



Association of Egyptian American Scholars

40th Annual International Conference
***“Scientific Challenges & Emerging Technology Transfer
In Modern Egypt & The Arab World”***

In Partnership with
“The Arab Academy for Science, Technology & Maritime Transport”

Conference Chair
Tawfik Ayoub, MD
AEAS President
Keck School of Medicine
University of Southern California

Conference Co-Chair
Dr. Naser El-Sheimy
AEAS Secretary General
University of Calgary

Under the Patronage of
H.E. Dr. Nabil Al Araby
Secretary General of The League of Arab States

H.E. Dr. Ramzy George Stino
Minister of Scientific Research

Dr. Ismail Abdel Ghafar
President of Arab Academy

Program Chair:
Dr. Ahmed ElSawy
Chair of Financial Affair
Dr. Aly Mansour

Scientific Program Co-Chairs:
Dr. Adel Talaat
Dr. Mohamed Attalla
Dr. Mohamed El-Ghamry

December 28th - 30th, 2013
The Arab Academy of Science, Technology & Maritime Transport
Abu Qir - Alexandria - Egypt



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Conference Organizing Committee

AEAS Organizing Committee

Conference Chair

Dr. Tawfik Ayoub

Conference Co-Chairs

Dr. Naser El-Sheimy

Program Chair:

Dr. Ahmed ElSawy

Scientific Program Co-Chairs:

Dr. Adel Talaat

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Dr. Mohamed ElGhamry

Chair of Financial Affair

Dr. Aly Mansour



Conference Organizing Committee
AASTMT Organizing Committee



About The Association of Egyptian American scholars

The idea of creating the Egyptian-American scholars association started by a discussion between Dr. Mohamed El-Wakil of Wisconsin and Dr. Ahmed Shouman of New Mexico in 1968. They both pursued the formalization of the group supported in Cairo by the Egyptian government and the Society of Friends of Egyptian Scholars Abroad. In 1971, fifteen Charter members were declared, and by 1972 the registration list reached 62 members. In 1973, the Association of Egyptian-American Scholars in the United States and Canada was formally established, and by 1974 it was officially incorporated in the State of Wisconsin, with Dr Mohamed El-Wakil as its President. Through the years close to 600 scholars have joined the Association, very many are still active and supportive.

Since its establishment in 1974, the AEAS mission remained to create a forum for North American Egyptian scholars that facilitates dialogue and promotes partnerships with Egyptian counterparts to implement beneficial scholarly endeavors.

The AEAS has contributed abundantly to the scientific and cultural advancement in Egypt. In order to achieve its mission, AEAS members have also collaborated throughout the years with many organizations in Egypt. These organizations include: the President's office, the Prime Minister's office, different Ministries such as the Ministry of Higher Education, Ministry of Industry and the Ministry of Electricity, the Supreme Council of Universities, the Academy for Science and Technology and The National Authority for Quality Assurance and Accreditation in Higher Education.

The [AEAS Directory](http://www.aeascholars.org) on the association website offers much more information that could fit in the book.

<http://www.aeascholars.org>

<http://www.aeascholars.org/AEAS-Directory-Full.pdf>



About The Arab Academy for Science, Technology & Maritime Transport



Maps & Directions



Keynote Speakers

Dr. Mostafa El-Sayed

*Julius Brown Chair and Regents Professor
Director, Laser Dynamics Lab
Georgia Institute of Technology
School of Chemistry and Biochemistry
Atlanta, Georgia, USA*

Dr. Waguih ElMaraghy

*Professor & Head
Dept. of Industrial and Manufacturing Systems Engineering
Director, Intelligent Manufacturing Systems Centre (IMS)
Faculty of Engineering, University of Windsor
Windsor, Ontario, Canada*



Letter from the AEAS President

Welcome to the Association of Egyptian American Scholars (AEAS) 40th International Conference. A landmark conference created by the hard work and dedication of the organizing committee, the executive board, AEAS members and friends as well as the strong partnership and commitment to success despite all uncertainties and doubts. The very generous support of the Arab Academy of Science Technology & Maritime Transport, its leadership and staff made this conference in the excellent format and venues we are enjoying, and leaves to us the scientific endeavor as the only tasks to worry about. The collaboration and scholarly input from the academic community and institutions contributed to the rich scientific content and outcome of the conference.

