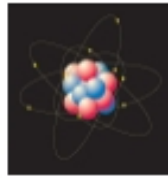


بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



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

- Purpose - encourage Muslim women to science profession
 - Islam encourages knowledge for both men and women
- <http://www.astronomy.ohio-state.edu/~nahar/ismws.html>

Support:



(DOS),



,



THE OHIO STATE UNIVERSITY



Ohio Supercomputer Center

An OH·TECH Consortium Member

MUSLIM WOMEN IN SCIENCE



- Egypt: I attended a Physics conference in Egypt 2008 where participants, including female scientists, came from Africa, Middle-East, China, India, and USA
- Met modest, inquisitive female scientists, isolated but devoted, very little collaboration with outside
- Not aware of other female Muslim scientists in the field
- Face significant difficulty in collaborative research & find ways to communicate with men

FEMALE SCIENTIST: Physics Prof., U. of Khartoum, Sudan

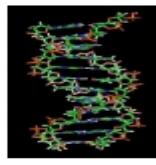
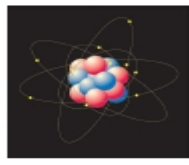


- Pic (M): Female Physics professor, University of Khartoum, - no research connection outside Sudan
- They do not know how to be strong partner with the modern world
- Muslim women face more obstacles and less resources for research
- Aware of the criticism of their culture - prayers described as strange gestures, prayer wash often unwelcoming in the restrooms, Hijab or borqa treated as forced although it is by choice largely, fasting is as health risk, Comment: Muslims don't value education
- **These led to formation of ISMWS - join to contribute to advances**

MUSLIM WOMEN IN SCIENCE: Women Hall Competition



- Presentation of prizes for dance, fashion, singing of lively Muslim students at Aligarh Muslim University, India - no short of fashion, energy
- I met one winner later in my Delhi workshop on STEM, with a black abaya, doing her Master of Science at JMI
- With black hijab - so lively inside yet so modest outside!



The objectives of ISMWS

- form a network for moral support, encouragement to science and research, exchange information on higher education, jobs, fellowships, and secure grant.
- Motto: "Stay in Science (Basic or Applied)"
- Practice: "Keep some hours for our intellectual nourishment everyday"
- Believe: "The more we use our brain and mind, the more beautiful we look."
- Members: Over 300 from 31 countries
 - "ISMWS at Ohio State" is the student chapter at OSU
 - ISMWS has a chapter at East Carolina University
 - ISMWS has been the topic of research project at Georgia Tech, Florida International University, OSU
 - ISMWS featured at i) Western Washington University physics course, Voice of America, APS, OSU media, public talks, etc.

MEMBERS FROM 31 COUNTRIES



1. USA, 2. Afghanistan, 3. Algeria, 4. Bangladesh, 5. Canada, 6. Egypt, 7. England, 8. Ghana, 9. India, 10. Indonesia, 11. Iran, 12. Iraq, 13. Jordan, 14. Kenya, 15. Kuwait, 16. Lebanon, 17. Malaysia, 18. Morocco, 19. Nigeria, 20. Oman, 21. Pakistan, 22. Palestine, 23. Russia, 24. Saudi Arabia, 25. Somalia, 26. Sri Lanka, 27. Sudan, 28. Syria, 29. Turkey, 30. United Arab Emirates, 31. Yemen

ISMWS ACTIVITIES:



- Current Activities:**
- i) Lectures,
 - ii) Networking,
 - iii) Connecting for scientific collaboration,
 - iv) Sharing success news in ISMWS newsletters,
 - v) Circulate useful scientific news,
 - vi) Circulate scholarship opportunities and job openings,
 - vii) Help with information for higher education in the US,
 - viii) Celebrate International Women's Day,
 - ix) Give recognition for excellence

Inspired by ISMWS: Kashmir U, Women's College, 14, 16

- Many women showed up in the snow covered Srinagar
- Inspired Ladakh student recited from the Quran



Impact: ISMWS at Arab Conference on Astronomy & Geophysics



- Three ISMWS members at WSU received best Ph.D. thesis prizes
- My student left denied marriage in India, has joined Texas University, and LSST project
- After attending my lecture, a mother of low income family in Aligarh promised me to let daughter study science
- Connected Cairo University member to make MOA with AMU
- Connected NIT-Kashmir professor to Dhaka University
- Introduced research scopes in Bangladesh, India, Morocco, Turkish members

IMPACT and ISMWS MEMBERS



Chemistry



Samima Khatun was awarded the *Communications Chemistry* grant. Samima recently

PhD research on thermodynamic and spectroscopic studies on interactions in protein ligand systems at Aligarh Muslim University in India. She will attend the 26th International Conference on Chemical Thermodynamics in London.

<https://www.nature.com/early-career-travel-grants/about/recipients>

i) Rahla Nagma, APS meeting, ii) Shaikha Al-Mousa (Saudi), USA for study, iii) Muneera (Saudi) & Burcin (USA), iv) Samima Khatun (India), Nature grant

