



**RCMAS**  
RAJAGIRI COLLEGE OF MANAGEMENT &  
APPLIED SCIENCES

## Criterion VII Institutional Values and Best Practices

**RAJAGIRI COLLEGE OF MANAGEMENT AND APPLIED SCIENCES**

RAJAGIRI VALLEY P.O, KAKKANAD, KERALA 682039

An ISO 9001 : 2015 Certified Institution

Affiliated to Mahatma Gandhi University, Kottayam and Approved by AICTE

**7.1**

### **Institutional Values and Social Responsibilities**

**7.1.2**

**Green Campus Initiatives**

**2019-2024**

Submitted to



## 7.1.2 Green Campus Initiatives

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## Report on Green Campus Initiatives

### Introduction

Rajagiri College of Management and Applied Sciences has long been a beacon of progressive education, setting benchmarks not only in academic excellence but also in sustainable practices. Their commitment to environment conservation is evident through its comprehensive **green initiatives**, collectively known as **Rajeevani**. The **Miyawaki Method**, which involves planting native tree species densely as an urban afforestation strategy has been adopted by RCMAS. This technique accelerates forest growth, creating lush, biodiverse ecosystems in a relatively short time. These initiatives are thoughtfully integrated into all the campus operations and culture, reflecting a profound dedication to bringing up an eco-conscious community. From harnessing solar energy to implementing sophisticated water conservation systems, Rajagiri is actively promoting sustainable living practices among its students and staff.

The college covers an area of five acres approximately with more than 85 % of **vegetation**. The lush, biodiverse campus stands as a monument to the HEI's green ethos. The peaceful retreat, featuring the Aviary and Animal Ark is named **RUHE-Rajagiri Urban Habitat for Environment** after the Greek term for calm and serene. It offers a soothing environment amidst the academic bustle. The campus also offers a **serene space for meditation**, thoughtfully located adjacent to the chapel, providing a tranquil environment conducive to spiritual reflection and inner peace. Additionally, its advanced waste management systems, energy-saving infrastructures, and rainwater harvesting initiatives reflect a holistic approach to environmental sustainability. Through these joint efforts, **the College has been successful in achieving Carbon Negativity**, which inturn makes the carbon footprint on the negative side. **The current carbon footprint is -76.91 kgCO<sub>2</sub>e**. Hence it can be doubtlessly said that the HEI is nurturing a generation of environmentally responsible leaders equipped to make meaningful contributions to a sustainable

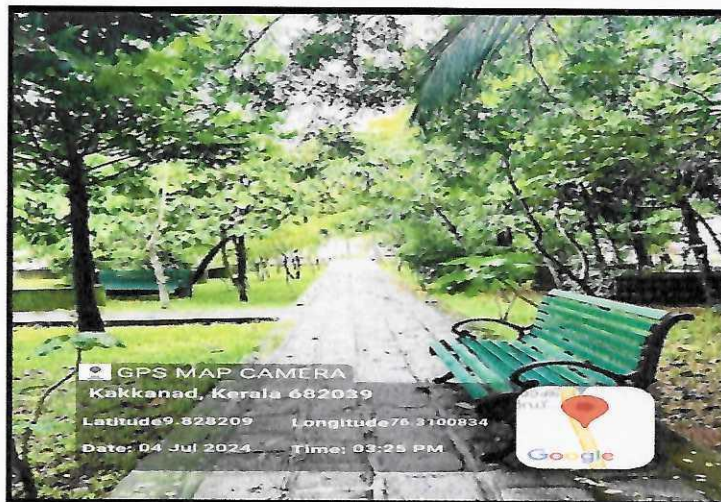


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### 1. Pedestrian-friendly Pathways

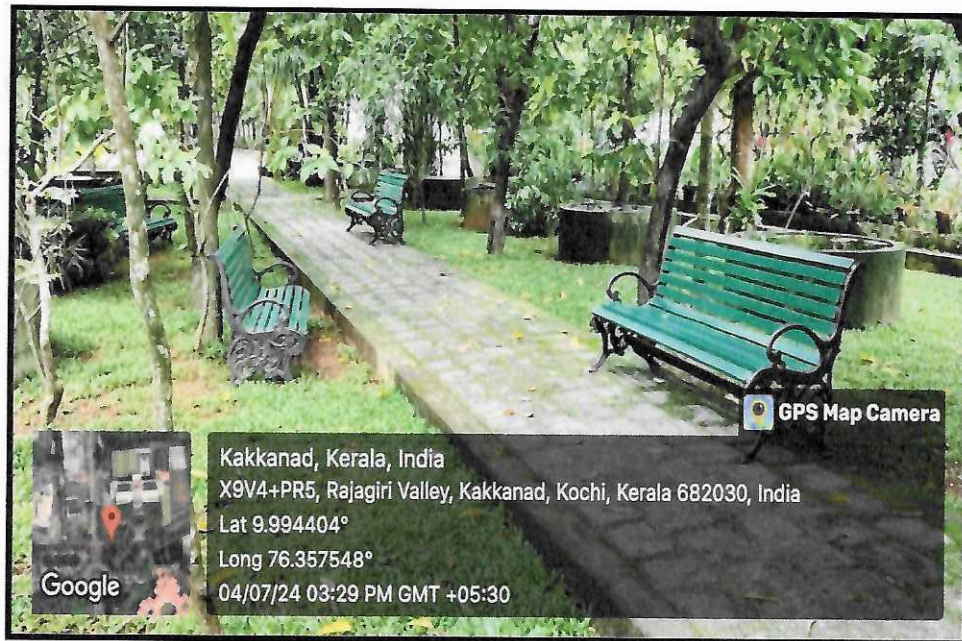
In line with Rajagiri's green vision, the campus is threaded with pedestrian-friendly pathways adorned with eco-friendly titles. These prioritise the safety and well-being of students and staff while promoting a healthier and more sustainable lifestyle. Encouraging walking not only reduces the college's environmental footprint and contributes to cleaner air, but it also promotes a stronger sense of community by creating a more inviting and walkable atmosphere. Strategically placed benches and landscaping alongside these paths can further enhance this sense of connection, encouraging interaction and social engagement within the college grounds.