This conference is the fruit of the strategic planning established by the AEAS leadership over the years, to provide support to our mother country on a continuous bases and never the less in time of need. The resultant is a collective effort from scientist, scholars, and experts in the field at the international level, inside and outside Egypt, to provide solutions to Egypt's eminent problems and similar ones in the Arab world. The long-term plan remains the development and strengthening of indigenous science and technology and the investment in future social & economic development of our country to its appropriate role and place in the leading advanced countries.

The collaborative work of this cream of the crop is a hefty sixty papers in different disciplines: by utilizing and investing in the most valuable resource in Egypt, we can solve all Egypt's current problems and build the future. By providing "Education, Health and Job" to *الانسان المصري* we could solve all Egypt current problems and build a bright future we all seek for our country. The example is already at hand: allowing our Young Researchers to present the results of their work, a very scholarly educational activity aiming at building future generation of scientist & researchers who will hold the future banner of our countries. I strongly believe together we will build this Nation Strong, a Shining Torch of culture, science and wealth to all other nations.

Finally, I sincerely express my gratitude to all and each, and I will leave you with a quote from the speech "*The Man in the Arena*" by "*Theodore Roosevelt*" at the Sorbonne, France April 23, 1910.

"It is not the critic who counts; not the man who points out how the strong man stumbles, or where the doer of deeds could have done them better. The credit belongs to the man who is actually in the arena, whose face is marred by dust and sweat and blood; who strives valiantly; who errs, who comes short again and again, because there is no effort without error and shortcoming; but who does actually strive to do the deeds; who knows great enthusiasms, the great devotions; who spends himself in a worthy cause; who at the best knows in the end the triumph of high achievement, and who at the worst, if he fails, at least fails while daring greatly, so that his place shall never be with those cold and timid souls who neither know victory nor defeat".

Tawfik Ayoub, MD
President, Association of Egyptian American Scholars



Letter from the ASSTMT President

December 28th, 2013

Opening Day

08:00 am - 5:00 pm Conference Registration

Opening Ceremony

Master of Ceremony Dr. Naser El-Sheimy
*AEAS Secretary General & Conference Co-Chair
Professor and Canada Research Chair - University of Calgary*

09:00 - 09:10 am **Dr. Tawfik Ayoub**
*President AEAS & Conference Chair
Cardiac Anesthesiologist, Keck School of Medicine
University of Southern California*

09:10 - 09:20 am **Dr. Mohamed Attalla**
AEAS Past-President

09:20 - 09:35 am **Dr. Ismail Abdel Ghafar**
Arab Academy President and Host

09:35 - 09:50 am **H.E. Dr. Ramzy Georges Stino**
Minister of Scientific Research

09:50 - 10:05 am **H.E. Dr. Ibrahim Eldomeiry**
Minister of Transportation

10:05 - 10:15 am **H.E. Dr. Nabil Al Araby**
Secretary General of the States of Arab League

10:15 - 10:45 am **Dr. Essam Heggy**
*Advisor to the President
California Institute of Technology*

Keynote Speech: "Nano-Technology meets biology in the cancer cell"

10:45 - 11:15 am **Dr. Mostafa El-Sayed**
*Julius Brown Chair and Regents Professor
Georgia Institute of Technology*

11:15 - 11:45 pm **Coffee Break and socialization**

Roadmaps & Strategic Development

“Role of Education & Scientific Research In the Economic Development of Egypt”

