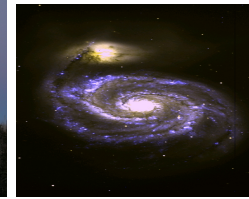
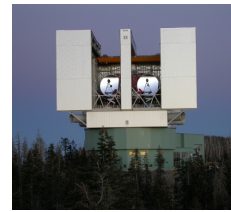




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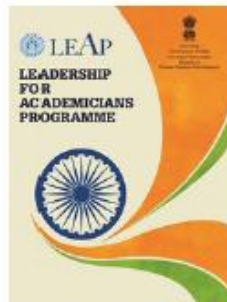
**”RAISE THE BAR OF EXCELLENCE, DIVERSITY,
AND RECOGNITION”**

SULTANA N. NAHAR

Astronomy, The Ohio State University, Ohio, USA

Adjunct Professor, Aligarh Muslim University

Adjunct Professor, Cairo University



THE OHIO STATE UNIVERSITY

Coordinators: AMU: A.R. Kidwai, F. Abbasi, OSU: Anil K. Pradhan, Sultana N. Nahar

Web: AMU: http://www.calemhrdcamu.in/new_leap.php

OSU: <http://www.astronomy.ohio-state.edu/~nahar/leap-india.html>

LEAP workshop at OSU September 8 - 14, 2019

Support: LEAP, OSU, OSC

BOSE, KRISHNAN, SALAM



I was suggested a presentation on "Importance of Outreach program and how I manage them". The topic is broad and the significance is well understood

i) Outreach - is our human duty to reach out to others in need to come aboard with everyone who are advancing.

- The duty is incumbent to leaders who are to bring positive changes in the academic atmosphere or society

- I have been involved in outreach work as human duty all my life, but started systematically in education and research since January 1995. I started at University of Dhaka where I did my B.Sc.Hons and M.Sc before coming to USA

Title change from OUTREACH and WOMEN Issues

- What surprised me was that at the conferences I attended almost no one would know about Dhaka University. There would be one or two participants or none from Bangladesh. The APS (American Physical Society) members would mention only one name - Sultana Nahar - as the one from Bangladesh. So I worked to make a change. So I changed the title based on my findings on how to raise the bar of excellence in developing countries

What I realized:

- It is not the quality of education but the research that makes an institution known. Education is known knowledge that we need to build our foundation but research brings advances and makes an institution known outside.
- I knew professors who did excellent research outside but slowed down considerably in Bangladesh due to
 - i) poor resources,
 - ii) less innovative interactions, and
 - iii) unfavorable environment

My believe: PRAISE WORKS LIKE MAGIC

- What can make them ignore the problems less and motivate to research more - RECOGNITION - We like appreciation



Minister for Industries A M Zahiduddin Khan presiding over the review meeting of Fertilizer production, distribution & price control held in BCIC Bhaban, Industries Secretary, Hasnat Abdul Hye, Chairman BCIC, Waseq-al Azad, Directors and MD's of fertilizer factories are seen in the picture.



In order to establish new trust fund under the name and style "Razzaq Shamsun Physics Research Award" at the University of Dhaka, Mrs Sultana Nurun Nahar, a former student of the Department of Physics, handing over an amount of Taka one lakh to the Vice-Chancellor of the University Professor Emajuddin Ahamed at a simple ceremony held at his office on February 23.

Donation for new DU Trust Fund

In order to establish a new Trust Fund under the name and style "Razzaq Shamsun Physics Research Award" at the University of Dhaka, Mrs. Sultana Nurun Nahar, a former student of the Department of Physics, donated an amount of Taka one lac to the Vice-Chancellor of the University Professor Emajuddin Ahamed at a simple ceremony held at his office on February 23, says a Press release.

Presently a senior postdoctoral research associate in the Ohio State University, Columbus, Ohio, USA, Sultana Nurun Nahar made this donation for an annual research award in the discipline of Physics (both general and applied). Out of the income of the fund, one award will be made each year in respect of the best academic feat and performance in research on recommendations by Academic Council of the University.

Mrs. Sultana Nurun Nahar donated the amount to commemorate the memory of her parents Mr. Razzaq and Mrs. Shamsun at Dhaka University.

Dhaka Stock Exchange

The following were quotations of the Dhaka Stock Exchange on	Stylecraft	100.5	425.00	Shine Pakur Jute	100.5	135.00
	Swan Textile	100.5	36.00	Sonali Anah	100.5	160.00

Indian pesticides flood markets in Chuadanga

From Our Correspondent

CHUADANGA, Feb. 25.—Indian pesticides flood the markets of the district. The farmers buy smuggled inferior quality pesticides due to

Feb 26, 1995

THE BANGLADESH OBSERVER 7

- With a few thousand dollars, in January 1995 I approached Dhaka University which accepted my proposal of recognizing the best research annually by any researcher in Bangladesh

AFTER 6 YEARS OF EFFORT AT DHAKA UNIVERSITY

University faced difficulty for the evaluation process and suggested to modify the award for needy, meritorious students. It took 6 years of my effort and a few trips to Bangladesh to convince Dhaka University the importance of research publications and recognition

