IAT Technological Education Conference

IAT TEC 2010

Book of Abstracts

معهد التكنولوجيا التطبيقية
INSTITUTE OF APPLIED TECHNOLOGY
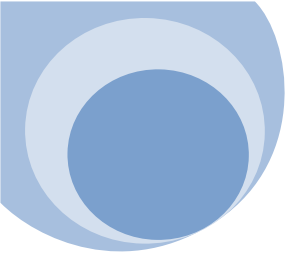"Emiratization of Technological Careers"
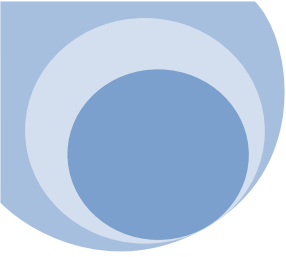
2010

Book of Abstracts

IAT Technological Education Conference
IAT TEC 2010
Setting Emirati Workforce on Early Engineering Track

1-2 March 2010, The Yas Hotel, Abu Dhabi

IAT TEC 2010
IAT Technological Education Conference

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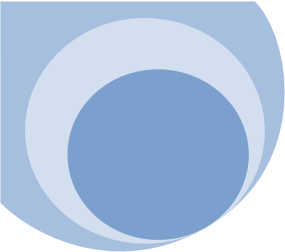| Ms. Violetta Dziuk	Mr. Rana Khan	Mr. Ahmed AlKhanbashi
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IAT Technological Education Conference

The Institute of Applied Technology (IAT), one of the Career Technical Education (CTE) stakeholders in the UAE and accredited by the Southern Association of Colleges and Schools (SACS), is leading the quest for technology education by organizing the IAT Technological Education Conference (IAT TEC 2010) on 1-2 March 2010. The focus of the conference is **"Setting Emirati Workforce on Early Engineering Track"** and it aims at shedding the light on the need for CTE in the UAE and exchanging educational best practices in: curriculum design, curriculum content, accreditation, engineering articulation in secondary curriculum, instructional methods, assessment tools, and educator professional development.

The conference will commence with a session that addresses the question: What can you start doing today to improve what your school does tomorrow? Schools that embrace and commit to improvement through the accreditation process are more likely to establish the conditions and behaviors necessary to be successful in improving the quality of education resulting in higher student performance. In this rapidly changing and expanding global society, successful schools must ensure that every student is prepared for a future that we can only imagine. So, what are the processes, conditions, and behaviors the schools must support and recognize in order to be successful in helping every student? The session will focus on what we must start doing today in order to be successful for tomorrow.

On the second day, the conference will focus on defining the 21st century skills required for students entering the workforce or progressing on to higher education. Worldwide best practices support One-to-One E-Learning as a very effective and efficient way to develop these critical 21st century skills. The move toward One-to-One E-Learning is becoming a global phenomenon and is best implemented by using a holistic approach which includes teachers and students having laptops, rich digital content, broadband Internet connectivity, and professional development for teachers. Practical, real-world examples of "what works" and "what doesn't work" will be discussed.

Conference Sponsors

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IAT TEC 2010

IAT Technological Education Conference

Program at a Glance

DAY 1   Monday, March 1, 2010

09:30 - 10:00	Opening Ceremony
10:00 - 10:45	Keynote Lecture **Building Quality Schools Through Accreditation** **Dr. Mark A. Elgart, President & CEO, AdvancED - SACS, USA**
10:45 - 11:00	Break
11:00 - 12:00	Discussion Panel (Accreditation)

TECHNICAL SESSIONS

12:00 - 13:30	Technical Session A	Technical Session B
13:30 - 14:30	Lunch Break	

WORKSHOPS

14:30 - 17:00	PC Technologies	Micro-Controllers	Graphic Design

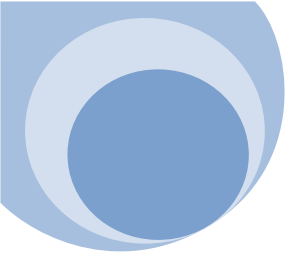## DAY 2   Tuesday, March 2, 2010

10:00 - 10:45	Keynote Lecture *Best Practices for Deploying 21st Century eLearning* **Dr. Robert Fogel, Principal Education Architect** **Intel Corp, World Ahead Program, USA**
10:45 - 11:00	Break
11:00 - 12:00	Discussion Panel (Technology Education)

TECHNICAL SESSIONS

12:00 - 13:30	Technical Session A	Technical Session B
13:30 - 14:30	Lunch Break	

WORKSHOPS

14:30 - 17:00	Robotics	PLC	Web Development

IAT Technological Education Conference
IAT TEC 2010

Program – Day 1

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Dr. Rob Leveillee
Vice President for Int'l Services | AdvancED - SACS, USA

Prof. Rafic Makki
Executive Director, Global Partnership and Developments | ADEC

Mr. Mubarak Al Shamsi
Institute of Applied Technology

Ms. Shaikha AlShamsi
Director of School Approval & Accreditation Dept. | Ministry of Education

