Participation of the STAIRSTEP program at the First Youth Career EXPO organized at Ford Arena by the Workforce Solutions of Southeast Texas, October 15, 2015

On Tuesday October 15, 2015 several students from the STAIRSTEP program participated with two booths at the First Youth Career EXPO organized for middle and high school students. The event was held at the Ford Arena in Beaumont, between 8:00 AM to 3:00PM and welcomed about 2,800 students. The event was organized in such a way that different schools visited the booths at different times, thus allowing our visitors to have more time for enjoying our demos. Both student visitors and their teachers were invited to visit Lamar University.
Physics STAIRSTEP students John Pickren, Mohammad Nurul Azam, Carlos Caballero and Dr. C. Bahrim (Physics faculty) were actively engaged in physics demos with light, electricity and magnetism, offering many fun and interactive ways to understand the basic physics principles behind different technologies and natural phenomena. In the afternoon, Suzanne Wheeler (see photos below), a prospect STAIRSTEP student, joined the Physics booth.

Our visitors were introduced to optics principles behind 3D technologies, barcodes, dispersion of light in the atmosphere, and fiber optics. Additionally, students were able to have fun (and blow their hair) with the familiar Van der Graff generator (shown in the picture above), as well as with other electric and magnetic devices, such as a jumping ring, an electric generator, to list a few.

Here are comments from our students participants: Carlos Caballero, Physics and ME major, said that “All of the students and teachers present enjoyed very much our presentations and interactive demonstrations. The teachers found great value in learning “why?” the equipment behaved in a certain way and why the physical phenomena occur. As for the students, it truly made a difference for them to see science come alive! By being at our Physics booth, they were able to better understand the relevance of the concepts learned in their science classes and several of them expressed a desire for more of this interactive learning to be incorporated into their classes.”

Physics and EE major, John Pickren said that “At the expo, I was very surprised at the large amount of students that were there and actively learning about career and educational opportunities. I had the chance to tell many students about what I do in the field of physics, and I was happy when I realized that most of them were genuinely interested in what I do.”

Suzanne Wheeler, a Physics major and prospect STAIRSTEP student, shared the following impressions: “The Youth EXPO was my first time participating in a STAIRSTEP event and it was an extremely rewarding experience. It was wonderful to see students actively engaged in our presentations. I believe the ability to interact with the community and with students is just as important as the research that I will be doing as a STAIRSTEP student.”

Here are Mohammad Nurul Azam, Physics STAIRSTEP graduate student mentor, thoughts on the event: “I was explaining the basic underlying physics behind the I-max to one of the High School students; He was so excited after understanding the concept that, he asked me why not his school teaching those interesting stuff? I answered him that, the school and youth expo complement each other. This indicates how successful the event was. The number of student stopping at Stair-Step corner was also encouraging. I think this kind of event can make huge impact to increase STEM student in the United States.”
Prospect physics STAIRSTEP student, Suzanne Wheeler talking about light and electricity.

Computer Science (CS) STAIRSTEP students Alexander Strong, Hannah Leleux, Colin Smith, Tim Gonzales, and Timothy Holcombe manned the CS booth throughout the event and assisted with the Physics booth. Among other things the CS booth showcased 3D-printing, robotics, computer graphic technology, and other virtual technologies. The students really enjoyed the event and they all believe it had a positive impact. Here are their thoughts:

Alexander Strong, CS STAIRSTEP, had the following thoughts: “This was a great experience for Lamar and STAIRSTEP to reach out to the community and promote Computer Science. It was rewarding to show students what we do, and how they can experience the joy of computing. They showed great interest in Lamar's 3d printing, robotic, and virtual reality technologies. I am proud to have been able to promote the study of computation as well as the careers that it can lead to.”

Computer Science major Hannah Leleux said: “I participated in the Youth Career Expo at Ford Park. I represented the Computer Science branch of STAIRSTEP. The expo was interesting and fun. One of STAIRSTEP’s main focuses is outreach, so being a part of the expo was important to me. The kids seemed to enjoy themselves and asked for information about Computer Science and furthering their education. The Computer Science STAIRSTEP station provided robots and computer graphic technology for the students to test out and play with. I enjoyed demonstrating the hands on activities to the students the most out of the entire experience. I am glad to be a part of the Computer Science STAIRSTEP program and look forward to more events like the youth expo.”

Colin Smith, CS STAIRSTEP, shared that this: “The youth expo gave me a chance to not only hopefully increase interest in the field of computer science, but seeing the kids genuinely interested in what we do here in STAIRSTEP was a compliment in and of itself. I know that a high school kid’s attention is incredibly difficult to keep, but those at the expo looked on in excitement and I can only hope that some of them pursue this curiosity into one of the STEM fields due to STAIRSTEP.”

Timothy Holcombe, CS STAIRSTEP, had the following to share: “Myself and Colin Smith manned the Computer Science part of the STAIRSTEP booth. We contacted many people about
our field, and talked to many interested students. We were next to the Physics booth and helped man that while they had a gap in people. We handed out fliers to people and made some good contacts.”

Tim Gonzales, Computer Science major, really seemed to enjoy the event. He said: “It was a blast getting to show the high schoolers the awesome things that the field of computer science can produce. We brought one of the latest additions to our lab gadgets, Leap Motion. It allows the computer to read the orientation of your hand and manipulate the simulation according to how you manipulate your hand in the real world. The students loved it! We had quite a few come back to show their friends or even bring staff to come see the gadget. I think we really bolstered the idea of computer science as an interesting field of study in these students' minds.”