- Picture: Recipient Prof. Jamal Nazrul Islam, Ph.D. Cambridge, author of number of books, including "The Ultimate Fate of the Universe" (translated in 6-7 languages before Stephen Hawking), founding director of the Institute of Physical and Mathematical Sciences, Chittagong University



Bangladesh: Recognition has raised the bar of excellence

- Competition for the best publication among universities has been enthusiastic
- Number and quality of research in physics have gone up
- Picture: Recognition ceremony in 2017 - 7 winners



Promoting Research Publication through Recognition: Bangladesh Journal of Physics

- Journal has been in existence, but with irregular publications
- Introduce prizes to inspire publication in BJP
- Pic: Signing MOA with Editor-in-Chief



PROMOTION OF PHYSICS RESEARCH AND EDUCATION, Bangladesh

- One visit to Bangladesh brought another need:
 - Frustration in students as professors were unavailable at Dhaka University as they were teaching in private universities for extra income
 - Students work very hard to get admission in public universities, dream to contribute to science
- Motivation idea for university teachers - Recognition for
 - i) the best teaching in-class, nominated from students voting,
 - ii) the best research publication with students
- Problem with nomination by student votes for the best learning - dishonor of cultural prestige
- I make considerable effort to accept the concepts
 - University means an inseparable entity of teachers and students for knowledge
 - Nomination by voting indicates students appreciation for the best understanding of subject materials in class
- Acceptance of the program has enhanced excellence

RECOGNITION PROGRAM FOR PROMOTION OF EDUCATION, Bangladesh

- I felt obliged to help an old girls high school was on the brink for downsizing from Class X to class VIII
 - Teachers would not teach at class but would tutor at high fee outside the school - a common business on earning
 - A double shift working parent asked me to support their appeal to waive the school fee of their daughter as the tutor's fee was draining them
- Introduced teachers awards - annual for math and science, commerce, arts, and lifetime achievement at retirement
 - All annual awards are nominated by students votes based on their learning at class
 - The school has bounced back - i) it has now high passing rate, ii) more students with higher points, iii) student number has increased from 800 to over 2000, iv) college classes 11 and 12 have been introduced, I am supporting:
 - 1 girls college and 1 co-education college
 - 1 girls high school, 1 co-education high school
 - 2 elementary schools

HAPPINESS IN WINNING STUDENTS VOTES



- Certificate ceremony at the girls school
 - Loud cheers come out from students when their favorite teacher's name is announced as the winner
 - The teacher is greatly honored by the achievement.
- There is no scope of politics in the selection.

PROMOTION OF MATH AND SCIENCE IN MADRASA

- I dared to emphasize math, science, and English in 2008 to the first madrasa outside the Dhaka after donating money to its development
- Students and imams listened as I explained to watch the beautiful sky and think why Allah created it, why doctors need to study about body functions and biology to heal the sufferings from illness, why engineers study to make plane to travel far distance in short time - that is science
- The Quran says find out the mystery of the Allah's creations - that needs math and science
- Then I submitted the proposal of recognition program for the teachers and best students which was accepted and bought a computer for them
- One young student stood up during the visit and told me "You are like Mother Theresa"
- Now more students are appearing government board exams and passing them, in 2016 it upgraded its school from 8th to 10th grade so students do not have to go anywhere for the secondary school certificates.

PROMOTION OF EDUCATION IN MADRASA

- Now I am working with two madrasa schools
- Picture: Panchdona madrasa visit in 2014



SEMINAR: STEM Education and Research, Bangladesh Dhaka University Visit: (Seminar, STEM, Book, Faculty)

- • Started to expand - Bangladesh, Egypt, India, Palestine, USA
- Being a scientist gave me the opportunity to give seminars and popular presentations on cutting edge research Seminar Presentation at Dhaka University



EXPANSION OF THE RECOGNITION PROGRAM TO EGYPT, INDIA, PALESTINE, USA

- Egypt is known to have the richest history. called the "Mother of Knowledge" but has gone down from that glory
- One curious acceptance to a keynote speaker of a Physics conference in Egypt in 2008 opened up my eyes and I got deeply involved in it. I have recognition program at
 - Al Azhar University
 - Cairo University
 - Beni-Suef University
 - Natl Research Institute of Astronomy & Geophysics
 - Topical Society of Laser Sciences,
 - Egyptian Journal of Physics
- I am connected to Suez Canal, Helwan, Ain Shams Universities, Zewail City of Science and Technology, National Research Centre, etc
- My interest is in the war beaten places - Kashmir, Palestine. I believe the anger from the suppression can be relieved through education and education will bring the power to rise.

