at the Department of Computer Science, Faculty of Sciences, Yarmouk University, Irbid, Jordan.
61. External referee (2003), selected by President, for a promotion case (to the rank of Associate Professor) at the Faculty of Engineering, University of Jordan, Amman, Jordan.
62. External referee (2001), selected by Dean, for a promotion case (to the rank of Associate Professor) at the Electronics Engineering Department, Princess Sumaya University College for Technology, Amman, Jordan.
63. External referee (2001), selected by President, for a promotion case (to the rank of Associate Professor) at the Faculty of Engineering, Al-Ahliyya Amman University, Amman, Jordan.

Other

64. Reviewer for research grant proposals submitted to the National Council for Scientific Research (CNRS), Lebanon, September 2010.
65. External reviewer (<http://www.oaaa.gov.om/About.aspx#ReviewerDetails&id=57>) for the Oman Accreditation Council (OAC) – later (May 2010) named Oman Academic Accreditation Authority (OAAA) – for the period July 2007 until July 2013. The OAC is charged with assisting in the development of the Omani higher education sector through institutional quality audits and institutional and program accreditation processes. Member of the Panels for the Quality Audit of the Higher College of Technology, Muscat and the Caledonian College of Engineering, Muscat.
66. Reviewer for articles for “Encyclopedia of Computer Science and Computer Engineering,” John Wiley & Sons, Inc., NJ, USA, May 2007.
67. Peer reviewer for the Undergraduate Research Experience Program (UREP), Qatar National Research Fund (QNRF), Qatar Foundation, 2007.
68. Evaluation of research proposals submitted to the CEDRE (Programme de Coopération pour l’Evaluation et le Développement de la Recherche) research program, Lebanese Ministry of Education.
69. Evaluation of research proposals submitted to the National Council for Scientific Research, Lebanon.

IX.

MAJOR VOLUNTEERING EXPERIENCE

A. Board Member, Lebanese Omani Business Council

I have been serving on the Board since November 2015. The Lebanese Omani Business Council aims at promoting Lebanese Omani business cooperation at all levels.

The Sultanate of Oman, one of the most progressive countries in the Middle East, has achieved remarkable growth in all sectors of economy in the last few years and is well on its course for continued growth. Muscat has actively pursued a development plan that focuses on diversification, industrialization, and privatization.

B. Member of the Board of Trustees, Social Welfare Institutions

I have been serving on the Board of Trustees of the Social Welfare Institutions (SWI) since February 2011. SWI established in 1917 is a Lebanese NGO which provides diversified specialized services in over 54 institutions and programs spread over the five Lebanese governorates. SWI includes 1,000 employees and cater for the needs of the vulnerable population including orphans, children with special needs, school drop outs, elderly, and empowering less fortunate women. SWI embrace over 13,000 beneficiaries from new born to the elderly. <http://www.daralaytam.org/post=3>

C. Chairman, IT Committee of the Board of Trustees, SWI

I have been serving on the IT Committee since January 2014. The Committee reports to the SWI Board of Trustees and its mandate is to lead the automation efforts for SWI systems and processes which will involve a new IT organizational chart, new cloud-based IT systems, etc.

D. Member, Financial & Administrative Committee of the Board of Trustees, SWI

I have been serving on this Committee since March 2016. The Committee reports to the SWI Board of Trustees and its mandate is to addressing financial challenges and lead reorganization efforts for SWI overall organizational hierarchy

E. Founder & President, RTF Charity NGO

The Rifca Taji Foundation (RTF) was established in June 2014. RTF is a charity NGO aimed at promoting social justice, quality of life and education within Lebanon through effective policy advocating, provision of educational opportunities and overall improvement of individual wellbeing. RTF is a charity NGO established for the purpose of improving the education and quality of life of disadvantaged women, children, and the elderly of Lebanon. The three RTF (www.rtf-ngo.org) pillars include raising awareness and promoting: (1) Education, (2) Women empowerment, and (3) Community service.

F. Member, Board of Advisors, Al-Quds Academy For Scientific Research

I have been serving on the Board since September 2017. Al-Quds Academy for Scientific Research (QASR) is a non-profit organization (www.alqudsacademy.com) registered under the Jordanian Ministry of Industry and Trade as a partnership between the Munib Masri Development Foundation, the University of Jordan and the University of Jerusalem. The academy was proposed by the Munib Masri Development Foundation in response to the perceived need for the development of scientific research and education in the Arab world, particularly Palestine and Jordan. The initial aim was to raise the quality of education in the schools and universities of Jordan and Palestine, and has since shifted towards providing the necessary research project support for the innovative scholars and researchers. The main message of Al-Quds Academy for Scientific Research lies in the creation of appropriate conditions, infrastructure, and mechanisms to foster scientific research. The academy aims to build scientific and technological capabilities, promote basic and applied scientific research, and transfer knowledge to all the concerned parties in academia and scientific research.

G. Board Member of the GHCF Global Assembly Council

The GLOBAL HOUMARD & CO. FOUNDATION (GHCF) provides focused and qualified support customized for the missions of civil defence, citizens' protection and disaster and humanitarian aid. GHCF is an international private non-profit foundation established upon the official order from the International Civil Defense Organization (ICDO), ICDSKA SA whose mission is to protect population, property and the environment. The departments of the Foundation among others involve global innovations, ethical principles, education and also cooperate with governments in different countries. The Foundation represents a highly cosmopolitan community and is based in Zurich, Switzerland.

Also, Director of the Global Research & Development Affairs Department, as well as member of the following councils: (1) GHCF Advisory Council, (2) GHCF Foreign Affairs & Networking Council, (3) GHCF Innovation & Technology Council, (4) GHCF Humanitarian & Economic Council, and (5) GHCF Education & Training Council.

H. SNHU Advisory Board Member for GEM

The Southern New Hampshire University (SNHU) Global Education Movement (GEM) work with local partners to offer bachelor degrees and pathways to quality employment at no cost to refugees bringing to them hope. Serving nearly 1,000 students, GEM laid the groundwork in Kenya, South Africa, Malawi, and Lebanon, continued to grow two sites in Rwanda, and launched an assessment center in Kigali.

X.

MAJOR CONSULTING ACTIVITIES

Overall, I am interested in the wide area of “Information Technology” (IT) and many of its related entrepreneurial applications. My general interest in the area of IT has given me the capability in utilizing my background to serve IT-intensive organizations by, for example, critically evaluating and independently examining functional parameters of existing and up-coming Internet and communications related technologies (both hardware and software) and recommending improvements (where appropriate). The end result is to be able to review, audit, upgrade or re-engineer an organization’s entire IT system (hardware and software) and business processes in order to recommend medium to long-term solutions that is within the organization’s budget and consistent with its future growth objectives. Being in the academic field, I am also interested in designing undergraduate and graduate university programs in IT-related specialization areas.

- **July 2013 – present**

As the Vice President for Regional and External Program (REP) at AUB, I have been intensively involved in academic consulting in over 600 projects in a total of 55 locations across 33 countries within the MENA region and beyond. Almost all projects are of duration spanning from one to seven years.

- **October 2006 – June 2011**

As the Vice President for Regional and External Program (REP) at AUB, I have been intensively involved in academic consulting in around 200 projects in over 22 countries within the MENA region and beyond. REP represents the entrepreneurial and consulting arm of AUB.

- **December 2003 – August 2004**

For the *College of Science & Technology*, Salalah, Oman. The work, carried out through the office of REP at AUB, involved initiating engineering programs and assessing the facilities at the College as part of the newly established Dhofar University.

- **December 12, 2002 – March 11, 2003**

For *ESCWA (Economic and Social Commission for Western Asia)*, UN, Beirut, to provide expert consulting to the Information and Communications Technology (ICT) Division. The work addressed the ICT capacity building for public schools in South Lebanon. The study aimed to survey the ICT state of public schools in South Lebanon and present a phased plan for upgrading IT teaching taking into account growth requirements over the next five years.

- **September 2002**

For ESCWA, UN, Beirut, to provide expert consulting to the ICT Division. *The work addressed the harmonization of ICT standards related to Arabic language use in information society applications.* It involved identification of Arabic language standardization issues, selected priority issues (Arabic character encoding, display, email, web browsing, searching and indexing), as well as legislative and regulatory issues for information and knowledge management.

- **July 2002**

For ESCWA, UN, Beirut, to provide a study on *ICT Potentials in Lebanon: Barriers and Accelerators*. The study addresses: (a) the general issue of ICTs for socioeconomic development, including the futuristic view of the Internet as a global virtual computer, (b) how Lebanon could move towards the information society, (c) technology-based initiatives in Lebanon for SME development, and employment creation, and (d) synthesis of the major policy and strategy questions highlighting roles/options for the state as well as challenges and opportunities for ICT in Lebanon.

- **August 1, 2001 - December 1, 2001**

For GSC (*Graeber, Simmons, and Cowan*) of Austin, Texas, USA, to provide expert consulting services pertaining to the Beirut Emerging Technology Industrial and Research Center (BETZ) project. The project is locally administered by IDAL (Investment Development Authority of Lebanon). The consulting work involved: (a) mapping the existing technology industry environment in Lebanon, (b) analysis of the technology industry in Lebanon, and (c) assessing suitable technologies for an IT park in Beirut.

- **September 1-20, 2001**

For *New Horizons*, Kuwait. The work involved designing an undergraduate curriculum in information technology (IT). The objective was to provide a state-of-the-art program in IT leading to the Bachelor in IT degree that will offer students the needed technical skills for immediate employment in the IT industry.

- **September 1-20, 2000**

For *Al-Manar University*, Lebanon. The work involved designing undergraduate curricula in engineering technology. The objective was to provide programs in the fields of engineering technology that will offer students the needed technical skills for developing practical solutions to address the dire needs of Lebanon and the region in engineering technology education.

- **June 2000 – September 2000**

For *All Prints Distributors & Publishers*, Lebanon. The work involved identifying the research and development strategy needed to modernize the company's software and hardware computer facilities as well as the networking strategies required to optimize work efficiency.

- **November 1996 - February 1997**

For the *University of Sharjah*, United Arab Emirates. The work, which was carried out through the office of REP at AUB, involved designing the following undergraduate programs: (a) Computer Engineering Technology (AS degree), (b) Computer Systems Technology (BS degree), and (c) Computer Programming Technology (AS degree).

- **September 1997**

Member of the committee for the development of curricula for the *Industrial Information Technology Program* (Technique Superior). This program was designed for the Ministry of Vocational and Technical Education, Lebanon and the work was submitted through Management Planning and Research Consultants.

- **September 1995**

Member of a team to provide expert consulting to *Solidaire*, Beirut on issues related to computer-based parking control and management technologies pertaining to the old souks parking, central district of Beirut.