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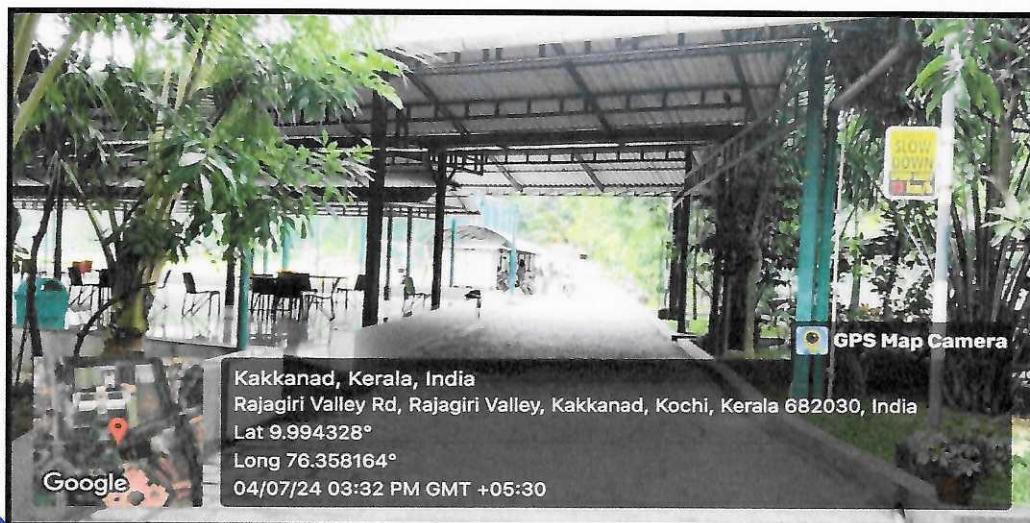


### Pedestrian walkways



### 2. Restricted Entry of Vehicles during Working Hours.

To further solidify its commitment to a sustainable campus environment, the College implements a restricted vehicle entry policy, especially during the working hours with speed limits signage inside . This initiative prioritises pedestrian safety and minimises traffic congestion within the college grounds.



### Signage of Speed limit

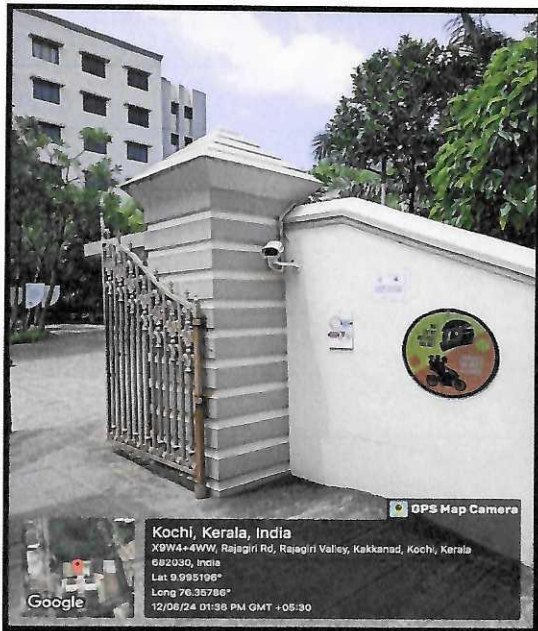


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The restricted vehicle entry policy, when viewed alongside the well-designed pedestrian pathways, encourages a more walkable and environmentally friendly mode of navigating the campus.

### Restricted entry of vehicles during Working Hours



### 3. Restricted use of Plastic on the campus

The College has enforced a restriction on single-use plastics. This initiative targets a significant contributor to global environmental pollution - plastic waste. Unmanaged plastic debris harms wildlife, contaminates ecosystems, and disrupts natural habitats. By restricting on-campus plastic use, the college demonstrates a proactive approach to environmental stewardship. This policy aligns with the broader prospects Rajeevanam program, fostering a culture of responsible resource management within the student body and staff. The restricted use of plastics serves as a tangible example of sustainable practices, equipping future generations with the knowledge and habits necessary to promote environmental well-being.



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**Poster of Restricted use of Plastic**

#### 4. Encouraging Electric and Eco-friendly Vehicles on Campus

Rajagiri College actively promotes the use of electric vehicles (EVs) on campus. This initiative directly targets a key contributor to climate change: transportation emissions. By providing designated charging stations and fostering a culture that embraces EVs as a viable mode of transportation, the college actively works towards a more sustainable campus environment. The institution also promotes using bicycles as a commendable sustainable practice. Riding cycles reduces the carbon footprint, helping to keep the air clean and the environment healthier. It also cuts down on traffic congestion, making the campus safer and more pleasant to navigate. Cycling promotes physical fitness and well-being, encouraging students and staff to lead more active lifestyles. Additionally, it's cost-effective, saving money on fuel and

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vehicle upkeep. The increase in the number of students using bicycles for daily commuting proves how well the message of green practices have inspired the student community about the importance of sustainability and resource conservation.