OUTCOME OF PROGRAM IN EGYPT

- MOA between OSU and Cairo University
- OSU is known to almost every institution in Egypt



DELIVER RESEARCH BASED COURSE FOR RE-SEARCH PROJECTS

- • Have been teaching at Cairo University since 2013, attended by 6-7 institutions
- Have taught at Aligarh Muslim, Delhi, Kashmir Universities in India
- Have taught in Dhaka, Rajshahi, Jahanginagar Universities
- Research guidance in Bangladesh, Egypt, Iraq, Iran, Turkey



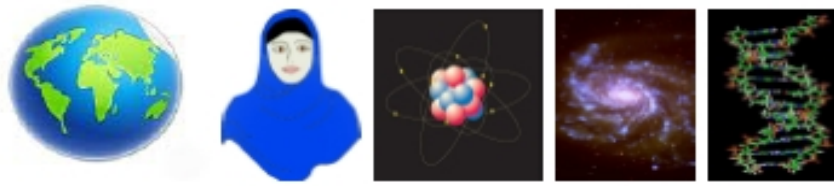
Director: Dr. Sultana N. Nahar, The Ohio State University, USA



WOMEN IN STEM ROADSHOW: 9 workshops in 6 cities

• Women in STEM Roadshow (WSR) is a project of US Mission India

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



INTERNATIONAL SOCIETY OF MUSLIM WOMEN IN SCIENCE (ISMWS)

ISMWS CHARTER

Founder: Dr. Sultana N. Nahar

The Ohio State University, Columbus, Ohio, USA

April 19, 2010

- **AIM:** - encourage Muslim women in science profession, form a network for various support
- **Objective:** Stay in Science (basic or applied)
- **Motto:** Out of 24 hours a day, we keep some hours for our intellectual nourishment
- **Members:** Over 250 from 28 countries

Web: <http://www.astronomy.ohio-state.edu/~nahar/ismws.html>

For membership (free) - Email: nahar.1@osu.edu

Notes from ISMWS Charter:

- Each of us, male and female, have biologically the same brain and the same capability to understand the amazing mysteries of nature, finding out the laws that govern them and implement them for our benefits and advancement. Even if we use our brain continuously, we would probably use only 10-15% of it
- No religion restricts a person from learning, gaining knowledge. Knowledge is a necessity. Islam encourages knowledge for both man and woman.
- All living forms, the world we live in, the universe around us have been created not to ignore them, but to know them for our purposes
- The more we know the universe, the nature, the human functions, living beings, the more beauty we see, the more power and control we achieve to solve problems, the more we admire Allah and His creations

THE LONGEST RUNNING UNIVERSITY



Universit Al Quaraouiine founded in 859 in Fez, Morocco is the oldest existing, continually operating and the first degree-awarding educational institution in the world (UNESCO and Guinness World Records[5][6])

- It was founded by Fatima al-Fihri

ISMWS

- Being a scientist is very much rewarding. It gives the freedom to think and experience the adventure of finding solutions to challenges. Research gives the joy of getting something new and something useful, and publishing the results in scientific journals means contributing to advancement. When I deliver a scientific presentation, I don't think about me as a woman, I think about my research that is engaging to other scientists.
- Family is very important for us. Taking care of a human being is far more difficult job than anything else, because each human mind thinks independently and hence can always oppose to what you think. Taking care of a family can be most challenging and also be the most rewarding. However, each of us need to nurture and utilize our intellectual power. We need support and time to detach. Detachment is needed for any thoughtful work.

- We must adopt to ignore hostile and non-supportive comments, and put downs by fellow students, friends, and others. As my father said that it is important to "Remain focused to your goal, and do not get distracted by the minor problems. They become insignificant with achievement."
- Make a practice: "I will keep at least two hours every day for my science regardless what part of the day"
 - Average: 8 hours of sleep and rest, 8 hours for various chores, use 2 hours of science out of this 8 hours.
- Get part of any useful society, organization. You may find many benefits from it

ISMWS: Aligarh Muslim University, India, 2011

• ISMWS has 300 members from 31 countries:

1. USA, 2. Afghanistan, 3. Algeria, 4. Bangladesh, 5. Canada, 6. Egypt, 7. India, 8. Indonesia, 9. Iran, 10. Iraq, 11. Jordan, 12. Kenya, 13. Kuwait, 14. Lebanon, 15. Malaysia, 16. Morocco, 17. Oman, 18. Pakistan, 19. Palestine, 20. Russia, 21. Saudi Arabia, 22. Sudan, 23. Syria, 24. Turkey, 25. United Arab Emirates, 26. Yemen



ISMWS at Al-Azhar University, Egypt

- **Current Activities:**

- i) Networking - Sharing success news

- ii) Circulate useful scientific news

- iii) Circulate scholarship opportunities and job openings



ALL ISMWS MEMBERS ARE INTERESTED IN RESEARCH, Egypt

- Each ISMWS members are involved in research, at palace of Sultan Qalamun which has a school, mosque and the hospital attached to the palace, Egypt



OUR PRACTICE

- For the sake of dignity and of your own stand, make a practice of
 - Always help or support, regardless of your opinion, a person if he or she is doing something productive
 - Make only positive comments about Islam and Muslims
 - If you have zero comment, remain quiet. Do not initiate anything
 - If you have a negative point to make, be patient and quiet
- There are plenty of people out there to make negative statements
 - If you think supporting others against your own kind will do justice - know that it will not work, it may end like "digging your own grave"
 - Remain united and promote each other
 - Learn to live with diversity respectfully