RIT

Rochester Institute of Technology

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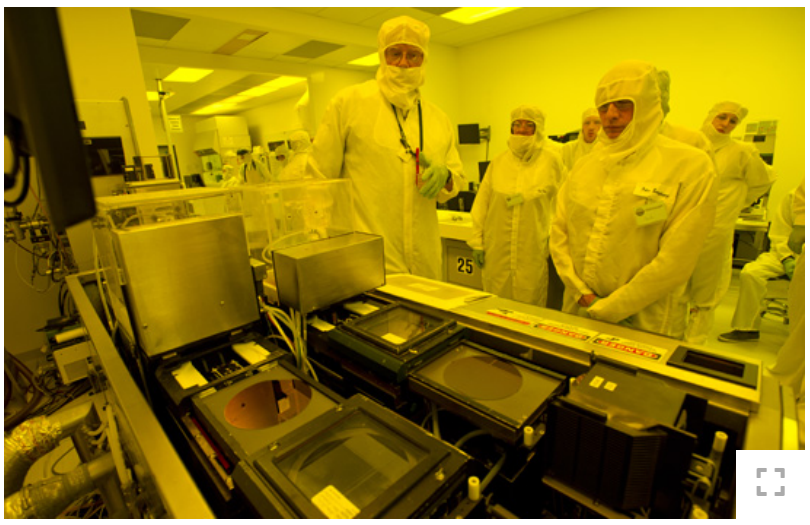
RIT announces investments in four research areas

Multidisciplinary teams to focus on cybersecurity, health care technology, photonics and unmanned aerial vehicle imaging



A. Sue Weisler

A team of 15 researchers from RIT's colleges and research centers in engineering, science, business and design will develop advanced photonics applications and apply them to solve some of the world's most pressing problems in science, national security, advance manufacturing, communications, information technology, energy, health care and medicine.

To advance its focus on conducting internationally distinguished research, Rochester Institute of Technology has chosen four initiatives to receive strategic investments.

These strategic initiatives, chosen through a rigorous internal process that looked at 26 research proposals, will each receive up to $1 million, payable over five years, on the condition that the projects meet their annual review goals. The projects will also receive funding through matching commitments made by deans, department heads, center directors and team members.

"The response from the RIT community to our call for research proposals was tremendous," said Ryne Raffaelle, vice president for research and associate provost. "We received proposals from interdisciplinary teams that literally represented every college and institute on campus. The quality of the proposals was outstanding and necessitated a thorough, multi-stage process that involved both internal and external reviews by a variety of impartial stakeholders to identify the most meritorious proposals."

The four proposals receiving investments from RIT are:

- **Cybersecurity:** This team, consisting of 25 faculty members from five colleges (B. Thomas Golisano College of Computing and Information Sciences, Kate Gleason College of Engineering, Saunders College of Business and the colleges of Science and Liberal Arts), will research sociotechnical approaches to cybersecurity. Their goal is to look at cybersecurity from a more proactive position by studying how such elements as human behavior, economic incentives and social influences on design of systems and software interact with technology and can be incorporated to develop better protections.
- **Personalized Healthcare Technology**: This team will research ways to enhance personalized care and access through mobile and wearable technologies that integrate new media design and leverage data, behavioral and social sciences. The goal is to develop interventions that promote health in population disparities and provide rigorous evidence that mobile technologies can enhance health and prevent disease.
- **The Future Photon Initiative**: A team of 15 researchers from RIT's colleges and research centers in engineering, science, business and design will develop advanced photonics applications and apply them to solve some of the world's most pressing problems in science, national security, advance manufacturing, communications, information technology, energy, health care and medicine.
- **Remote Sensing with Unmanned Aerial Vehicles**: An interdisciplinary team from imaging science, engineering, public policy and mechanical engineering technology within the colleges of Science, Liberal Arts, Kate Gleason College of Engineering and College of Applied Science and Technology will work on challenges facing this industry from integrating UAVs into the national airspace to make better use of the high quality visual data collected in a variety of disciplines.

Teams submitting proposals for strategic funding awards were required to show how their research would build on current faculty strengths and existing resources, advance RIT's reputation and reflect a growing significance in society, as demonstrated by relevance to funding agencies and industries. The goal: to show how this work would enable RIT to make unique and high impact contributions.

The proposals were judged on that criteria, as well as on their potential to receive sponsored research funding and garner philanthropic giving, and corporate and government investment in hopes that they will help RIT grow its sponsored research portfolio.

RIT sponsored research grew by 18 percent in 2015, reaching a record $62 million in funding. RIT received 356 new awards from a variety of state, federal, corporate and foundation sponsors. Federal funding was at an all-time high with the National Science Foundation providing $13 million and the National Institutes of Health providing $3 million.

Raffaelle said these initiatives reinforce an important "difference maker" set forth in RIT's 2015-2025 strategic plan, "Greatness Through Difference." The plan called for increasing the university's research efforts through focused investment in interdisciplinary and trans disciplinary areas, marking the first time in RIT's 187-year history that the word "research" was incorporated into a strategic plan vision statement. The vision statement reads: "RIT will be a great world university whose academic portfolio, research agenda, and educational model align with the shifting needs of a complex planet."

Earlier this year, The Carnegie Classification of Institutions of Higher Education changed RIT from "Masters – Comprehensive" to "Doctoral University - Moderate Research Activity." This change occurs when a university graduates more than 20 Ph.D. degrees per year, a figure that RIT has exceeded in recent years. In May 2015, RIT awarded 33 doctoral degrees in seven Ph.D. programs, the most in its history.

Raffaelle said there would be more detailed information on each strategic research initiative in the upcoming issue of the *Research at RIT* magazine, which should be available in mid May.