- 11:45- 12:15 pm **Dr. Hassan Rateb,**
Chairman of Board of trustees of Sama Group
Development of Sinai as Strategic Goal for Egyptian Economics
- 12:15 - 12:45 pm **Dr. Mohamed Attalla**
Associate Vice-President, McMaster University - Ontario, Canada
Energy Conservation and Renewable Energy implementation in the Egyptian Economy
- 12:45 - 01:15 pm **Dr. Mohamed ElGhamry**
Dean of the Technical and Vocational Institute at AASTMT
Research & Development Center as a Model for all other Egyptian Universities to Pursue
- 01:15 - 01:45 pm **Dr. Naser El-Sheimy, PEng, CRC**
Professor and Canada Research Chair & Scientific Director, TECTERRA
Department of Geomatics Engineering, the University of Calgary
The Role of Geo-informatics in Economic Development

“Role of Education & Research On Egyptian Health”

- 01:45 - 02:15 pm **Dr. Rashad Barsoum**
Former chair of Medical sector in the Supreme Council of Universities
Reform of Medical Education in Egypt - a vision for the future
- 02:15 - 02:45 pm **Dr. Somaya Hosny**
Dean of Faculty of Medicine, Suez Canal University
Quality in Higher Education, the lack of which is one of the main reasons for Egypt's current problems
- 02:45 - 03:15 pm **Dr. Salwa Elgebaly**
President & CEO Nour Heart, Inc.
Maryland, USA
Economic Development In Egypt
- 03:15 - 03:45 pm **Dr. Fouad Kandeel**
Chair and Professor, Department of Clinical Diabetes
Endocrinology and Metabolism - City of Hope
Diabetes prevention in Egyptian Pharmaceutical Companies
- 03:45 - 5:15 pm **Lunch & Socialization**



December 29th, 2013 - General Schedule

Scientific Papers Posters & Oral Presentations

From	To	Name	Paper Title
8:00 AM	9:00 AM		Registration
9:00 AM	10:00 AM		Keynotes - Dr. Waguih ElMaraghy
10:00 AM	11:30 AM		Scientific Presentations
11:30 AM	12:30 PM		Coffee & Posters Discussions
12:30 PM	2:30 PM		Scientific Presentations
2:30 PM	3:30 PM		Lunch
3:30 PM	5:30 PM		Scientific Presentations
7:00 PM	10:30 PM		Dinner & Award Banquet

December 29th, 2013 - Room 1

Health and health related topics صحة المواطن المصري "Egypt Health - Past, present & future"

From	To	Name	Paper Title
8:00 AM	9:00 AM	Registration	
9:00 AM	10:00 AM	Keynotes - Dr. Waguih ElMaraghy	
10:00 AM	10:30 AM	Dr. Salwa Elgebaly	Early identification of patients with ischemic heart disease
10:30 AM	11:00 AM	Dr. Mostafa Abdel Nasser	Training Program Using Skill's Laboratory
11:00 AM	11:30 AM	Dr. Lamis Ragab	Medical education in Egypt: current status, points of strength and weakness
11:30 AM	12:30 PM	Coffee & Posters Discussions	
12:30 PM	1:00 PM	Dr. Atef Radwan	Medical education reform without a change: the teacher gap
1:00 PM	1:30 PM	Dr. Shoukry Kantiry	Medicine and public Health in Ancient Egypt: A Historical and Pictorial Presentation
1:30 PM	2:00 PM	Dr. Amer El-Ahraf	
2:00 PM	2:30 PM	Dr. Tawfik Ayoub	Health Reform In Egypt - A Must For Current Recovery And Future Development
2:30 PM	3:30 PM	Lunch	
3:30 PM	4:00 PM	Dr. Ahmed Fadil	The price is high, and the outcome is poor
4:00 PM	4:30 PM	Dr. Rasmy Talaat	Egypt: Hub of Preclinical and Clinical Pharmaceutical Research, Potentials and Challenges
4:30 PM	5:00 PM	Dr. Amr Elmaraghy	The Diagnosis and Management of Pectoralis Major Tears
7:00 PM	10:30 PM	Dinner & Awards Banquet	

