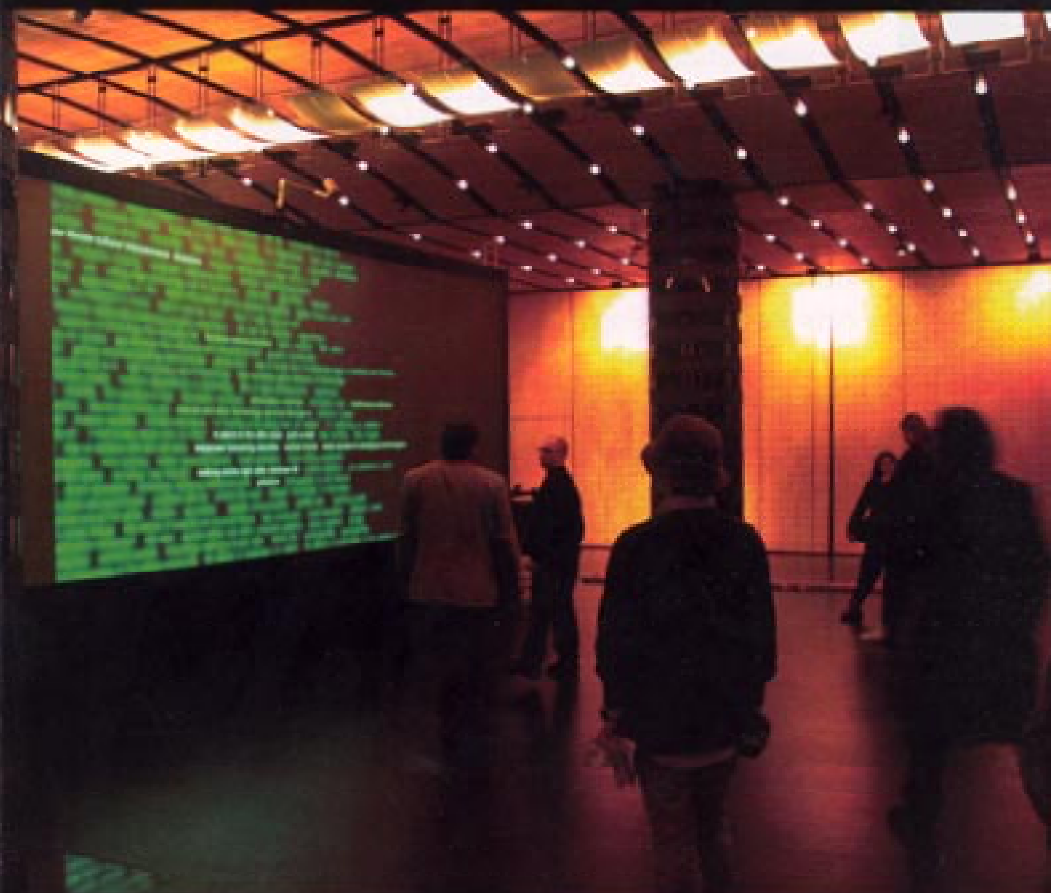**IGERT**

University of California Santa Barbara

INTERACTIVE DIGITAL MEDIA

NSF Integrative Graduate Education and Research Traineeship Program
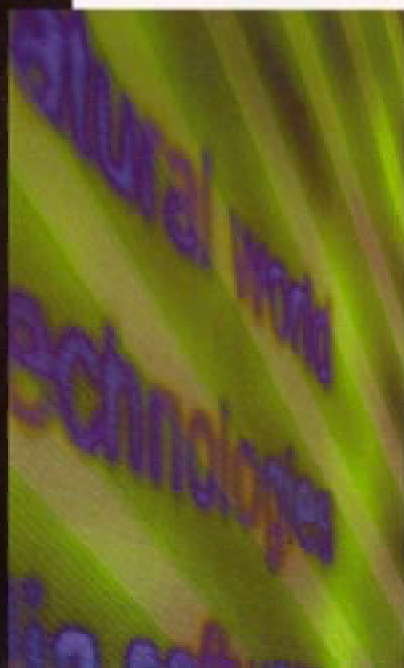

http://media.igert.ucsb.edu

The University of California, Santa Barbara (UCSB) announces new graduate research opportunities in Interactive Digital Multimedia, funded by the National Science Foundation's Integrative Graduate Education and Research Traineeship (IGERT) Program.

The program will award IGERT Fellowships to a select group of Ph.D. students. The fellowships, which are highly competitive and prestigious, will be awarded based on a student's accomplishments, research potential, and vision for interdisciplinary research and education in an area related to interactive digital multimedia. Candidates must apply to and be accepted by one of the participating UCSB home departments.

In addition, there are limited opportunities for IGERT Fellowships for international Ph.D. students and for Masters students in the Media Arts and Technology graduate program.

The convergence of digital media, computing, and communication has created new and exciting opportunities in science, engineering, and the arts. Interactive Digital Multimedia involves a range of technologies and applications centered on the creation, encoding, transmission, storage, presentation, and analysis of multimedia data, as well as the study of human interaction with multimedia systems. Research and education in digital media is a multidisciplinary endeavor that necessitates collaboration between students and faculty from a broad spectrum of backgrounds and perspectives. The IGERT graduate training program will entail coursework and group projects focused in three general areas: multimedia systems, multimedia content, and interactivity.

Research Areas

Multimedia Systems

Systems-level aspects that underpin digital media, including multimedia networks, wireless communications, middleware, signal processing, signal, image and video compression, and distributed systems

Multimedia Content

Representing and manipulating digital media on a semantic level, including multimedia descriptors, indexing and retrieval of multimedia data, data mining, and perceptual metrics.

Interactivity

Effective interfacing between human users and digital media, including visualization and immersive environments, interactive art, and multimodal interfaces.

Research and Coursework

— Dissertation research in digital media
— Interdisciplinary core courses
— New interdisciplinary and project-oriented courses
— Required second-year group project
— Special IGERT seminar series

Management, Industry, and Entrepreneurship Training

— Courses and seminars in the UCSB Center for Entrepreneurship and Engineering Management (CEEM)
— Internships in industry and government

Professional Development

— International requirement
— Teaching experience
— Mentoring and project leadership
— Seminars in career development

The UCSB IGERT program in Interactive Digital Multimedia is a unique new interdisciplinary program of research and education. Outstanding students in any of the participating departments are encouraged to apply. For more information and application materials, visit the web site:
http://media.igert.ucsb.edu
info-igert@media.igert.ucsb.edu.

UCSB Participating Departments

The interactive digital multimedia program includes 30 participating faculty from the following departments.

- Computer Science
- Electrical and Computer Engineering
- Music
- Art Studio
- Psychology
- Education
- Geography
- Environmental Science and Management
- Statistics and Applied Probability
- Media Arts and Technology
- Film Studies

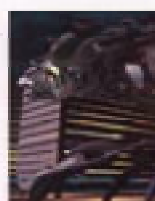# IGERT Principal Investigators

B. S. Manjunath, Electrical and Computer Engineering

George Legrady, Art Studio / Media Arts and Technology

Stephen Pope, Music / Media Arts and Technology

Kenneth Rose, Electrical and Computer Engineering

Matthew Turk, Computer Science

For more information and application materials,
visit the web site:

http://media.igert.ucsb.edu

or send e-mail to:

info-igert@media.igert.ucsb.edu.