



**SAFETY
SECURITY
RESCUE** RESEARCH
CENTER

An NSF Industry/University Collaboration Research Center

“The SSR-RC is the only NSF I/UCRC focused on Robotic Technologies for Human Safety.”

OUR MISSION

To collaborate with industry partners to conduct partner-oriented, multi-disciplinary research on computation-driven robotic and sensor systems, augmented by data analysis to improve the safety, capability and well-being of humans.

OUR FOCUS

Research projects at UNC Charlotte are member-driven, focused on solving member industry challenges and accelerating technology innovation of bold industry initiatives related to Safety, Security and Rescue of humans in health care, manufacturing and material handling.



The NSF's I/UCRC is a research partnership model for a consortium of universities and industrial or government partners to conduct relevant research in an emerging field. Industry/Government partners contribute to the center/site as Members or Affiliates. For more information and to see a complete list, visit <http://www.eng.nsf.gov/iucrc/directory/start.htm>.



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VALUE MULTIPLIER

Membership with UNC Charlotte I/UCRC SSR-RC Site

\$35k

NSF I/UCRC Site Requirements:

\$35,000 minimum membership fee

\$50,000 recommended membership fee

64

64:1 Benefit to Cost Ratio Potential

4

Partnership Principles

- Partners committed to the strength and value of research collaboration
- Partners share the desire to improve the safety, capability and well-being of humans through advancements in robotics and sensor systems, augmented by data analysis
- Partners are invested in the 'Value Multiplier' that membership in the greater I/UCRC SSR-RC provides
- Partners are committed to building trusted and long-term partnerships upon shared values to advance research relevant to the members

MEMBERSHIP OPPORTUNITIES



FULL MEMBER

- > Entitled to vote and rank all research projects presented by site directors or academic project managers.
- > Have access to intellectual property as specified in the membership agreement and will participate in the Industry Advisory Board (IAB) and all meetings and symposia of the Center.
- > Additional contracts can be placed for proprietary research.
- > \$35-50K membership fee



AFFILIATE MEMBER

- > Non-Voting Member of Industrial Advisory Board
- > Receives only the market analysis research report (no IP)
- > Non-government
- > Attends Spring Symposium
- > 2 free, unlimited discounted seats at yearly tutorial
- > Additional contracts can be placed for proprietary research
- > \$10K membership fee

LEVERAGE EXPAND ACCESS

LEVERAGE YOUR R&D BUDGET

- > Members enjoy significant returns on investment (ROI) in new technologies of common interests.
- > Lower risk of investment with shared pool of research funds.
- > Investing in common technology yields more capital for core R&D expenditures where exclusive ownership of IP is critical.
- > Additional NSF funding programs exclusively to I/UCRC's.

EXPAND YOUR R&D EFFORTS

- > Royalty-Free licenses for technology developed at all I/UCRC SSR-RC Sites.
- > Access to research at UNC Charlotte site as well as other SSR-RC sites.
- > Strategic Networking and Cooperation with other partners.



EXPAND YOUR INDUSTRY GROWTH

- > Provides technology capabilities difficult to develop internally.
- > Cope with growing intricacy and inter-relatedness of new technologies outside your core competence.
- > Contribute to a consortium to go after bold initiatives.