ISMWS outcome: Women in STEM Roadshow (WSR) of DOS



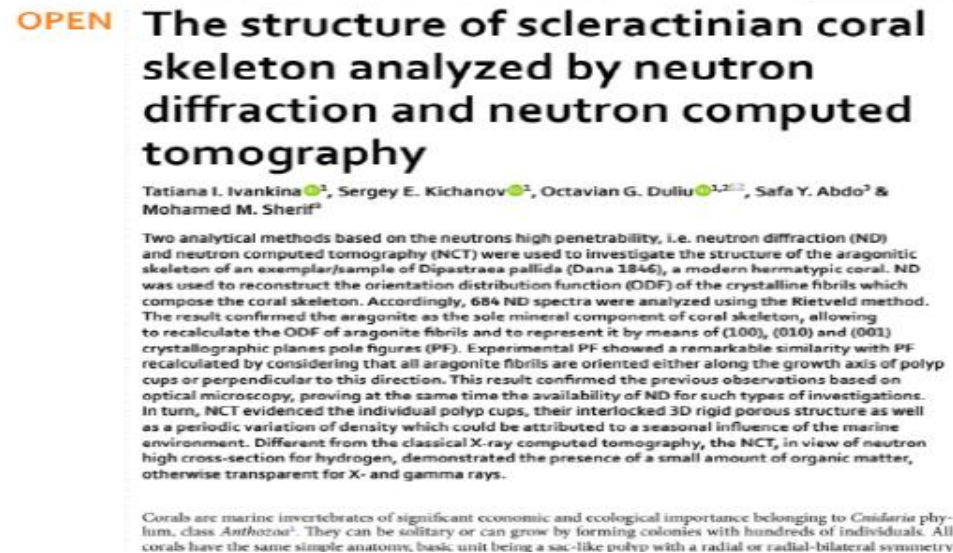
- S. Nabiha (pictured) reported "... thank you for availing us the wonderful opportunity to study abroad and opening up the portal for exemplifying our knowledge which proved to be a great help for me to achieve 1st position among B.Sc (BZC) students of my university."
- Rifa Khan, graduated in Computer Engineering reported achieving a CPI of 9.98 and a score of 108/120 in TOEFL "I hope that the enthusiasm that attending it (WSR), instilled in me, remains forever"
- Mymuna Shaik reported " I stood TOP in the Rayalaseema University in M.Sc physics entrance exam. I was lucky to be one among all the participants. My aim is to be an ideal for others like Albert Einstein, Abdul, Kalam & the last but not the least Sultana mam."

Difficult problems: Example: The aspiring girl from Yemen



- **The case of Dr. Safa Yusuf, Nuclear Physicist**
- She was the topmost student in school and in the city in Yemen
- Desired to be nuclear scientist from childhood - changed her Bachelor fellowship from Ministry for pharmacy in Jordan to Physics in Syria.
- Remained among the topmost students and a favorite of teachers
- Went to Egypt and received Master in Nuclear Physics
- Returned to Yemen, but no job, taught free in a university for a year
- Received fellowship for Ph.D. Cairo University in Egypt but the war started, and couldn't travel because of the embargo!
- But she made impossible, traveled by bus for 6 days from Hodeidah, Sana'a, Maareb, Sharora ,Najran to Jeddah in KSA then took a plane to Cairo.

Safa's Ph.D. defense & a publication in Nature



- Received her Ph.D. in Physics from Cairo University in March 2020, and has been applying continuously in various places without any success, not legal in Egypt, no affiliation for international jobs
- She married an Egyptian doctor 24 years older but says she is happy with him. This has permitted her to stay in Egypt but she needs to change her status which is facing couple of issues.
- But her dream and strong desire to be a nuclear physicist or a physics researcher is driving her searching for a physics position.
- The question is how long can she fight to survive with her desire.
- We are making progress in diversity and inclusion. Can we, the Physics community, do something for a fellow physicist like her?

- International Society of Muslim Women in Science (ISMWS) is a society that encourages Muslim females to choose science, basic or applied, that is the STEM disciplines, stay in them and contribute to advances in humanity. Islam encourages knowledge for both men and women.
- Realization of formation of ISMWS came after I attended the international Modern Trend in Physics Research conference in Egypt where I met attending female physicists with soft voices, eager to know the current research, and carrying out their own research in isolation but with devotion and sincerity
- They do not know how to connect with those in advanced research and are aware of the negative criticism by others toward their values, traditions, and culture
- A physics female professor from University of Khartoum was an example of it
- Although modest outside with their abaya, they are very lively inside just like others - picture shows of an all-girls cultural program at Aligarh Muslim University. I met one winner in abaya later doing her M.Sc. in Delhi
- ISMWS was founded in 2010 by myself. It respects the identity of each person and helps in self-confidence
- ISMWS Motto is: Stay in Science
- Practice: to keep 2 to a few hours everyday for intellectual nourishment

- Believe: The more we use our brain, the more beautiful we look
- It has student chapters at OSU and at East Carolina University
- It has been a research project topic in academia and was featured in Western Washington University and in a number of media.
- It has over 300 members from 31 countries, from USA, Afghanistan to Yemen
- Its activities include - lectures connecting research groups for scientific collaborations, provide research scopes, help in higher education in the USA. sharing successes through newsletter, celebrate international Women's day, give recognition for excellence.
- Lectures have inspired many - examples show University of Kashmir and Women's College in Kashmir, India. A Ladakh student from near the border of China recited Quran to express her inspiration.
- Members are connected, such as in Arab Conference on Astronomy and Geophysics, they are receiving recognition for excellence, created more connections in research etc
- Some examples of ISMWS members who are making amazing progress toward advances
- Nabiha in the picture got the highest position in her university by her effort after attending the workshop on Women of STEM Roadshow I conducted. They dream to be like Einstein, Abdul Kalam

- But we have many challenges to overcome. Dr. Safa Yusef of Yemen, now in Egypt, is an inspiring story of achievements by winning over many obstacles but now desperately struggling to survive with her dream of a Nuclear physicist. Her case is presented to get some positive contribution from APS members.