Mr. Fahad Al Qahtani
Media Relations Manager | Emirates Nuclear Energy Corporation
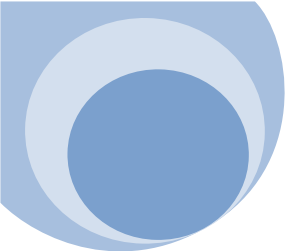
Program – Day 1

Technical Sessions

|	Technical Session A **Chair: Dr. Ra'a Said** Senior Manager, Curriculum & Assessment, IAT	Technical Session B **Chair: Dr. Michael Jacobson** Acting Chair, Electronic & Electrical Eng., HCT
12:00 – 12:20	Enhancing Students' ESL & Motivation Using an E-Learning Platform at IAT Al-Ain **Mr. Ismail Abdul-Wahab Fayed** Institute of Applied Technology	Articulation to New Engineering Technology Programs at HCT **Dr. Michael Jacobson / Dr. Shakib Farhat** Higher Colleges of Technology
12:20 – 12:40	Online Collaboration and Publication in the Classroom **Ms. Rehab Mohamed Ragab** Institute of Applied Technology	Engineering/Technology Curriculum Development for High School: Attracting Future Electronic Engineers **Mr. Nabil Afifi** Higher Colleges of Technology
12:40 – 13:00	Using the Internet to Enrich Mathematics Teaching **Mr. Wassim El Asmar** Institute of Applied Technology	Curriculum Design for the 21st Century Emirate **Mr. David Graham Dillin** Vocational Education Dev. Centre
13:00 – 13:20	Learning for Jobs in the UAE **Mr. Ayman Ramadan** Vocational Education Dev. Centre	Behind the Scenes: The CALLA Model in Curriculum Design **Ms. Senabil Al-Hussaini** Institute of Applied Technology
13:30 – 14:30	Lunch Break	

14:30 – 17:00	## Workshops
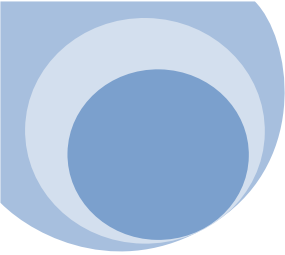
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11:00 - 12:00	**Discussion Panel: Technology Education**

Dr. Abdullatif Al Shamsi
Institute of Applied Technology

Dr. Essa Bastaki
Chair | Chair, IEEE Emirates Section

Mr. Andrea Emiliani
Business Development Executive, Academia | IBM Learning Solutions

Mr. Iyad Malaeb
Strategic Relations Manager | Intel

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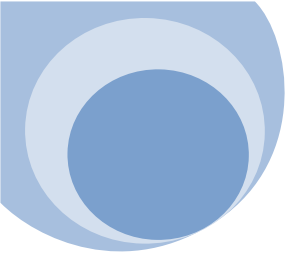
Program – Day 2

Technical Sessions

	Technical Session A **Chair: Dr. Hassan A. Hussein** Assistant Professor, Science Dept. ECAE	**Technical Session B** **Chair: Ms. Senabil Al-Hussaini** Core Development Manager, IAT
12:00 - 12:20	The Role and Barriers of Integrating Technology into U.A.E. Secondary School Science Curriculum **Dr. Hassan A. Hussein** Emirates College for Advanced Education	Designing a Standards-based ICT Curriculum for Secondary Schools **Mr. Shadi Ayoub** Institute of Applied Technology
12:20 - 12:40	The Effective Integration of Technology **Mr. Wael Abou Hawash** Institute of Applied Technology	Task-oriented Curriculum Design **Mr. Sami Mohamed Obeidat** Training Expert
12:40 - 13:00	Technology: Teaching, Assessing, and Motivating **Mr. Alton George Rose** Institute of Applied Technology	Genre Awareness and Text Study in the ESL/EFL Curriculum **Mr. Phillip J. Keane** Institute of Applied Technology
13:00 - 13:20	البرمجيات في خدمة اللغة العربية **د. توفيق بلطه جي** معهد التكنولوجيا التطبيقية	Technical English for English Language Learners **Mr. Hamid Nasim Khattak** Higher Colleges of Technology
13:30 - 14:30	Lunch Break	

14:30 - 17:00	## Workshops

Table of Contents

Dr. Mark A. Elgart

President and Chief Executive
Officer, AdvancED

What can you start doing today to improve what your school does tomorrow? Schools that embrace and commit to improvement through the accreditation process are more likely to establish the conditions and behavior necessary to be successful in improving the quality of education that results in improved student performance. In this rapidly changing and expanding global Society successful schools must ensure that every student is prepared for a future that we can only imagine. What are the processes, conditions, and behaviors that schools must support and recognize so that the institution is successful in helping every student be prepared? The session will focus on what we must start doing today in order to be successful tomorrow.

