Tribute to Dr. Mostafa Hemmati

Academy Editors
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1983 was a very good year for Arkansas Tech University (ATU) and subsequently Arkansas. During that year a young man named Mostafa Hemmati joined the Physical Science faculty of ATU as an associate professor. He had received his B.S. in Physics from Meshad University in Iran in 1972, an M.S. in Physics from the University of Oklahoma (OU) in 1980 and then a Ph.D. in Physics in 1983 from the same institution. He had been both a teaching assistant and a research assistant while at OU. While at OU he also furthered his teaching skills at South Oklahoma City Junior College where he taught applied physics, introduction to physical science and introduction to astronomy. Mostafa received the Nielson Award for Outstanding Dissertation, from the University of Oklahoma in 1983.

From the very beginning of his academic career Mostafa was focused on his students and it shows. The following are comments about Mostafa on Rate your Professor.com from his students:

Dr. Hemmati is a fantastic lecturer, he is very passionate about the subject matter. At first his handwriting is tough to read so listening is key. Every day it's important to be in class as he constantly covers material, there is no such thing as a light day in his course.

He is simply awesome. His lectures are interesting. He wishes goodwill to everyone during class, lab, quiz and test. I will highly recommend him for all the physics classes and labs.

All around great professor. Challenging but not hard, plenty of opportunity for grades, goes into meticulous detail in his lectures. Be sure to get a seat front-row center, it can be difficult to see his work at the far end of the board.

Dr. Hemmati is a great physic professor. Learn what he teaches and study what he tells you to study, and you're good. You have to be able to understand the work instead of just doing the problems to do well on the tests. He teaches Modern Physics, and he teaches at your speed. He's humorous and his labs are fun.

Great Professor!!! TAKE HIM! His tests are difficult, but very fair. Lectures are anything but boring and provide more than sufficient understanding of the material. He is enthusiastic about his classes and demands respect of his students. Also a wonderful lab instructor!

If you prefer student TAGS on Mostafa are as follows: Skip class you will not pass; participation matters; amazing lectures; tough grader; clear grading criteria; and, extra credit available.
Thus, while Physics professors are not known for their popularity with students. Mostafa is a very conspicuous exception.

From 1996 to 2001 Mostafa was Head of the Department of Physical Science at ATU. In 2001 he was promoted to full Professor. From 2001 until his retirement he has also been Director of Undergraduate Research at ATU. In this role, he promoted and supported the necessary research aspirations of junior faculty as they sought promotion and tenure, and thereby enhancing the training and development of undergraduate students, so improving their ability to compete post-graduation. During this time, he has been very active in outreach in the support of science to a variety of entities. One of the more surprising of such entities are grade schools. It takes a very special physics professor who can talk to elementary students and be invited back!

Mostafa has taught almost every conceivable physics class at ATU including both majors and nonmajors physics, optics, atomic and nuclear physics both basic and advanced, thermodynamics and statistical mechanics, theory of electricity and magnetism, mechanics, quantum mechanics, as well as special problems in physics, colloquium, and introduction to physical science.

He has also received the following awards at ATU:
- 1996 Faculty Award of Excellence in Scholarship;
- 1996 Blue Key – Cardinal Key Outstanding Faculty Member Award;
- 2004 Faculty Award for Excellence in Scholarship;
- and the
- 2005 Faculty Award for Excellence for Service.

During the last 10 years Mostafa has mentored more than 40 students many of whom have gone on to graduate school. He has more than 30 significant publications, and has been awarded more than $300,000 in grant money to support his undergraduate researchers. He has managed to attend on the average one major research conference each year for the last two decades and presented many papers. His research emphasis is in the area of electrical breakdown waves.

Mostafa is very service-oriented. From 1998 to 2002 he served two terms as President of the Arkansas-Oklahoma-Kansas Section of the American Association of Physics Teachers. From 2003 to 2006 he served as Councilor to the Council on Undergraduate Research of the American Physical Society (APS). From 2001 to present he has been the ATU representative to the Arkansas Space Grant Consortium. From 2005 to present Mostafa has been President of the Iranian American Association of Arkansas. From 2008 to 2010 he was President of IrAP (Iranian-American Physicists Network Group). Mostafa was cited extensively in the article entitled "Iranian Scientists Battle Numerous Restrictions" (APS NEWS, Volume 20, Number 7).

Mostafa has been most active in the Arkansas Academy of Science. He was President of the AAS 1999-2000. Since 2002 he has been Chair of the Nominations Committee and Treasurer since 2005. When he took over as Treasurer, the AAS was barely breaking even each year, but as noted below that was going to change significantly. From 2004 to 2009 Mostafa was the AAS Representative to the American Association for the Advancement of Science annual meeting. In 2008 Mostafa accepted his most daunting assignment for the Academy: that of Editor-in-Chief of the peer-reviewed Journal of the Arkansas Academy of Science during its transformation from predominantly paper format to an increasingly more web-based presence.

By serving the intense roles of Treasurer and Journal Editor-in-Chief, Mostafa has provided a unique, powerful and long-lasting impact on the Academy. In 2008, Mostafa recruited Ivan Still to work on the Journal as Interim and then duly elected Managing Editor. Mostafa promoted a dramatic change to the publication mechanics, with authors needing to format their submitted articles in a “near-finished” format; Ivan subsequently would handle any “final edits” after peer-review to bring all manuscripts to publication quality and then assembling meeting reports etc. to form the completed JOURNAL for publication. Mostafa skillfully handled resistance to these controversial moves, but the innovation in the publication process was successful as evidenced by the quality of the finished product. Significantly, the new process removed the need for an external copy-editing and publishing service, previously a massive drain on the finances of the Academy. Indeed, as of 2018, the Academy now has sufficient resources to fund research grants for undergraduate students as well as other support activities of AAS. However, in the last couple of years, further changes to the Journal were coming. Since 1950, the Proceedings, and then, with the name change in 1997, the Journal of the Arkansas Academy of Science has been published each year in hardcopy, and then archived electronically by the University of Arkansas Libraries. When UA adopted the Scholarworks Digital Commons platform through bepress™, Mostafa supported the move of the Journal to the new system. In collaboration with Cedar Middleton (UA), Melody Herr (UA), Ivan and the staff of bepres, the Journal transferred to the Digital Commons system, with all manuscript review and
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processing now handled electronically. The overriding and long-lasting impact of this final change to the Journal during Mostafa’s tenure as Editor-in-Chief returns to major objectives of the Academy. The current form of the Journal further aids “the promotion and diffusion of knowledge in the fields of Science”, and in particular promotes the research efforts of Faculty and students in Arkansas by being easily and freely available throughout the world through the journal homepage at https://scholarworks.uark.edu/jaas/.

We of the Academy wish Professor Mostafa Hemmati a very happy retirement in New York City!

Collis Geren
Secretary and Historian, Arkansas Academy of Science

Ivan H. Still
Managing Editor, JAAS