

## Nomination for the Excellence in Leadership Award

Nava Setter, Ecole Polytechnique Fédérale de Lausanne nava.setter@epfl.ch

Nava Setter is a pioneer in using nanotechnology tools and thin film growth, as well as traditional approaches, to develop the current understanding of ferroelectricity in films and bulk materials. It is fair to say that she has defined a large part of this field. Her over 350 publications have been cited over 12,000 times and her impact factor is 55. Nava's research has determined mechanisms of ferroelectric polarization fatigue, of phase transitions in disordered ferroelectric thin films, has contributed to the search for lead free compounds, and has presented innovative thin film devices. She is held in the highest esteem as an international leader in this field. She is a fellow of the Swiss Academy of Technical Sciences, the Institute of Electrical and Electronic Engineers (IEEE), the World Academy of Ceramics, and has received many Outstanding Achievement Awards, for example the Swiss-Korea Research Award, the ISIF outstanding achievement award, the IEEE recognition award, the IEEE-UFCF Achievement Award, and the Buessem Award.



Throughout her career Nava has demonstrated a strong commitment to mentoring future scientists and engineers. Of course her tutelage has been a platform for generating a large number of successful scientists as PhD graduates or post docs. But she has also had a focus on enabling high school science learning in rural areas of developing countries. This is a tremendous undertaking. For example she currently has a program in rural Tanzania that consists of several elements: (1) Development of series of physics, chemistry and biology laboratory, (2) Production of CDs with demonstration of laboratory activities and related science, CDs for enrichment of the curriculum, and the design of an equipment package for classroom that will allow the use of this support-material. (3) Creation of a mini-center for in-service education for high-school science teachers that contains appropriately equipped science laboratories, run by qualified teacher trainers. In addition she has been instrumental in getting international scholars to visit by organizing conferences there. This effort will have a transformative impact on that region of the world.

Although Nava Setter is not currently an AVS member, she exemplifies in the extreme the values this award seeks to recognize. Her scientific leadership in ferroelectrics is unsurpassed and her effective devotion to the cause of science education in developing countries is truly outstanding.