



KUMARAGURU
Institutions

KCT
GARAGE

The Significance of RIDE in India

In the VUCA world, Research, Innovation, Design, and Entrepreneurship (RIDE) are critical pillars that form the bedrock of a nation's progress, resilience and global standing. India, with its vast demographic potential and growing technological prowess, stands at a critical juncture where harnessing RIDE can transform its social and economic fabric. Through cutting-edge research, sustainable innovation, and thriving entrepreneurial ecosystems, RIDE drives job creation, technological advancement, and solutions to pressing societal issues. Empowering young minds with the tools and opportunities to excel in these areas is essential for building a future-ready nation, resilient against global challenges.



RIDE at Kumaraguru: A Thriving Ecosystem of Possibilities

At Kumaraguru Institutions, RIDE is not just a concept but a lived reality, seamlessly woven into the institution's ethos. The ecosystem at Kumaraguru thrives on the synergy of these four pillars, creating an environment where students, faculty, and industry partners converge to explore, create, and transform thereby becoming creative thinkers, problem-solvers, and changemakers. With state-of-the-art research centers, innovation hubs, industry partnerships, and incubation cells, Kumaraguru empowers its students and faculty to explore new frontiers and bring impactful ideas to life.

R

Research at Kumaraguru spans diverse domains, addressing real-world challenges through interdisciplinary collaboration.

i

Innovation is celebrated as a way of life, with students encouraged to think differently and explore uncharted paths.

D

Design transforms visionary concepts into functional and impactful outcomes, empowering institutions, industries and enhancing societal well-being.

E

Entrepreneurship culture thrives, with incubated startups gaining support from mentors, industry experts, and resources, ultimately creating market-ready solutions and economic value.





Ré, iQube & Garage is a collective ecosystem for Research, Innovations and Design. With our mission set on promoting STEM we ensure that students are equipped with cutting edge knowledge and skills to thrive in this dynamic world, while helping established organizations adapt and maintain their competitive edge. We also focus and develop various market based futuristic tech, curate ideologies. Our core value is to ensure students gain advanced knowledge and practical skills in real world problem solving and bridge the gap between academia learning and Industry. By fostering a collaborative environment, Ré, iQube & Garage empowers individuals and serve as a launchpad for next gen's Leaders.

RiG Ecosystem

Our ecosystem exclusively offers students hands on experience, industrial exposure, internship and project funding support. We incubate groundbreaking work, with students regularly engaging in and winning national and international competitions, driving innovation through patented projects, and contributing to global research through paper publications. We work in collaboration with tech societies and industries to organize events, workshops, hackathons, ideathons, and expos that foster a culture of research and innovation among students.



KCT GARAGE

KCT Garage serves as an advanced innovation and development laboratory dedicated to pioneering next-generation mobility solutions and supporting high-caliber student-led automotive teams on a national scale. Emphasizing a multidisciplinary approach, the Garage offers immersive learning experiences in automotive engineering fundamentals, electric vehicles (EVs), and alternative transport technologies, facilitating hands-on research and project work in cutting-edge fields such as EV charging infrastructure, solar energy integration, supercapacitors, hydrogen fuel cells, and retrofitting internal combustion vehicles for sustainability.

KCT Garage is dedicated to academic excellence, with members publishing numerous research papers annually in esteemed journals like IEEE, advancing automotive science and sustainable engineering. The 6000-square-foot facility, hosting over 200 students, operates 24/7 to support ambitious projects with extensive resources. It fosters continuous learning through workshops, events, and industry collaborations.

Beyond technical learning, KCT Garage provides real-world experience in project management and manufacturing, including additive manufacturing technology. This dynamic environment cultivates technical expertise and hones leadership and innovation skills essential for future industry leaders.

OUTCOMES & ACCOMPLISHMENTS

Projects Funded
Annually: 8

Research Papers
Published: 100+

Vehicle
Developed:
35+

Patents
Filed: 10+

Students
Impacted: 3,000+

Alumni Connect:
400+

Budget Allocated for Vehicle
development: 1.5 crores Annually

Total Grants Distributed:
Over 7 Crores

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Ecosystem:

KCT Garage is a student-driven automotive design and prototyping center, uniting highly skilled students with expertise across key domains, including mechanical engineering, electrical systems, design, and advanced software tools. This diverse group brings a specialized focus to each area of vehicle engineering, pushing boundaries in research and development of sustainable mobility solutions.

