



DR. CRAIG DICKER: Greetings and Speech **Counselor, The American Center, Delhi, India**



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Presented by Prof. Sultana N. Nahar, the Ohio State University

- I would like to begin by congratulating the dedicated people both at Aligarh Muslim University and at Ohio State University who have worked so hard to make this pilot dual degree program such a success. I'm sure colleagues from both institutions have already been thanked and, rather than risking leaving somebody important out of the list of notables deserving credit for realizing this program, I'd just like to thank all of those at AMU and OSU who have played important roles in realizing this program. Behind the scenes, many challenges had to be overcome at both institutions in order to get to where you are today. Congratulations.

Why is this project so special?

First, it recognizing the relationship between teaching and research and how the two are not mutually exclusive tasks but need to be integrated in such a way so that they feed off each other. The AMU PhD candidates who spent a semester or two at OSU already had superlative backgrounds in their fields of specialization. They knew the science. At OSU, however, they were exposed to state of the art teaching methodologies and, later, given opportunities to apply those methods in the undergraduate courses they were teaching at AMU. OSU faculty continued to provide them with mentorship and guidance as they implemented new pedagogical strategies at Aligarh. While in Columbus, Ohio, these same AMU PhD candidates were simultaneously provided with instruction on leading research methods and made the connections between research and teaching.

There is a productive symbiotic relationship between teaching and research and our young AMU scholars have embraced this connection in their professional lives.

Why is this project so special?

It counters the brain drain by creating a cadre of teacher-researchers at AMU who will continue to work together, feed off each other and break new ground as they develop a world class educational and research program at AMU. The creation of the Center for Excellence in STEM Education and Research at AMU, one of many outcomes of this program, will serve to ensure that the lessons learned through this initiative are shared widely across India and beyond. The cutting education methods and advanced research agendas that will be implemented at AMU in years to come can be shared with other institutions of higher education across India through this newly created Center.

Why is this project so special?

It recognizes that a love and passion for learning the sciences, technologies, mathematics, etc. doesn't begin at the university and shouldn't be restricted to those who come from more socio-economically advantaged backgrounds. The program includes an outreach component designed to implement programs in schools in socio-economically disadvantaged communities so that they too can be exposed to engaging, interactive, challenging and stimulating activities in the STEM areas and, in some cases, be motivated pursue further study in these fields.

The beneficiaries of this pilot program between AMU and OSU and others involved with the Center for Excellence in STEM Education and Research are socially committed human beings. They believe that it is their duty to share their experience and expertise with those who are less fortunate but just as talented and deserving and just need opportunities so that they too can blossom.

Why is this project so special?

It is an excellent example of how 1+1 always equals more than 2. The US and India, 1+1, together can do far more than if working separately. This program illustrates how the human resources from two great universities, Aligarh Muslim University here in India and Ohio State University from the United States, can work together, pool their strengths and create something new and special. We all have our strengths and weaknesses. This project has capitalized on the strengths of both these great universities by launching this impressive dual degree program and created a model worthy of emulation.

Finally, why is this project so special?

About half the PhD candidate AMU participants were women scientists! In most STEM programs, the majority of students, in the US, India and elsewhere, are men. By engaging female as well as male STEM specialists, this program serves as a role model for us all. Last year, when I met the 8 direct beneficiaries of this program on a visit to AMU,

I was very pleasantly surprised not only by the number of women in the group, but by their outspokenness, honesty and intelligence. Clearly, quality had not been compromised in any way in creating this gender-balanced program. I hope that, through the fine work to be carried out by AMU and the Center for STEM Education and Research, that young women will be inspired to follow their example and pursue studies and careers in the STEM fields. There is no magic bullet to address all the challenges that Americans and Indians face in providing quality STEM education and conducting world-class research. However, this AMU-OSU joint initiative certainly provides some of the answers. It draws on the strengths of both institutions, integrates teaching, learning and research, recognizes their social responsibility to share their experiences with other higher educational institutions as well as with economically less fortunate youth and serves as a model for women interested in pursuing STEM careers. For this, and much more, I applaud your successes and look forward to hearing about how this pilot initiative develops over the years to come. Thank you.

Craig with members of the Indo-US (formerly OBAMA-SINGH) STEM ER Project at AMU, April 2016



- Started Phase II at AMU, Summer 2015: Took field experience
- Skype interview with the prospective advisors