

EXECUTIVE SUMMARY

A MESSAGE FROM NJIT PRESIDENT JOEL S. BLOOM

CRITICAL UNDERSTANDING

One of the most important goals that we seek to achieve at NJIT is to promote incisive analytical understanding of problems encountered in daily life, understanding that can lead to practical solutions based on science and technology. Without exaggeration, one such problem highlighted in this issue is of critical concern to the entire global community. It is the growing worldwide shortage of water pure enough and safe enough to drink.

Researchers at NJIT are working on technologies that can help to meet this escalating water challenge, which threatens to impact the quality of life not only in distant regions of the globe, but in the United States as well. NJIT students, baccalaureates through Ph.D.'s, also are assisting with this work, engagement reflective of involvement in research that is part of the NJIT experience from the time they begin their studies at our university.

The article on mathematical science and the investigation of circadian rhythms focuses on a very different aspect of our relationship with the world around us, and our personal well-being. It describes research funded by the National Science Foundation that seeks greater understanding of the biological clock that regulates the pace of life for every person. Attuned to cycles of light and dark, the way this mechanism governs mood and awareness has an important bearing on how we feel each day in all of our activities, on our relationships, our work and productivity.

Recently, we welcomed Dr. Moshe Kam to NJIT as the dean of Newark College of Engineering, and he shares his thoughts on a number of topics in this issue. They range from why he chose engineering as a profession to the sense of social responsibility that must be fostered by engineering education. NCE's enrollment has grown, making it the largest engineering college in the greater metropolitan region, and under Dean Kam we look forward to comparable growth in NCE's national and international reputation.

Dean Kam is quite clear about the critical role that engineers, and everyone with technological and scientific skills, must play in identifying significant quality-of-life problems and helping to develop solutions. In expressing this view, he speaks for all at NJIT who recognize the special role that polytechnic universities play nationally and internationally.

I encourage your review of these articles and your feedback.



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