Driven by a shared vision for cleaner, greener energy, students at KCT Garage are committed to advancing eco-friendly transportation. Their projects emphasize innovation in electric vehicles (EVs), Sustainable mobility and all-terrain vehicles (ATVs), showcasing a strong commitment to developing vehicles that reduce environmental impact in line with Sustainable Development Goals. Each vehicle is designed and constructed with precision, utilizing cutting-edge technology to embody the future of sustainable transport.

KCT Garage serves as a hub of creativity and learning, fostering a collaborative ecosystem where aspiring engineers can apply their skills to real-world challenges. The center encourages exploration and experimentation, offering an environment rich in resources and mentorship to empower students to excel in advanced automotive design and prototyping. By integrating sustainability into the core of its initiatives, KCT Garage not only promotes technical excellence but also nurtures responsible innovation that aligns with global sustainability goals.

MOBILITY

MOTORSPORTS

ADVENTURE

SUSTAINABILITY

Pioneering Mobility Solutions	Talent Development	Academic Contributions	State-of-the Art Facilities
Industry Partnerships	Project Management Skills	Innovation in Additive Manufacturing	Collaborative Learning Ecosystem
Eco-Friendly Vehicle Projects	Sustainable Engineering Focus		



ZEALL RACING

Established in 2014 - Zeall Racing provides hands-on experience in both electric and Internal Combustion (IC) engine go-kart manufacturing, fostering a passion for motorsports and engineering. Innovations: Development of both electric and IC engine go-karts, focusing on performance optimization, powertrain efficiency, and vehicle dynamics.

MOTO KCT

Moto KCT is the elite racing team of Kumaraguru Institutions, established in 2019 and dedicated to crafting high-performance racing bikes. Specializing in both Internal Combustion Engine (ICE) and 100% Electric Propulsion System bikes, we combine innovation and precision engineering to excel in motorsports. Our team is committed to advancing racing technology, offering hands-on experience, and inspiring a new generation of engineering talent.

E-BLITZ

Established in 2014 - Dedicated to designing electric ATVs, focusing on sustainable mobility and environmental impact. Design of electric All-Terrain Vehicles (ATVs), incorporating robust energy storage systems, enhanced motors.

TEAM SAKTHI RACING

Established in 2014 - Designing and racing a Formula Student car, showcasing engineering expertise on a global stage. Design of an open-style Formula Student race car, incorporating cutting-edge aerodynamics, powertrain systems, and lightweight materials for enhanced performance.

TEAM SEA SAKTHI

Established in 2020, Team Sea Sakthi is a dynamic powerhouse in the maritime domain. With three years of unwavering dedication, we have achieved groundbreaking milestones, particularly in the prestigious Monaco Energy Boat Challenge. Our team is driven by a passion for innovation, engineering excellence, and sustainability, pushing the boundaries of maritime technology and contributing to a cleaner, greener future in marine engineering. Notably, the team is the first and only Indian Team to participate and win accolades in the Monaco Energy Boat Challenge.

TEAM RENEW

Established in 2022, Team ReNew is a dedicated motorsport team competing in the Shell Eco-marathon with a mission to create the most energy-efficient vehicle in the Hydrogen Fuel Cell Prototype category. Our goal is to set new benchmarks for performance and efficiency, pushing the limits of sustainable engineering in one of the most challenging and prestigious competitions in the industry. Committed to innovation and environmental responsibility, Team ReNew is determined to shape the future of energy-efficient mobility. Notably, Team ReNew rewrote history as the first team from India to compete in the Prototype class within the Hydrogen Fuel Cell category to participate in the Shell Eco-Marathon.

RIDE ACCOLADES



**11° MONACO
ENERGY BOAT
CHALLENGE**

DESIGN PRIZE
TOWN HALL CUP
INNOVATION PRIZE
COMMUNICATION PRIZE



Shell
Eco-marathon®
ASIA

First Team in India to
Participate in Hydrogen
Fuel Cell category



Robocon'24- AIR 17



Season 4
Overall Championship



2 Mitacs Gonalink
Research Interns



**MAKER
BHAVAN
FOUNDATION**

Vishwakarma
Award 2018



SIH winner
4 year consecutive



eLearnSecurity
Certified Professional
Penetration Tester -
Team Nova



A student start-up
launched by Coimbatore
City Commissioner



Runner Up
Mega ATV



Season 2
Overall Championship



RiDE

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