

State of Rice's ECE Department

Don H. Johnson

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Department overview

- ☞ 30 tenure-track faculty (19 with primary appointments in ECE), 2 faculty fellows, 1 research professor
 - * 8 IEEE Fellows
- ☞ Largest Rice department in total number of graduates
- ☞ One open faculty position
- ☞ Three major research centers
 - * Center for Multimedia Communications (Behnaam Aazhang)
 - * MURI Center for Nanoshell Design (Naomi Halas)
 - * Networking Research Group (Knightly)
- ☞ Home of the Connexions project

Research Areas

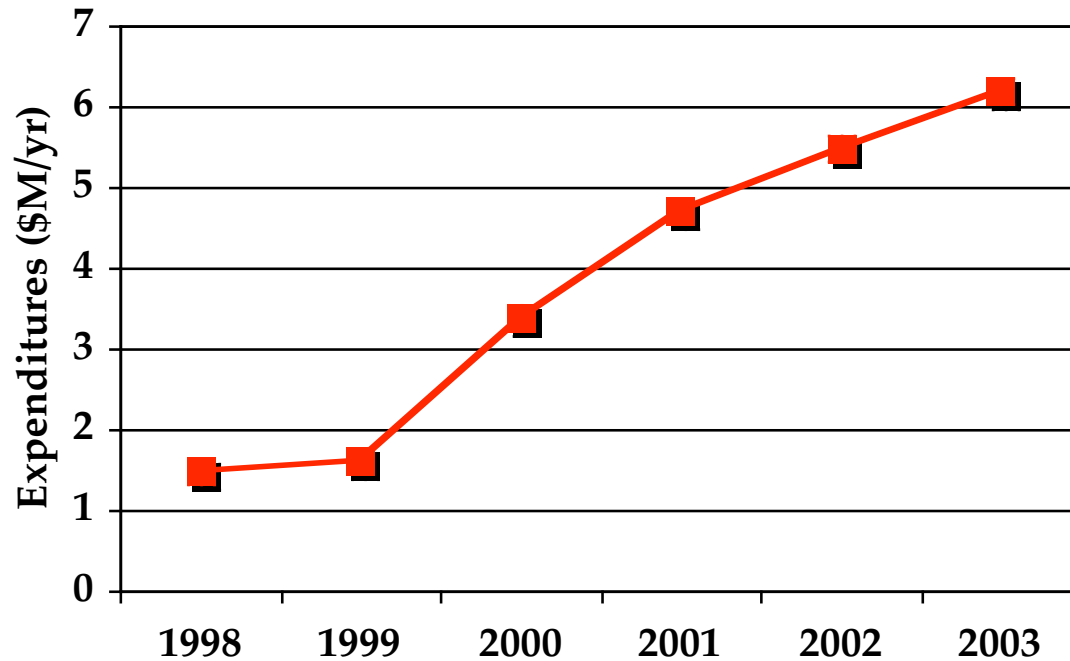
- ☞ Signal, image and information processing
 - * Baraniuk, Choi, Johnson, Nowak, Orchard
- ☞ Bioengineering
 - * Clark, Johnson
- ☞ Communications and control
 - * Aazhang, Antoulas, Sabharwal
- ☞ Network modeling and protocols
 - * Baraniuk, Knightly, Nowak
- ☞ Connexions - Electronic publication for education
 - * Baraniuk, Johnson, Wilson
- ☞ Distributed systems
 - * Varman
- ☞ Computer architecture and hardware
 - * Cavallaro, Pai, Massoud, Mohanram
- ☞ Photonics, laser science and applications
 - * Halas, Kono, Mittelman, Tittel, Young
- ☞ Semiconductor and quantum devices
 - * Kelly, Kono, Wilson

What's happening....

- ☞ Departing faculty
 - * Rob Nowak to University of Wisconsin
 - * Rolf Riedi to Statistics (Rice)
- ☞ New faculty
 - * Yehia Massoud (high-performance VLSI design)
 - * Kartik Mohanram (VLSI test and hardware performance enhancement)
- ☞ Microfabrication facility construction starts in a week (finally!)
- ☞ Grants, grants, grants...

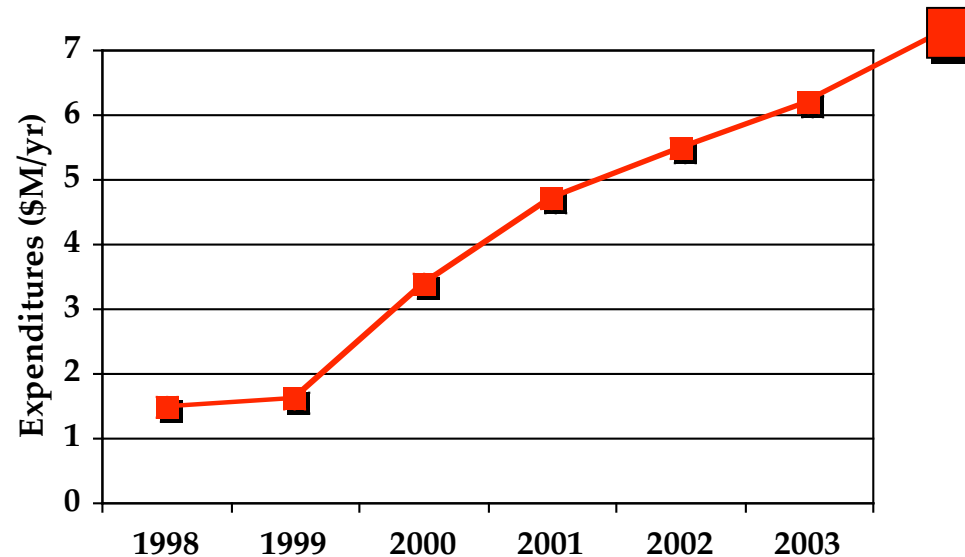
Research Overview

- 👉 Research funding increasing more than any other engineering department (13% last year!)



