



MMAE *V*ectors

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As the new chair of the Mechanical, Materials and Aerospace Engineering (MMAE) Department, I am very delighted and pleased to be part of the Illinois Institute of Technology (IIT). The MMAE Department has many strengths, and I would like to share briefly some of them with you. I would also like to inform you of our near future plans for the department.

First, I would like to briefly inform you of my own technical background. Prior to joining IIT in January 2002, I was at Texas A&M University for fourteen years. I received my Ph.D. in Mechanical Engineering from the University of Illinois at Urbana-Champaign in 1984; I am enjoying my return to this great state. Following my graduation from the University of Illinois, I joined Westvaco Corporation, a leading pulp and paper company. My three years of industrial experience was very valuable to me. As a result of this industrial experience and with the help of select faculty, we established the Drying Research Center at Texas A&M, the only such center in North America. This center was financially supported by an annual membership fee from member

companies. Also at Texas A&M, I developed a unique and very active laboratory in the field of enhancement of heat transfer in single-phase and two-phase flows entitled, "Electrohydrodynamics Laboratory." This laboratory has been completely transferred to IIT.

The MMAE Department at IIT offers great programs in all three areas of Mechanical, Materials and Aerospace Engineering. The quality of our undergraduate students is high. Our students do not have difficulty finding jobs upon graduation and they are certainly among the best in the nation when they graduate. I believe that our undergraduate enrollment in MMAE will continue to grow. We are going to strive to provide even better education for our students despite the expected increase in enrollment. For instance, our MMAE curriculum at undergraduate and graduate levels is continuously being evaluated and improved.

Effective fall 2002, our department structure was modified to help the department operate more smoothly as one department, rather than three in one. We now have one associate chair for undergraduate programs, Professor John Kallend, and one associate chair for graduate programs, Professor Candace Wark. We have nineteen tenured or tenure track faculty members, one full-time lecturer, and approximately five part-time lecturers per semester. We currently have 261 undergraduates and 142 graduate students.

It is our top priority to attract outstanding students to the MMAE undergraduate programs by creating more fellowships. We need to improve our undergraduate laboratories. A goal for our graduate programs is to attract top students, including our own excellent undergraduates. We need to be able to fund more positions for teaching assistants and research assistants, allowing us to attract and retain a greater number of high quality graduate students. Our goal is to have on average at least two fully-supported Ph.D. students per faculty member in less than five years.

The MMAE faculty had a retreat in May 2002. We discussed the need for additional faculty members, emerging research areas, our teaching load policy, and our course offerings and frequencies for both graduate and undergraduate programs. A number of changes to the curricula are in progress as a result of this meeting, and two faculty searches are underway in the areas of solid mechanics/smart aero-structures and nano scale computational Modeling/Materials Synthesis.

In order to achieve the goals mentioned above, the MMAE department needs to increase its endowment and research funding by approximately fifty percent in five years. We have several efforts underway to help us meet this goal. Faculty members are working on several group proposals. We are in the process of increasing our external collaborations with industry, especially local companies. This is a top priority for us. We are working to improve our visibility by encouraging the faculty to publish actively in reputable journals and conference proceedings.

The MMAE Department External Advisory Board was reconstituted this fall. The members, from industry, federal government and academia, met at IIT's campus on October 21, 2002. The members of this board will play a critical role in advising us in ways to improve our programs, increase our research activity, and especially increase our endowment level.

I am looking forward to hearing from our former students, friends, colleagues, and of course industry professionals. You are very important to us and we highly value your thoughts and comments.

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message from the chair

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