

**Resolution for a Graduate Field of Systems Engineering
and a Master of Engineering Degree in Systems Engineering.**

WHEREAS, the proposal to create a new graduate field of systems engineering has been approved by the Graduate School, and

WHEREAS, a master of engineering degree in systems engineering has been approved by the Graduate School, and

WHEREAS, creation of the new graduate field and a master of engineering degree in systems engineering has received enthusiastic endorsement by the Dean of the Engineering College, the Master of Engineering Committee of the Engineering College, and the participating engineering departments, and

WHEREAS, the Committee on Academic Programs and Policies has also recommended creation of the new graduate field and has approved the creation of a master of engineering degree in systems engineering,

THEREFORE, BE IT RESOLVED that the Faculty Senate upon review of the merits of the proposals put forth approve establishing a graduate field of systems engineering, which would offer a master of engineering degree in systems engineering, and urges the Administration to place this on the agenda of the Board of Trustees for consideration.

Rationale for Systems Engineering Proposal:

Systems engineering is a long standing engineering interest that has grown out of several traditional engineering fields. Cornell has for years had strengths and components of systems engineering within the departments of Operations Research & Industrial Engineering, Civil & Environmental Engineering, Mechanical & Aerospace Engineering, Computer Science, and Electrical & Computer Engineering. Recent national attention to systems engineering per se, the development of more and more complex products and systems, and the expanded and successful engineering management program in the Engineering College, have brought to the forefront the issue of how institutionally to address systems engineering.

Cornell would like to recognize the depth of experience and expertise it has in systems engineering, and to create a structure to allow teaching and intellectual activities in this area to expand. A new graduate field for systems engineering is the natural and appropriate way to recognize explicitly this discipline and its study, pooling the faculty members and resources in several different departments. Dean Hopcroft observes that the program has broken down traditional walls surrounding departments, and brought together those units into a new cooperative arrangement. An industrial steering group has already had four meetings to provide guidance and to generate support for the program.

On a more practical level, the Engineering College wishes to response to industrial demand for a master of engineering degree in systems engineering. There is also a strong national interest at NSF, NASA, and elsewhere at this time in systems engineering. A graduate field for systems engineering will allow Cornell to marshal its educational and research strengths in systems engineering to attract quality students interested

in the field and to become a stronger player at the national level.

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