- **October 15, 1994 - November 30, 1994**

For *TEAM International*, Beirut, Lebanon. The work involved setting the system specifications for the Beirut traffic control systems including hardware configuration, computer communication, and control units.

- **June 11, 1991 - July 30, 1993**

For *Tele Liban* (Official Lebanese Television), Beirut, Lebanon. Technical consultant for the Board of Directors.

- **April 1986 - June 1986**

For the *University of Bahrain*, Bahrain. The work, which was carried out through the Office of REP at AUB, involved designing the following courses: Software Packages, Modern Telephone Systems, Radio & TV, Microwave Systems, Data Communication, Microprocessor Systems, Computer Graphics, and Computer Systems.

XI.

AFFILIATIONS TO PROFESSIONAL AND HONORARY SOCIETIES

A. Professional Societies

The detail in membership growth in each organization is shown in the following table:

ORGANIZATION	RANK ¹	DATES	Title / Mem. No.
IET (previously IEE), UK	S1978, AM1981, M1988, F2002	25 April 2002 - present	Fellow / 16972866
IEEE, USA	S1980, M1988, SM1993	Dec. 1993 - present	SM / 08978876
IEAust, Australia	G1989, M1991, SM1992, F1995	Nov. 22, 1995 - present	Fellow / 729344
Arab Computer Society	M2000	Oct. 2000 - present	Founding Member
Order of Engineers, Beirut	M1992	Sept. 17, 1992 - 2000	M / 14066
LAAS	M1994	July 1994 - 2002	M

- **Fellow** (25 April 2002 - present) of the Institute of Electrical Engineers (IEE) and Chartered Engineer (CEng), United Kingdom. <http://www.theiet.org/>
- **Fellow** (1995 - present) of the Institute of Engineers, Australia (IEAust) and Chartered Professional Engineer (CPEng), Australia. <http://www.engineersaustralia.org.au/>
- **Senior Member** (1993 - present) of the Institute of Electrical and Electronic Engineers (IEEE), USA.
- **Member** (1992 - 2000) of the Order of Engineers, Beirut, Lebanon.
- **Member** (1994 - 2002) of the Lebanese Association for the Advancement of Science (LAAS), Beirut, Lebanon.
- **Founding Member and Member of Executive Committee** (October 2000 - present) of the Arab Computer Society (ACS), Lebanon.

¹ S: Student, G: Graduate, AM: Associate Member, M: Member, SM: Senior Member, F: Fellow

- A registered (#729344) **Chartered Professional Engineer** (C.PEng.) in the National Professional Engineers Register, Australia. (October 17, 1991)
- A registered (#385942) **Chartered Engineer** (C.Eng.) in the Engineering Council, U.K. (May 1988)

B. Honorary Societies¹

- **Consulting Editor** (October 2007 – present) of *the International Profiles of Accomplished Leaders*, American Biographical Institute (ABI), Raleigh, North Carolina, USA.
- **Honorary Member** (March 2003–present) of the IBC Research Council, International Biographical Center, Cambridge, UK.
- **Consulting Editor** (June 2002–present) of the Contemporary Who's Who, American Biographical Institute (ABI), Raleigh, North Carolina, USA.
- **Member** (1999-present) of the Research Board of Advisors of the American Biographical Institute Research Association, USA.
- **ABI Fellow** (1999-present) of the American Biographical Institute Research Association, USA.
- Also, received numerous listings in Who's Who in the World, Who's Who in Science and Engineering, Dictionary of International Biography, etc. Refer to Section VI.

¹ Honorary appointment by invitation

XII.

AREAS OF RESEARCH INTEREST

Parallel and distributed algorithms and architectures, real-time systems and applications, heterogeneous computing, reconfigurable computing, and scientific computing. Refer to Appendix B for current research activities.

- Performance evaluation of parallel processing systems and parallel applications.
- *High performance reconfigurable computing for cryptographic algorithms.*
- *Efficient implementations of cryptography on reconfigurable systems*
- *Performance analysis of reconfigurable architectures.*
- *Custom and adaptive computing.*
- *Application-specific parallel architectures.*
- *Multiprocessor and multi-computer architectures.*
- *System simulation using fuzzy logic control.*
- *Application of simulation to engineering education and educational development.*
- *Higher Education in the MENA region.*
- *Global issues in Education.*

Kindly refer to my research statement on pages 27-35.

XIII.

POSTGRADUATE¹ & UNDERGRADUATE STUDENTS SUPERVISION

I have supervised/co-supervised 78 research projects, including 30 Masters Theses, 3 graduate-level Special Projects and 45 senior undergraduate projects as shown in the following table.

Projects Supervised During 1986-2006

	Bachelor of Eng.		Masters of Engineering			Total
	Senior Projects		Special Projects	Masters Theses		
	Supervisor	Co-Supervisor	Supervisor	Supervisor	Co-Supervisor	
Number	42	3	3	13	17	
Total	45		3	30		78

The following sections provide the detail information shown in the table above.

A. Masters Degree Theses

Principal Supervisor

1. Mr. Ziad Itani, M.Eng.²: Major: CCE³, AUB. Thesis title: “Data conflict resolution for mobile devices,” February 2005.
2. Mrs. May Itani, M.Eng.: Major: CCE, AUB. Thesis title: “Cryptographic algorithms on MorphoSys: Algorithm mapping and performance behavior,” February 2004.
3. Mr. Mohammad Al-Khalidy, *M.Eng.*: Major: CCE, AUB. Thesis title: “Routing and security algorithms on RC systems,” February 2004.
4. Mr. Sohaib Majzoub, M.Eng.: Major: CCE, AUB. Thesis title: “Performance analysis of parallel computing algorithms using reconfigurable computing,” February 2003.
5. Miss Nathalie Aouad, M.Eng.: Major: CCE, AUB. Thesis title: “Performance analysis of MorphoSys: The IP Routing Algorithm,” February 2002.

1 The ECE Department at the American University of Beirut (AUB) does not offer Ph.D. programs

2 M.Eng.: Master of Engineering

3 CCE: Computer and Communications Engineering

6. Mr. Issam Damaj, M.Eng.: Major: CCE, AUB. Thesis title: "Performance analysis of linear algebraic functions using reconfigurable computing," July 2001.
7. Mr. Emad Abdennour, M.Eng.: Major: CCE, AUB. Thesis title: "Performance analysis of a reconfigurable multiprocessor system," July 2000.
8. Mr. Patrick Renno, M.Eng.: Major: CCE, AUB. Thesis title: "A Web-based training tool on GSM switching subsystems," July 2000.
9. Mr. Wassim Haffar-Habbal, M.Eng.: Major: CCE, AUB. Thesis title: "A multimedia educational tool for computer graphics courses," July 1999.
10. Miss Rayane Abdul-Samad, M.Eng.: Major: CCE, AUB. Thesis title: "Performance evaluation of parallel processes using fuzzy logic simulation," February 1997.
11. Mr. Khaled Dankar, M.Eng.: Major: CCE, AUB. Thesis title: "Performance evaluation of parallel processing sub-systems using neural networks," Feb. 1995.
12. Mr. Hadi Shaar, M.Eng.: Major: CCE, AUB. Thesis title: "Real-time simulation of dynamic systems using network-based distributed processing," October 1992.
13. Mr. Ibrahim Demashkieh, M.Eng.: Major: CCE, AUB. Thesis title: "Dynamic graphical simulation of the internal and external operations of the Z80 central processing unit," October 1988.

Co- Supervisor/Member of Examining Committee

14. Ms. Ramzia Alfaraj, M.Sc., Major: Computer Science, American University of Beirut (AUB). Thesis title: "Fitting subdivision surface based on approximation feature lines into simple Bspline curves," November 2010.
15. Mr. Hussameddine Ghazzawi, M.Eng.: Major: CS, American University of Beirut (AUB). Thesis title: "Computation of higher order moments of subdivision surfaces and its application for animation and geometric design," February 2006.
16. Miss Rula Antoun, M.Eng.: Major: CCE, American University of Beirut (AUB). Thesis title: "Routing in mobile ad-hoc networks using LIME," February 2006.
17. Mr. Eddy Nahed, M.Eng.: Major: Electrical Engineering, Beirut Arab University (BAU). Thesis title: "A Petri net approach for resource allocation," June 2002.
18. Mr. Mouhannad Al-Khatib, M.Eng.: Major: CCE, AUB. Thesis title: "Performance efficiency factors for the comparison of data-driven design algorithms for fuzzy controllers with application to robot navigation," February 2001.

19. Miss Lina Haffar, M.Eng.: Major: CCE, AUB. Thesis title: "A comparative study of modern computer system architectures: analysis and future trends," July 2000.
20. Mr. Iyad Al-Khatib, M.Eng.: Major: CCE, AUB. Thesis title: "An educational package for electrophysiology," July 1999.
21. Miss Rola Fany, M.Sc.: Major: Computer Science, Lebanese American University (LAU). Thesis title: "PERF solutions for distributed query optimization," July 1999.
22. Mr. Ghassan Deeb, M.Eng.: Major: EDS, AUB. Thesis title: "Fuzzy logic control: design and implementation," July 1998.
23. Mr. Samer Mestom, M.Eng.: Major: CCE, AUB. Thesis title: "A scientific calculator with speech input/output interface," July 1997.
24. Mr. Ahmad Mughrabi, M.Eng.: Major: CCE, AUB. Thesis title: "Simulation of the electrical behavior of a non-myelinated axon," October 1996.
25. Mrs. Maissam Hazim, M.Eng.: Major: CCE, AUB. Thesis title: "DIGIXEL: A simulation of logic networks using MS Excel™," July 1996.
26. Mr. Ralph Rabbat, M.Eng.: Major: CCE, AUB. Thesis title: "Operation Future: A case study using OOP to build multimedia software," July 1996.
27. Mr. Walid Ali-Ahmad, M.Eng.: Major: CCE, AUB. Thesis title: "Event scheduling and synchronization in an object oriented multimedia environment," July 1995.
28. Mr. Ghassan Turquieh, M.Eng.: Major: CCE, AUB. Thesis title: "Multimedia CBI package for logic design and its attitudinal effects on engineering students," July 1994.
29. Mr. Mahmoud Shmaitely, M.Eng.: Major: CCE, AUB. Thesis title: "A new OOP approach for parallel processing systems," July 1994.
30. Mr. Hakikur Rahman, M.Eng.: Major: EE, AUB. Thesis title: "Design and implementation of a token ring local area network interface," February 1986.

B. Graduate-Level Special Projects

This is a three-credit graduate course given to one student at a time.

1. Mr. Mohammad Al-Khalidy, M.Eng.: Major: CCE, AUB. Project title: “MORPHOSYS Implementation of The MD5 Hash Algorithm.” Spring 2002-2003 Term.
2. Mr. Ziad Itani, M.Eng.: Major: CCE, AUB. Project title: “Design and Implementation of A Synchronization Architecture between Handheld Devices and Computers.” Fall 2003-2004 Term.
3. Mrs. May Itani, M.Eng.: Major: CCE, AUB. Project title: “Serpentine Encryption Algorithm Implementation on the MorphoSys Reconfigurable System.” Fall 2003-2004 Term.

