

CREATE: Center for Emerging Autonomous Technologies

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Vision and Value Proposition

What is CREATE?

- An interdisciplinary research and industry collaboration hub driving AI and OR-powered automation

Why it matters?

The Problem We Are Solving

The Challenge:

- Industries need automation expertise, but research often stays in academia

The Impact:

Our Solution – CREATE's Model

Integrates AI and OR into
applied autonomous
systems research

Builds direct industry
partnerships for
collaborative projects

Trains students and
professionals in emerging
technologies

Leverages NC State's

- proximity to automotive
- technical experts with scholars in ethics, policy, user experience, business strategy, and sustainability for truly interdisciplinary solutions

Why CREATE Must be Interdisciplinary



Engineering: Autonomous systems design, AI, optimization, robotics



CHASS: Ethics of AI, public policy, user behavior, equality



Business: Market adoption, supply chain, risk, entrepreneurship



Natural Resources: Sustainability, environmental impacts, land use planning

Target Stakeholders & Impact



University Leadership: Positions NC State as a leader in automation research, mitigates risks posed by political shifts in federal funding priorities, new streams of funding, new partnerships



Colleges Across Campus: New interdisciplinary collaborations and access to applied research funding across NSF, DOE, DOT, and foundations that require multi-college engagement



Faculty: Gain interdisciplinary research funding & industry collaborations



Industry Partners: Access cutting-edge AI-OR automation solutions & workforce pipeline



Students: Gain hands-on experience and direct industry connections

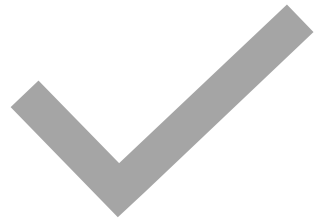
Competitive Landscape & Differentiation

Who Else is Doing This?

- Other universities have automation programs, but few are interdisciplinary and focus on Industry Collaboration

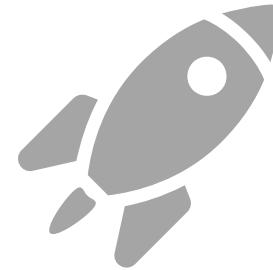
Why CREATE Stands Out:

Roadmap & Milestones



Current Progress:

- Faculty engagement
- Conversations with colleges to explore interdisciplinary synergies
- Identifying funding sources
- Initial industry conversations



Future Goals:

- Secure formal University endorsement and institutional backing
- Establish advisory board
- Launch pilot projects
- Secure first round of funding

Resources Needed



What We Have:

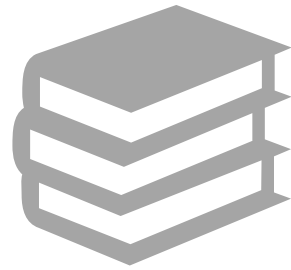
Faculty expertise, automation research



What We Need:

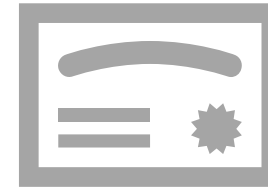
University backing, industry partnerships,
seed funding, corporate sponsorships

Budget & Funding Strategy



Projected Costs:

Faculty & Research Support
Workforce Training Programs
Industry Collaboration Initiatives



Revenue Streams:

Industry sponsorships & partnerships
Federal & state grants
Workforce training & executive education

Closing & Call to Action



Final Thought:

CREATE is where academia and industry converge to drive the future of AI-powered autonomous systems



Next Steps:

University Leaders: Help us institutionalize CREATE as a cross-college, interdisciplinary center

Faculty: Bring your unique expertise

Industry Partners: Collaborate with our interdisciplinary teams



Join us in building an interdisciplinary, industry-anchored future for autonomy

Thank You