#### **Students as Entrepreneurs**

Lloyd J. Griffiths Dean, School of IT&Engineering George Mason University



# School Profile



- Established 1985
- IT focus in <u>all</u> academic programs
- First Ph.D. in IT in the Country
- 4,100 total students
  - 2,052 undergraduates
  - 2,062 graduates
- \$27.6M annual budget
- 420 employees



#### **Six Academic Departments**

- 1. Applied & Engineering Statistics
- 2. Civil and Infrastructure Engineering
- 3. Systems Engineering & Operations Research
- 4. Electrical & Computer Engineering

5a. Computer Science

- 5b. Information & Software Engineering
  - Application areas in CS

# **Undergraduate Programs**



#### • Six Majors

- BS in Electrical Engineering
- BS in Computer Engineering
- BS in Computer Science
- BS in Systems Engineering
- BS in Civil, Environmental and Infrastructure Engineering
- BS in Information Technology
- Three Minors
  - Information Technology
  - Computer Science
  - Data Analysis

## Graduate Programs



- Three Ph.D. Degrees
  - Ph.D. in IT
  - Ph.D. in CS
  - Ph.D. in ECE
- Engineer in Information Technology
- 12 M.S. degrees
  - E-Commerce
  - Enterprise Engineering
  - Information Systems
  - Software Engineering
  - Telecommunications

## **Students as Entrepreneurs**

# **Encouraging Entrepreneurs**



- Start early High School
- Provide an entrepreneurial environment
  - University systems/operation
  - Class registration/organization
  - Entrepreneurial faculty
- Connect closely with industry
  - Working students
  - Blurring the education/workplace environment
- Encourage innovation: Reward creativity
  - Design competitions
  - Entrepreneurship classes



Undergraduate Entrepreneurship Course

Professor Sharon DeMonsabert

Owner: Applied Engineering Management Corporation 25 students (by application)

- Business plan competition
- Joint with School of Management
- \$5,000 first prize
- Industry lecturers, judges



#### Students in the Workforce

- Starting companies
- Working in startups
- High School academy participation
- Corporations spawn startups
- Corporations purchase startups

## The Entrepreneurial University



- Employed students (grad & undergrad)
- Adjunct faculty from industry
- Consultation by faculty
- Large School Advisory Board
- Contract credit & non-credit courses



• Director: Roger Stough, Professor of Public Policy

Small business development assistance (Federal and State Programs)

- Business development centers
- Telework centers (3 in Fairfax)
- Business incubators (2 in Fairfax)



## Virginia CIT

- Location: Dulles International Airport
- State Funding Level: \$8M
- Entrepreneurial Program Calendar
  - 1/24/03 Competing in the Federal SBIR/STTR Programs
  - 1/30/03 TechStart BootCamp
  - 2/13/03 One-to-One: IP Law Advice for Tech Start-Ups

### What lies ahead?



- Information Security & Assurance
- Innovative Transportation Systems
- Robotics
  - Evolutionary Computation
- IT Bioengineering
  - Bio Genetics
  - Virtual Knee Surgery & Surgery Assistance
  - Human Embryo Visualization
  - Face Recognition/Biometrics
- Data Mining and Visualization
- Wireless Communication & Networking



- IT revitalization led by telecom industry
- Increased VC funding availability
- Continued importance of entrepreneurship
  - Agile, quick adoption of new concepts
  - Young employees/owners
  - Risk takers
- Increased university involvement