C. Undergraduate Degree (B.Eng.) Projects

I have supervised 42 final-year undergraduate projects over the period 1986-2004 for Electrical Engineering (EE) and Computer and Communications Engineering (CCE) students. *See Appendix (A)* for a list of undergraduate projects supervised.

XIV.

PUBLICATIONS

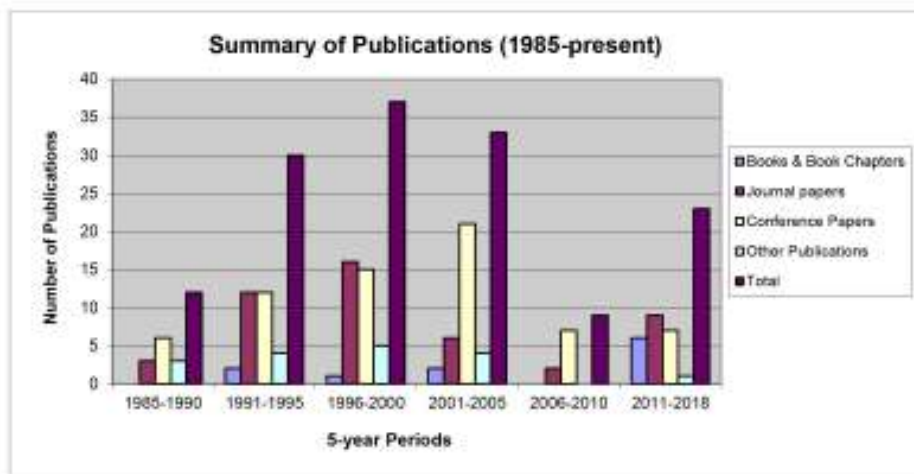
Summary of Research Accomplishments



- **A total of around 150 publications** including books, book chapters, papers in refereed journals, papers in conference proceedings, and other publications.
- **Seven books:** Four authored and three edited. Also, **four book chapters.** Published around **50 research papers in refereed journals.** This includes some of the top journals in the field such as: IEEE Transactions on Computers; IEEE Transactions on Systems, Man, and Cybernetics; IEEE Transactions on Nuclear Science; IEEE Transactions on Education; IEEE Computer Applications in Power; IEE Proceedings on Physical Science, Measurement and Education; The Journal of Supercomputing; Advances in Engineering Software; Journal of Parallel Algorithms and Applications; International Journal of Numerical Modeling; Journal of Intelligent and Fuzzy System; Journal of Electrical and Electronics Engineering; International Journal of Engineering Education; Computer Applications in Engineering Education; Australian Journal of Engineering Education; and International Journal of Applied Engineering Education.

- **Presentation of 80 papers** at regional and international conferences, for example: IEEE International Conference on Electronics, Circuits and Systems (ICECS), IEEE TENCON “Frontiers of Computer Technology”, International Conference on Parallel and Distributed Computing and Systems, International Conference on Numerical Methods and Applications, Symposium on Performance Evaluation of Computer and Telecommunication Systems (SPECTS), IASTED International Conference on Parallel and Distributed Computing and Systems, IASTED International Conference on Modeling and Simulation, IASTED International Conference on Networks and Communication Systems, Annual Simulation Symposium, Canadian Conference on Electrical and Computer Engineering, Australian Computer Conference, EUROPEAN Simulation Multi-conference, and others.

“Publications in high-quality narrowly-focused conferences are often preferred over archival journals throughout all specialty areas within Computer Science and Computer Engineering because of their much more rapid publication cycles and high visibility within the relevant research community.”^{1,2}



- Since my appointment to senior administrative positions during 2004-2018 (in Oman and later at AUB), followed by my appointment as Minister, I have had 46 publications including 23 refereed conference papers, 14 refereed journal papers, four book chapters, and four books including the following edited book: **H. Diab**, and A.Y. Zomaya, (Eds.), *DEPENDABLE COMPUTING SYSTEMS: Paradigms, Performance Issues, and Applications*, ISBN:0-471-67422-2, John Wiley & Sons, New Jersey, 2005.

1 Academic Careers for Experimental Computer Scientists and Engineers, Computer Science and Telecommunications Board, National Research Council, National Academy Press, Washington, DC, 1994, p. 62.

2 Gould, Constance, and Karla Pearce. Updated. Information Needs in the Sciences: An Assessment. Report prepared for the Program for Research Information Management, Research Libraries Group, Inc., Mountain View, California, p. 71.

- Additionally, since my 7-year contract appointment starting in 2011, I have had 23 publications, including seven refereed conference papers, nine refereed journal papers, three book chapters, and three books.

Citations By Peer Researchers & H-index

The number of citations to my publications are as follows:

- **According to Scopus**, 58 were captured: 35 journal articles and 23 conference papers. My work has been cited around 300 times in 200 papers.
- **According to Google Scholar**, h-index is 11, i10-index is 13, and is cited in over 440 papers.

In total, cited in over 600 papers from both Scopus and Google Scholar.

Additionally, other research engines such as “Research Gate” (RG) indicates that my publications have around 4,000 “reads”. This includes over 100 reads of a paper that was recently published in *Curriculum Journal*, 1-17, February 2018, titled “A Call for Curriculum Reform to Combat Refugees Crisis: The Case of Lebanon,” based on the work I did as Minister of Education and Higher Education; as well as 310 citations, many of which do not appear as captured citations in Google Scholar. My RG score is over 23.6 (around 80th percentile of RG members which includes most MSFEA faculty).

A. Books

Authored Books

1. G. Awada, **H. Diab**, and K. Faour, *Scotland’s and Australia’s HRE Practices as Reform Tools in Lebanon*, ISBN:978-3-330-04623-8, LAP LAMBERT Academic Publishing, Germany, March 2017, (119 pages).
2. **H. Diab**, ٢٠١٣-٢٠١١ على طريق الحداثة: خطة إنقاذية، مشاريع ومنجزات وزارة التربية والتعليم العالي (in Arabic), *Towards Modernization: Rescue Plan, Projects and Achievements of the Ministry of Education and Higher Education 2011-2013*, Typopress, Beirut, Lebanon, December 2013, (1,315 pages). <https://www.dropbox.com/s/ealrziinfmsenf1/Ministry-Book%202-ALL.pdf?dl=0>
3. **H. Diab**, الكتاب التوثيقي لولاية الوزير حسان دياب في وزارة التربية والتعليم العالي, (in Arabic), *Documentary of Events during Minister Hassan Diab’s Term at the Ministry of Education & Higher Education*, Typopress, Beirut, Lebanon, May 2013, (985 pages). <https://www.dropbox.com/s/5v6uy5ihb1q2n2i/Book1-Full.pdf?dl=0>
4. **H. Diab**, *Design and Implementation of a Flight Simulation System*. A.U.B. Press, and Syracuse University Press (ISBN: 081566088X), January 1992, (152 pages). (Book review in the *Journal of Control Engineering Practice*, Vol. 3, No. 6, p. 897, June 1995.)

Edited Books

5. **H. Diab**, and A.Y. Zomaya, (Eds.), *DEPENDABLE COMPUTING SYSTEMS: Paradigms, Performance Issues, and Applications*, ISBN:0-471-67422-2, John Wiley & Sons, New Jersey, 2005, (638 pages).
6. **H. Diab**, (Ed.) *Proceedings of the Second LAAS International Conference on Computer Simulation*, (602 pages) held during September 1-4, 1997 at the American University of Beirut, Lebanon.
7. **H. Diab**, (Ed.) *Proceedings of the First LAAS International Conference on Computer Simulation*, (535 pages) held during September 1-4, 1995 at the American University of Beirut, Lebanon.

B. Book Chapters

1. G. Awada, **H. Diab**, and K. Faour, “Effect of GI and Glogster on Improving the Intercultural Communication Skills in Higher Education,” Chapter 8 (pp. 130-158) in the following book (<https://www.igi-global.com/book/cross-cultural-perspectives-technology-enhanced/189160#table-of-contents>): *Cross-Cultural Perspectives on Technology-Enhanced Language Learning* by D. Tafazoli, M.E. Gomez Parra, and C.A. Huertas-Abril (Eds.) June 2018. Published by IGI Global, USA (ISBN: 9781522554639).
2. **H. Diab**, “The Future of Higher Education in the Middle East,” a keynote speech published as a paper in the following book (pp. 77-82): *Higher Education as a Bridge to the Future*, edited by Jason A. Scorza, 2016. Hard cover, 200 pages; Published by Fairleigh Dickinson University Press, Oxford, UK; Co-published by The Rowman & Littlefield Publishing Group, Inc., Maryland 20706, USA.
3. S. Majzoub, and **H. Diab**, “Reconfigurable Systems for Cryptography and Multimedia Applications,” pp. 3-28, in *Data Acquisition Applications*, edited by Zdravko Karakehayov. Hard cover, 342 pages, ISBN 978-953-51-0713-2, Publisher: InTech - Open Access Publisher, Rijeka, Croatia, 2011.
4. **H. Diab**, “Reconfigurable Computing for Cryptography,” pp. 575-607, in *DEPENDABLE COMPUTING SYSTEMS: Paradigms, Performance Issues, and Applications*, John Wiley & Sons, New Jersey, 2005.