### Bicycle and EV Charging Points



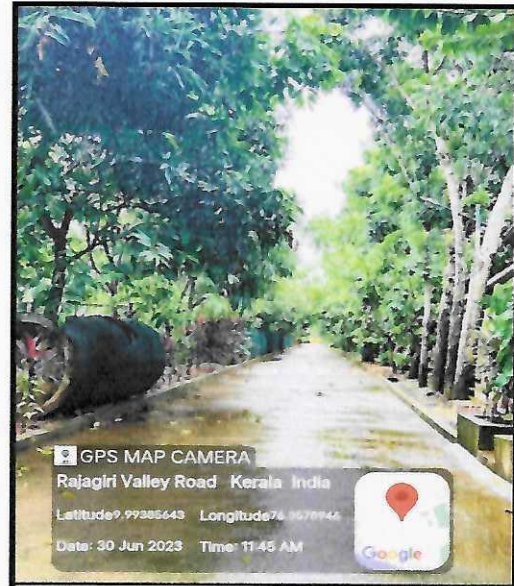
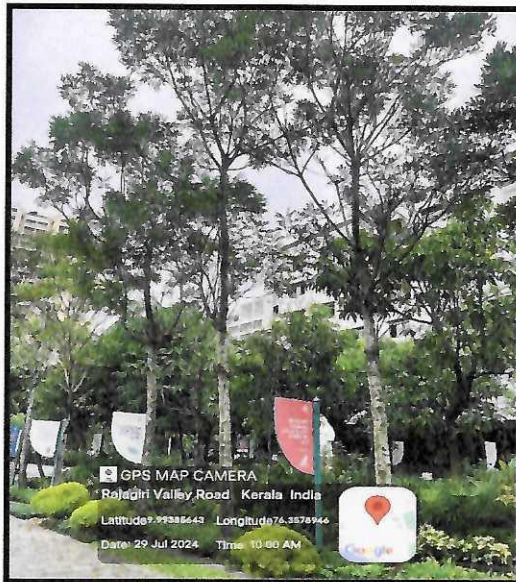
### EV charging from the Electric Charging Point





## 5. Landscaping with Trees

The institution exemplifies how incorporating trees into campus landscapes fosters a thriving and sustainable environment. By planting close to **250 native and foreign tree species** well-suited to the Kerala climate, they not only reduce their carbon footprint and improve air quality, but also mitigate the urban heat island effect and manage stormwater runoff. These trees create a beautiful and serene atmosphere, promoting student and staff well-being. Rajagiri College leverages the power of trees to create a model for sustainable campus landscapes.

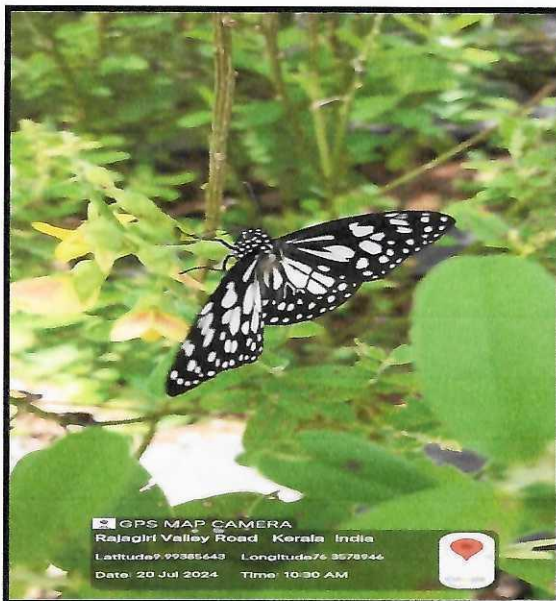




## 6. Diverse Ecosystem Of The Campus: A Haven For Flora

The campus serves as a haven for a diverse array of flora and fauna, featuring a meticulously designed network of gardens and natural areas that actively promote biodiversity. The vibrantly coloured butterfly garden called **Shalabodhan**, meticulously planted with nectar-rich flowers, attracts these delicate pollinators, playing a vital role in supporting local ecosystem health.

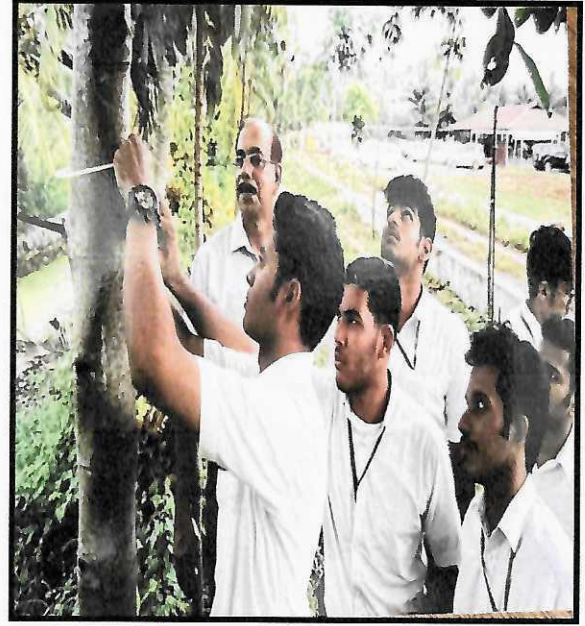
### Butterflies in Shalabodhan



Complementing this ecological focus is the on-site vegetable garden, **Pachakkarithottam** which not only provides fresh produce for the college community but also functions as a valuable educational tool for students to explore the principles and practices of sustainable agriculture. Further enriching the landscape is the **Nakshatravanam**, a thoughtfully curated collection of **27 diverse tree species** named after celestial constellations of lunar birth stars.



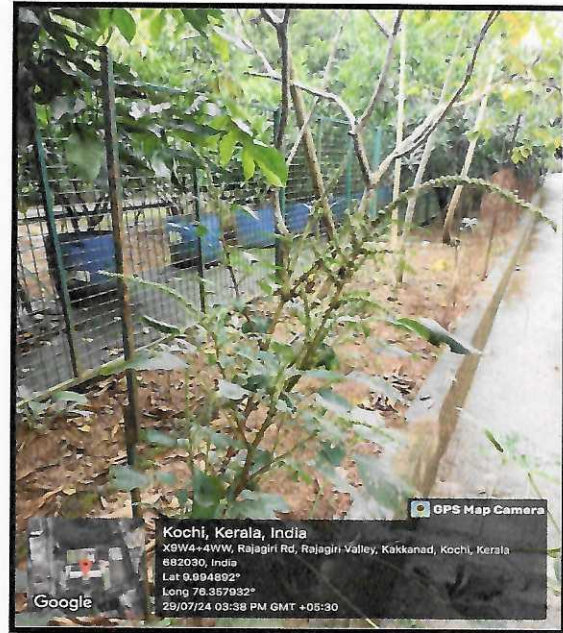
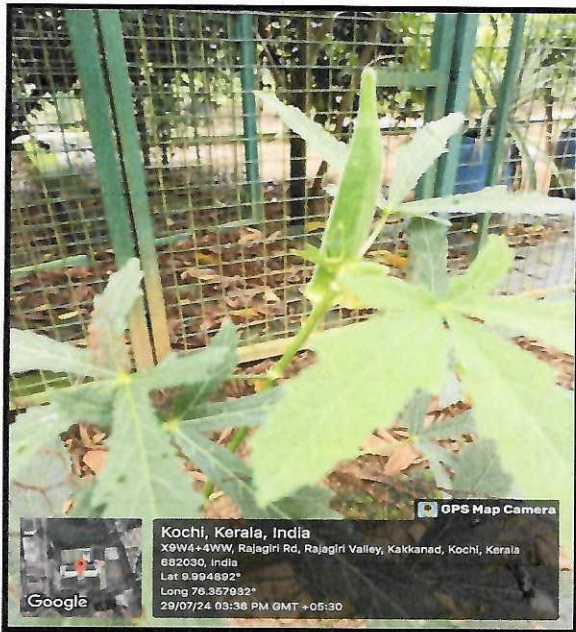
### Nakshatravanam



