# EDV

#### Extending Equity into the Digital Workforce

Why IT- Renewable Energy

Proficiency in IT opens up diverse career opportunities in the growing field of renewable energy, including roles in data analysis, software development, system integration, and research.

#### 1 Data Analysis

IT courses can teach students how to analyze data collected from renewable energy sources, helping them understand patterns and optimize energy production.

# 2 Simulation and Modeling

IT skills enable students to create simulations and models to predict the performance of renewable energy systems under various conditions.

## 3 Remote Monitoring

IT knowledge allows students to set up remote monitoring systems for renewable energy installations, enabling real-time data collection and analysis.

### 4 Programming Skills

Learning programming languages like Python can help students develop software to control and manage renewable energy systems efficiently.

### 5 IoT Integration

IT courses teach students how to integrate renewable energy systems with Internet of Things (IoT) devices for enhanced monitoring and control.

#### 6 Cybersecurity Awareness

Understanding IT security is crucial for protecting renewable energy systems from cyber threats and ensuring their reliability and safety.

### 7 Cloud Computing

Knowledge of cloud computing enables students to store and analyze large amounts of data generated by renewable energy systems more efficiently.

### 8 Big Data Analytics

IT skills empower students to apply big data analytics techniques to extract valuable insights from renewable energy data for improved decision-making.

# **GIS** Applications

Geographic Information Systems (GIS) skills can be valuable for mapping renewable energy resources and planning their optimal utilization.

# 10 Automation

IT courses teach students how to automate processes in renewable energy systems, increasing efficiency and reducing operational costs.

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