Author's Biography:

Mark A. Elgart currently serves as the founding President and Chief Executive Officer for Advance Education (AdvancED), the parent organization for the North Central Association Commission on Accreditation and School Improvement (NCA CASI), the Southern Association of Colleges and Schools Council on Accreditation and School Improvement (SACS CASI), National Study of School Evaluation (NSSE) and the ommission on International and Trans-Regional Accreditation (CITA). His visionary leadership and collaborative skills were critical to the successful unification of the 11 SACS CASI states, the 19 North Central states, and the research arm, the National Study of School Evaluation, under the umbrella of AdvancED. Under his leadership, AdvancED is recognized as a leader on issues of educational quality.

Elgart currently serves on the Board of Directors for the National Council for Accreditation of Teacher Education (NCATE), the Board of Directors of the Knowledge Alliance, the Advisory Board of Measured Progress, and is a National Advisor for the National Staff Development Council.

Keynote Speech: Best Practices for Deploying 21st Century elearning

Dr. Robert Fogel

Principal Education Architect, Intel Corp,
World Ahead Program, USA.

Today, 21st century skills are a minimum requirement for students entering the workforce or progressing to higher-education. Worldwide best practices support 1:1 eLearning as a very effective and efficient way to develop these critical 21st century skills. Moving toward

1:1 eLearning is becoming global phenomenon and is best implemented using an holistic approach which includes teacher and student laptops, rich digital content, broadband Internet connectivity and professional development for teachers.

Author's Biography:

Robert Fogel is the principal education architect for Intel's World Ahead program which is focused on reaching the "next" billion users with broadband Internet connectivity, state-of-the-art computer technology, collaborative rich-media content, and interactive 1:1 education environments. Robert works closely with government officials from countries around the world as well as with non-government organizations, education content providers, global & local industry, and educators to develop cost-effective 1:1 education solutions that help children develop 21st century skills, prepare them for higher education and thrive in today's global economy. Reference: http://www.intelworldahead.com/index.html

Robert was recently the vice-president of the Open Grid Forum (OGF, www.ogf.org) which is an international community leading the effort for broad-scale adoption of Grid technology which utilizes shared computing, storage and network resources for doing academic research, developing local industry, and for next-generation IT infrastructure.

Enhancing Students writing & Motivation using an E-learning Platform at Al- AIN IAT

Day 1: Technical Session A

Mr. Ismail Fayed[1], Mr. Omar Al Noursi[2]

[1]English Teacher
[2]English Lead Teacher, Institute of Applied Technology

The paper highlights the importance of integrating VLE to traditional f-2-f education in the secondary stage in UAE. Findings of this study suggest VLEs & blended learning as solutions to students' lack of both learning motivation and English language writing skills in the secondary education.

Authors Biography:

Author1:

Ismail is a Teacher of English at the Institute of Applied Technology. He obtained his MA in Educational Technology and TESOL from the University of Manchester. He has two post-graduate diplomas from Ain Shams University & a BA in TEFL from Mansoura University in Egypt. He is a co-editor of the recently published book, *Computers in ELT*, 2010. He is also TESOL-Arabia Webmaster. Mr. Fayed chairs the first TESOL Arabia's conference ONLINE (TACON Online 2010) new initiative.

Author 2:

Omar Al-Noursi is an English language (Lead) Teacher at IAT Al-Ain. He holds his MA in TESOL from Jordan University. He also has a BA in English. He has been teaching for more than 15 years. Among his interests are teacher training, CALL, adult education and research.

Ms. Rehab Ragab

English Teacher, Institute of Applied Technology

Hybrid learning environments can take communication among the learners, or the learners and the instructor, to new dimensions – that makes the learning experience more interesting. This presentation will showcase examples, from the presenter's classroom and other resources, of how synchronous and asynchronous communication tools can be used to diversify activities built into a K12 curriculum to create technology-enhanced collaborative learning contexts.

Author's Biography:

Rehab Ragab has been teaching English as a foreign language for ten years. When she first joined IAT, she was impressed with the amount of technology available at the school. She has been employing technology successfully to improve her students' learning since 2006. Rehab has been involved in many PD activities with her school and as TESOL Arabia Organization representative in Dubai. She has a BA in Education, CELTA certificate an IADCS diploma (Business Systems Analysis and Design) and currently doing her MA in Educational Technology.

Mr. Wassim El Asmar

Mathematics Specialist, Institute of Applied Technology

Mathematical understanding is not something of a purely computational character; it depends on reasoning and higher order thinking skills. Before technology, mathematics was restricted to those who mastered calculation and mechanical processes. Nowadays, technology allows freedom for many people to do mathematics. The internet provides students with many interesting ways to learn mathematics. This paper will shed the light on some of those ways: (1) Communication is enhanced using the internet since it permits teachers and students to communicate with others worldwide who have the same interests; (2) Resources and reference materials are broadened by giving access to complete encyclopedias and dictionaries; (3) Mathematical reading is enriched through accessing updated and affordable articles and research papers; (4) Problem solving ability is increased by educational websites offering audio/video tools that demonstrate mathematical concepts. These are some examples of how the internet has added to the teaching and learning process of Mathematics.

