



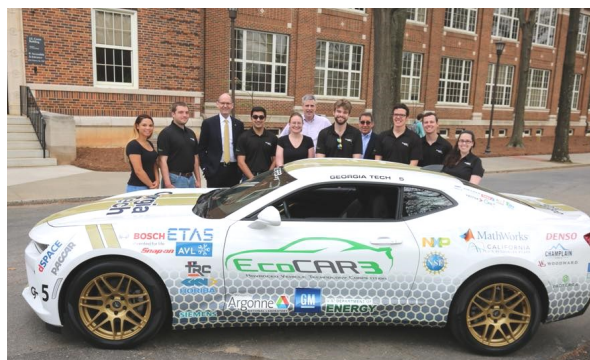
VIP Innovation Competition participants

Current VIP Teams www.vip.gatech.edu

- 21st Century Humanities
- 2D Heterostructure Synthesis
- Academic Resilience
- Active Safety for Autonomous & Semi-Autonomous Vehicles
- Advanced Graphene Battery Technology
- Agile Communication Architectures
- AquaBots
- Augmented Reality Experiences
- Automated Algorithm Design
- Automotive LIDAR
- Bee-Snap
- Big Data & Quantum Mechanics
- BioBots
- Bio-inspired Network Dynamics & Geomechanics
- Brain Trauma Assessment Protocols
- ChemFlow
- Chip Scale Power & Energy
- Civic Design
- Collaborative Air, Sea, & Underwater Autonomous Vehicles
- Concussion Connect
- Configurable Computing & Embedded Systems
- Curiosity-driven Frugal Science
- Data-Driven Education
- Digital Deliberation
- EcoCAR
- Embedded System Cyber Security
- EnerCage
- Engineering for Smart Cities
- Engineering for Social Innovation
- Evolutionary Mechanics
- Exploratory Robotics
- Future Technology for Sports
- Gravitational Wave Astrophysics
- GT Mobile STEM Lab
- GT Motorsports
- GT Off-Road
- GT Solar Racing
- GT USLI Rocket
- GTRI Agricultural Robotics
- Hands-on Learning
- Health Informatics on FHIR
- HumanITech
- Humor Genome
- Intelligent Digital Communication
- Intelligent Platform for Crowdsourcing
- Intelligent Transportation Systems
- Intelligent Tutoring Systems
- IoT in Health
- Lightning from the Edge of Space
- Living Dynamical Systems
- M.A.R.S.
- Patagonia
- Retrofuturistic Hardware
- RoboSense
- Robotic Human Augmentation
- Robotic Musicianship
- Secure Hardware
- Smart and Connected Bioelectronics
- Smart City Infrastructure
- Smart^3 Makerspaces
- Stadium-IoPT
- STEMcomm
- Subsurface Energy
- TerraBots

“You see **real growth**
in many aspects of the students’
professional demeanor
along with their ability to
teach themselves
how to learn whatever they need to
move the project along.”

*Professor James McClellan
Electrical & Computer Engineering*



VIP EcoCAR Team

Creating the Next Talent Pipeline

Vertically Integrated Projects



**Real-World
Challenges**

**Enhanced
Professional
Skills**

**Multidisciplinary
and
Cross-Cultural
Experience**

**Applied
Expertise
within Field**

VIP students report higher scores

compared to peers in their:

- Ability to work in a **multi-disciplinary** team
- Ability to work with individuals from **diverse backgrounds**
- Understanding of **technology applications** relevant to their field of study



Lightning from the Edge of Space releases weather balloon.

VIP Student Benefits

- Learn to use industry tools and standards
- Connect theory and practice
- Gain deeper experience in field of study
- Develop and practice professional skills
- Acquire leadership and project management experience
- Focus on real-world challenges
- Work with people from different disciplines, cultures and ranks

THE VIP EXPERIENCE

VIP students participate in **large-scale, long-term, multidisciplinary research teams** – like those in industry – that are embedded in the innovative work of faculty and their graduate students.

Teams work like small start-up companies:

- New students join a project in process and are trained by existing team members.
- Students contribute their own ideas and expertise.
- Students work with colleagues from different fields to solve problems.
- Teams have management structures and opportunities for advancement.

*“Students are introduced to a real-world problem that is both complex and vague but requires an innovative and practical solution. These problems are not textbook problems and the **students interact with real clients and stakeholders.**”*

Nadia M. Viljoen
VIP Alumna

What is the difference...

...between VIP and traditional undergraduate research programs?

All are great experiences! Differences:

- ⇒ VIP students work in large teams and have opportunities to grow into leadership roles.
- ⇒ VIP teams are multidisciplinary and focus on real-world challenges.

... between VIP and PURA? (Presidents Undergraduate Research Award)

VIP is a great feeder for PURA!

- ⇒ PURA students are paid for doing research with a professor. To apply, students propose a project with a professor.
- ⇒ VIP students can get to know a project and professor. Then they can apply to PURA with their VIP professor and continue their work with their teams.

... between VIP and CREATE-X?

Both are excellent programs!

- ⇒ CREATE-X projects are based on student ideas and focus on entrepreneurialism.
- ⇒ VIP projects are homed in faculty research. Projects may still be commercialized, and students retain intellectual property rights.

... between VIP and Co-op?

Both are extremely valuable!

- ⇒ VIP students are on campus and earn VIP credits along with their other course credits.
- ⇒ VIP teams work like start-up companies, with opportunities for advancement.



VIP Poster Session - Fall 2018