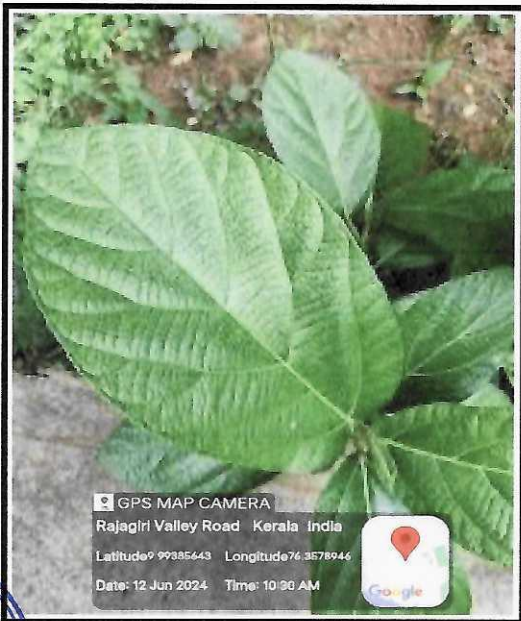
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**Pachakkarithottam (Vegetable Garden)**



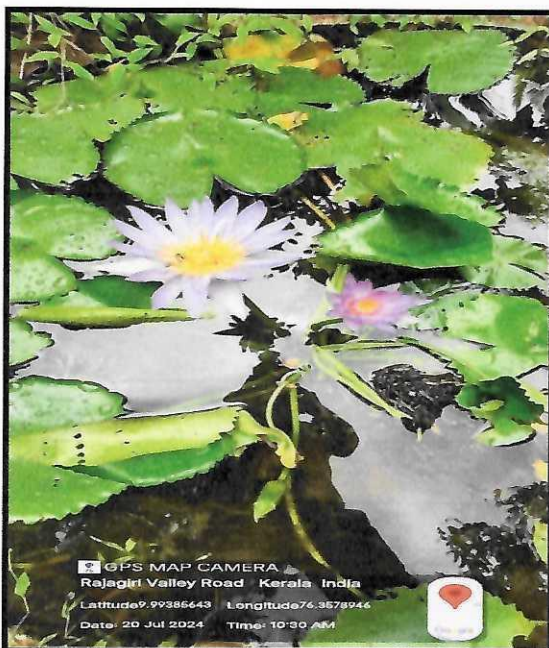
Yet another green feature the College owns is the verdant haven of medicinal herbs called **Oushadodhyan**. The distinct collection of plants and herbs with its unique therapeutic properties was created to promote the concept of health and well-being by exploring the power of nature's pharmacy.





The unique feature not only enhances the aesthetic appeal of the campus but also serves as a powerful symbol of the college's unwavering commitment to nurturing a multitude of life forms. Finally, the campus boasts a wide array of **flowering and ornamental plants** further enriching the landscape with pops of colour and fragrance.

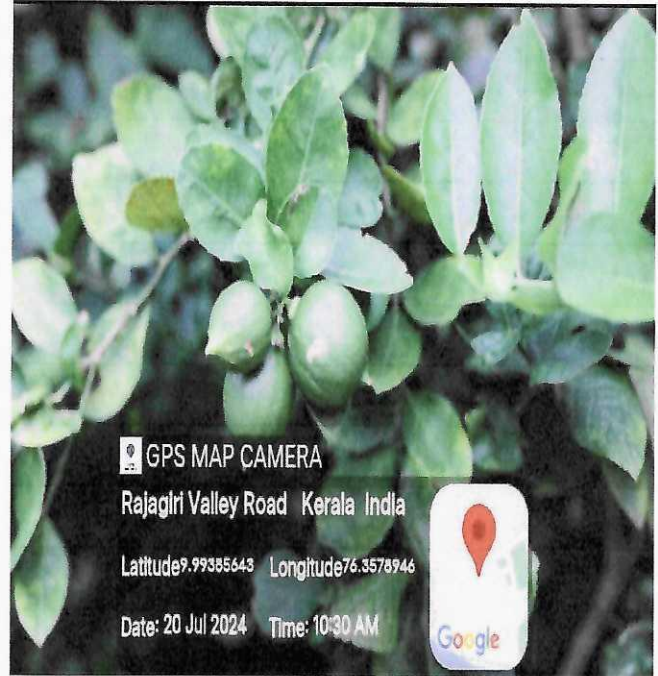
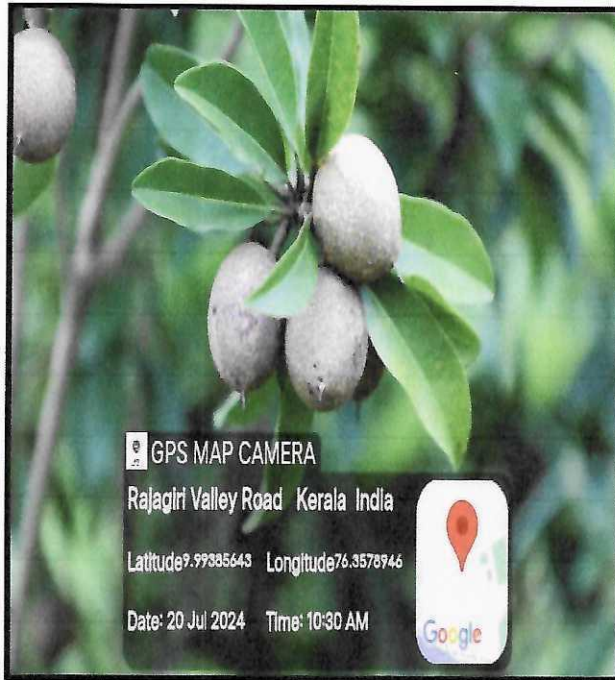
### Various kinds of flowering plants on the campus



