



Achievements/ Impacts of Energy Conservation Measures, Management of degradable and nondegradable waste, Water Conservation Measures and Green Campus Initiatives.

| Sr. | Details  | Reference<br>(Page Numbers) | Proof                |
|-----|--|-----------------------------|----------------------|
| 1   | 1 Activity: Tree Plantation  | 1 Certificate Report        | Harith Sena          |
| 1.  | T.Activity. Tree Flantation  | Page No-1                   | Certificate          |
|     | 2. Action Taken: Regularly perform Tree Plantation   |                             |                      |
|     | Activity near Kalamba Lake and nearby places.  |                             |                      |
|     | <b>3.Impact/</b> Achievement: Received "Maharashtra  |                             |                      |
|     | Haritsena" member certificate from the government of   |                             |                      |
|     | Maharashtra, upon planting 300 trees near Kalamba  |                             |                      |
|     | Lake.  |                             |                      |
| 2.  | 1.Activity: Ban on Single-use Plastics:  | 1. Action Taken             | 1. <u>Action</u>     |
|     |  | Report.                     | <u>Taken</u>         |
|     | <b>2.</b> Action Taken: Implemented a ban on single-use plastics to reduce waste and environmental impact. | Page No-03                  | Report.              |
|     |  | 2. Single use plastic       | 2. Single use        |
|     | <b>3.Impact/ Achievement:</b> The positive impact of the ban   | ban policy-                 | plastic ban          |
|     | on single-use plastics is evident, as the composition of   | Page No-2-4                 | policy.              |
|     | plastic waste found in dust bins for the year 2022-23 has  |                             |                      |
|     | significantly decreased to 21% (Environment Audit  | 3.Audit Report              | 3. <u>Audit</u>      |
|     | Report 2022-23), compared to the previous year 2021-   | 2021-22.                    | <u>report- 2021-</u> |
|     | 22, where it stood at 41% (Environment Audit Report  | Page No-19                  | <u>22</u>            |
|     | 2021-22). This substantial reduction underscores the   |                             |                      |
|     | success of our sustainability efforts in minimizing the  | 4.Audit Report              | 4. <u>Audit</u>      |
|     | presence of single-use plastics within our campus,   | 2022-23                     | <u>Report-22-23</u>  |
|     | promoting a cleaner and more eco-conscious   | Page No-20.                 |                      |
|     | environment.   |                             |                      |
| 3   | 1.Activity: Landscaping with trees and plants  | 1. Action Taken             | 1. <u>Action</u>     |
|     |  | Report.                     | Taken                |
|     | 2. Action Taken: Enhanced campus greenery through  | Page No-04                  | <u>Report.</u>       |
|     | landscaping efforts.   |                             |                      |
|     | 3. Imnact/ Achievement:  | 2 Audit Report              | 2. Audit             |
|     | A notable positive impact of our sustainability  | 2021-22                     | report- 2021-        |
|     | initiatives is the increase in tree planting from 2021-22  | Page No-37.                 | 22                   |
|     | to 2022-23. For instance, in the case of Tecoma fulva  |                             |                      |
|     | chicklet plants, the count has risen from 28 to 30. This   | 3.Audit Report              | 3. Audit             |
|     | growth exemplifies our commitment to enhancing   | 2022-23                     | Report-22-23         |
|     | greenery within the campus and fostering a more  | Page No-35.                 |                      |

Approved by AICTE (New Delhi), Govt. of Maharashtra, DTE Mumbai and Affiliated to Shivaji University

t Ph.: 0231 - 2320914 e dype472.ec@unishivaji.ac.in

w coes.dypgroup.edu.in



a Dr. D. Y. Patil Pratishthan's COLLEGE OF ENGINEERING 865, 'A' Ward, Salokhenagar, Kolhapur - Maharashtra India. 416007