Sessions Co-Chairs:

Morning Sessions:

- Dr. Rashad Barsoum
- Dr. Tawfik Ayoub
- Dr. Rasmy Talaat

Early afternoon Sessions

- Dr. Rashad Barsoum
- Dr. Somaya Hosny
- Dr. Lamis Ragab

Late afternoon Sessions

- Dr. Adel Talaat
- Dr. Salwa Elgebaly
- Dr. Fouad Kandeel

December 29th, 2013 - Room 2

**Engineering, technology and Egypt infrastructures related issues
Shore & Environmental Protection, Traffic management systems and techniques and Ports
developments**

From	To	Name	Paper Title
8:00 AM	9:00 AM	Registration	
9:00 AM	10:00 AM	Keynotes - Dr. Waguih ElMaraghy	
10:00 AM	10:30 AM	Dr. El-Sayed A. Abdel-Aal	Desalination of Red Sea Water Using Hybrid System of Electrodialysis and Ion Exchange
10:30 AM	11:00 AM	Dr. El-Sayed A. Abdel-Aal	Preparation and Coating of Hydroxyapatite for Medical Applications
11:00 AM	11:30 AM	Dr. Adel Kamal Ismail	Potentials of Alternative Energy Sources in Egypt
11:30 AM	12:30 PM	Coffee & Posters Discussions	
12:30 PM	1:00 PM	Dr. Adel Nofal	The Foundry Industry: A Major Player in the Egyptian Wind Energy Program
1:00 PM	1:30 PM	Dr. Ahmed Tawfik D.F. Zaki / M.K. Zahran	Cost effective Scenarios for decolourization of reactive dyes wastewater
1:30 PM	2:00 PM	Dr. Mohamed Elghamry Eng. Amr Khamis	Energy Efficient and Low cost Atmospheric Water Generator
2:00 PM	2:30 PM	Dr. Mohamed Elghamry Eng. Riham Zein	Networked, Anti-failure and Cost efficient Neonatal Incubator Model
2:30 PM	3:30 PM	Lunch	
3:30 PM	3:50 PM	Dr. Kamilia El Barawy	Potentials of Producing Titanium-based Alloys and Chemicals from Egyptian Ilmenite Ore
3:50 PM	4:10 PM	Dr. Khalid M Abd Elghany	On the Development of Rapid Manufacturing Technology and Human Customized Implants in Egypt
4:10 PM	4:30 PM	Dr. Maha El-Meligy Dr. Ahmed Farahat Dr. Eman El-Shenawy	Simulation of Thermomechanical Process Using Gleeble Machine
4:30 PM	4:50 PM	Dr. Hesham El-Askary	On the Influence of dust storms, anthropogenic pollution and biomass burning on air quality over the Nile Delta during 2000-2010
4:50 PM	5:10 PM	Eng. Ashraf Salah-Eldin	How to choose Information Security policies, tools and methods
5:10 PM	5:30 PM	Dr. Ahmed ElSawy	A Study on Using Pulsed Corona Discharges to Degrade Humic Acid from Drinking Water With and Without Titanium Dioxide
7:00 PM	10:30 PM	Dinner & Awards Banquet	

Sessions Co-Chairs:

- *Dr. Waguih ElMaraghy*
- *Dr. Adel Kamal Ismail*
- *Dr. Adel Nofal*

December 29th, 2013 - Room 3

Egypt's Culture, Environment, Economic Development, Natural Resources, Commerce, Education and Workforce Development to Meet the Expected Economic Growth

