



Raytheon's Partnership with the University of Massachusetts

UMass Amherst Microwave Program

Raytheon's longstanding partnership with the University of Massachusetts began at UMass- Amherst with the collaborative creation of an engineering program in Microwave Engineering, which has provided a challenging and intensive graduate-level program since 1980. It has conferred more than 250 MS degrees to date from its ECE department. As part of Raytheon's commitment, the company provides funding per year per student within the UMass-Amherst ECE department.

Engineering Research Center (ERC)

Raytheon and UMass-Amherst have also joined forces with other industry partners to fund a National Science Foundation grant for the creation of a new Engineering Research Center (ERC) for Collaborative Adaptive Sensing of the Atmosphere (CASA). The 43-million-dollar grant and Raytheon's ongoing support was provided to develop revolutionary sensing technology, which would enable earlier and more accurate forecasts of severe weather emergencies. As part of its core R&D effort, CASA has developed a prototype network of low-cost, polarimetric, doppler weather radars that can detect tornadoes at much lower altitudes than existing radars, thus tracking them as they actually form and touch down. For several years, CASA's rural Oklahoma test bed has demonstrated the ability to track twisters more accurately and alert emergency personnel earlier than ever before. Recently, the CASA radar on the Amherst campus helped issue alerts when tornadoes touched down right in the university's own backyard.

Raytheon University of Massachusetts Lowell Research Institute (RURI)

Raytheon greatly expanded on its partnership with the UMass system in 2015 by investing significantly to establish and build the Raytheon University of Massachusetts Lowell Research Institute (RURI). RURI is in the Emerging Technology and Innovation Center (ETIC) at UMass Lowell which is an 84-thousand-square-foot joint research facility. The ETIC focuses on the advancement of innovative technologies, including flexible and printed electronics. RURI serves as a launch pad for collaboration and learning among UMass Lowell faculty, students and Raytheon employees, which has earned the program multiple industry and academic awards, since opening its doors in January of 2015.

In any partnership, it is important for all sides to benefit in order for it to be sustainable. Raytheon's partnership with UMass is in its 36th year because of the results and success that both the company and institution have achieved through this partnership within their collective communities—benefiting employees, students, customers and beyond. The partnership gives students real-world perspectives on science, technology, engineering and math-related career opportunities and an in-depth understanding of the aerospace and defense industry as they prepare to enter the workforce. Meanwhile, Raytheon benefits by gaining access to research infrastructure, faculty expertise, an audience with students and educational opportunities for its employees as well as opportunities to develop and refine future technologies for its customers. All of these factors need to be present for such a partnership to be successful. By working together, Raytheon and UMass have achieved these goals, and have brought real-world advancements and innovations that are helping to save lives in high-consequence environments.

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