C. Refereed Journal Papers

1. H. Diab, & G. Awada, "Refugee Crisis: Towards Settlement, Displacement, or Immigration," *Research Strategic Center Journal*, December 2018.
2. I. Damaj, J. Saade, H. Al-Faisal, and **H. Diab**, "Fuzzy Inference Procedure for Intelligent and Automated Control of Refrigerant Charging," *Int'l Journal of Fuzzy Systems*, pp. 1-18, April 2018.
3. G. Awada, and H. Diab, "Effect of Google Earth and Wiki models on improving the oral presentation skills of EFL learners," *International Journal of Teaching and Learning in Higher Education (IJTLHE)*, 30(1), 2018.
4. G. Awada, H. Diab, and K. Faour, "A Call for Curriculum Reform to Combat Refugees Crisis: The Case of Lebanon," *Curriculum Journal*, 1-17, February 2018.
5. G. Awada, and **H. Diab**, "Lebanon's 2011 ICT education reform strategy and action plan: Curriculum success or abeyance," *Cogent Education Journal (Taylor & Francis)*, October 2016. <https://www.cogentoa.com/article/10.1080/2331186X.2016.1245086>
6. **H. Diab**, and G. Awada, "Impact of Google Earth and ePals models on perceptions, research and oral presentation skills," *Arab World English Journal*, Special Issue on CALL, No. 3, pp. 4-22, July 2016.
7. **H. Diab**, and G. Awada, "Women's rights and call to shifting paradigms from underrepresentation into empowerment: The case of Lebanon," *International Journal of Gender and Women's Studies*, (published by American Research Institute for Policy Development), vol. 4, No. 1, pp. 1-7, June 2016.
8. S. Majzoub, and **H. Diab**, "MORPHOSYS reconfigurable hardware for cryptography: The TWOFISH case," *The Journal of Supercomputing*, 59: 22-41, January 2012. <http://dx.doi.org/10.1007/s11227-010-0413-3>
9. G. Ghaith, and **H. Diab**, "Leveraging market competitiveness and higher education challenges through cooperative learning," *Journal of US-China Education Review A, Education Practice*, Vol. 1, No. 6, pp. 819-824, November 2011.
10. G. Ghaith, and **H. Diab**, "Determinants of EFL achievement among Arab college-bound learners," *Education Business and Society: Contemporary Middle Eastern Issues*, Vol. 1, Issue 4, pp. 278-286, 2008.
11. S. Majzoub, and **H. Diab**, "Instruction-Set extension for cryptographic applications on reconfigurable platform," *Special Issue on Advances in Circuits and Systems for Large Scale Integration, in The Journal of Circuits, Systems, and Computers (JCSC)*, Vol. 16, No. 6, pp. 911-927, December 2007. <https://www.worldscientific.com/doi/10.1142/S0218126607004076>

12. **H. Diab**, and J.J. Saade, "Fuzzy inference modeling methodology for the simulation of population growth," *International Arab Journal of Information Technology*, Vol. 2, No. 1, pp. 75-86, January 2005.
13. **H. Diab**, "Fuzzy logic arbiters for multiple-bus multiprocessor system," *IEEE Transactions on Systems, Man, and Cybernetics Part C: Applications and Reviews*, Vol. 34, No. 3, pp. 281-292, August 2004.
14. J.J. Saade, and **H. Diab**, "Defuzzification methods and new techniques for fuzzy controllers," *Iranian Journal of Electrical and Computer Engineering*, Vol. 3, No. 3, Summer-Fall 2004.
15. **H. Diab**, and I. Damaj, "Cyclic coding algorithms under Morphosys reconfigurable computing system," *Advances in Engineering Software*, Vol. 34, Issue 2, February 2003, pp. 61-72.
16. I. Damaj, and **H. Diab**, "Performance analysis of linear algebraic functions using reconfigurable computing," *The Journal of Supercomputing*, Vol. 24, No. 1, pp. 91-107, January 2003.
17. **H. Diab**, I. Damaj, and F. Kurdahi, "Optimizing FIR filter mapping on the MorphoSys reconfigurable system," *International Journal of Parallel and Distributed Systems and Networks*, Vol. 5, No. 3, pp. 108-115, February 2002.
18. **H. Diab**, "Case method for the application of spreadsheets in computer engineering education," *Journal of Creative Interactive Teaching: Case Method & Other Techniques*, Published by World Association for Case Method Research & Application, Vol. 12, p. 165, 2000.
19. **H. Diab**, R. Abdul-Samad, J.J. Saade, and F. Mrad, "Using neuro-fuzzymethodology in cache memory design," *Journal of Intelligent and Fuzzy Systems*, Vol. 8, No. 4, pp. 289-300, 2000.
20. **H. Diab**, H. Tabbara, and W. Smari "A Simulation tool for the performance evaluation of a class of MIMD systems," *International Journal of Modelling and Simulation*, Vol. 20, No. 2, pp. 158-168, 2000.
21. J. Saade, and **H. Diab**, "Defuzification techniques for fuzzy controllers," *IEEE Transactions on Systems, Man, and Cybernetics*, Part B, Vol. 30, Issue 1, pp. 223-229, February 2000.
22. **H. Diab**, H. Tabbara, and N. Mansour, "Simulation of dynamic input buffer space in multistage interconnection networks," *Advances in Engineering Software*, Vol. 31, No. 1, pp. 13-24, January 2000.
23. **H. Diab**, and J. Saade, "Weather prediction using fuzzy sets and inference methodology," *Journal of Intelligent and Fuzzy Systems*, Vol. 7, No. 3, July 1999.

24. **H. Diab**, and J. Saade, "On the simulation and design of fuzzy controllers," *Journal of Electrical and Electronics Engineering, Australia*, Vol. 18, No. 1, pp. 111-126, September 1998.
25. **H. Diab**, "Simulation of cache-based parallel processing systems using spreadsheets," *International Journal of Engineering Education*, Vol. 14, No. 2, pp. 136-144, 1998.
26. J. Saade, and **H. Diab**, "A CAD tool for designing fuzzy controllers," *Arabian Journal for Sciences and Engineering*, Vol. 23, No. 2B, 1998.
27. **H. Diab**, A. El-Hajj, K. Kabalan, S. Khoury, and N. Haddad, "High-level design of a Lebanese high-speed network," *Arabian Journal for Sciences and Engineering*, Vol. 23, No. 1B, pp. 83-102, April 1998.
28. N. Mansour, J. Kawash, and **H. Diab**, "Properties of simulated annealing and genetic algorithms for mapping data to multicomputers," *Journal of Parallel Algorithms and Applications*, Vol. 12, pp. 279-296, November 1997.
29. **H. Diab**, "Time cost analysis for solving difference equations on multicomputer systems," *Advances in Engineering Software*, Vol. 28, No. 8, pp.455-462, November 1997.
30. K. Kabalan, A. El-Hajj, **H. Diab**, and S. Fakhreddine, "Analog computer simulation using spreadsheets," *SIMULATION*, Vol. 68, No. 2, pp. 101-106, February 1997.
31. **H. Diab**, S. Hariri, A. El-Hajj, K. Kabalan, S. Khoury, and M. Tarabah, "A multi-channel protocol for very high-speed optical fiber local area networks using a passive star topology," *Lebanese Scientific Research Reports*, Vol. 1, No. 3, pp. 82-103, December 1996.
32. M. Darwish, **H. Diab**, and F. Moukalled, "An educational two-dimensional interactive dynamic grid generator," *International Journal of Mechanical Engineering Education*, Vol. 24, No. 4, pp. 279-290, 1996.
33. **H. Diab**, and H. Tabbara, "Performance factors in parallel programs," *International Journal on Computer Simulation*, Vol. 6, No. 4, pp. 427-447, 1996.
34. K. Kabalan, **H. Diab**, A. El-Hajj, and H. Tabbara, "Stability analysis and minimum phase testing of causal filters using spreadsheets," *International Journal of Engineering Education*, Vol. 12, No. 5, pp. 382-388, 1996.
35. A. El-Hajj, K. Kabalan, and **H. Diab**, "A spreadsheet educational tool for microprocessor systems," *Computer Applications in Engineering Education*, Vol. 3, No. 3, pp. 205-211, 1995.
36. **H. Diab**, and H. Tabbara, "An educational tool for computer networks," *Australian Journal of Engineering Education*, Vol. 6, No. 1, pp. 95-102, 1995.

37. F. Moukalled, and **H. Diab**, "An educational graphical tool for investigating buoyancy effects in two-dimensional domains," *International Journal of Mechanical Engineering Education*, Vol. 21, No. 2, pp. 125-136, 1994.
38. F. Moukalled, **H. Diab**, and S. Acharya, "Laminar natural convection in a horizontal rhombic annulus," *Numerical Heat Transfer, Part A: Applications*, Vol. 24, No. 1, pp. 89-107, July/Aug 1993.
39. **H. Diab**, and H. Tabbara, "Simulation of a class of multiprocessor machines," *International Journal of Numerical Modelling*, Vol. 5, No. 2, pp. 275-288, November 1992.
40. **H. Diab**, and H. Tabbara, "Educational tool for design of parallel processing systems," *IEE Proceedings on Physical Science, Measurement and Education*, Part. A, Vol. 139, Issue 1, pp. 1-8, January 1992.
41. N.H.S. Haidar, and **H. Diab**, "Regulation of nuclear reactors by duplexed control rods: Linearized analysis," *IEEE Transactions on Nuclear Science*, Vol. 38, Issue 5, pp. 1044-1051, October 1991.
42. **H. Diab**, H. Tabbara, F. Moukalled, I. Kaysi and L. Raad, "GEOCAD: An educational tool for flexible pavement design and maintenance," *The International Journal of Applied Engineering Education*, Vol. 7, No. 4, pp. 307-315, 1991.
43. M. Yehia, M. Saidi, **H. Diab**, and K. Kabalan, "The Lebanese electric power system operational problems," *IEEE Power Engineering Review*, Vol. 11, Issue 9, pp. 15-16, September 1991.
44. **H. Diab**, and N. Abboud, "The Engineering Applications of Fractals," *SIMULATION*, Vol. 57, No. 2, pp. 89-97, August 1991.
45. **H. Diab**, and H. Tabbara, "A CAE tool for pavement design and management," *IEE Computer-Aided Engineering Journal*, Vol. 8, Issue 4, pp. 139-146, August 1991.
46. **H. Diab**, and I. Demashkieh, "A computer aided teaching package on microprocessor systems education," *IEEE Transactions on Education*, Vol. 34, Issue 2, pp. 179-183, May 1991.
47. **H. Diab**, and I. Demashkieh, "A reconfigurable microprocessor teaching package," *IEE Proceedings on Physical Science, Measurement and Education*, Part A, Vol. 137, Issue 5, pp. 287-292, September 1990.
48. **H. Diab**, and H. Tabbara, "A CAD package for simulation of parallel processing architectures," *IEE Computer-Aided Engineering Journal*, Vol. 7, Issue 4, pp. 115-122, August 1990.
49. **H. Diab**, M. Yehia, and I. Abo-Hassan, "Parallel computer graphics simulation of the Lebanese electrical power system," *IEEE Computer Applications in Power*, Vol. 2, Issue 1, pp. 38-42, January 1989.