Author's Biography:

Wassim El Asmar is an educator in the field of Mathematics and is currently the Mathematics Specialist at the Institute of Applied Technology (IAT) in the United Arab Emirates. He was a senior Mathematics instructor for 12 years and head of the Mathematics department for 10 years in Dubai International School supervising over 40 Mathematics teachers. His approach to teaching Mathematics includes the use of lectures, assignments, and technology-related projects to create an exciting and engaging learning environment for students. He believes Mathematics is an organic whole and is the basis for scientific thinking and action. He promotes Mathematics teaching that develops an understanding of the principles of unity, balance, harmony, generalization, specialization, local versus global, symmetry, analysis, and synthesis and that encourages a critical mind based on both logic and intuition.

Mr. Ayman Ramadan

Engineering & Automotive Specialist,
VEDC

This paper describes the historical CTE progress in the UAE as measured by the CTE enrolments as a percentage of total enrolments in secondary education over the past four decades as derived from the UNESCO statistics. A simple benchmarking is made to compare how the CTE progressed in the UAE compared to other sample nations in Western Asia and around the globe. A simple induction is made for the reasons of the CTE uneven progress in the UAE and its region in view of the aforementioned statistical data. A brief will follow on the challenges facing the CTE in the UAE and a suggested approach to improve the progress.

The paper further highlights the positive multi-dimensional roles of CTE to increase the overall competitiveness of the UAE. CTE is a rich context to build and develop the integrated Science, Technology, Engineering and Mathematics (STEM) knowledge cluster. STEM cluster empowers learners to develop real-world problem solving skills. CTE improves other educational performance measures such as increasing learners' engagement, reducing dropout rates and improving secondary graduates readiness for employment or further education. CTE improves the UAE economic competitiveness through fulfilling the employers' needs for skilled workers by aligning more closely to emerging career clusters, and offering more flexibility than General Secondary Education to diversify into future occupations.

Author's Biography:

Ayman A. Ramadan is working as an Engineering and Automotive Technology Specialist at the Vocational Education and Development Centre/ Institute of Applied Technology. His qualifications are MBA (Massey University- NZ), MScMech Eng (Al-Mustansyria University-Iraq) and PGDipEd (Unitec-NZ). He developed a main interest in CTE, and particularly in the articulation of the curriculum for improving the students' school attachment and readiness for employment or further education. Other main fields of interest are renewable energy, green industry/ transport and sustainability. Ayman's prior work experience includes lecturing and researching in the field of transport applied technology in NZ as well as working in the engineering and the automotive industries in both the Gulf region and NZ.

Dr. Michael Jacobson[1] , Dr. Shakib Farhat[2]

[1]Acting Chair Electronics & Electrical
Engineering,
[2]Associate Dean of Engineering
Higher Colleges of Technology

Technological development of the United Arab Emirates requires graduates in all levels of industry. According to the vision statement, the Institute of Applied Technology (IAT) endeavors to work collaboratively to equip students with the academic, vocational, societal and workplace skills essential to lead successful twenty-first century careers. Part of collaboration is the consideration of preparing students for the pursuit of advanced qualifications. In view of the IAT curricula which incorporate use of problem solving, creative thinking, and active, hands-on learning, the new diploma and bachelor qualifications of the Higher Colleges of Technology (HCT) provide a similar learning environment for continued study. This brief paper presents a summary structure of the HCT programs from which IAT graduates can benefit through an articulation pathway by consideration of entry requirements.

Author's Biography:

Dr. Jacobson completed his Bachelors and Masters of Science degrees in Electrical Engineering at the University of Minnesota in 1986 and 1988 respectively. After 4 years with Data Sciences International, which specializes in physiological measurement, he joined the United Arab Emirates University for 11 years and earned a PhD through diabetic research at Napier University, UK. After a year back at the University of Minnesota, he joined the Faculty of Biomedical Engineering at the Higher Colleges of Technology. Currently, Dr. Jacobson is serving as the Chair of Electrical and Electronics Engineering at Abu Dhabi Men's Campus of the Higher Colleges of Technology.

Engineering/ Technology Curriculum Development for High School: Attracting Future Electronic Engineers

Day 1: Technical Session B

Mr. Nabil Afifi[1], Dr. Princy Skantharajah

[1]Electronic Engineering Faculty,
[2]Assessmnet Coordinator at the CTL
 Higher Colleges of Technology

Over the past few decades, technological innovations have significantly improved our industry, transformed our society and improved the quality of our life. These recent advances in technology have been primarily driven by engineers and innovators. A key to fuel this drive is to strengthen engineering skills in students not only at college and university level but also at the secondary school level to help prepare future engineers and innovators. However, traditional secondary school curriculum is designed to offer only basic math, science and social science with little emphasis on engineering. As such high school students are often faced with the dilemma of choosing a field and a career to pursue. Although, not all students will end up in engineering courses, it is important to attract large number of students at school levels. In the information and technology age, high school curriculum is faced with the challenge to prepare students for an increasingly technological society.

