



PEACE

Power of Electronics and Communication Engineering

Issue:2, Year : 2024

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Key Events

- International Day against Drug abuse and Illicit trafficking 26th June 2024, Shilpa Kala Vedika
- Awareness Program on Child abuse, traffic and Hidden Cameras, 22nd April, MCET, Hyd.

VISION OF THE DEPARTMENT

To strive to become centre of excellence in Education, Research with moral, ethical values and serve society.

MISSION OF THE DEPARTMENT

- M1:** To provide Electronics & Communication Engineering knowledge for successful career either in industry or research.
- M2:** To develop Industry-Interaction for innovation, product oriented research and development.
- M3:** To facilitate value added education combined with hands-on trainings.

The Role of Computers and Electronics in Agriculture

In recent years, the agricultural sector has seen a significant transformation with the integration of computers and electronics in Agriculture practices. These technological advancements have revolutionized the way crops are grown, livestock is managed, and resources are utilized in the agricultural industry. In this article, we will delve into the impact of computers and electronics on modern agriculture, exploring the benefits, challenges, and diverse perspectives surrounding this technological evolution.



Technological Advancements in Agriculture:

Precision Agriculture:

One of the key applications of computers and electronics in agriculture is precision farming. This approach involves using data analytics, GPS technology, and sensors to monitor and optimize crop production. By collecting and analyzing data on soil conditions, weather patterns, and crop health, farmers can make informed decisions on irrigation, fertilization, and pest control, leading to increased yields and resource efficiency.

Automated Machinery:

The introduction of automated machinery and robotics in agriculture has streamlined farming operations and reduced labor costs. Self-driving tractors, drones, and robotic harvesters equipped with sensors and cameras can perform tasks like planting, spraying, and harvesting with precision and efficiency. This automation not only increases productivity but also minimizes the impact of human error on crop management.

Smart Farming Systems:

The development of smart farming systems that integrate Internet of Things (IoT) devices and cloud ..Continued in Pg. 2

Consultancy Projects

To study the Circuitry of the Signal Simulator, Assessment and Fault diagnosis of the System, Repair the damaged circuits and components, Validation and Integration of all components, and Final Testing.

Amount: 22,000/-. 16th May 2023 - 30th June 2023. Completed successfully

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

PEO1: Apply the knowledge of Basic sciences and Engineering in designing and implementing the solutions in emerging areas of Electronics and Communication Engineering.

PEO2: Pursue the research or higher education and practise profession.

PEO3: Adapt to the technological advancements for providing the sustainable engineering solutions to meet organisation/society needs.

PEO4: Work as an individual or in a team with professional ethics and values.

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1: Professional Competence: Apply the knowledge of Electronics & Communication Engineering principles in VLSI, Signal processing, Communication, Embedded system & Control Engineering.

PSO2: Technical Skills: Design and implement products using the cutting-edge software and hardware tools.

PSO3: Social consciousness: Demonstrate the leadership qualities and strive for the betterment of organization, environment and society.

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computing has enabled real-time monitoring and control of agricultural processes. Farmers can remotely monitor soil moisture levels, temperature, and crop growth using mobile applications and make adjustments to optimize production. This connectivity enhances decision-making and responsiveness to changing environmental conditions.

Diverse Perspectives on Technology in Agriculture:

While the adoption of computers and electronics in agriculture has brought about numerous benefits, diverse perspectives on the impact of technology persist. Some view these advancements as essential for meeting the growing global food demand and improving agricultural sustainability. Others raise concerns about data privacy, cybersecurity risks, and the digital divide among farmers with varying access to technology. Additionally, critics caution against overreliance on technology, emphasizing the need to balance innovation with traditional farming practices.

Conclusion:

Computers and electronics have revolutionized the agricultural industry, offering farmers advanced tools to enhance productivity, optimize resource management, and address environmental challenges. As technology continues to evolve, it is crucial for stakeholders to consider diverse perspectives and collaborate on strategies that harness the full potential of digital innovation while addressing the social, economic, and ethical implications of technology-driven agriculture.

What are Opportunities for Electronics and Communication Engineers?

According to The Bureau of Labour Statistics, ECE engineers will have a 7 percent year-on-year demand. The recruitment figures will reach over 345,800 by 2026, which is a massive number and a reason enough for aspiring engineers to pursue a career in ECE.

Job Opportunities for Electronics and Communication Engineers in the Government Sector

Public service companies recruit electronics and communication engineers based on written examinations, GPAs, and skills. The standard job profile is that of a technician, and the organisations that hire include BSNL, MTNL, ISRO, DRO, and ONGC.

FDP/ Workshops Attended

Dr. Srinivasa Baba VSSN IEEE workshop Signal Processing society ICAASSP -2025 SATELLITE EVENT SERIES HYDERABAD IEEE International Conference on Acoustics, Speech and Signal Processing Satellite Event 2nd April 2024, Hyderabad

Mr. I Poorna Chander IEEE workshop Signal Processing society ICAASSP -2025 SATELLITE EVENT SERIES HYDERABAD IEEE International Conference on Acoustics, Speech and Signal Processing Satellite Event 2nd April 2024 Hyderabad