D. Refereed Papers in Conference Proceedings

1. **H. Diab**, & G. Awada, "Effect of WebQuest Media on Learners' Intercultural Communication Debate and Motivation" *XIXth International Computer Assisted Language Learning (CALL) Research Conference*, Bruges, Belgium. www.call2018.org, July 4-6, 2018.
2. **H. Diab**, and G. Awada, "The Effect of MLearning and WhatsApp Application on Improving Learners' Critique Writing skills and Perceptions towards Learning," *9th Annual International Conference of Education, Research and Innovation (ICERI2016)*, Seville, Spain, November 14-16, 2016.
3. G. Awada, **H. Diab**, and K. Faour, "Effect of Google Earth and ePals Technological Models on Enhancing the Perceptions, Geographical Research Skills and Oral Presentation Proficiency of EFL Learners," *International Journal of Arts and Sciences (IJAS) International Conference for Education*, Harvard Medical School, Boston, 23-27 May 2016.
4. **H. Diab**, "Education and Cultural Diplomacy," *The ICD Annual International Conference on Cultural Diplomacy 2012: The Power of Art & Culture to Promote Democracy & Global Peace*, Berlin, Germany, December 13-16, 2012.
5. **H. Diab**, "Liberal Education as a Program of Study: Case of Lebanon," *3rd International Exhibition and Conference on Higher Education*, Riyadh, Saudi Arabia, April 17-22, 2012.
6. **H. Diab**, M. Itani, I. Damaj, and S. Kasbah, "Parallel Serpent under MorphoSys," *The 2nd World Congress on Computer Science and Information Engineering (CSIE2011)*, Changchun, China, September 20-22, 2011. Recent Advances in Computer Science and Information Engineering, Qian et al. (eds.), LNEE, Springer-Verlag, Berlin, Heidelberg, 2012, vol 4, pp. 767-778.
7. G. Ghaith, and **H. Diab**, "Twenty-First Century Skills in Higher Education: A Framework for Curriculum and Instruction," *International Journal of Arts & Sciences' (IJAS) National Conference for Academic Disciplines*, University of Nevada Las Vegas (UNLV), Las Vegas, Nevada, USA, March 7-10, 2011.
8. **H. Diab**, I. Damaj and W. Haffar-Habbal, "CGLT: An effective computer-based learning tool," *The 2nd International Conference on Computer Research and Development (ICCRD 2010)*, Kuala Lumpur, Malaysia, May 7-10, 2010.
9. **H. Diab**, A. Kashani and A. Nasri, "Cache replacement engine: A fuzzy logic approach," *The 2009 International Conference on the Current Trends in Information Technology (CTIT09)*, Dubai, UAE, December 15-16, 2009.
10. I. Damaj, S. Hamade, and **H. Diab**, "Efficient tiny hardware cipher under Verilog," *2008 High Performance Computing & Simulation Conference (HPCS'08)*, Nicosia, Cyprus, June 3-6, 2008.

11. S. Majzoub, and **H. Diab**, "Mapping and performance analysis of lookup table implementations on reconfigurable platform," *The 5th ACS/IEEE International Conference on Computer Systems and Applications (AICCSA-07)*, Amman, Jordan, May 13-16, 2007.
12. S. Majzoub, and **H. Diab**, "Instruction-Set extension for cryptographic applications on reconfigurable platform," *The 6th International Workshop on System-on-Chip for Real-Time Applications (IWSoc)*, pp. 173-178, Cairo, Egypt, December 27-29, 2006.
13. S. Majzoub, R. Saleh, and **H. Diab**, "Reconfigurable platform evaluation through application mapping and performance analysis," *The 6th IEEE International Symposium on Signal Processing and Information Technology (ISSPIT'2006)*, Vancouver, Canada, August 27-30, 2006.
14. I. Damaj, and **H. Diab**, "Serpent cryptography on static and dynamic reconfigurable hardware," *ACS/IEEE Conference (AICCSA-06)*, Dubai/Sharjah, UAE, March 8-11, 2006. <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=1618428>
15. M. Ohannessian, G. Choueiter, and **H. Diab**, "A novel parallel architecture for local histogram equalization," *Visual Communications & Image Processing (VCIP'2005)*, Beijing, China, 12-15 July 2005. <https://scholarworks.aub.edu.lb/handle/10938/11844>
16. Z. Itani, **H. Diab**, and H. Artail, "Efficient pull based replication and synchronization for mobile databases," *IEEE International Conference on Pervasive Services (ICPS'2005)*, Santorini, Greece, 11-14 July, 2005.
17. Z. Itani, **H. Diab**, and H. Artail, "Optimistic pull based replication for mobile databases," *IEEE International Conference on Wireless Networks, Communications, and Mobile Computing (WirelessCom 2005)*, *International Symposium on Mobile Database Access and Design*, Maui, Hawaii, USA, 13-16 June, 2005.
18. M. Itani, and **H. Diab**, "Reconfigurable computing for RC6 cryptography," *2004 ACS/IEEE International Conference on Pervasive Services (ICPS'2004)*, pp. 121-127, American University of Beirut, Beirut, Lebanon, July 19-23, 2004.
19. **H. Diab**, and M. Itani, "MARS cryptography on dynamic reconfigurable systems," *Applied Simulation and Modelling (ASM 2004) International Conference*, pp. 433-438, Rhodes, Greece, June 28-30, 2004.
20. **H. Diab**, and M. Al-Khalidy, "Performance Evaluation of IPv6 Routing on RC Systems," *Applied Simulation and Modelling (ASM 2004) International Conference*, pp. 481-483, Rhodes, Greece, June 28-30, 2004.

21. M. Al-Khalidy, **H. Diab**, and S. Majzoub, "MorphoSys implementation of MD5 hash algorithm," *International Conference on Current Issues in Business and Information Technology*, Beirut, Lebanon, May 21-22, 2004.
22. M. Al-Khalidy, and **H. Diab**, "Performance Evaluation Reed-Muller on Morphosys," *International Conference on Current Issues in Business and Information Technology*, Beirut, Lebanon, May 21-22, 2004.
23. M. Itani, and **H. Diab**, "Serpent cryptography on reconfigurable hardware," *International Conference on Current Issues in Business and Information Technology*, Beirut, Lebanon, May 21-22, 2004.
24. **H. Diab**, and S. Majzoub, "Linear filtering using reconfigurable computing," *ACS/IEEE International Conference on Computer Systems and Applications (AICSSA'03)*, Tunisia, July 14-18, 2003.
25. S. Majzoub, and **H. Diab**, "Twofish algorithm on MorphoSys: mapping and performance analysis," *ACS/IEEE International Conference on Computer Systems and Applications (AICSSA'03)*, Tunisia, July 14-18, 2003.
26. **H. Diab**, and I. Damaj, "New digital coding algorithms under Morphosys," *The 6th Saudi Engineering Conference "Engineering & Engineering Education: Facing Current Challenges"*, Volume 4, pp. 73-82, King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia, December 14-17, 2002,
27. I. Damaj, S. Majzoub, and **H. Diab**, "2D and 3D computer graphics algorithms under MorphoSys," *The 12th International Conference on Field Programmable Logic and Applications*, in *Lecture Notes in Computer Science*, Volume 2438 (LNCS 2438), pp. 1076-1079, Montpellier, France, September 2-4, 2002.
28. **H. Diab**, and I. Damaj, "Architectural modifications for optimizing mappings on the MorphoSys RC system," *The 2002 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'02)*, vol. III, pp. 1528-1534, Las Vegas, Nevada, USA, June 24-27, 2002.
29. I. Kaysi, **H. Diab**, and F. Mrad, "Simulation of a driver guidance system," *9th International Conference on Computing in Civil and Building Engineering*, pp. 889-894, Taipei, Taiwan, April 3-5, 2002.
30. P. Renno, **H. Diab**, and I. Damaj, "A Web based training tool on GSM switching subsystems," *International Conference on Research Trends in Science and Technology (RTST 2002)*, pp. 453-457, Lebanese American University, Beirut, Lebanon, March 4-6, 2002.
31. **H. Diab**, I. Damaj, and A. Zomaya, "New applications on state-of-the-art RC multiprocessing systems," *International Conference on Research Trends in Science and Technology (RTST 2002)*, pp. 333-343, Lebanese American University, Beirut, Lebanon, March 4-6, 2002.

32. I. Damaj, and **H. Diab**, "Graphics acceleration of composite transformations using reconfigurable computing," *The 13th International Conference on Microelectronics (ICM'2001)*, Rabat, Morocco, pp. 226-229, October 29-31, 2001.
33. I. Damaj, and **H. Diab**, "Performance analysis of some geometrical transformation algorithms using reconfigurable computing," *International Symposium on Innovation in Information and Communication Technology (ISIICT 2001)*, Philadelphia University, Amman, Jordan, pp. 249-261, September 26-27, 2001.
34. I. Damaj, and **H. Diab**, "Performance analysis of extended vector-scalar operations using reconfigurable computing," *ACS/IEEE International Conference on Computer Systems and Applications (AICCSA'2001)*, Beirut, Lebanon, pp. 227-232, June 25-29, 2001.
35. **H. Diab**, W. Haffar-Habbal, and I. Damaj, "Computer graphics educational toolkit," *On The Use of Information Technology in Higher Education In Arab Countries Conference*, Notre Dame University, Louaize, Lebanon, March 12-13, 2001.
36. **H. Diab**, E. Abdenmour, and N. Mansour, "Spreadsheet model for MorphoSys RC array," *The 7th IEEE International Conference on Electronics, Circuits and Systems (ICECS'2K)*, Kaslik, Lebanon, pp. 66-69, vol. 1, December 17-20, 2000.
37. E. Abdenmour, **H. Diab**, and F. Kurdahi, "FIR filter mapping and performance analysis on Morphosys," *The 7th IEEE International Conference on Electronics, Circuits and Systems (ICECS'2K)*, Kaslik, Lebanon, pp. 99-102, vol. 1, December 17-20, 2000.
38. I. Damaj, J. Saade, and **H. Diab**, "Performance testing of refrigerators using fuzzy inference methodology under LabVIEW®," *The 7th IEEE International Conference on Electronics, Circuits and Systems (ICECS'2K)*, Kaslik, Lebanon, pp. 697-700, vol. 2, December 17-20, 2000.
39. **H. Diab**, and H. Tabbara, "Simulation-based modeling in cache design performance analysis," *The 10th International Conference on Computing and Information (ICCI'2000)*, Kuwait, November 18-21, 2000.
40. **H. Diab**, and H. Tabbara, "Performance-oriented design of cache memory using fuzzy replacement policy," *The 2000 Symposium on Performance Evaluation of Computer and Telecommunication Systems (SPECTS'2K)*, Vancouver, Canada, July 16-20, 2000.
41. **H. Diab**, and H. Tabbara, "The introduction of fuzzy methodology to computer architecture design," *International Conference on Research Trends in Science and Technology (RTST'2000)*, Beirut and Byblos, Lebanon, pp. 387-395, March 6-8, 2000.