**Fruit Garden** is a wonderful fruit orchard featuring an array of species including water apples, star fruits, guavas, dragon fruit and the like on both sides of the college entrance and the backyard. The horticultural resource is a valuable asset, contributing to the ecological balance of the campus, providing opportunities for education, hands-on experience for agriculture and community engagement. RCMAS flaunts a **Spice Garden** where various aromatic and flavorful plants are grown. Common spices found in the garden include pepper, cardamom, cinnamon, cloves, nutmeg, turmeric, ginger and chilli peppers.



### Sapota, Guava and Custard Apple in the fruit garden



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The College maintains a **Herbarium** as a valuable resource for environmental research and conservation and has a **space for meditation** adjacent to the chapel.



**Pepper in the Spice garden**

## 7. Oxygen Zone

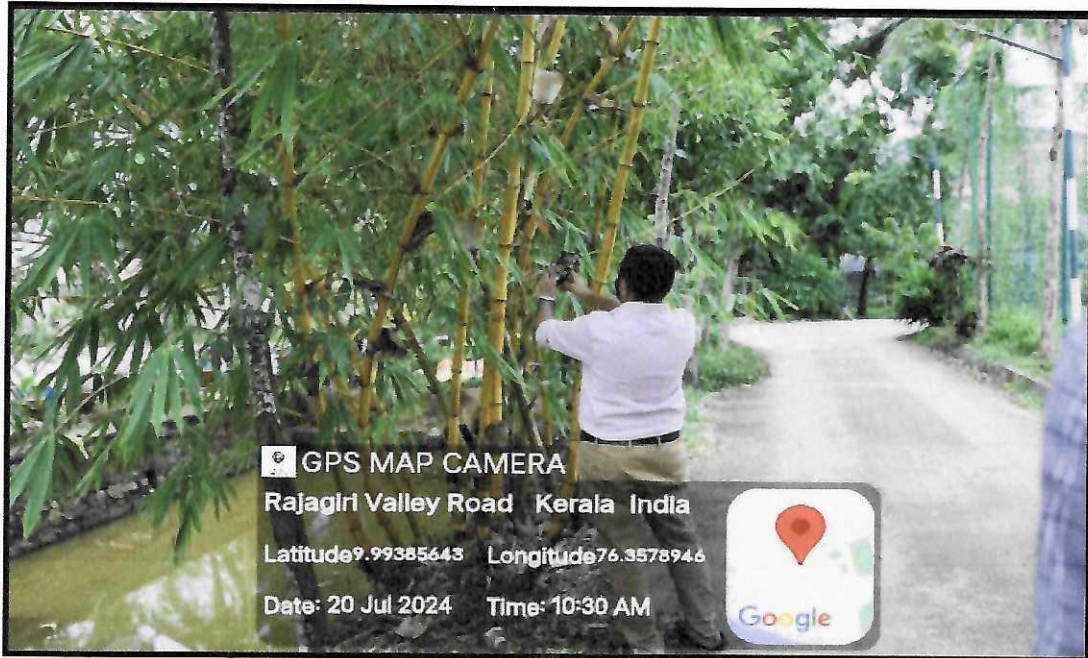
The HEI has taken a step forward towards creating a healthier and greener campus environment by establishing an oxygen zone adjacent to the portico and bordering the water canal. This novel strategy, consisting primarily of **bamboo**, increases oxygen levels and reduces pollutants which is highly beneficial for the respiratory health of students, faculty and staff,



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### Bamboos bordering the water canal