From	To	Name	Paper Title
8:00 AM	9:00 AM	Registration	
9:00 AM	10:00 AM	Keynotes - Dr. Waguhi ElMaraghy	
10:00 AM	10:30 AM	Dr. Fatma El Zahraa Mostafa	Reengineering the higher education system in Egypt according to the excellence management Outlook study
10:30 AM	11:00 AM	Eng. Hossam El-Din Younes	Using Knowledge Management System and Innovation Framework (KMIF) for Quest of Excellence Achievement
11:00 AM	11:30 AM	Dr. Ismail Gomaa	The Role of Education and Innovation in Global Transition
11:30 AM	12:30 PM	Coffee & Posters Discussions	
12:30 PM	1:00 PM	Dr. Mahmoud Omar Selim	Women and Horse Riding in the Pharaonic New Kingdom
1:00 PM	1:30 PM	Eng. Mai Mokhtar Mohamed	Impact of Urban Landscape on City Environment – A GIS Based Study on Urban Plant
1:30 PM	2:00 PM	Dr. Mohamed Abousalem	TECTERRA: A Unique Organization Leading the Commercialization of Innovative Technology in Canada
2:00 PM	2:30 PM	Dr. Essam ElSaeed	مشروع توثيق التراث بمركز الخطوط بمكتبة الاسكندرية
2:30 PM	3:30 PM	Lunch	
3:30 PM	4:00 PM	Dr. Nevine Sobhy	Quality in E-Learning Accounting Courses... Is it Possible?
4:00 PM	4:30 PM	Mr. Sherif El-Batanomy Dr. Rasha Abd El Aziz	The Competitive Advantage of it in Egyptian Firms: a Resource Based Perspective
4:30 PM	5:00 PM	Dr. Abo Bakr Selim Abdo	Minorities Impact on International Politics
5:00 PM	5:30 PM	Dr. Shoukry Kantiry	Midwives and maternity care In ancient Egypt
7:00 PM	10:30 PM	Dinner & Awards Banquet	

Sessions Co-Chairs:

Morning Sessions:

- Dr. Ismail Gomaa
- Dr. Mohamed Abousalem

Early afternoon Sessions

- Dr. Abo Bakr Selim Abdo
- Dr. Rasha Abdel Aziz

Late afternoon Sessions

- Dr. Mahmoud Omar
- Dr. Essam ElSaeed



December 29th, 2013 - Poster Presentations

Economics, Oceanography, Education & Engineering

Name	Paper Title
Mr. Adeeb Arafeh Dr. Samir Arafeh	Business process management new concepts applied in healthcare case of "Continuous Performance Improvement"
Dr. Maha Ahmed Mohamed Abdallah	Bioaccumulation of heavy metals in mollusca species and assessment of potential risks to human health
Dr. Nevine Sobhy	Quality in E-Learning Accounting Courses... Is it Possible?
Mr. Mohamed Abd-almoniem Khamis	Enhancing Technology Commercialization in Egypt: Lessons from the Malaysia Case
Eng. Reham Reda Abbas Awad	Effect of Welding Processes and Postweld Heat Treatment on the Mechanical
Dr. Ghada Abdel Wahab El Khayat	New Technology Parks in Egypt: Location or Networking decisions?

Poster Session Discussion Committee:

- *Dr. Tawfik Ayoub*
- *Dr. Mohamed Attalla*
- *Dr. Ahmed ElSawy*

December 30th, 2013 - General Schedule

Scientific Presentations - Resolution & Adjourn

From	To	Name	Paper Title
8:00 AM	9:00 AM		Registration
9:00 AM	11:30 AM		Scientific Presentations
11:30 AM	12:00 PM		Coffee Brake
12:00 PM	2:30 PM		Scientific Presentations
2:30 PM	3:30 PM		Resolution & Adjourn

