



One Week Workshop
on
“Green Skills & Artificial Intelligence”
under the Skills4Future Program GKS




Introduction

The Electrical Engineering Department of Government Engineering College, Valsad, in collaboration with Edunet Foundation and the Training & Placement Cell, GEC Valsad, organized a one-week workshop on “AI and Green Skills (Breadth Model) – Industry Collaboration Training” from 4th to 8th August 2025. The workshop aimed to provide participants with essential skills in Artificial Intelligence, Machine Learning, and Sustainable Practices, equipping them with practical knowledge relevant to modern green technology applications.


Workshop Overview



The workshop combined theory and hands-on sessions to ensure practical understanding of key concepts. Participants engaged in activities covering foundational sustainability concepts, Python programming for data analysis, machine learning algorithms, deep learning fundamentals, computer vision applications for green technology, generative AI, and deployment of AI models.




Government Engineering College Valsad

Electrical Engineering Department





A one Week Foundation Course
on



“Green Skills & Artificial Intelligence”

under the Skills4Future Program GKS

04-08-2025 to 08-08-2025

Organized under the banner of
Training & Placement Cell GEC Valsad and SSIP 2.0 Cell GEC Valsad

Event Coordinators

Prof. D. N. Tandel (TPO E.E.D)	Prof. H. N. Zala (HoD, E.E.D)	Prof. S. T. Patel (TPO, GECV)
Prof. D. C. Parmar (Asst. Prof. EED)	Prof. A. S. Mishal (Asst. Prof. EED)	Dr. K. L. Mokariya
Prof. J. D. Patel (Asst. Prof. EED)	Prof. C. D. Thakore (Asst. Prof. EED)	(SSIP 2.0 Coordinator)

Patron

Dr. V. D Dhiman
Principal
GEC Valsad



Summary of Sessions

- Unit 1: Foundation of Green Skilling, Sustainability, and AI Contributions – Concepts of environmental awareness, sustainable practices, and the role of AI in green technology.
- Unit 2: Python Programming – Basics of Python, data types, control structures, data analysis using Pandas and NumPy, and data visualization with Matplotlib.
- Unit 3: Machine Learning – Supervised and unsupervised learning techniques, model evaluation, and applications in renewable energy.
- Unit 4: Deep Learning – Neural network basics, activation functions, and use of frameworks like TensorFlow and Keras.
- Unit 5: Computer Vision – Applications such as forest fire detection and waste sorting using OpenCV.
- Unit 6: Generative AI – Introduction to generative models and applications like ChatGPT.
- Unit 7: Model Deployment – Building and deploying AI models using Streamlit and GitHub.
- Unit 8: AI Ethics – Ensuring fairness, transparency, and sustainability in AI systems.

Outcomes

The participants gained knowledge and practical skills in programming, data handling, AI model development, and deployment, along with an understanding of sustainable practices and the ethical implications of AI technologies. This workshop enhanced their readiness for careers in emerging green technology sectors.

Conclusion

The one-week workshop successfully achieved its objectives by equipping students with both theoretical knowledge and practical skills in AI and green technologies. The collaborative effort between GEC Valsad, Edunet Foundation, and the Training & Placement Cell provided a platform for students to engage with industry-relevant tools and methodologies, preparing them for future opportunities in sustainable technology domains.