

Sultana N. Nahar

The Ohio State University

Candidate for Member-at-Large

Bio:

Sultana Nurun Nahar, an APS Fellow, at Ohio State University was born in Bangladesh. She was the first woman to stand first class first in B.Sc.Hons Physics in Dhaka University and is in the list of Pioneer Women of Bangladesh. She received her Ph.D. in theoretical atomic physics at Wayne State University in Michigan. Her current research is atomic radiative and collisional processes in astrophysical plasmas and X-ray spectroscopy of nanobiomedicine for cancer treatment.



She has about 135 publications, maintains an atomic data base NORAD-Atomic-Data, and is a reviewer of 20 scientific journals, She is a member of the international collaborations of the Opacity Project and the Iron Project for accurate study of atomic processes for astrophysical applications where she leads the radiative work.

She co-authors the graduate textbook “Atomic Astrophysics and Spectroscopy” with A. K. Pradhan. However, she has been involved with promotion of physics research and education in the developing countries since 1995. She gives physics seminars, contributes books and money, and gives guidance for research as well as enrolling to Ph.D. programs in the US universities. To encourage physics research in Bangladesh, she has introduced research prizes and teachers awards for in-class teaching. She is working with 10-11 educational institutions in Bangladesh. She works with physics students and faculties in Egypt, Turkey, Iran, India, Chile. She is a mentor of MentorNet, affiliated to FIP, for international and diversity science and engineering students and postdocs. She encourages Muslim women to science through through the International Society of Muslim Women in Science (ISMWS) that she founded. ISMWS has about 35 members from 10 countries. It circulates information on research and collaboration scopes, conferences, job opportunities, and inspiring news, Sultana was featured as the modern Muslim Scientist by the female science students at United Arab Emirates University.

Candidate Statement

As a member-at-large of the FIP Executive Committee, I aim to connect the large community of physicists in the developing world to the APS. At present

APS Physics | FIP | Sultana N. there are hardly any physicists who are able to afford the membership fees, and are therefore excluded from the myriad benefits that accrue through APS activities and productions. I would like to explore some arrangement for special membership benefits of APS, particularly participation in conferences, might be able to provide to those scientists who are unable to pay the full fees. There are also dedicated physicists doing remarkable work with meagre resources and poor academic environment, I would like work with FIP to encourage such efforts through some recognitions. My another main objective will be to institute some targeted programs for the women in developing countries and in islamic countries where young women are interested in science, but unable to pursue it due to lack of information and encouragement. With the help of FIP and the universities of these countries, I would like to have some targeted APS activities for exposures of higher education and research highlights and encourage women to stay in science. I have initiated a number of scholarships and programs in Bangladesh. I would like to extend those to (i) other countries in South Asia and the Middle East, and (ii) formally institutionalize programs that might be of wider benefit to many more women scientists. I am involved with multi-disciplinary research where basic physics is applied to useful applications. Recently we have extended the astrophysics work to cancer research. Such interdisciplinary research is also of interest to scientists in developing countries. and I would like to emphasize the interconnections.