Author's Biography:

Author 1:
Mr Nabil is an Electronic Engineering faculty at the Higher Colleges of technology (**HCT**) in Sharjah. He joined the HCT in 2007 where he focuses his teaching on Telecommunication courses. Mr Nabil started his academic career in education when he started teaching at Curtin University of Technology. Before his academic career, Mr Nabil worked in the industry in the Design Center of Infineon Technologies based in Singapore. Prior to that, he worked as a Research & Development (R&D) Engineer at Curtin University of Technology, Australia.

Author 2:
Dr. Princy. Skantharajah is an assessment coordinator at the CTL, Sharjah Higher Colleges of technology. She joined the HCT in 2008. Princy started her academic career in education sector and has experience in Teacher education and Examination. Her research interest is in class room based assessment.

Curriculum Design of the 21st Century Emirate

Day 1: Technical Session B

Mr. David Graham Dillin

Teacher
VEDC

The bottom line is curriculum design, and this must have a strong and lasting theoretical element. Therefore, what are the components of this 21st century approach and how should this theory be applied to the modern classroom?

The idea of fostering technological understanding is not new to this region; in fact the golden years of civilization were greatly influenced by technological advances and ingenuity. The mind of a young child instinctively wants to learn and is oriented towards understanding new technologies. Language, itself, is a technological understanding that each person learns inherently. Given the nature of humans to yearn for more, one must wonder what prohibits them from achieving higher understandings of technology and its applications. A coherent educational theory must address these short-comings of the modern educational experiment and provide new avenues of opportunity for the young mind to traverse. Skilled professionals in all fields are needed, but more importantly, a horizontal approach and management structure is necessary in getting all parts to work efficiently. Theoretically, the only way to foster a marketplace of ideas is to provide more freedom and autonomy to students, teachers and administrators. The application of this concept would place greater burdens on teachers and require the utilization of new educational structures. Technology is only as good as its user and application.

Author's Biography:

David Graham Dillin earned a B.A. in International Affairs, and a B.A. in Political Science in 1988 from Trinity University, and an M.Sc. in Applied Linguistics in 2004 from the University of Southern Queensland. David has worked in many respected universities in Korea and Vietnam and is presently employed by the Institute of Applied Technology, working in the Shahama based Vocational Education and Development Centre. His work in the field can be seen through numerous publications, curriculum designs and educational policies. David Is currently working on educational policies that are appealing to students while also meeting national standards.

Behind the Scenes: The CALLA Model in Curriculum Design

Day 1: Technical Session B

Ms. Senabil Al-Hussaini

Core Development Manager,
Institute of Applied Technology

Among the challenges that educational leaders face in designing a curriculum that meets 21st century teaching and learning, is the effective integration of essential learning and thinking skills; the 4 Cs (critical thinking and problem solving, communication, collaboration, creativity and innovation) into core academic subjects such as mathematics and science. An additional challenge emerges when learners are required to succeed in a second language academic program, and are still in the process of acquiring academic language skills. Can language learners become critical thinkers, communicate, and collaborate effectively during this process?

This paper discusses the Cognitive Academic Language Learning Approach (CALLA) as one of the few powerful instructional strategies that targets rich academic content and critical thinking skills. The model was developed by Anna Uhl Chamot and J. Michael O'Malley and is based on the cognitive theory of learning. Its objective is to combine both content knowledge and academic language skills in a set of practices that help English language learners achieve academic success in core subject areas. The paper reports on the rationale and guidelines for designing and implementing this model in the core areas of the curriculum, as well as its effectiveness in narrowing the gap between content knowledge and the 21st century essential skills.

Author's Biography:

A curriculum developer and manager for career and technical secondary education. Her interest is in developing authentic core curricula that incorporate the 21st century skills as an effective tool for college and career readiness. Creative learning approaches that integrate technology and higher order thinking skills are the main focus. She is a graduate of the University of Baghdad where she obtained a Bachelors degree from the College of Education, chemistry department in 1993, and a Masters degree from the College of Science in 1998. Recently, she joined Michigan State University to pursue her studies in instructional technology. In 2002, she moved to the UAE to work as a science teacher and head of science department and has established and developed a grade 4-12 science curriculum. From there she moved into the field of career and technical education when joining the Institute of Applied Technology (IAT) in 2007 as a Science Specialist, and has established a standardized rigorous science curriculum that caters for the different career clusters at the institute. In 2009, she was assigned to be the Core Development Manager at IAT.

