



NEWS LETTER

2022 ISSUE 1

P01_Vision & Mission

P02_EEE Bulletin

P03_Meet the Scientist

P04_Major Events

VISION

To develop professionally competent electrical and electronic engineers having innovative skills and capabilities to work ethically in consonance with technological demands and developments of industry and society



MISSION

As one of the first few departments to be set up in the year 1958, the Electrical and Electronics Engineering Department offers a diploma certificate for students who complete the course. The three years' course is designed to provide a broad foundation in electrical and electronics engineering and its different applications such as the generation, storage and distribution of electricity, semiconductor technology, biomedical applications, industrial automation... digital media, and computer aided drafting.

- To provide state-of-art resources that contributes to achieve excellence in teaching, learning and development.
- To mould Electrical Engineering professionals in synchronization with the dynamic industry requirement.
- To inculcate ethical education capable of fostering societal responsibilities.
- To enhance creative abilities, leadership skills and entrepreneurial spirit by facilitating interaction with industry

The students are encouraged to become practically skilled through hands-on training in the laboratories designed for the purpose. The courses are also designed to enhance practical experience by collaborating with leading industries. The laboratories designed for the purpose of training students are state of the art and facilities are upgraded frequently so that they provide the right ambience for the students to move in tandem with the latest technologies.



ELECTRICAL AND ELECTRONICS ENGINEERING STUDENTS' ASSOCIATION
CENTRAL POLYTECHNIC COLLEGE, VATTIYOORKAVU



STAFF EDITOR

-ARAVIND MS

STUDENT EDITOR

-AKHIL S RAJ

SUB EDITOR

-SREETHU S RAJ

THE RISE OF RENEWABLE: INDIA'S SUSTAINABLE ENERGY FUTURE

India is in the midst of a remarkable renewable energy power revolution with several key trends shaping its energy landscape: Solar Dominance India has emerged as a global solar powerhouse. The country has set ambitious solar energy targets and boasts one of the largest solar parks in the world, demonstrating its commitment to harnessing the sun's energy. Rooftop solar installations are also on the rise, with incentives for residential and commercial users.



Geothermal Energy:

Geothermal power plants tap into the Earth's internal heat by utilizing steam or hot water from underground reservoirs to generate electricity and provide heating and cooling for buildings.



Wind Energy Growth: Wind power has been a significant contributor to India's renewable energy revolution. The sector has seen technological advancements, including larger and more efficient turbines, along with both onshore and offshore wind projects.

Competitive Bidding: India's competitive bidding processes for renewable energy projects have led to lower tariffs and increased cost-effectiveness. These auctions have become a cornerstone of project allocation, promoting transparency and efficiency.



Tidal and Wave Energy: These sources harness the kinetic energy of ocean tides and waves to generate electricity. Although they are less common than other renewables, they have the potential to provide reliable, predictable energy.



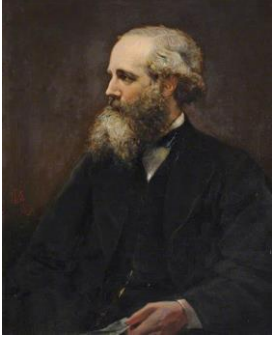
Grid Integration and Storage: The integrate of renewable energy into the grid has been a priority. Investments in grid infrastructure and energy storage solutions, such as battery storage, are essential to balance the intermittent nature of renewables and ensure grid stability.

Policy Support: Government policies, such as the National Solar Mission and the National Wind Mission, have encouraged investment in renewable energy projects. State-level initiatives, incentives, and subsidies further promote the adoption of clean energy.

These trends collectively underscore India's commitment to sustainability and energy security. The renewable energy power revolution not only reduces carbon emissions but also enhances energy accessibility and resilience while contributing to the country's economic growth and global climate goals.