42. **H. Diab**, U. Furbach, and H. Tabbara, "On the use of fuzzy techniques in cache memory management," *5th International Conference on Computer Science and Informatics (CS&I'2000)*, February 27 - March 3, 2000, Atlantic City, NJ, USA.
43. **H. Diab**, H. Tabbara, and W. Smari, "Fuzzy logic in memory arbiters of multiprocessor systems," *1st International Conference on Information Reuse and Integration (IRI'99)*, Atlanta, Georgia, USA, pp. 36-41, November 4-6, 1999.
44. **H. Diab**, "Case method for the application of spreadsheets for computer engineering education," *16th Int'l Conference on Case Method Research and Application, World Association for Case Method Research & Case Method Application (WACRA)*, Caceres, Spain, pp. 165-170, July 3-8, 1999.
45. A. El-Hajj, **H. Diab**, and M. Hazim, "An improved MSI logic circuits simulation method using spreadsheets," *IASTED International Conference on Modeling and Simulation*, Philadelphia, USA, pp. 491-494, May 5-8, 1999.
46. **H. Diab**, S. Khoury, A. El-Hajj, and W. Smari, "Performance evaluation of parallel processing sub-systems using neural networks," *10th International Conference on Parallel and Distributed Computing and Systems*, Las Vegas, Nevada, USA, pp.676-680, October 28-31, 1998.
47. **H. Diab**, and H. Tabbara, "Dynamic allocation of buffer space in smart multistage interconnection networks," *4th International Conference on Numerical Methods and Applications*, Sofia, Bulgaria, August 18-23, 1998.
48. **H. Diab**, S. Khoury, and A. El-Hajj, "Simulation of dynamic systems using distributed multicomputer architectures," *IASTED International Conference on Networks and Communication Systems*, Pittsburgh, pp. 3-8, May 13-16, 1998.
49. **H. Diab**, C. Farhat, A. El-Hajj, and H. Tabbara, "A resource optimization tool for multiple SIMD machines," *IASTED International Conference on Modelling and Simulation, Pittsburgh*, pp. 415-419, May 13-16, 1998.
50. **H. Diab**, A. El-Hajj, C. Farhat, and H. Tabbara, "Performance visualization for parallel processing systems," *IASTED International Conference on Modelling and Simulation, Pittsburgh*, pp. 400-404, May 13-16, 1998.
51. I. Kaysi, **H. Diab**, and F. Mrad, "Introducing a computer-based traffic control systems in post-war Beirut," *Second Regional Conference of the ASCE-SAS*, Beirut, Lebanon, pp. 721-734, November 16-18, 1995.
52. **H. Diab**, H. Tabbara, and N. Mansour, "The effect of the number of PEs on the performance of dynamic dataflow computers," *Seventh IASTED International Conference on Parallel and Distributed Computing and Systems*, Washington, D.C., USA, pp. 407-410, October 18-21, 1995.

53. J. Kawash, N. Mansour, and **H. Diab**, "General applicability of genetic and simulated annealing algorithms for data mapping," *Seventh IASTED International Conference on Parallel and Distributed Computing and Systems*, Washington, D.C., pp. 205-228, October 18-21, 1995.
54. **H. Diab**, F. Mrad, I. Kaysi, and H. Tabbara, "A customized low-cost traffic light controller," *International Conference on Signals and Systems*, Algiers, Algeria, pp. II.11-II.15, September 24-26, 1994.
55. **H. Diab**, A. Mughrabi, and C. Farhat, "Performance analysis of cache-based systems," IEEE TENCON '94 "Frontiers of Computer Technology", Singapore, pp. 496-500, vol. 1, August 22-26, 1994.
56. **H. Diab**, and H. Tabbara, "On the performance of a class of MSIMD systems," *Canadian Conference on Electrical and Computer Engineering*, Toronto, Canada, pp. MM10.3.1-MM10.3.4, September 13-16, 1992.
57. **H. Diab**, and H. Tabbara, "Performance evaluation of a class of MIMD systems with cache," *1992 Summer Computer Simulation Conference*, Reno, Nevada, USA, July 27-30, 1992.
58. **H. Diab**, and H. Tabbara, "The effect of inter-PE communication network configuration on the performance of array computers," *25th Annual Simulation Symposium*, Orlando, Florida, USA, pp.164-171, April 6-9, 1992.
59. **H. Diab**, F. Moukalled, and H. Shaar, "Using PCs for network-based multiprocessing," *1991 Australian Computer Conference*, Adelaide, Australia, pp. 171-180, October 6-10, 1991.
60. **H. Diab**, W. Ali-Ahmad, S. Badaoui-Najjar, R. Debouk, D. Ismail, and A. Safadi, "Micro-Piler: A tool for the simulation of intelligent controllers," *1991 Australian Computer Conference*, Adelaide, Australia, pp. 159-170, October 6-10, 1991.
61. **H. Diab**, and H. Tabbara, "Simulation of pipelined SISD systems," *1991 Summer Computer Simulation Conference*, Baltimore, USA, pp. 191-193, July 22-24, 1991.
62. G. Ayoub, **H. Diab**, M. Chafic, A. Sadka, F. El-Hajj Shehadeh, and G. Al-Moatasem, "Fractal simulation of flocculation in water treatment," *1991 Summer Computer Simulation Conference*, Baltimore, USA, pp. 1137-1139, July 22-24, 1991.
63. **H. Diab**, G. Ayoub, N. Abboud, W. Chaer, and A. Safa, "*Underground seepage simulation*," *1990 Summer Computer Simulation Conference*, Calgary, Alberta, Canada, pp. 581-584, July 16-18, 1990.
64. **H. Diab**, G. Ayoub, N. Abboud, W. Chaer, and A. Safa, "Sedimentation simulation in settling tanks using fractals," *1990 EUROPEAN Simulation Multiconference*, Nuremberg, West Germany, pp. 112-115, June 10-13, 1990.

65. **H. Diab**, and I. Demashkiyyah, "Microprocessor system simulation," *1989 Summer Computer Simulation Conference*, Austin, Texas, U.S.A., pp. 894-895, July 24-27, 1989.
66. **H. Diab**, "Real-time simulation of the visual systems of a flight simulator by using a parallel processing computer organization," *1989 Summer Computer Simulation Conference*, Austin, Texas, U.S.A., pp. 838-839, July 24-27, 1989.
67. **H. Diab**, "Real-time simulation of the load flow model of power systems using a distributed computer system configuration," *1988 Summer Computer Simulation Conference*, Seattle, U.S.A., pp. 321-324, July 25-28, 1988.
68. **H. Diab**, "A digital logic simulator as a teaching package," *Second International Conference on Micro-Electronic Engineering and its Application in Microcomputers in Developing Countries*, Menouf, Egypt, pp. 199-202, December 20, 1987.

E. Abstracts in Conference Proceedings

1. I. Damaj, and **H. Diab**, "Performance analysis of vector operations using reconfigurable Computing," *The 14th Science Meeting, Lebanon, November 23-25, 2000*.
2. **H. Diab**, and H. Tabbara, "Application of fuzzy logic in cache memory," *The 13th Science Meeting, LAU, Lebanon, p. 72, November 2-4, 1999*.
3. W. Habbal, and **H. Diab**, "Computer graphics in engineering education," *The 13th Science Meeting, LAU, Lebanon, p. 84, November 2-4, 1999*.
4. **H. Diab**, and A. El-Hajj, "Data communication networks," *The First AUB Engineering Conference in Jordan: New Horizons in Engineering and Technology in the Arab Region*, Amman, Jordan, p. 10, May 9-11, 1996.
5. **H. Diab**, H. Tabbara, and A. Chehab, "Influence of memory throughput on the performance of pipelined SISD machines," *The 11th Science Meeting (Science & the New Lebanon)*, American University of Beirut, Lebanon, p. 136, April 27-30, 1992.
6. **H. Diab**, N. Abboud, N. Ghattas, M. Ariss, and D. Aoun, "Simulation using chaotic models," *The 11th Science Meeting (Science and the New Lebanon)*, American University of Beirut, Lebanon, p. 135, April 27-30, 1992.
7. N.H.S. Haidar, and **H. Diab**, "Regulation of Nuclear Reactors," *The 11th Science Meeting (Science and the New Lebanon)*, American University of Beirut, Lebanon, p. 139, April 27-30, 1992.
8. F. Moukalled, **H. Diab**, W. Ali-Ahmad, S. Badaoui-Najar, and M. Shmaittely, "Solving flow problems using a multi-computer configuration," *The 11th*

Science Meeting (Science and the New Lebanon), American University of Beirut, Lebanon, April 27-30, 1992.

9. **H. Diab**, M. Yehia, and K. Kabalan, "Real-time simulation using distributed computer systems," *Tenth Science Meeting, Arab Software Conference 87*, American University of Beirut, Lebanon, p. 47, June 4-6, 1987.
10. K. Kabalan, **H. Diab**, and M. Yehia, "Characteristic modes for slots in a conducting plane separating different media (TE case)," *Tenth Science Meeting, Arab Software Conference 87*, American University of Beirut, Lebanon, p. 45, June 4-6, 1987.
11. M. Yehia, K. Kabalan, and **H. Diab**, "Reactive power optimization in distributed electrical systems," *Tenth Science Meeting, Arab Software Conference 87*, American University of Beirut, Lebanon, p. 46, June 4-6, 1987.

F. Monographs and Other Invited Publications

1. **H. Diab**, "Regional Perspectives on the Future of Higher Education: The Future of Higher Education in the Middle East," University World News on-line publication pertaining to the IAUP Semi-Annual Meeting & 50th Anniversary Conference on "Higher Education in 2065," 22-25 May 2015, Oxford & Wroxtton, United Kingdom. <https://www.researchgate.net/publication/>
2. **H. Diab**, "Harmonization of ICT Standards Related To Arabic Language Use In Information Society Applications," ESCWA Publication Reference: E/ESCWA/ICTD/2003/5, United Nations, New York, 2003.
3. **H. Diab**, "R&D Potentials in ICT: Case of Lebanon," 4th *eForsee International Conference: "The Role of Foresight in Implementing the EU Wider Neighbourhood Policy, and in the Structuring of a Euro-Mediterranean Research and Innovation Area"*, organized by the European Commission, November 13-14, 2003, Corinthia San Gorg, Malta.
4. **H. Diab**, "Standardization Related To Arabic Language Use In ICT," *Western Asia Preparatory Conference for the World Summit on the Information Society (WSIS)*, ESCWA Publication Reference: E/ESCWA/ICTD/2003/WG.1/CRP.29, 4 - 6 February 2003, UN House, Beirut, Lebanon.
5. **H. Diab**, Translation from English into Arabic of "Music Wars" by K.C. Pohlmann, *Scientific American*, November 2000. Published in *Arabic Edition of Scientific American (Majallat AlOloom)*, "حروب الموسيقى", Vol. 18, No. 5/6, pp. 63-66, May/June 2002. Published by Kuwait Institute for Scientific Advancement.
6. **H. Diab**, F. Mrad, and G. Deeb, "Intelligent automation in building management systems," Invited Contribution, *Lebanese Technical Reports*, Lebanese National Council for Scientific Research, pp. 3-77, No. 6, September 1998.

XV.

