An Initiative for New Synergies in Graduate Education

We believe that a strategic initiative for the creation of an endowment for the support of entering graduate students presents an unprecedented opportunity for transformative change of the College of Engineering as it moves up in prestige and ranking. Based on estimates of graduate student cost and endowment return, we believe that an endowment of $93 Million would enable ECE to provide entering fellowships (see Appendix) to all entering PhD students. This would deliver immediate benefits in departmental and College of Engineering rankings, and would provide the basis of far-reaching change that could propel Purdue's College of Engineering into the future.

In particular, we believe that such an initiative would have the following major benefits:

- **Rankings** - Graduate fellowships would dramatically and immediately increase yield and selectivity indices, which directly translate into improved numerical scores for College of Engineering rankings.
- **Funded Research** - Greater graduate student talent would increase both the quality and quantity of research; thereby directly increasing our capacity to produce funded research.
- **Prestige** - Higher quality graduates who have greater freedom and more rewarding experiences will be more likely to take academic career paths, a key contributor to external visibility and prestige.
- **Engagement** – Outstanding graduate students are more likely to achieve the remarkable career goals that will make them the valuable alumni of the future.
- **Diversity** - A higher quality graduate student population and dedicated funding will better position Purdue to attract and retain diverse populations of students and faculty.
- **Global Impact** - An improved PhD program and associated higher ranking will attract higher quality undergraduates from around the world.

We believe this initiative can provide a platform for the College of Engineering to achieve the major goals of Purdue's strategic plan: Launching tomorrow's leaders; Promoting discovery with delivery; and Meeting global challenges.

Appendix

Based on an 11-month stipend of $18,700; tuition and fees of $36,045 (this assumes out-of-state cost), and insurance of $980, the total annual cost per fellowship would be $55,725.

Fall of 2009, ECE had 460 PhD graduate students, which implies an average of approximately 80 PhD admissions per year. Currently, ECE has funds for approximately 20 TA positions for incoming students, and about 10 fellowships. This implies that ECE would need to fund 50 additional fellowships for incoming PhD students per year. Assuming that each student is funded for 18 months, which would allow a student sufficient time to find a faculty advisor and associated support, the annual cost would be given by $4,179,375=50*1.5*($55,725). Assuming a 4.5% draw from endowments, the necessary endowment size would be $92,875,000.

Fall of 2009, the College of Engineering had 1366 PhD graduate students. Under the assumption that it would be advantageous to provide fellowship support across the College to a comparable percentage of all incoming PhD students, 149 (≈1366*50/460) new student fellowships could be awarded annually through the support of an endowment totaling $276,767,500.