MEET THE SCIENTIST

JAMES CLERK MAXWELL

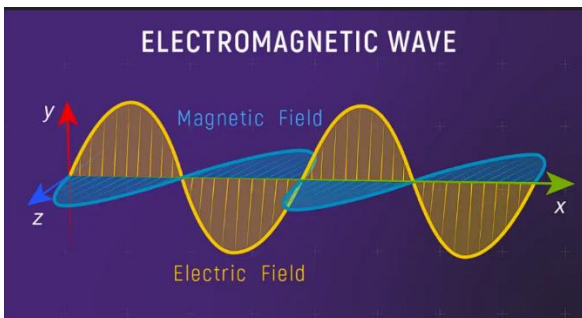


JAMES CLERK MAXWELL

James Clerk Maxwell (1831-1879) was a brilliant Scottish physicist and mathematician whose work has left an indelible mark on the scientific world. His most famous achievement was the formulation of Maxwell's equations, a set of four fundamental equations that revolutionized the understanding of electromagnetism.

James Maxwell and How his Equations

Maxwell's most significant achievement was the formulation of Maxwell's equations, a set of four fundamental equations that describe the behavior of electric and magnetic fields. These equations, which were published in the mid-19th century, unified electricity and magnetism into a single theory, now known as electromagnetism. Maxwell's equations demonstrated that electric and magnetic fields could propagate as waves through space at the speed of light, leading to the prediction of electromagnetic waves.



ELECTROMAGNETIC WAVES



SIGNAL TRANSMITTING TOWERS

Maxwell's groundbreaking insights paved the way for the development of technologies such as radio, television, and wireless communication, as well as the understanding of light as an electromagnetic wave. His work also provided crucial support for Albert Einstein's theory of special relativity.

Les Clerk Maxwell's profound contributions to physics continue to influence scientific research and technological innovation to this day, making him a true luminary in the history of science

"I consider Maxwell's equations the most important event in physics since Newton's time."

-ALBERT EINSTEIN

Here are some interesting facts about James Clerk Maxwell:

Published First Scientific Paper at the age of 14

Prediction of Electromagnetic Waves

Professor at the University of Cambridge

Contributed to the

kinetic theory of gases

Maxwell's work provided a critical foundation for Einstein's development of the theory of special relativity

ACHIEVEMENTS

PROFICIENCY IN ACADEMICS



ADARSH NAIR AS
(2020 – 2023)



ABHINAV A
(2021 – 2024)

MAJOR EVENTS



INAUGRUATION OF EEESA

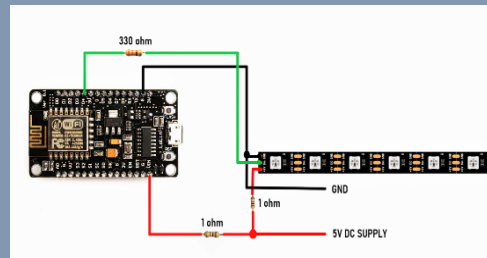


ARDUINO WORKSHOP



CREATIVE SPARK

LED CONTROLLER USING WIFI MODULE



ASWAL MANOHARAN
(S3)

RGB LED strips controlled by the ESP8266 WiFi module through the WLED app offer vibrant illumination possibilities. The ESP8266, a versatile microcontroller, connects seamlessly to the WLED app, granting users convenient control over their lighting setups via WiFi. With the RGB LED strip, users can paint their surroundings with a spectrum of colors, adjusting brightness, hue, and saturation to suit any mood or occasion. The WLED app's intuitive interface empowers users to create dynamic lighting effects, from soothing gradients to pulsating patterns, all at their fingertips. Whether enhancing ambiance in living spaces, accentuating architectural features, or adding flair to events, the combination of ESP8266 and WLED app unlocks endless lighting creativity. Moreover, the ESP8266's compatibility with smart home ecosystems facilitates integration with voice assistants and automation, further enhancing the versatility and convenience of RGB LED strip installations.