Dr. D. Y. Patil Pratishthan's COLLEGE OF ENGINEERING



Salokhenagar, Kolhapur - 416007

|   | environmentally friendly and sustainable environment<br>for all. So, in the fiscal year 2021-22, our carbon<br>sequestration efforts successfully captured 24,789 kg of<br>CO2, demonstrating our dedication to reducing carbon<br>emissions. Moreover, in the subsequent year, 2022-23,<br>our impact has further improved, with a total of 26,140<br>kg of CO <sub>2</sub> sequestered. These achievements showcase<br>our continuous commitment to enhancing environmental<br>sustainability and our positive contribution to mitigating<br>climate change through increased carbon sequestration<br>efforts. | 4. Green Campus<br>Initiatives Report<br>Page No-23-26                               | <u>4. Green</u><br><u>Campus</u><br><u>Initiatives</u> |
|---|--|--|--|
| 4 | 1.Activity: "NO Vehicle Day"   | 1. Action Taken  | 1. <u>Action</u>                                       |
|   | <b>2. Action Taken: Observance of ''No Vehicle Day'':</b><br>Promoted "NO Vehicle Day" on the second Saturday of each month to reduce carbon emissions   | Report.<br>Page No-02  | <u>Taken</u><br><u>Report.</u>                         |
|   | each month to reduce carbon emissions.   | 4. Green Campus  |  |
|   | 3.Impact/ Achievement:   | Initiatives Report   | 4. Green   |
|   | The institution has reduced its carbon footprint by  | Page No-07-08  | Campus   |
|   | implementing energy-efficient measures, promoting  |  | Initiatives  |
|   | electric vehicle usage, and observing "No Vehicle Day."  |  |  |
| 5 | <ul> <li>1.Activity: Awareness Programs</li> <li>2. Action Taken: <ul> <li>Street Play- "Plastic Free Campus Awareness"</li> <li>World Bicycle Day Celebration</li> <li>"Breathing Farth" Event</li> </ul> </li> </ul>   | <ol> <li>Action Taken<br/>Report.<br/>Page No-02-03</li> <li>Green Campus</li> </ol> | 1. <u>Action</u><br><u>Taken</u><br><u>Report.</u>     |
|   | Dieutining Euron Diente.   | Initiatives Report   | 4. Green   |
|   | <b>3.Impact/ Achievement:</b><br>Students have become more conscious of the harmful effects of plastic pollution on the environment, hence are conducted and participated in awareness programs like- Street play on "Plastic Free awareness Program and Breathing Earth. The engagement of students in these programs, has yielded significant positive outcomes. These initiatives have led to increased awareness of the harmful effects of plastic pollution among students, resulting in tangible changes in behavior, advocacy for sustainability, and a campus-wide impact.                               | Page No-14-21  | <u>Campus</u><br><u>Initiatives</u>                    |
| 6 | 1.Activity: Charging Points for Electric Vehicles  | 1. Action Taken  | 1. <u>Action</u>                                       |
|   | <b>2. Action Taken:</b><br>Installed charging points to promote the use of electric vehicles.  | Report.<br>Page No-02  | <u>Taken</u><br><u>Report.</u>                         |

Approved by AICTE (New Delhi), Govt. of Maharashtra, DTE Mumbai and Affiliated to Shivaji University

s **t** Ph. : 0231 - 2320914

e dype472.ec@unishivaji.ac.in



a Dr. D. Y. Patil Pratishthan's COLLEGE OF ENGINEERING 865, 'A' Ward, Salokhenagar, Kolhapur - Maharashtra India. 416007

