Imaging Scientists work with science and technology that is focused on the creation and extraction of information from an image, including:

- development and characterization of technologies used in imaging devices
- the integration of those technologies into systems
- the use of those systems to visualize a broad range of objects and phenomena

...in a wide range of application fields.

RIT HAS THE ONLY MS AND PHD IMAGING SCIENCE PROGRAMS IN THE USA.
QUESTION: DO YOU WANT TO...

HELP THE WORLD RESPOND TO NATURAL DISASTERS LIKE FLOODS, VOLCANOES, TSUNAMIS, FIRES, AND HURRICANES?

ENGINEER NEW OPTICAL AND SPECTROSCOPIC SYSTEMS TO DETECT EARTH-LIKE PLANETS AND SEARCH FOR LIFE IN THE UNIVERSE?

HELP KEEP OUR NATION SECURE BY DESIGNING NEW SENSOR SYSTEMS, ALGORITHMS, AND VISUALIZATION TECHNIQUES?

UNEARTH HIDDEN SECRETS IN ANCIENT DOCUMENTS?

RECREATE FAMOUS WORKS OF ART IN THEIR ORIGINAL PALETTES?

DEVELOP NEW TECHNIQUES TO DIAGNOSE AND CURE DISEASE?

YOU CAN! AND MORE.... WITH IMAGING SCIENCE.
The Chester F. Carlson Center for Imaging Science at RIT is a highly interdisciplinary university research and education center dedicated to pushing the frontiers of imaging in all its forms and uses.

FROM THE COSMIC TO THE MICROSCOPIC, IMAGING SCIENCE IS EVERYWHERE.
Collection and processing of hyperspectral imagery

Modeling and simulation
WASP: Wildfire Airborne Sensor Program
4-band prototype system to demonstrate early detection of fires
Disaster and Emergency Response

WASP + LiDAR: Light Detection and Ranging
- Records eye movements to enable modeling of visual behavior
- Critical to predicting perceived image quality
- Multi Wavelength Astrophysical Research
- Development of algorithms to optimize processing, transmission, and archiving of imagery
- Development of large detectors for astronomical applications
• Predict Severe Space Weather produced by Coronal Mass Ejections (CMEs) and other solar eruptions

• Estimate the effects of Solar Storms on Earth, Mars and other points in the Solar System

• Develop advanced analysis tools, neural networks, D Transforms and algorithms in image processing, signal processing, and computer modeling
COLOR SCIENCE

- Color Measurement
- Image Appearance and Modeling
- Spectral Color Reproduction
- Color Science for Cultural Heritage
- Computational Photography
Advanced image processing of damaged manuscripts
• Photoacoustic spectroscopy for cancer detection
• Modeling of ultrasound biometric systems
• Multi-modal data fusion
• Ultrasound Speckle processing and analysis
BIOMEDICAL IMAGING

- Quantitative Magnetic Resonance Imaging
- Multispectral tissue classification
- fMRI Imaging for mental illness diagnosis
- System Design and Development
- Development and application of Molecular Imaging Agents
NANOIMAGING

Imaging with electron and scanning probe microscopes

RIT NANOIMAGING LAB
OPTICS

- Optical Lift/Tweezers
- Optical Vortex Lenses
DETECTOR DEVELOPMENT

- Novel 2-D CMOS detector arrays
- Fundamental limitations of visible and IR arrays
- Miniaturized multi-spectral systems
- Capture high-quality, information-rich photographs and videos
- Recover higher-level information such as geometry, material properties, and illumination
- Acquire and recreate realistic visual appearance of natural phenomena
LET’S GET DOWN TO DETAIL.
GRADUATE PROGRAMS OVERVIEW
• MS and PhD Programs in
  – Imaging Science
  – Color Science
• Imaging Science MS also available for online study
• ~10 PhD, 15 MS graduates annually
• Over 50 actively engaged faculty and research staff
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

FUNDING CONSIDERATION DEADLINE IS JANUARY 15.
CAREER PLACEMENT

IMAGING SCIENTISTS ENJOY A JOB PLACEMENT RATE OF ~99%

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for past and present opportunities
Apply Through [RIT Graduate Study Web Page](#)

Fall Entrance Strongly Encouraged

Application includes:

- Application Form and Fee
- Official Transcripts
- Personal Statement
- GRE Scores
- TOEFL Score for International Applicants
- Letters of Recommendation (2 required)

.priority APPLICATION DEADLINE IS JANUARY 15.
THE IMAGING SCIENCE WINNING COMBINATION:

+ UNIQUE DISCIPLINE
+ SMALL CLASS SIZE
+ HIGH CAREER PLACEMENT WITH COMPETITIVE STARTING SALARIES

AND A TOP NOTCH REPUTATION.
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CONTACT US:

Imaging Science Graduate Program Coordinator
Dr. John Kerekes
kerekes@cis.rit.edu

Color Science Graduate Program Coordinator
Dr. James Ferwerda
jaf@cis.rit.edu