The Role & Barriers of Integrating Technology into UAE Secondary School Science Curriculum

Day 2: Technical Session A

Dr. Hassan A. Hussein

Assistant Professor of Science,
Emirates College for Advanced Education

Many classrooms in U.AE. schools have technology equipments such computers. Science teachers may use them to prepare lessons, check attendance but their most important use by far are not in the role of instruction.

The purpose of this study was to investigate the extent to which technology has been integrated into the science curriculum in the U.A.E secondary schools and barriers that prevent science teachers from integrating technology into the teaching/learning process.

The use of technology into U.A.E. secondary schools should occur as a component of a broader effort of school reform to improve the learning of all students. Such reforms include developing and implementing high standards of science and technology integration, creating assessment systems that effectively measure the attainment of such standards, restructuring the roles of teachers, and adopting instructional practices that increase students' motivation and time to learn.

In the UAE school system; there are three major obstacles to integrating technology into science subject in the U.A.E. schools: a) teachers' lack of technology skills, b) lack of technology education program c) use of traditional teaching methods.

Author's Biography:

Dr. Hassan A. Hussein is a currently an Assistant Professor of Science and science education at the Emirates College for Advanced Education (ECAE), Abu Dhabi, UAE. He holds PhD and Master degrees in science and education respectively. Dr. Hussein has more than ten years of extensive teaching experience at the tertiary, secondary, middle school levels. He has teaching licenses in general science, earth science, integrated math and TESOL. Currently he teaches courses in physical science, chemistry and earth science and science curriculum studies. Before coming to the U.A.E. he taught at the Columbus State C. College and Columbus City Schools, OH, USA.

The Effective Integration of Technology

Day 2: Technical Session A

Mr. Wael Abou Hawash

Science Specialist,
Institute of Applied Technology

Technology in Education has been the debate of many educators and researchers, who are constantly searching for ways to promote its integration into the teaching-learning process. The paper sheds the light on the current practices and perceptions regarding the usage of technology in the educational process, discussing the effectiveness of such integration in increasing readiness of graduating students and developing the skills and knowledge needed in the 21st century. The discussion explores some myths about technology being only used as a tool that would deliver instruction and compete with the teacher to enhance students' performance. It focuses on how the roles of both teachers and students could change in order for technology to be integrated more effectively and efficiently to support learning. Thus for all aspects of the teaching-learning process, including classroom practices and setup, the planning process is the key to successful technology integration.

Author's Biography:

Wael Abou Hawash is a science educator who is currently the Science Specialist at the Institute of Applied Technology in the United Arab Emirates. He has been in the field of education for almost 8 years, serving as a science teacher and department head. Having a passion for teaching, he continuously seeks to develop the skills and knowledge needed to improve student learning, such as incorporating technology in the classroom. He aims at exploring new trends in education that will help prepare students for tomorrow.

Mr. Alton G. Rose

English Teacher,
Institute of Applied Technology

The advancements in the field of technology have facilitated the learning of English as a second language and efficient teachers can very well employ technology in teaching, motivating and assessing students in pursuit of their English as a second language. Smith & Baber advocate the use of various tools such as websites, word processors, instant messaging, blogs, and authoring software that promotes interactive exercises in the teaching-learning process of English as a second language. For them, "these tools do make life easier and can add a valuable extra dimension" to one's teaching.

One of the major challenges before a second language teacher is to motivate the students and make the learning process interesting to the learners. Teachers who are competent and creative enough to design instructional packages with the aid of technological devices are better equipped to take up this challenge. Laborda & Royo reviewing Dudeney & Hockly's book How to teach English with Technology show the immense "possibilities of teachers who work with a variety of types of software and hardware to integrate the contents into their daily teaching plans" However, it is significant that the selected learning activities are in tune with the proficiency level of students.

To conclude, it can be stated that the use of technology can bring about great changes in the teaching-learning process of English as a second language and in the future one can never think of language teaching as mere oral and written communication between the teacher and the learner.

Author's Biography:

Has a Bachelor of Law and a Masters in Linguistics. A Lawyer by training, he has held various jobs including that of Magistrate. In New York, he had a private law practice and hosted a radio call in program. His life story was featured in the New York Times.

Alton has been involved in English Education for over 10 years, most of which was spent teaching English in South Korea. His book "How to get to age 30 wise, healthy and wealthy is available in book stores in South Korea.

