

التدريب فى الولايات  
المتحدة الأمريكية جامعة  
لويزيانا  
وشركة Emerson

# **Final Report**

**SCDC Summer 2014 Practical Training for  
AAST's Students**

**at**

**University of Louisiana at Lafayette**



**&**

**Emerson Process Management**



**August 2014**

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## **1. Background:**

SCDC is one-of-a-kind educational/research center that promotes collaboration initiatives between universities in the USA and the Arab World. Our center's services include educational and research programs services at the students' level as well as at the professors and researchers level as follows:

### **First: at the students programs level:**

- 1- Planning & arranging academic training programs.
- 2- Monitoring & technical advice to ensure the quality of the programs offered during the preparation and throughout the duration of study and proposes the necessary modifications at any stage.
- 3- Travel and accommodation arrangements (flight and hotel reservations and visas).
- 4- Submit a final report on the program for the funding agency at the end of the program.
- 5- Organize visits included in the program in addition to the cultural and recreational visits during weekends.
- 6- Follow-up with the students during the training period and help them to overcome any obstacles they may face during their stay in USA.

### **Second: at the professors and researchers level:**

- 1- Introduce both parties to each other and assistance in research programs preparation.
- 2- Ensure the seriousness of collaboration.
- 3- Assist the travel and accommodation arrangements (flight and hotel reservations and obtaining visas).
- 4- Submit a final report on the program for the funding institute at the end of the period.
- 5- Organize cultural and recreational visits during the research visit.
- 6- Contribute as a partner in projects that match the field of specialization of SCDC experts' team.

SCDC collaborates with accredited American institutes, especially the University of Iowa and University of Louisiana at Lafayette, as an independent neutral facilitator and is not affiliated financially or administratively with any university.

SCDC organized summer practical training programs for undergraduate engineering students for couple of years now. In this year's program, for the first time students from College of Engineering at the Arab Academy for Science & Technology had and Maritime Transport (AASTMT) the opportunity to enroll in SCDC's program at University of Louisiana at Lafayette and Emerson Process Management.

## **2. Admission process:**

SCDC presented 14 training programs in the USA to Prof. Moustafa Hussein, Dean of Engineering at AASTMT, and Prof. Iman Morsi, Vice-Dean of Training Affairs and Community Service at AAST; in February 2014. After their approval, SCDC started accepting applications directly from the students. A phone interview was conducted with each student. Invitation letters for the visa were issued for 25 students. Unfortunately, some students were not able to participate in SCDC's program due to delays in issuing the required visa.

## **3. Arrival and orientation:**

Upon the students' arrival to each of the training locations, a representative from SCDC met them and made sure they know the schedule of the training program. The representative gave the students an orientation about the city where the training will take place.

## **4. Training programs:**

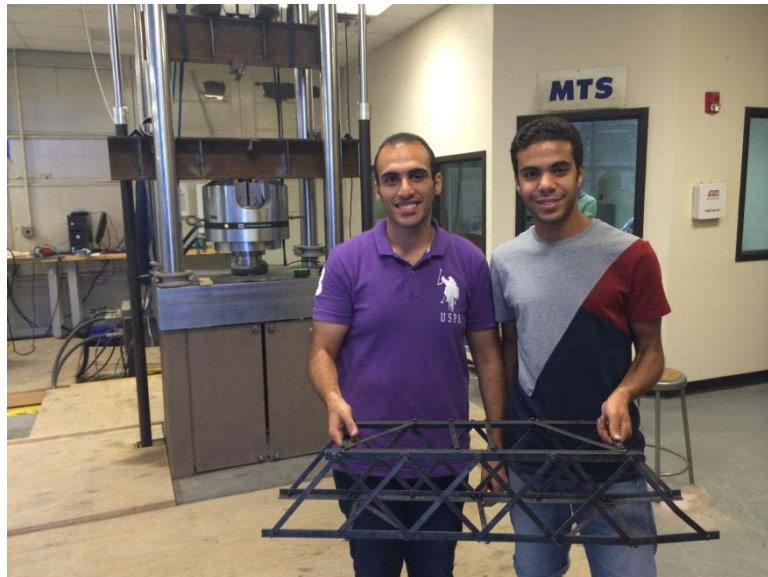
Students from AASTMT participated in two programs: Steel Trusses Design and Introduction to Process Management. They have shown dedication and engagement to the program. They also represented the high quality of the AASTMT's students.

#### **4.1. Steel Trusses Course at University of Louisiana**

This program was administrated by Civil Engineering Department at University of Louisiana at Lafayette under the supervision of Dr. Matthew Fadden. The program started with reinforcing some Steel Design background, and then the students started designing a steel bridge using MASTAN2 software. Each 2-3 students formed a group to build the bridge designed on the computer. A loading test was performed on all bridges and the different groups were evaluated based on construction time and construction material efficiency.



Students from AASTMT just after finishing building their steel bridge



Students from AASTMT with their deformed bridge just after the loading test



Students taking measurements and checking stresses during the loading test

During the program, the students visited a local design & manufacturing facility (Loadmaster Derrick) that specialize in offshore and inland Oil & Gas Derricks.



Students during their visit to Loadmaster Derrick



## 4-2.Introduction Process Management at Emerson

Emerson Group is one of the largest industrial entities around the world working in the different fields of industry such as: alternative energy, chemical, industrial power, mining and minerals, oil and gas, refining, water and wastewater. Emerson group is involved in many projects in the Middle East. Many companies send their engineers for training at Emerson in Marshalltown, Iowa, United States (the main center for training). Emerson compound in Marshalltown, Iowa has the largest Flow Lab in the world.

During the training, the students learned basics of process management control. The students applied some principles of process control in the workshop using Fisher equipment. The training also included a site visit to the Flow Lab and the casting factory for Fisher valves, where the students went through the whole testing and production processes.



Students attending their training at Emerson

## **5. Cultural & recreational activities:**

Throughout the program, some cultural visits as well as recreational activities were organized for the students to get a glimpse of the life in the USA. These experiences are needed to give the students an idea of how it will be to live in the USA if they decided to pursue graduate studies.

## **6. Conclusion:**

Practical training during the summer semester is a great opportunity for undergraduate and graduate students to experience the work environment before they graduate. It furberishes their experience outside the typical classroom, as it prepares them to know what to expect after graduation. At SCDC we make sure that every student has come with an added value from his/her practical training experience.

## **Acknowledgement:**

Thanks are due to Prof. Iman Morsi for her efforts making this opportunity available to students of college of engineering at AASTMT as this is the first time for these programs to be offered to students from Egypt. Prof. Iman has been of a great help throughout the whole process.



### Certificate of Appreciation

This certificate is awarded to:

***Prof. Ismail Abdel Ghaffar***

for supporting the  
Summer Training Program 2014 for students from  
Faculty of Engineering at AAST

September 15<sup>th</sup>, 2014

Nabil Kholosi  
Operations Manager  
Scientific Collaboration Development Center  
(SCDC)



### Certificate of Appreciation

This certificate is awarded to:

***Prof. Moustafa Hussein***

for his efforts supervising the  
Summer Training Program 2014 for students from  
Faculty of Engineering at AAST

September 15<sup>th</sup>, 2014

Nabil Kholosi  
Operations Manager  
Scientific Collaboration Development Center  
(SCDC)



### Certificate of Appreciation

This certificate is awarded to:

***Prof. Iman Morsi***

for her efforts organizing & supervising the  
Summer Training Program 2014 for students from  
Faculty of Engineering at AAST

September 15<sup>th</sup>, 2014

Nabil Kholosi  
Operations Manager  
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