December 30th, 2013 - Room 1

Health - Human Disease & Animal Origin - Dental Medicine

From	To	Name	Paper Title
8:00 AM	9:00 AM	Registration	
09:00 AM	09:30 AM	Dr. Heba Ahmed Abdalla	Prevalence of Salmonella and Staph. aureus in poultry and human in contact; with investigating the genetic relationship between some isolates
09:30 AM	10:00 AM	Dr. Soad Mohamed Nasr	Propolis and its effects on blood parameters of animals (a review)
10:00 AM	10:30 AM	E. A. Nasr Dr. Hazem Farouk	Differentiation Between Bovine Tuberculosis Infected And BCG Immunized Cattle By Using Cytokine Flow Cytometric Assay
10:30 AM	11:00 AM	Dr. Dalia Ahmed El Said Saba	Comparative Study between Conventional and Translucent Zirconia in Dentistry
11:00 AM	11:20 AM	Dr. Rasha Mohamed Abd El Raouf	Understanding the Nature of Extended-Pour Dental Alginate Impression Material
11:30 PM	12:00 PM	Coffee Brake	
12:00 noon	12:30 PM	Dr. Adel Talaat	Biotechnology For Economic Growth in Egypt; The Wisconsin Idea Experience
12:30 PM	1:00 PM	Dr. Hossam I. Maaty	Latency of Pediatric Brain Tumors Diagnosis in Province of Delta-Egypt: Causes and How to Reduce
1:00 PM	01:30 PM	Dr. Ola Elgaddar	Medical laboratories in Egypt; the past, the present and the future
01:30 PM	02:00 PM	Dr. Heba Mohtady	Molecular detection of influenza virus in cases with influenza like illness in Zagazig university hospitals
02:00 PM	02:30 PM	Dr. Reham Mokhtar	Spot Light On Accreditation Impact On Egyptian Hospitals, Challenges And Benefits From Its Adoption And Implementation
02:30 PM	3:30 PM	Resolution & Adjourn	

Sessions Co-Chairs:

Morning Sessions:

- *Dr. Mostafa Abdel Nasser*
- *Dr. Soad Nasr*

Afternoon Sessions

- *Dr. Adel Talaat*
- *Dr. Heba Ahmed Abdalla*

December 30th, 2013 Room 2

Engineering & Infrastructure

From	To	Name	Paper Title
8:00 AM	9:00 AM	Registration	
09:00 AM	09:30 AM	Eng. Mahmoud Mourad	Wind Catcher- Earth air tunnel- as a Tool for Passive Cooling in Smart Home for New Cites in Egypt
09:30 AM	10:00 AM	Dr. Mohamed Sawan	Nuclear Energy as an Essential Element of a Sustainable and Environmentally Clean Energy Mix in Egypt
10:00 AM	10:30 AM	Dr. Mostafa Elshahed	Novel approaches for biofuel production from Lignocellulosic biomass
10:30 AM	11:00 AM	Eng. Reham Reda Abbas Awad	Optimizing Performance of Cr-Bearing White Iron Grinding Media Used in Cement and Mineral Processing Industries
11:00 AM	11:20 AM	Dr. Suzan S. Ibrahim	Coal Production Challenges in Egypt
11:30 PM	12:00 PM	Coffee Brake	
12:00 noon	12:30 PM	Dr. Taha Mattar	Know – how and technology transfer of nano- inoculants addition to steel alloys for spare parts and castings manufacturing
12:30 PM	1:00 PM	Dr. Zeinab Abdel Hamid	Applied Research in The Area of Advanced Industrial Coatings Applications
1:00 PM	01:30 PM	Dr. Mohamed Attalla	Energy Conservation Incentive Programs for the Egyptian Economy – The Canadian Experience
01:30 PM	02:00 PM	Dr. Ahmed ElSawy	Development of Professional Science Master's Degree in Manufacturing Sustainability
02:00 PM	02:30 PM	Dr. Ahmed Abd Elkader Elrashedy	Synthesis of Some New Biologically Active Thiazolo[3,2-a]pyrimidine Derivatives Containing Benzimidazole Moieties as dual KSP and Aurora-A kinase inhibitors for anti-cancer agents
02:30 PM	3:30 PM	Resolution & Adjourm	

Sessions Co-Chairs:

- *Dr. Mohamed Attalla*
- *Dr. Ahmed ElSawy*
- *Dr. Naser El-Sheimy*