w coes.dypgroup.edu.in

Dr. D. Y. Patil Pratishthan's COLLEGE OF ENGINEERING



Salokhenagar, Kolhapur - 416007

| _ |   | 4 9 9              |                    |
|---|---|--------------------|--------------------|
|   |   | 4. Green Campus    |                    |
|   | 3.Impact/ Achievement:                                      | Initiatives Report | <u>4. Green</u>    |
|   | Staff members have been motivated to use electric           | Page No-05-06      | <u>Campus</u>      |
|   | vehicles, with the number of users increasing ,             |                    | <u>Initiatives</u> |
|   | contributing to reduced emissions                           |                    |                    |
| 7 | 1.Activity: E- Waste Management                             | E- Waste           |                    |
|   |   | Management Report  |                    |
|   | 2. Action Taken:  | Page No-04-10      | E- Waste           |
|   | We annually deliver e-scrap materials (monitors,            | -                  | Management         |
|   | keyboards, mice, cables, etc.) to authorized agencies for   |                    | Report             |
|   | eco-friendly recycling and repurposing. This minimizes      |                    |                    |
|   | the environmental impact of electronic waste, promoting     |                    |                    |
|   | sustainability.   |                    |                    |
|   |   |                    |                    |
|   | <b>3.Impact</b> / Achievement: The institution's commitment |                    |                    |
|   | to E-Waste Management is commendable. By annually           |                    |                    |
|   | delivering e-scrap materials such as monitors               |                    |                    |
|   | keyboards mice and cables to authorized agencies for        |                    |                    |
|   | eco-friendly recycling and repurposing the institution      |                    |                    |
|   | has made a significant impact on environmental              |                    |                    |
|   | sustainability. This proactive approach has not only        |                    |                    |
|   | minimized the adverse environmental effects of              |                    |                    |
|   | alastronia wasta but has also germaned recegnition and      |                    |                    |
|   | electronic waste but has also gamered recognition and       |                    |                    |
|   | appreciation from industry leaders such as Sun              |                    |                    |
|   | Software's and infinite 11 Company. Their                   |                    |                    |
|   | acknowledgment in the form of appreciation letters          |                    |                    |
|   | speaks volumes about the institution's dedication to        |                    |                    |
|   | responsible environmental practices. Moreover, this         |                    |                    |
|   | recognition has paved the way for the institution to        |                    |                    |
|   | expand its e-waste recycling efforts, ensuring that         |                    |                    |
|   | electronic materials are managed and processed in an        |                    |                    |
|   | eco-friendly manner.  |                    |                    |
| 8 | 1.Activity: Water Conservation Measures                     |                    |                    |
|   |   |                    | Waste Water        |
|   | 2. Action Taken: Treated Supernatant Water used for         | Water Conservation | <u>Management</u>  |
|   | Gardening.  | Measures Report    |                    |
|   |   | Page No-06         |                    |
|   | 3.Impact/ Achievement:                                      |                    |                    |
|   | In implementing this water conservation and waste           |                    |                    |
|   | water management initiative, the campus has effectively     |                    |                    |
|   | saved approximately 31536000 liters of water annually       |                    |                    |
|   | from gardening which would have otherwise gone to           |                    |                    |
|   | waste. This effort not only promotes responsible            |                    |                    |
|   | resource management but also significantly contributes      |                    |                    |
|   | to the reduction of water wastage in the surrounding        |                    |                    |

Approved by AICTE (New Delhi), Govt. of Maharashtra, DTE Mumbai and Affiliated to Shivaji University

a Dr. D. Y. Patil Pratishthan's COLLEGE OF ENGINEERING 865, 'A' Ward, Salokhenagar, Kolhapur - Maharashtra India. 416007 t Ph.: 0231 - 2320914 e dype472.ec@unishivaji.ac.in