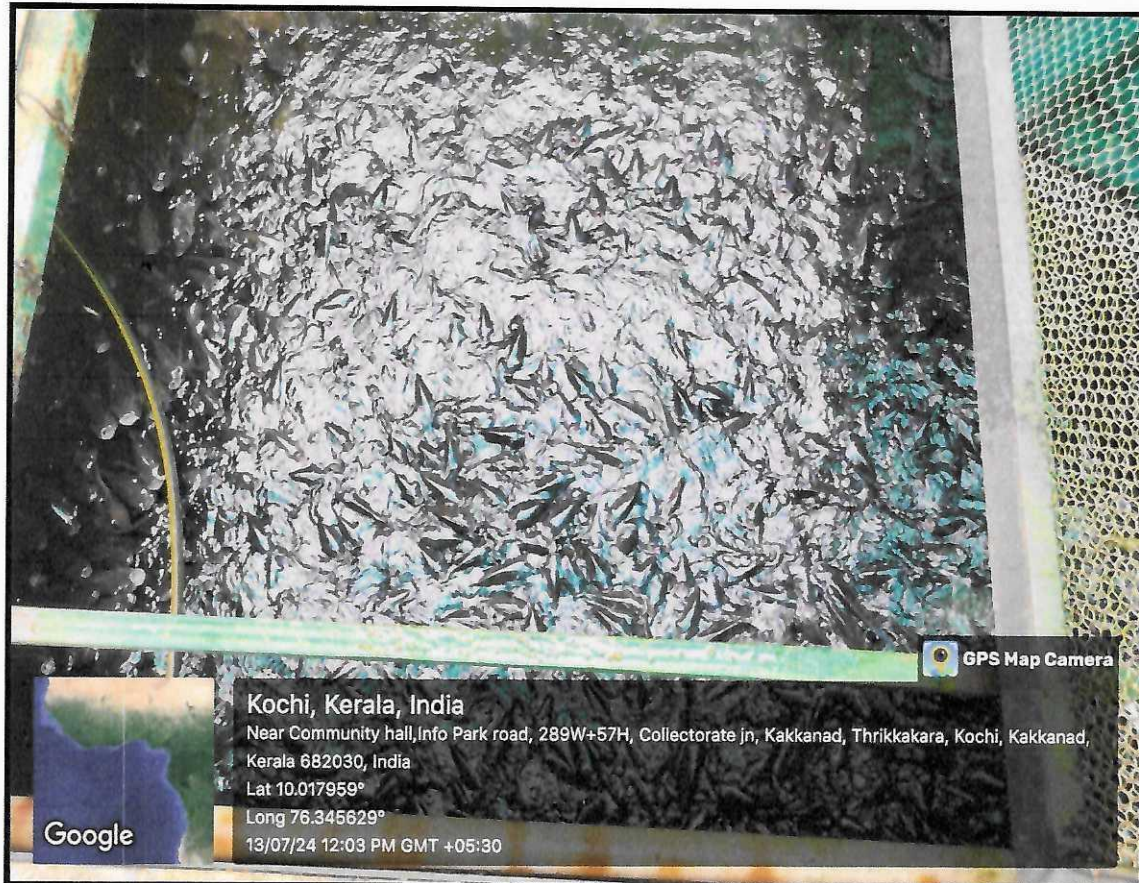


### 8. Fish Farming

The College has taken a remarkable step towards sustainable food production and environmental conservation with its fish farming initiative. The project addresses the pressing issues of food security and availability and promotes eco-friendly practices that are well-suited to the local climate. The college successfully cultivates the fish species **Tilapia** known for their high nutritional value and adaptability. What sets this initiative apart is its integration with the campus Aviary, which doubles as a rainwater harvesting system, creating an integrated relationship between different ecological elements. It not only ensures a steady water supply for the fish farms but also demonstrates the dedication to resource efficiency. The project serves as a practical learning platform for students while contributing to the local food supply chain. By focusing on species that thrive in the regional conditions, The College is setting an example of how educational institutions can play a



vital role in promoting sustainable agriculture and environmental responsibility. As concerns about food security and environmental degradation continue to grow, initiatives like this offer a promising glimpse into the future of sustainable food production.



**Farming of Tilapia**



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## 9. Biodiversity Register- Documentation of Flora and Fauna

The College further demonstrates its allegiance to both biodiversity conservation and environmental education through a recent initiative. The project is the compilation of a **Biodiversity Register- a documentation of campus flora of RCMAS**. Classifying flora combines a comprehensive new resource- a strategically deployed **QR code system** on the trees on the campus.

The book serves as a meticulous documentation of the diverse plant species thriving on the college grounds. This publication offers detailed descriptions, high-quality photographs and insightful ecological information for each plant. To further enhance the educational value and forge a deeper connection with the natural environment, a unique QR code now adorns each tree. Scanning these codes with a smartphone, students, faculty and visitors gain instant access to a wealth of information about the specific tree, encompassing its species, characteristics, ecological significance and even its cultural relevance.

The documentation of Fauna serves as a comprehensive catalogue of the local fauna, providing a detailed overview of the area's ecological diversity. The document meticulously records a wide variety of species, with a particular focus on butterflies, birds and insects. Lepidopteran species feature prominently, showcasing the region's rich butterfly population. Avian life is well-documented, reflecting the diverse bird communities that inhabit or migrate through the area. The register also pays close attention to the entomological spectrum, cataloguing numerous insect species that play crucial roles in the local ecosystem. The documentation highlights the area's biodiversity and serves as a valuable resource for conservation efforts and ecological studies in the region.

Website link: <https://www.rajagiricollege.edu.in/rajeevani-post/>



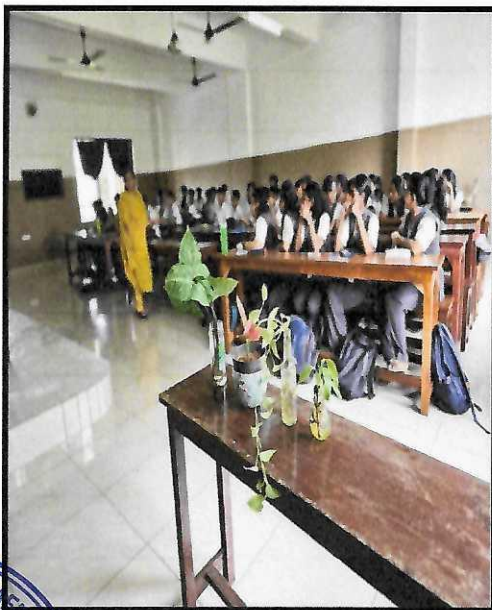
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## 10. Indoor Plants- Green Staffroom/Classroom

The College has incorporated indoor plants within its academic departments and classrooms as part of their green initiatives which transcends mere aesthetics. These botanical additions serve as natural air purifiers, transforming the academic spaces into verdant environments that enhance well-being and create a more productive learning atmosphere. Enthusiasm and participation of the student body shows a significant correlation between exposure to greenery and reduced stress levels, alongside improved cognitive function. Indoor plants provide a natural filtration system removing common toxins and pollutants from the air. The improved air quality is particularly advantageous in dry or humid environments, where they act as natural humidity regulators and these low-maintenance botanical companions contribute to a demonstrably healthier learning environment. Moreover, the very act of caring for these plants can cultivate a sense of accomplishment and responsibility, while their calming presence bestows a more positive and focused learning atmosphere.