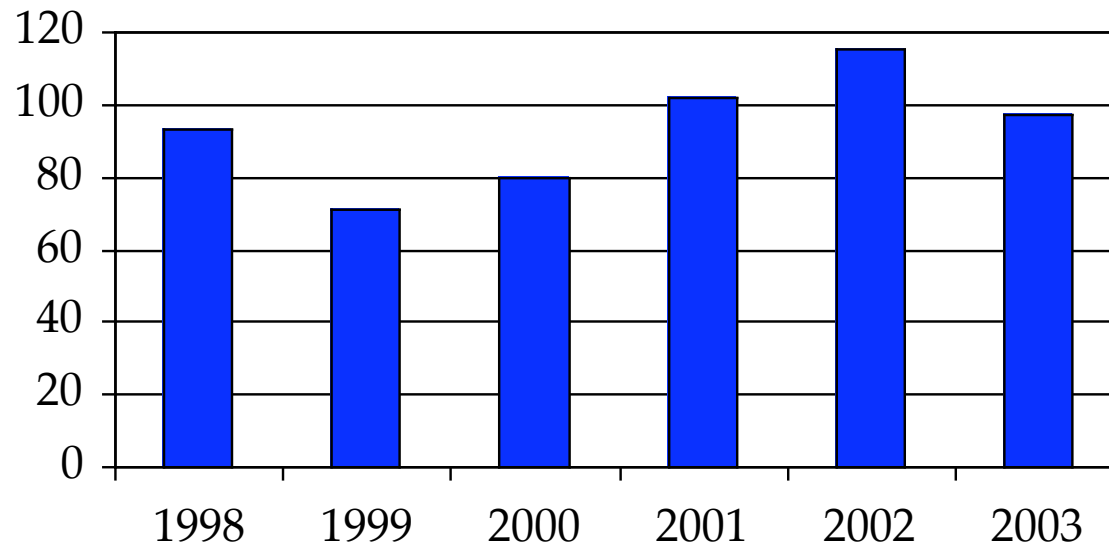
Major research grants won *this* year

- ☛ Halas (BCRP, NSF-NIRT) \$4.5M
- ☛ Knightly (2 NSF-ITR) \$3.4M
- ☛ Kono (NSF-ITR) \$1.1M
- ☛ Mittleman (AFOSR) \$1.5M
- ☛ Pai (NSF-CAREER) \$0.4M
- ☛ Kelly (MURI) \$0.4M
- ☛ Cavallaro (NSF-MRI) \$0.4M

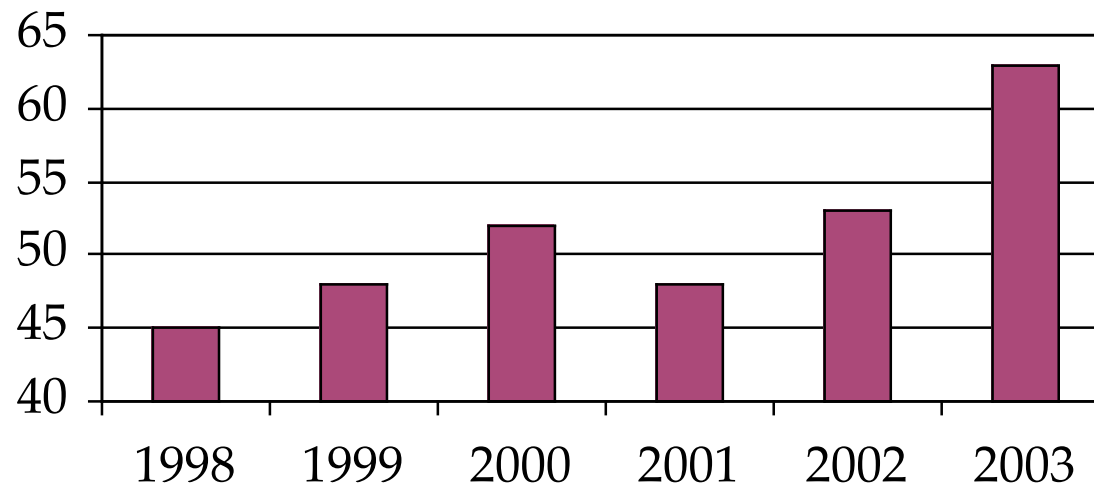


Student population sizes “stable”

Research Graduate Students



B.S. Graduates



Department Strategy

- ✓ Enhance visibility and prominence
- Hire first-rate faculty dedicated to teaching and research
- Integrate research across groups inside and outside department
- Improve graduate student recruiting
- Foster undergraduate research
- Improve undergraduate curriculum
- Strengthen industrial connections through...
 - * Research relationships
 - * Student internships