RESEARCH GRANTS

The following sections provide the detail information shown in the table above. Furthermore, during my tenure as President of Dhofar University (2004-06), Oman, I facilitated a research budget for faculty – as Chair of the University Research Board – in the amount of around \$1 million. It is also worth noting here that during my tenure as Vice President for Regional External Programs at AUB (2006-2011 and 2013-present) I secured many projects (over 70 per year) with an average face value amount of over \$14 million per year.

	Research Grants			Travel Grants	All Grants		
	Principal Investigator	Co-Investigator	Total		Principal Investigator	Co-Investigator	Total
International	\$9,500	\$25,000	\$34,500	\$10,000	\$19,500	\$25,000	\$44,500
Local	\$89,436	\$16,200	\$105,636	\$58,300	\$147,736	\$16,200	\$163,936
Total	\$98,936	\$41,200	\$140,136	\$68,300	\$167,236	\$41,200	\$208,436

Research and Travel Grants Received During 1988-2004

A. Competitive Research Grants

A total of around **\$150,000** was received from competitive grants during 1993-2004. It is worth mentioning here that the main sources of research funding at the time in Lebanon was the American University of Beirut and the Lebanese National Council for Scientific Research with an average grant of less than \$5,000 per year per grant during the same period.

International Grants

1. M. Saghir, and **H. Diab**, “Accelerating next-generation Windows CE applications using run-time configurable coprocessors,” \$25,000, Microsoft Research, USA, 2003-2004.
2. **H. Diab**, “Parallel processing techniques,” \$9,500. University of Illinois at Urbana-Champaign, Illinois, U.S.A. Supported by United States Information Agency (USIA), Council for International Exchange of Scholars (CIES), July-September 1988.

Local Grants

1. *Principal Investigator*, High performance reconfigurable computing for cryptographic algorithms, URB¹, AUB, Lebanon,
 - a) Grant #113030-088315: October 1, 2002 - September 30, 2003 and
 - b) Grant #113030-088345: October 1, 2003 – September 30, 2004.
2. *Principal Investigator*, Performance analysis of computationally intensive algorithms using reconfigurable computing (grant #148860-73110), URB, AUB, Lebanon, October 1, 2001 - September 30, 2002.
3. *Principal Investigator*, Performance evaluation of reconfigurable computer architectures (grant #179960-73604), URB, AUB, Lebanon, October 1, 2000 - September 30, 2001.
4. *Co-Investigator*, Modeling and simulation of neural control of movement (grant #179960-73607), URB, AUB, Lebanon, October 1, 2000 - September 30, 2001 (\$4,200) then renewed October 1, 2001 - September 30, 2002 (\$4,500) and October 1, 2002 - September 30, 2003.
5. *Principal Investigator*, Application of fuzzy methodology to performance evaluation in parallel processing systems, URB, AUB, Lebanon. Total grants budget of.
 - a) Grant #179960-73403: July 1, 1999 - September 30, 1999, and
 - b) Grant #179960-73503: October 1, 1999 - September 30, 2000.
6. *Principal Investigator*, Application of fuzzy algorithms to cache memory management policies (grant #179960-73316), URB, AUB, Lebanon, July 1, 1998 - June 30, 1999.
7. *Principal Investigator*, Performance analysis of bus networks for multiprocessor systems (grant #113030-48214), URB, AUB, Lebanon, July 1, 1997 - June 30, 1998.
8. *Principal Investigator*, Intelligent automation in building management systems (grant # LCR-323030-32234), National Council for Scientific Research, Lebanon, January 1, 1997 - December 30, 1997.
9. *Principal Investigator*, Performance evaluation for interconnection networks (grant #113030-48012), URB, AUB, Lebanon, July 1, 1996 - June 30, 1997.
10. *Principal Investigator*, Performance visualization for parallel processing systems (grant #113030-48116), URB, AUB, Lebanon, July 1, 1995 - June 30, 1996.

¹ URB: University Research Board, AUB: American University of Beirut

Research Grants

11. *Principal Investigator*, Microprocessor-based industrial controllers (grant # LCR-323030-32222), Lebanese National Council for Scientific Research, Lebanon, April 1, 1995 - March 30, 1996.
12. *Principal Investigator*, A tool for performance evaluation of parallel applications on multiprocessor systems (grant #113030-48509), URB, AUB, Lebanon, July 1, 1994 - June 30, 1995.
13. *Principal Investigator*, A Lebanese computer network (grant # LCR-323030-32216), Lebanese National Council for Scientific Research, Lebanon, January 1, 1994 - December 30, 1994.
14. *Principal Investigator*, Simulation of parallel processing systems using neural networks (grant #113030-48810), URB, AUB, Lebanon, July 1, 1993 - June 30, 1994.
15. *Visiting Researcher*, Parallel and distributed systems, at the Northeast Parallel Architecture Center (NPAC), Syracuse University, U.S.A., July 15, 1993 - September 15, 1993. Supported by URB, AUB, Lebanon.
16. *Principal Investigator*, A Lebanese computer network (grant # LCR-323030-32213), Lebanese National Council for Scientific Research, Lebanon, January 1, 1993 - December 30, 1993.
17. *Principal Investigator*, A CAD package for the performance evaluation of dynamic data flow architectures (grant #113030-48718), URB, AUB, Lebanon, July 1, 1992 - June 30, 1993.
18. *Principal Investigator*, Engineering applications of fractals (grant #113030-48751), URB, AUB, Lebanon, July 1, 1991 - June 30, 1992.
19. *Visiting Fellow*, Modern educational techniques, at the Center for Educational Development and Academic Methods (CEDAM), Australian National University, Canberra, Australia, September 3, 1991 - October 24, 1991. Supported by URB, AUB, Lebanon.
20. *Principal Investigator*, A CAD package for parallel processing architecture identification for real-time simulation, (grant #18-4221), URB, AUB, Lebanon, July 1, 1990 - June 30, 1991.
21. *Principal Investigator*, Performance evaluation of parallel processing architectures, (grant #18-4203), URB, AUB, Lebanon, October 1, 1989 - June 30, 1990.
22. *Principal Investigator*, Computer simulation of pavement management (grant #18-4203), URB, AUB, Lebanon, July 1, 1988 - June 30, 1989.

23. *Co-Investigator*, Electrical performance improvement of the Lebanese electrical systems (grant #38-5230), Lebanese National Council for Scientific Research, Lebanon, October 1, 1987 - February 1, 1989.
24. *Principal Investigator*, A computer graphics simulation of the Lebanese electrical networks, URB, AUB, Lebanon, November 1, 1987 - June 1, 1988.

B. Travel Grants

Received travel grants for around 20 trips during 1988-2004.

1. Trips to Salalah, Oman as part of the REP team for establishing Dhofar University. Trips took place during July 10-13, 2004, March 26-30, 2004, and December 25-30, 2003.
2. Awarded a *short-term research grant* by the University Research Board, American University of Beirut, to present a paper at the *Applied Simulation and Modelling (ASM 2004) International Conference*, Rhodes, Greece during June 28-30, 2004.
3. Received an invitation from Malta Council for Science and Technology to present a paper on “R&D Potentials in ICT: Case of Lebanon,” within the Session entitled: “The Future Financing of RTDI” at the *4th eForsee International Conference*, November 13-14, 2003, Malta.
4. Awarded a *short-term* research grant by the University Research Board, American University of Beirut, to present a paper at the *ACS/IEEE International Conference on Computer Systems and Applications*, Tunisia during July 14-18, 2003.
5. Received an invitation from Microsoft Research, Cambridge, UK to attend the “Microsoft Research .NET Regional Crash Course”, held during June 21-23, 2003 in Dubai, UAE.
6. Awarded a *short-term* research grant by the University Research Board, American University of Beirut, to present a paper at the *12th International Conference on Field Programmable Logic and Applications*, Montpellier, France during September 1-5, 2002.
7. Awarded a *short-term* research grant by the University Research Board, American University of Beirut, to present a paper at the *10th International Conference on Computing and Information*, Kuwait University, Kuwait during November 18-21, 2000.
8. Awarded a *short-term* research grant by the University Research Board, American University of Beirut, to present a paper at the *2000 Symposium on Performance Evaluation of Computer and Telecommunication Systems*, Coast Plaza Hotel, Vancouver, Canada during July 16-20, 2000.

9. Awarded a *research grant* by the German Academic Exchange Service (Deutscher Akademischer Austauschdienst - DAAD), to visit the University of Koblenz-Landau, Koblenz, Federal Republic of Germany during July-August 1999.
10. Awarded a *short-term research grant* by the University Research Board, American University of Beirut, to present a paper at the *4th International Conference on Numerical Methods and Applications*, Bulgarian Academy of Sciences, Sofia, Bulgaria during August 18-24, 1998.
11. Awarded a *short-term research grant* by the University Research Board, American University of Beirut, to visit the University of Birmingham, UK during August 2-15, 1997.
12. Awarded a *short-term research grant* by the University Research Board, American University of Beirut, to visit the University of Birmingham, UK during August 10-24, 1996.
13. Awarded a *short-term research grant* by the University Research Board, American University of Beirut, to visit Columbia University, New York, USA during August 6-20, 1995.
14. Awarded a *short-term research grant* by the University Research Board, American University of Beirut, to visit the University of Illinois at Urbana-Champaign and Cleveland State University, USA during August 15-30, 1994.
15. Awarded a *long-term research grant* by the University Research Board, American University of Beirut, to visit Syracuse University, USA during July 15 - September 15, 1993.
16. Awarded a *long-term research grant* by the University Research Board, American University of Beirut, to visit the Australian National University, Canberra, Australia during September 2 – October 26, 1991.
17. Awarded the *Fulbright research award* (grant #88-11362) by the United States Information Agency (USIA), Council for International Exchange of Scholars (CIES), to visit the Department of Electrical and Computer Engineering, University of Illinois at Urbana-Champaign, Urbana, Illinois, U.S.A. during the period July 7, 1988 until September 24, 1988.

XVI.

**TECHNICAL RESEARCH &
QUALITY AUDIT REPORTS**

1. J. Thomas, **H. Diab**, M.A. Hastaoglu, B. Stäuble, A. Al Ghassani, A. Al-Hassnawi, and S. Trevor-Roper, “Quality Audit Report for Caledonian College of Engineering (A University College in Oman)”, Oman Academic Accreditation Authority, April 2011.
2. R. Al Bayoumi, P. Brierley, B. Swanick, S. Herzog, **H. Diab**, and T. Goodliffe, “Quality Audit Report for Higher College of Technology (A University College in Oman)”, Omani Accreditation Council, October 2009.
3. **H. Diab**, “High performance reconfigurable computing for cryptographic algorithms,” Progress Report, University Research Board, American University of Beirut, Lebanon, March 2004.
4. **H. Diab**, “Performance analysis of computationally intensive algorithms using reconfigurable computing,” University Research Board, American University of Beirut, Lebanon, September 2002.
5. **H. Diab**, “Performance evaluation of reconfigurable computer architectures,” University Research Board, American University of Beirut, Lebanon, September 2001.
6. **H. Diab**, “Application of fuzzy methodology to performance evaluation in parallel processing systems,” University Research Board, American University of Beirut, Lebanon, September 2000.
7. **H. Diab**, “Application of fuzzy algorithms to cache memory management policies,” University Research Board, American University of Beirut, Lebanon, June 1999.
8. **H. Diab**, “Performance analysis of bus networks in multiprocessor systems,” University Research Board, American University of Beirut, Lebanon, July 1998.
9. **H. Diab**, and F. Mrad, “Intelligent automation in building management systems,” Lebanese National Council for Scientific Research, Beirut, December 1997.
10. **H. Diab**, “Dynamic allocation of buffer space in smart multistage interconnection networks,” University Research Board, American University of Beirut, Lebanon, July 1997.
11. **H. Diab**, “Performance visualization tool for parallel processing systems,” University Research Board, American University of Beirut, Beirut, July 1996.