### Indoor plants in Classroom and Staffroom



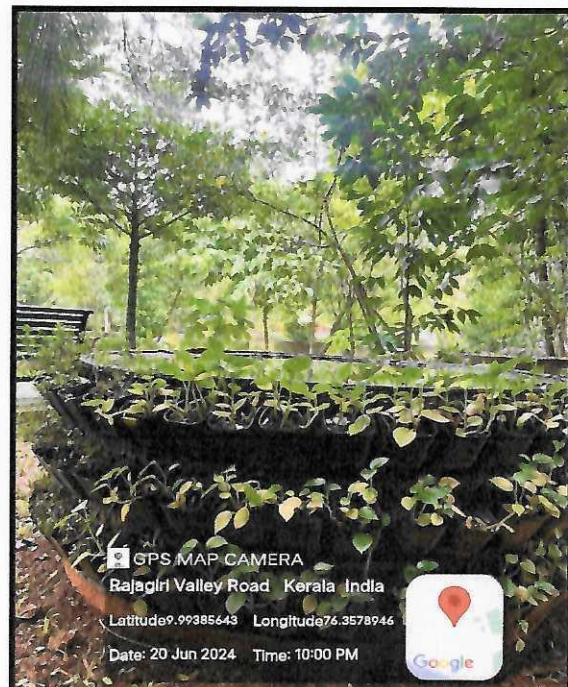
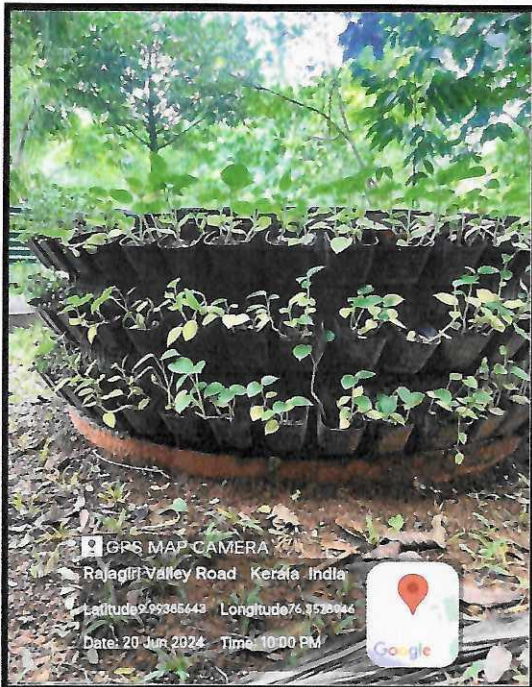
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## 11. Vertical Gardens around Mazakkuzhi

Vertical gardens have been created around Mahakkuzhi, a collection of small wells at the entrance plaza of the College, bringing a touch of greenery and innovation to the area. These vertical gardens not only enhance the beauty of the well but also promote environmental sustainability. By making use of space around the wells, the gardens improve air quality and provide a cooling effect, creating a serene and refreshing atmosphere. The addition of these gardens around Mahakkuzhi demonstrates how modern, eco-friendly practices can be harmoniously integrated with traditional elements of the campus.

### Vertical Garden around Mazhakkuzhi





## 12. Aviary

Adding another feather to campus biodiversity is a marvellously designed aviary. This structure houses a captivating collection of rare bird species like Macaw, Eclectus, White Cocotto, Grey Parrot, Love birds, a variety of pheasants and the like providing students with a unique opportunity to observe these magnificent creatures firsthand. Witnessing the vibrant plumage and diverse behaviours of these birds fosters a deeper appreciation for the natural world and the importance of conservation efforts.

### Birds in the Aviary

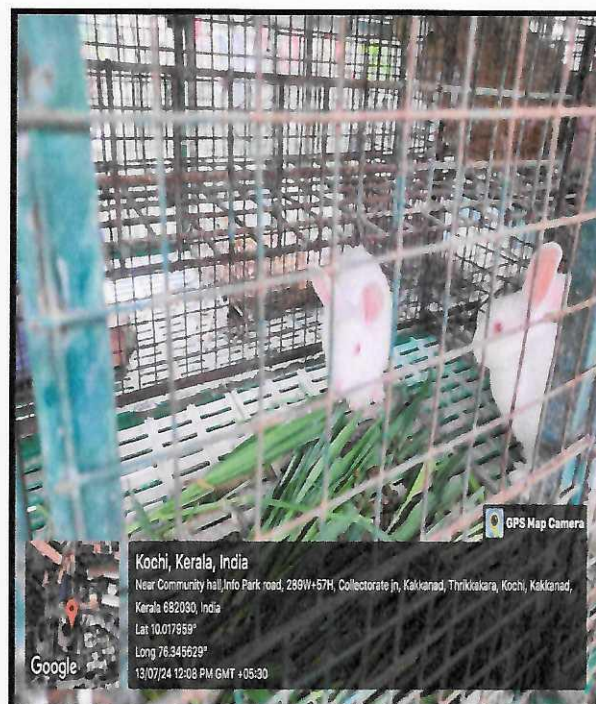




### 13. RCMAS Animal Ark

The college further enriches the student experience by incorporating an area of shelter featuring various breeds of native and foreign dogs. This diverse canine population allows students to interact with these loyal companions, building a sense of responsibility and empathy towards animals. There is also a space adjacent to it for rearing rabbits. Rounding out the on-campus fauna is a collection of various types of fowls, including swans and turkeys. Exposure to such a rich variety of animal life during their formative years can have a profound impact on young minds, nurturing a sense of respect for the natural world, a commitment to responsible pet ownership, and a deeper understanding of the interconnectedness of all living things.

#### Fowls, rabbits and dogs reared in the Animal Ark







#### 14. Paddy cultivation

The college also undertook a unique agricultural project, bringing together students and faculty for hands-on paddy cultivation. The initiative not only offered practical learning experiences but also strengthened the knowledge in agriculture. In a fitting celebration of their collective effort, the team transformed their harvest into **payasam**, a cherished traditional dessert.



**Students planting paddy seedlings**



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## 15. Water Conservation Initiatives

The college has implemented robust water conservation initiatives that significantly benefit both the students and the ecosystem. It has installed advanced rainwater harvesting systems, including the innovative *Mazakkuzhi* method and a canal system on one side of the campus which efficiently collects and stores rainwater for various uses. Additionally, the implementation of *aquaponics* – a sustainable method enables the cultivation of plants and fish in a symbiotic environment, reducing water usage and promoting ecological balance.

