Graduate Programs
CIS Graduate Program Overview

- PhD Programs in
  - Imaging Science
  - Color Science
  - Astrophysical Sciences and Technology (joint with the Depts. of Physics and Math)

- MS Programs in
  - Imaging Science
  - Color Science

- 55 PhD Students, 60 MS Students, 35 Faculty

- ~5 Million in Externally Sponsored Research in 2007
Center Research Areas

Algorithms, Data Fusion, Mining and Visualization
Astrophysical Sciences and Technology
Biomedical Imaging
Color science
Document Restoration
Energy Related
Nanoimaging and Materials
Printing Materials and Processes
Remote sensing
Sensors and Imaging Systems
Vision

R·I·T
Digital Imaging and Remote Sensing

Collection and processing of hyperspectral imagery

Modeling and simulation

R·I·T
WASP: Wildfire Airborne Sensor Program
4-band prototype system to demonstrate early detection of fires
Munsell Color Science Lab

- Color Measurement
- Image Appearance and Modeling
- Spectral Color Reproduction
- Color Science for Cultural Heritage

R·I·T
NanolImaging Laboratory

Imaging with electron and scanning probe microscopes

Fabricating imaging devices with nanomaterials

Synthesizing nanoparticles
Astrophysical Science and Technology

Multi Wavelength Astrophysical Research

Astro-informatics: development of algorithms to optimize calibration, and mining of imagery

Astro-Technology: Development of astronomical instrumentation

R·I·T
Rochester Imaging Detector Lab

Sensor development and testing, for a range of applications including astronomy and remote sensing.
Multidisciplinary Vision Research Laboratory

-RIT Portable Eye Tracker - development and application
-Eye Movements and Symmetry Detection
-Eyetracking studies in Visual Search, Cuing and Change Detection
-Use in Clinical Settings
Biomedical and Multimodal Imaging & Magnetic Resonance Laboratories

- Ultrasound Imaging
- Techniques for Fusion of Multi-modal images
- Quantitative Magnetic Resonance Imaging
- Algorithm development
- System characterization
Advanced imaging and image processing of ancient and damaged manuscripts
Recent Thesis Titles

- Multimodal Breast Imaging: Registration, Visualization, and Image synthesis
- Color Measurement for Device Characterization
- Remote Sensing Algorithm Development for Wildland Fire Detection and Mapping
- Hyperspectral Sub-Pixel Target Detection Using Hybrid Algorithms and Physics Based Modeling
- Semi-Automated DIRSIG Scene Modeling from 3D Lidar and Passive Imagery
- Unsupervised Spectral Classification of Astronomical X-ray Sources Based on Independent Component Analysis
Imaging Science Graduate Core Courses

- Fourier Methods for Imaging
- Digital Imaging Mathematics
- Radiometry
- The Human Visual System
- Optics
- Probability, Noise, and System Modeling
- Digital Image Processing

MS Students must take 5 of 7, PhD students must take all
Financial Assistantships

• Graduate Assistantships Available
  – Teaching Assistant in first year (department funded)
  – Research Assistant in subsequent years (research grant funded)

• Full Tuition and Stipend
  – Competitive academic-year stipend with opportunities for additional funds through summer research
  – Full-time tuition covered

• Awarded Based on Qualifications

• Application deadline is January 15 for following fall
Application Process

• Apply Through RIT Graduate Study Web Page
  http://www.rit.edu/emcs/ptgrad/grad/
• Fall Entrance Strongly Encouraged
• Deadline for Consideration of Funding: January 15
• Application Includes
  – Application Form and Fee
  – Official Transcripts
  – Personal Statement
  – GRE Scores
  – TOEFL Score for International Applicants
  – Letters of Recommendation (two required)
To Find Out More

• Center for Imaging Science Web Page http://www.cis.rit.edu/

• Graduate Admissions Chairs
  – Imaging Science: Dr. John Kerekes (kerekes@cis.rit.edu)
  – Color Science: Dr. Mark Fairchild (farichild@cis.rit.edu)
  – Astrophysical Science & Technology: Dr. Chris O’Dea (odea@cis.rit.edu)