Alton is very passionate about English Education and some of his writings on the subject can viewed at koreatimes.co.kr

د. توفيق بلطه جي

اختصاصي اللغة العربية،
معهد التكنولوجيا التطبيقية

مدخل:	**أهم التطبيقات:**
أسهمت التقنيات المعاصرة بشكل كبير في تطور العلوم، واللغة العربية أحد فروع هذه العلوم.	تعرض هذه الفقرة إلى أهم تطبيقات كل نوع من البرامج المذكورة آنفاً. مع الاختصار في تطبيقات شركات البرمجيات، والتفصيل في التطبيقات المدرسية.
تحديد نطاق البحث:	**التقنية وسيلة لا غاية:**
لن يتوقف البحث عند العملية التعليمية داخل المدارس والجامعات؛ وإنما سيتعداها إلى كل ما من شأنه نشر اللغة وتسهيل التعامل بها بين الناس.	ضرورة اختيار الوسائل المناسبة، وعدم الوقوف عند وسيلة تقنية معينة لأنها الأحدث في وقت تتحقق فيه الأهداف من خلال وسيلة أخرى بشكل أفضل.
الأدوات البرمجية (المكونات الصلبةـ الأجهزة):	**تقويم:**
تعدد هذه الفقرة أهم الأجهزة التي تساهم في عملية إيصال المعلومة بشكل مدرسي أو غير مدرسي.	إلى أي مدى تمت الاستفادة الفعلية من هذه البرامج في خدمة اللغة العربية، في المنظور العام، وفي المنظور التعليمي.
البرامج: (المكونات المرنة):	**نتيجة وخاتمة:**
تشتمل هذه الفقرة على تعداد لأهم البرامج الإلكترونية التي تساهم في إيصال المعلومة المقروءة والمسموعة والمرئية.	أهمية التقنيات المعاصرة في نشر اللغة العربية وتعليمها، وضرورة دعمها.

نبذة عن الكاتب:

اختصاصي اللغة العربية والتربية الإسلامية في (IAT) ,دكتوراه في الدراسات الإسلامية, يحضر الدكتوراه الثانية في اللغة العربية , له مؤلفات في اللغة العربية والدراسات الإسلامية: (كيف نتعلم الإعراب)، (موجز تاريخ النحو) (مختارات معربة من كلمات القرآن الكريم) (حكم من القرآن الكريم جرت مجرى الأمثال) (من حكم العرب).
أشرف على إعداد مناهج متنوعة في العلوم الإنسانية, مجاز في القرآن الكريم و له مشاركات عديدة في القنوات الفضائية.

Designing a Standards- based ICT Curriculum for Secondary Schools

Day 2: Technical Session B

Mr. Shadi Ayoub

ICT Specialist,
Institute of Applied Technology

Today's young generations are exposed to Information and Communication Technology (ICT) at early stages of their life that made many of them enthusiastic to learn about ICT at a small age. Surveys were conducted to confirm teenagers' interest in ICT, not only as a topic to study but also as a future trade. Therefore, high schools started to realize the importance of including ICT courses into their educational programs which will not only broaden their reach but also would engage students in preparing for work in the 21st century.

The ICT marketplace today is in need for skilled people in various ICT trades. Examples are: Graphic Design, Web Design, Network Installation & Configuration, PC Maintenance, Database Management, and others. Also, it is believed that the young can fulfill the demand for such skills if given the appropriate training. This is why many big ICT companies have taken the initiative by developing curriculums specially designed for high school students. Examples are Microsoft, Cisco, Oracle, Certiport, Adobe, and others. These companies have incorporated training to educate and prepare young students with broad, contextual knowledge and practical skills. They made the reading style and highly visual approach friendlier, and offered more hands-on learning opportunities in their curriculums.

Adopting internationally recognized ICT curriculums in high school educational programs will enable the schools to have a recognized tool to benchmark students' outcomes. Also, these programs will help the students excel in a wired world by certifying their knowledge through globally recognized certification testing.

Author's Biography:

Holds a master degree in computer engineering and worked for more than 8 years teaching IT courses in Jordan University of Science and Technology (JUST). Also, he worked on important projects in Jordan as a Web Developer freelancer for two years. Currently, he is working in the Curriculum and Assessment Unit at the Institute of Applied Technology (IAT) as an ICT Specialist. He is the designer for the ICT curriculum delivered in applied technology schools in the UAE. Eng. Shadi holds a number of professional certificates in Web Design, Networking, PC Maintenance, programming, and Computer Literacy. In addition, he participated as a World Skills Expert in the Web Design trade in Calgary, Canada 2009.

Task Oriented Curriculum Design
Day 2: Technical Session B

Mr. Sami M. Obeidat

Training Expert, Private

Most educational institutions implement conventional courses that lack achievement of efficiency and efficacy in the learning system that leads to a gap of skills and knowledge as well as attitudes necessary to further their study as the level of instructions varies (Instructor dependent courses).

This intended paper will introduce the participants to a systematic approach in curriculum design, and will explain a high quality standards methodology to design Standardized Training Packages for task oriented courses (Material dependent courses).

These courses produce well-qualified personnel in a wide range of disciplines and emerging technologies. Since all STPs are designed to the same global standards, they can be applicable in all institutes belonging to the same network and up to equivalent level of instructions ensuring the cost efficiency of this methodology.

Engineering education is career related and the methodological standard of the curriculum design of these packages is job oriented, consequently this leads to high level of applicability to implement these packages for engineering education disciplines. Additionally implementing this system requires standardizing the instructional approach used by all member institutions ensuring that all graduates acquire the same Skills, Knowledge and Attitudes SKAs, therefore; instructor training in the delivery of these STP is provided.