12. **H. Diab**, and F. Mrad, "Microprocessor-based industrial controllers," Lebanese National Council for Scientific Research, Beirut, March 1996.
13. **H. Diab**, "A tool for the performance evaluation of parallel applications on multiprocessor systems," University Research Board, American University of Beirut, Lebanon, July 1995.
14. **H. Diab**, I. Kaysi, and F. Mrad, "Traffic control systems in municipal Beirut: Overall strategies and technical specifications," Team International, Beirut, Lebanon, December 1994.
15. **H. Diab**, A. El-Hajj, K. Kabalan, and S. Khoury, "Lebanese High-Speed Network: High Level Definition," Final Report, Lebanese National Council for Scientific Research, Beirut, December 1994.
16. **H. Diab**, "Simulation of parallel processing systems using neural networks," University Research Board, American University of Beirut, Lebanon, July 1994.
17. **H. Diab**, A. El-Hajj, K. Kabalan, and S. Khoury, "A Lebanese computer network," Progress Report, Lebanese National Council for Scientific Research, Beirut, December 1993.
18. **H. Diab**, "A CAD tool for the performance evaluation of dynamic data flow architectures," University Research Board, American University of Beirut, Lebanon, July 1993.
19. **H. Diab**, "Engineering applications of fractals," University Research Board, American University of Beirut, Lebanon, June 1992.
20. **H. Diab**, "A parallel processing architecture identification CAD tool for real-time simulation of complex dynamic systems," University Research Board, American University of Beirut, Lebanon, June 1991.
21. **H. Diab**, "A CAD package for simulation of parallel processing architectures," University Research Board, American University of Beirut, Lebanon, June 1990.
22. **H. Diab**, L. Raad, and I. Kaysi, "Computer simulation of pavement design," Research Technical Report #8, University Research Board, American University of Beirut, Lebanon, June 1989.
23. **H. Diab**, "A computer graphics teaching package," Research Technical Report #6, University Research Board, American University of Beirut, Lebanon, November 1988.
24. M. Yehia, M. Saidy, **H. Diab**, and K. Kabalan, "Electrical performance improvement of the Lebanese electrical systems and its development," Research Technical Report #4, University Research Board, American University of Beirut, Lebanon, June 1988.

25. **H. Diab**, M. Yehia, and I. Abo-Hassan, "Dynamic computer graphics simulation of the Lebanese electrical power system," Research Technical Report #2, University Research Board, American University of Beirut, Lebanon, June 1988.
26. M. Yehia, M. Saidy, **H. Diab**, and K. Kabalan, "Electrical performance improvement of the Lebanese electrical systems and its development," Research Technical Report #1, University Research Board, American University of Beirut, Lebanon, April 1988.
27. **H. Diab**, "The hidden-surface problem," Department of Electrical Engineering, University of Bath, Bath, U.K., May 1985.
28. **H. Diab**, "Aerodynamics model of the 510 series 1-11 aircraft," Department of Electrical Engineering, University of Bath, Bath, U.K., May 1985.
29. **H. Diab**, "Efficient utilization of power consumption for rotating machines and associated systems," IBM UK Ltd., Portsmouth, U.K., September 1982.

APPENDIX (A): LIST OF UNDERGRADUATE FINAL-YEAR PROJECTS

I have supervised 42 final-year undergraduate projects over the period 1986-2004 for B. Eng. (Bachelor of Engineering) students, with majors in Electrical Engineering (EE) as well as Computer and Communications Engineering (CCE).

1. 2003 - 2004

- a) Interactive applications through GPRS, and
- b) JPEG image compression on MorphoSys: Mapping and performance analysis.

2. 2002 - 2003

- a) Integration of Bluetooth technology in mobile robots and computer peripherals,
- b) Security system enhancement to On-line Banks Balances and Statements (OBBS) at Banque Du Liban (BDL), and
- c) Omni directional vision.

3. 2001 - 2002

- a) Development of a post-processing tool for an application (TEMS Investigation 3.1) that evaluates GPRS quality,
- b) Performance evaluation of image processing algorithms on reconfigurable computing systems, and
- c) Parallel processing in computational molecular physics.

4. 1997 - 1998

- a) Performance evaluation of the DCT on a homogenous multiprocessor system, and
- b) Designing a remote control interface for a PC.

5. 1996 -1997

- a) Computer simulation using fuzzy modeling, and
- b) Engineering applications to fractals.

6. 1995 - 1996

- a) Simulation of motor drive control systems using an existing CAD tool,
- b) Application of fuzzy control for weather prediction, and
- c) Design and implementation of a data analysis visual tool.

7. 1994 - 1995

- a) Development of an iterative equation solver with accelerated convergence rates,
- b) Application of a fuzzy controller for the prediction of population growth,
- c) A general-purpose visualization tool, and
- d) Simulation of a driver guidance system.

8. 1993 - 1994

- a) An interactive graphical tool for function manipulation,
- b) A CAD tool for the simulation of complex controllers, and
- c) Fractal geometry in electrical engineering.

9. 1992 - 1993

- a) Input/Output graphics interface for CFD applications,
- b) Programmable data switch, and
- c) Simulation of an intelligent controller

10. 1991 - 1992

- a) An FEA scrolling display, and
- b) Performance evaluation of a user-defined fault-tolerant multiprocessor system.

11. 1990 - 1991

- a) Performance evaluation of instruction and arithmetic pipelining,
- b) An educational tool for graphical simulation of potential flows,
- c) A remotely computer-controlled vehicle, and
- d) A packet queuing simulation package for parallel processing systems.

12. **1989 – 1990**

- a) The effect of gain variations on the stability of feedback controlled circuits using fractal techniques,
- b) An optimal subtask distributor for a reconfigurable LAN-based multi-computer system,
- c) Flow simulation of majority and minority carriers in a bipolar transistor, and
- d) Fractal simulation of flocculation in water treatment

13. **1988 – 1989**

- a) Design of a screen controller for saving/retrieving pictures,
- b) A digital logic design teaching package, and
- c) Systolic architecture of a 3D matrix multiplier.

14. **1987 – 1988**

- a) Using a Joystick to Control and Program a Mini-Robot Simulator, and
- b) Combinational/sequential logic analyzer emulator.

15. **1986 – 1987**

- a) A menu-driven screen processor, and
- b) AC circuit analysis simulator.

APPENDIX (B): CURRENT RESEARCH AREAS

Performance Evaluation of Reconfigurable Computer Architectures

Processors vary from ASICs (Application-specific Integrated Circuits) designed to perform specific predefined operation(s), to general-purpose processors (GPPs) designed to perform a wide range of applications. ASICs make use of the inherent quality of a certain application's algorithm to provide very high performance. On the other hand, GPPs are designed to execute any application. With that, comes the need of a system that combines the high performance of ASICs and the flexibility of GPPs. This has led to the introduction of reconfigurable computing (RC) that employs both reconfigurable hardware and programmable processors. RC allows the user to configure the hardware through software by defining the hardware resources needed for a certain application. The aim of this research is the mapping of new applications on an RC architecture, which will involve tuning the algorithm, pertaining to the application, to the hardware. The driving force of the above is to optimize the execution performance.

Implementation of Cryptographic Algorithms on High Performance Parallel Architectures

This research explores parallelization of applications in the field of cryptography on parallel architectures. Data security will play a central role in the design of future IT systems and cryptographic engines realized on parallel architectures are a promising option for protecting these systems. Implementation of cryptographic algorithms presents several requirements and challenges and the performance of these algorithms is often crucial. The goal of this research will be to gain insight of the potential that some parallel architectures offer for cryptographic algorithms.

Application of Fuzzy Logic to Performance Evaluation in Parallel Processing Systems

Performance is one of the key factors that need to be taken into account in the design, development, configuration, and tuning of a computer system. Hence, the quantitative evaluation of computer performance (CP) is needed during the entire life cycle of a computer system. The methods that have been used can be divided into three main areas, namely performance measurement, analytic performance modeling, and simulation performance modeling. These methods have been applied across the entire spectrum of computer systems. This research work proposes the introduction of fuzzy logic methodology as an alternative simulation performance modeling technique. This methodology has been successfully used in specific CP application areas including performance evaluation of cache memory and of the arbiters used for multiple-bus multiprocessor systems.

Scheduling of Parallel Tasks onto Modular Parallel Architectures

In either sequential or parallel systems, the architecture is characterized by functional components, the communication topology and facilities, and control structures and mechanisms. However, there are several issues related to parallelization that do not arise in sequential programming. One of the most important issues is task allocation that is the breakdown of the total workload into smaller tasks assigned to different processors, and the proper sequencing of the tasks when some of them are interdependent and cannot be executed simultaneously. To achieve the highest level of performance it is important to ensure that each processor is properly utilized. This process is called load balancing or scheduling and it is considered to be extremely “formidable” to solve. The aim of this research is to develop efficient techniques for mapping and scheduling of parallel tasks onto networks of parallel processors.

Global Issues in Education and Higher Education in the MENA Region

My interest in research in education not only stems from the early days of my research years in the application of simulation to engineering education but also in a more concentrated manner after my appointment as Minister of Education & Higher Education. My research in this area focuses on the investigation of relationships in different fields of higher education. To date, I have worked in different research areas in education with the active and constructivism theories as the theoretical framework of my research in the higher education field. I have also conducted research based on approaches related to women empowerment. My current research focuses primarily on knowledge sharing processes in educational institutions and on the impact of the use of ICT in school and university classrooms. More importantly, I have conducted research on curriculum reform at the school and university scales. I have been also interested in developing methods to assess knowledge sharing and its effects on examining interventions designed to improve different teaching/learning processes. My research is also grounded in the processes of communication, coordination and knowledge-sharing which are of utmost importance. My current research is mainly on curriculum development, teacher professional development, and educational planning with governments and educational institutions in almost all of the Arab countries in the MENA region.