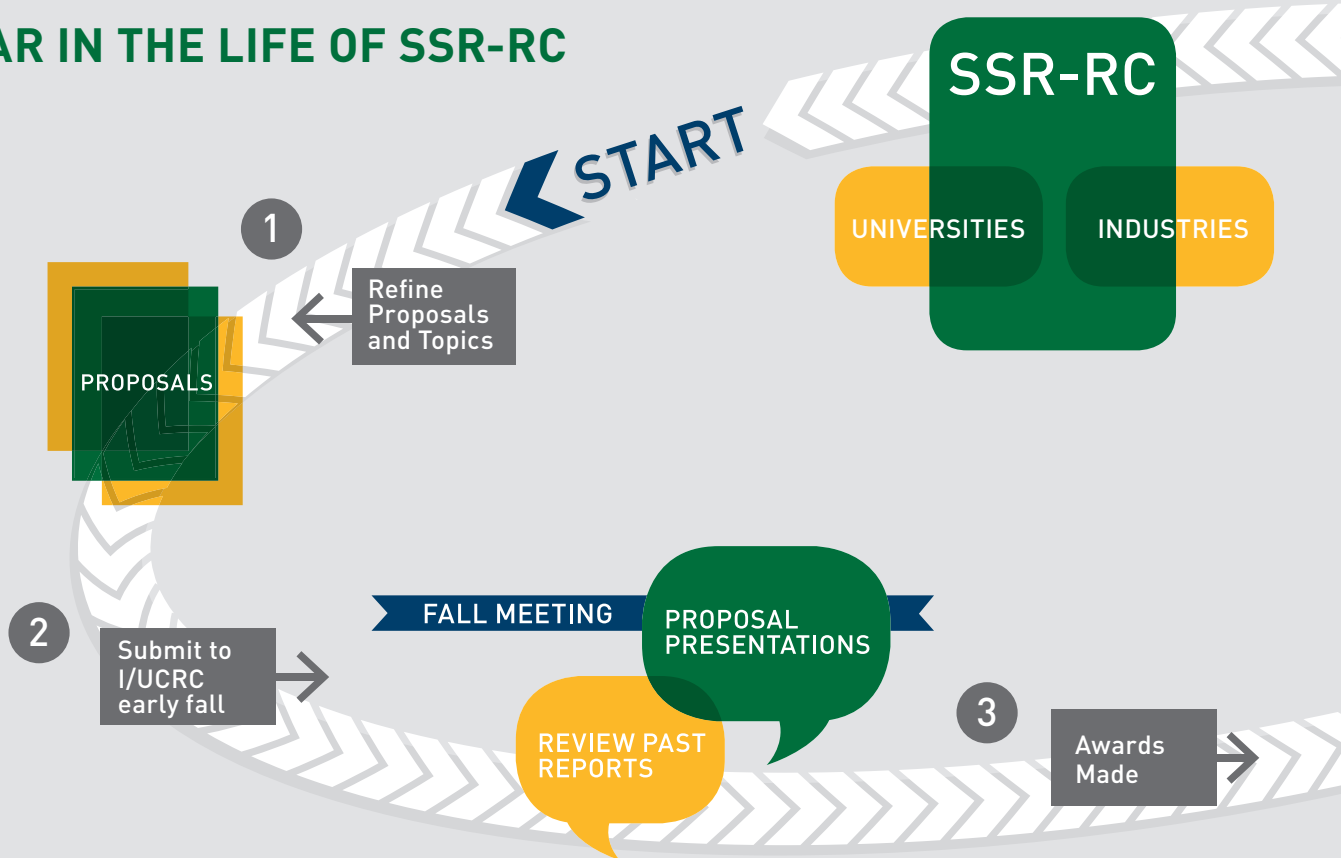
STRATEGIC COOPERATION WITH OTHER INDUSTRIES

- > Access to collection of industries specializing in key components or market segments.
- > Bundling of related technologies such as power, sensors.
- > Accelerates commercialization.

ACCESS TO EXPERIENCED TALENT POOL

- > Access to all levels of students, including PhD graduates, to hire who are trained and already exposed to your organization, needs and culture.

A YEAR IN THE LIFE OF SSR-RC



RESULTS

Identify New Topics and Opportunities

PROGRESS
POSTER
SESSION

1/2 DAY
TUTORIAL

PROJECT
REPORTS

SPRING SYMPOSIUM

4

PROJECTS
FUNDED

Work
Begins
Jan. 1

5

6

1. Each site university works with industry members to propose research topics.
2. Fall Meeting
 - > Reports from previous year reviewed
 - > Proposal presentations by faculty members
 - > Industry Advisory Board Meeting
3. Awards made
4. Funded projects
5. Work begins January 1
6. Spring Symposium
 - > Progress Poster Session
 - > 1/2 Day Tutorial
 - > Progress Reports – Results
 - > New topics and opportunities identified

INSIDE UNC CHARLOTTE

Ranked Top 10 up-and-coming universities in 2008 by the U.S. News and World Report

25,000 Students, 170 Bachelors, Masters and Doctoral programs

The only comprehensive major research facility in the greater Charlotte Region

COLLEGE OF COMPUTING AND INFORMATICS (LEAD I/UCRC SSR-RC)

- > Largest of its kind in North Carolina, one of the largest in US
- > 3 Departments, 6 Research Centers/Institutes
 - Computer Science
 - Software and Information Systems
 - Bioinformatics and Genomics
- > \$35 million active research awards
- > 260 peer-reviewed research publications in 2010-11
- > Top 100 programs by *US News and World Report*

COLLEGE OF ENGINEERING

Home to several interdisciplinary research centers:

- > The Center for Biomedical Engineering Systems (CBES),
- > The Center for Precision Metrology (CPM),
- > NC Motorsports and Automotive Research Center (NCMARC).
- > The Energy Production Infrastructure Center (EPIC),
- > The Infrastructure, Design, Environment and Sustainability Center (IDEAS),

COLLEGE OF HEALTH AND HUMAN SERVICES *Value Multiplier for Health Care Industry Partners

- > State of the art simulation lab
- > Nurse Anesthesia Program was ranked #22 nationally in 2011.
- > 100% pass rate by Nurse Practitioner Students
- > 94% pass rate by Undergraduate Nursing Students
- > Doctoral Nursing Program planned with Western Carolina University

The University of North Carolina at Charlotte

