CASE WESTERN RESERVE UNIVERSITY

December 8, 1998

Professor Frank Merat
Electrical Engineering
Glennan 515A

Dear Frank:

As you know, I am in the process of starting the planning to attain more visibility
in our research and teaching. Everyone, including the dean, seems to want us to
reach those goals. In order to do that, I need to find out what your interests are
and who are the faculties that you need to interact with to attain our goals.

We all recognize that the old department lines were artificial in the sense that
most of us have interests that went over those lines. That shows up most clearly
in the inter-disciplinary work that many of us are doing. However, after what I
heard at the retreat, it seems clear to me that many of you also have interests in
curricular issues that cross the disciplinary boundaries.

First, please let me know what degree program(s) you are interested enough in
to participate in the planning and teaching? Check off all that apply.

☐ Systems and Control
☐ Computer Engineering
☐ Computer Science
☐ Electrical Engineering

What broad research areas are you interested enough in to participate in
planning, writing of proposals, and shared research? The following list is my
modification of Howard's original list. Feel free to modify it.

☐ Devises, Circuits, VLSI
☐ Control, Robotics
☐ Systems and Decision Making
☐ Computer Science, Software Engineering

Please fill in and return to Jacqui as soon as it is convenient for you.

Robert V. Edwards, Acting-Chair
Electrical Engineering and Computer Science

RESEARCH AREAS

SOLID STATE (7)
- MEMS/Microfabrication — *Mehregany*
- Sensors and actuators — **New**
- Device Physics — *Tabib-Azar*
- Process Technologies — **New**
- Circuits/Solid State — *Garverick*
- Solid State/High Frequency Communications — **New**

VLSI (5)
- VSLI Devices — *Saab*
- VLSI Mixed Signals — **New**
- VLSI Hardware/Testing — *Papachristou*
- VLSI Photonics — **New**
- VLSI CAD — *Carletta*

SYSTEMS ENGINEERING AND DECISION ANALYSIS (4)
- Decision/Optimization Theory and Algorithms — *Chankong*
- Industrial and Manufacturing Systems Engineering — *Malakooti*
- Global Change Modeling and Simulation — *Sreenath, Mesarovic*

COMMUNICATIONS (7)
- Wireless/radio/EM — **New**
- Analog & Digital Circuits — **New**
- Low Power — **New**
- Embedded Systems — **New**
- IR/Ultrasonics — *Hazony*
- Optical Communications — *Smith*
- Network Communications Hardware — **New**

CONTROL ENGINEERING (5)
- Linear and Nonlinear Control Theory — *Lin*
- Stochastic Control and Filtering Theory — *Laparo*
- Hybrid Systems — *Branicky*
- Identification/Adaptive Control — *Phillips*
- Industrial Control — *Buchner*

ROBOTICS AND INTERLLIGENT SYSTEMS (6)
- Agile Manufacturing — *Merat*
- Robotics — *Newman*
- Biocontrol Systems/FES Control — *Chizeck*
- Biologically Inspired & Automonous Robotics — *Beer*
- Genetic Algorithms — **New**
- Neural Nets/Fuzzy Logic/AI — **New**

COMPUTER SCIENCE AND SOFTWARE ENGINEERING (9)
- Operating Systems — **New**
- Programming Languages — **New**
- Expert Systems/AI/Algorithms and Theory — *Ernst*
- GUI/graphics/animation — **New**
- Software Testing and Engineering — *White, Podgurski*
- Databases — *M. Ozsoyoglu*
- Multimedia — *T. Ozsoyoglu*
- Networks (Client/Server Software and Theory), Security — **New**