w coes.dypgroup.edu.in

Dr. D. Y. Patil Pratishthan's COLLEGE OF ENGINEERING



Salokhenagar, Kolhapur - 416007

|    | environment.   |                    |                   |
|----|--|--------------------|-------------------|
| 9  | 1.Activity: Water Conservation Measures                          | Water Conservation | Waste Water       |
|    |  | Measures Report    | <b>Management</b> |
|    | 2. Action Taken: Rain Water Harvesting                           | Page No-12         |                   |
|    |  |                    |                   |
|    | 3.Impact/ Achievement:   |                    |                   |
|    | The institution has taken significant steps towards water        |                    |                   |
|    | conservation through the implementation of Rain Water            |                    |                   |
|    | Harvesting measures. Covering a total area of 12,000             |                    |                   |
|    | square feet (approximately 1115 square meters) of                |                    |                   |
|    | roottop, this initiative has proven to be highly effective.      |                    |                   |
|    | In the year 2020, with an average rainfall of 995.3              |                    |                   |
|    | millimeters in Kolhapur City, a remarkable 1,109,759.5           |                    |                   |
|    | liters of rainwater was successfully collected throughout        |                    |                   |
|    | the institution's commitment to sustainable prostions and        |                    |                   |
|    | its contribution to allowisting water contributions in           |                    |                   |
|    | the region making a substantial impact on local water            |                    |                   |
|    | resources preservation   |                    |                   |
| 10 | 1 Activity: Energy Conservation Measures                         |                    | View              |
| 10 | 2. Action Taken:   |                    | Document          |
|    | Sensor-based Solar Street Lamps                                  |                    | Document          |
|    | <ul> <li>Sensor-Based Lighting-Utilization of Passive</li> </ul> |                    |                   |
|    | Infrared Sensor (PIR)  |                    |                   |
|    | • Use of LED Tube lights/bulbs                                   |                    |                   |
|    | • Star Ratings Air Conditioners                                  |                    |                   |
|    | Brushless Direct-Current (BLDC) Motor Fans                       |                    |                   |
|    | - Drusiness Driett Current (DDDC) Motor Funs.                    |                    |                   |
|    | 3. Impact/ Achievement:  |                    |                   |
|    | The institute has been experiencing remarkable growth,           |                    |                   |
|    | with the student population surging from 565 in 2018 to          |                    |                   |
|    | 1185 in 2022-23. This expansion has posed a significant          |                    |                   |
|    | challenge for energy consumption. However, the                   |                    |                   |
|    | institute has demonstrated a proactive commitment to             |                    |                   |
|    | sustainability through the installation of various energy        |                    |                   |
|    | conservation measures. These measures include the                |                    |                   |
|    | adoption of LED lights, BLDC fans, solar street lamps,           |                    |                   |
|    | sensor-based lighting systems, and high-efficiency air           |                    |                   |
|    | conditioners. Despite the growing intrastructure                 |                    |                   |
|    | required to meet the demands of the increased student            |                    |                   |
|    | body, the institute has effectively managed its electricity      |                    |                   |
|    | which reveal a noteworthy reduction in ner conits                |                    |                   |
|    | electricity consumption of a consumer dropping from              |                    |                   |
|    | 41.3 kWh to 28.8 kWh over the past three years. This             |                    |                   |
| l  | TI. KITH W 20.0 KITH OVEL THE PAST THEE YEARS. THIS              | l                  |                   |

Approved by AICTE (New Delhi), Govt. of Maharashtra, DTE Mumbai and Affiliated to Shivaji University

t Ph.: 0231 - 2320914 e dype472.ec@unishivaji.ac.in

w coes.dypgroup.edu.in



a Dr. D. Y. Patil Pratishthan's COLLEGE OF ENGINEERING 865, 'A' Ward, Salokhenagar, Kolhapur - Maharashtra India. 416007





Salokhenagar, Kolhapur - 416007

| efficiency | cost savings, and   | a greener, n | ore sus | tainable |
|------------|---------------------|--------------|---------|----------|
| future.    | , cost su ings, and |              |         |          |
|            |                     |              |         |          |
| 4 37       |                     |              | D       | a        |

| A.Y     | Approximate       | Average   | Per Capita  |
|---------|-------------------|-----------|-------------|
|         | Consumers         | Energy    | Energy      |
|         | (Students,        | Consumed  | Consumption |
|         | Staff & Visitors) | Annually  |             |
| 2020-21 | 935               | 38628 kWh | 41.3 kWh    |
| 2021-22 | 1166              | 43380 kWh | 37.2 kWh    |
| 2022-23 | 1284              | 36984 kWh | 28.8 kWh    |

Approved by AICTE (New Delhi), Govt. of Maharashtra, DTE Mumbai and Affiliated to Shivaji University



a Dr. D. Y. Patil Pratishthan's COLLEGE OF ENGINEERING 865, 'A' Ward, Salokhenagar, Kolhapur - Maharashtra India. 416007 t Ph.: 0231 - 2320914 e dype472.ec@unishivaji.ac.in

w coes.dypgroup.edu.in