The production of these Technical Education applicable Standardized Training Packages undergo rigorous evaluation using course quality assurance and validation phase of the course development process to ensure that all objectives are achieved at the different levels of effects. Objectives are SMART and performance mastery tests match these objectives.

Author's Biography:

 Sami Obeidat was graduated from Engineering Faculty of Yarmouk University in Jordan in 1984. He joined the civil aviation industry as Engineering Training instructor at Queen Nour Civil Aviation Technical College in 1984 and gradually promoted until he was designated the "Director of Academic & Technical Training Programmes" at the college; during his service he got an official leave to join the UAE Ministry of Education and Youth – Technical Education for seven years. As an accredited TRAINAIR Expert by International Civil Aviation Organization, he is internationally recognized as Qualified Course Developer and instructor trainer, he was assigned a mission exceeding one year by ICAO to establish a Course Development Unit at Bangkok Civil Aviation Training Centre in Thailand before joining Dubai Airports as Technical Training Manager.
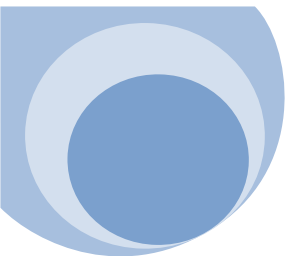
Genre Awareness & Text Study in the ESL/EFL Curriculum
Day 2: Technical Session B

Mr. Philip J. Keane

English Specialist,
Institute of Applied Technology

Genres are categories of texts that are determined and defined by a set of parameters for use in various contexts. Whether spoken or written, all language production can be considered as text and thus belongs to a genre. Formal and informal genres are useful as they provide predictability through typical language patterns that allow both the producer and the receiver to operate easily and effectively. Formal genres have more established conventional text structures and language features. All languages are genre-based, regardless of whether the native speakers recognize and acknowledge that fact or not. The more widely a particular language is used in the world, the more complex it becomes and the more genres are needed for the greater number of contexts and functions. English has become the most widely used language in the world and the main language of education and business. For both native and non-native speakers, knowledge of and ability in English enables the individual to respond to and interact with the international community. While learning grammar is important in the ESL curriculum, teaching grammar rules alone will not produce the desired outcome of language independence in English. Genre awareness and text study are essential in the ESL curriculum for empowering both the producer and the receiver of a text. Knowledge of genre gives a person greater independence in and control over his or her pursuit of academic studies and a professional career, as well as the ability to engage in life in the "global village."

Author's Biography:

Phillip J. Keane has been a teacher and educator for over twenty years. During this time he has taught English and other subjects from the elementary school to the middle school and high school levels, as well as to college level students and adult professionals. He has served as a lead teacher, curriculum developer, and school administrator. He believes in a balanced, student-centered approach to education and learning that incorporates best current practices in teaching grounded in sound educational theory. He speaks a number of languages and has lived and worked in countries such as Australia, France, the Caribbean, and the USA. He is currently the English Specialist in the Curriculum and Assessment Unit for IAT schools in the UAE. In addition to his passion for quality education, he enjoys meeting people, discovering other cultures, and doing what he can to promote peace and a spirit of understanding and cooperation in the world.

Technical English for English Language Learners
Day 2: Technical Session B

Mr. Hamid N. Khattak

Engineering Faculty,
Higher Colleges of Technology

Over the years, researchers have recognized the notion that members of a given discipline use language in ways unique to them. For English language learners in engineering disciplines, who are still acquiring academic English, it is of immense importance that their teachers understand the need of integrating technical English while simultaneously building engineering concepts. Technical English differs within a given discipline as well. Electronics engineering has a set of technical English vocabulary and expressions which are quite distinct from that of chemical, civil or biomedical engineering. Therefore, teaching engineering to students with limited English proficiency highlights the importance of technical English including terms, symbols and expressions that occur in technical discourse. Teachers need to use context-specific strategies for everything from facilitating classroom discussions with all students, to reading and interpreting engineering textbooks, to tackling word problems and technical report writing. Teachers teaching technical English should be familiar with terminologies relevant to engineering. They need to be aware of technical words which are completely unknown in general English, for example, cathode, solenoid, ammeter etc. On the other hand, they need to be careful with words which are considered general English words. The word force, as an example, has multiple meanings. In engineering terms, force is 'any influence that can cause a body to be accelerated', whereas in Concise Oxford Dictionary, force is defined as 'strength, power, impetus Therefore, English language and content teachers must collaborate and design technical English courses and programs that are pertinent and current.

Author's Biography:

Hamid Khattak is currently teaching engineering courses at the Higher Colleges of Technology (HCT), UAE. He holds a Master's degree in Engineering and another Master's in Educational Leadership from Australia. At the moment, Hamid is pursuing his doctorate in Engineering Leadership Education from the University of Southern Queensland, Australia.