There is also a *canal system* Rainwater Harvesting Unit for efficient water conservation and distribution, ensuring that every drop is utilised effectively. These initiatives not only ensure a sustainable water supply for the campus but also provide students with practical insights into modern, eco-friendly water management practices.

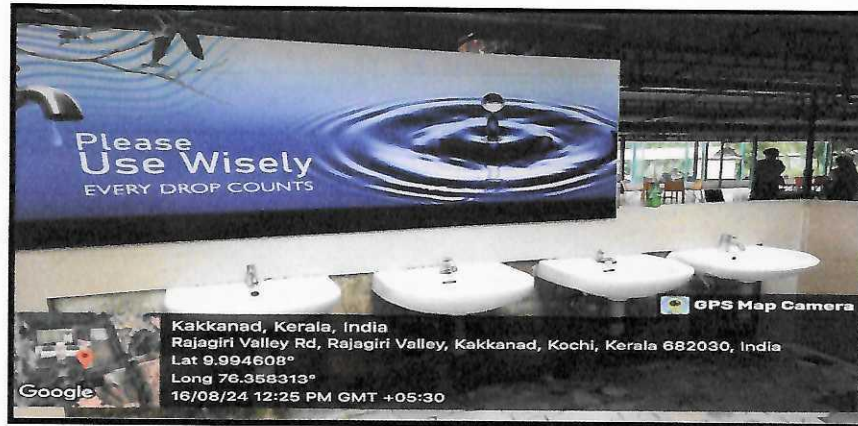
### Mazhakkuzhi



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### Save water signage



## 16. Energy Conservation Initiatives

The College is at the forefront of energy conservation, integrating several innovative strategies to minimise its carbon footprint. The installation of solar panels in 2021 as a stride to renewable energy, significantly reduces reliance on non-renewable power sources. Additionally, energy-efficient infrastructures such as sensor lights and classrooms with large windows to maximise natural light contribute to lower energy consumption.

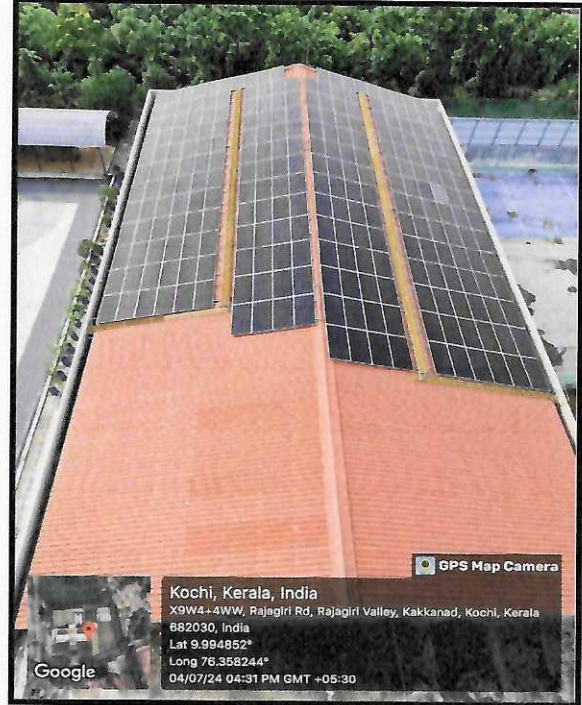
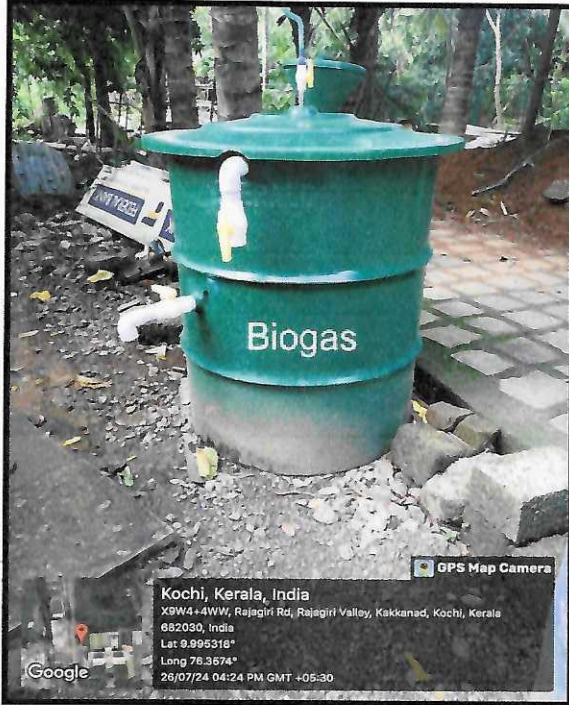
These measures help to create a sustainable campus environment that serves as a practical learning model for students, demonstrating the importance and feasibility of integrating green technologies into everyday life. Through these initiatives, the College ensures that students are well-versed in energy conservation practices, preparing them to be conscientious leaders in a sustainable future.



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### Biogas Plant and Solar Panels



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## GREEN PROTOCOL

RCMAS has adopted a green protocol as part of our best practice **RISE- RCMAS Integrative and Sustainable Education**. This initiative aims to promote a green culture within our community, cultivating practices to make a positive impact on our environment and enhance our collective well-being. All the staff and students are requested to adopt the guidelines of the protocol.

- Reduce plastic waste by using reusable water bottles/snack boxes.
- Minimise paper usage as much as possible.
- Sort waste materials and use designated recycling bins.
- Reduce your carbon footprint by sharing rides or using public transportation.
- Save energy by turning off lights and unplugging devices when not in use.
- Use water judiciously and report leakages promptly.
- Get involved in sustainability initiatives and projects on campus.
- Buy eco-friendly and sustainably sourced products whenever possible.

Be a part of the change! Adopt sustainable habits and help create an eco-friendly community.



**PRINCIPAL**

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