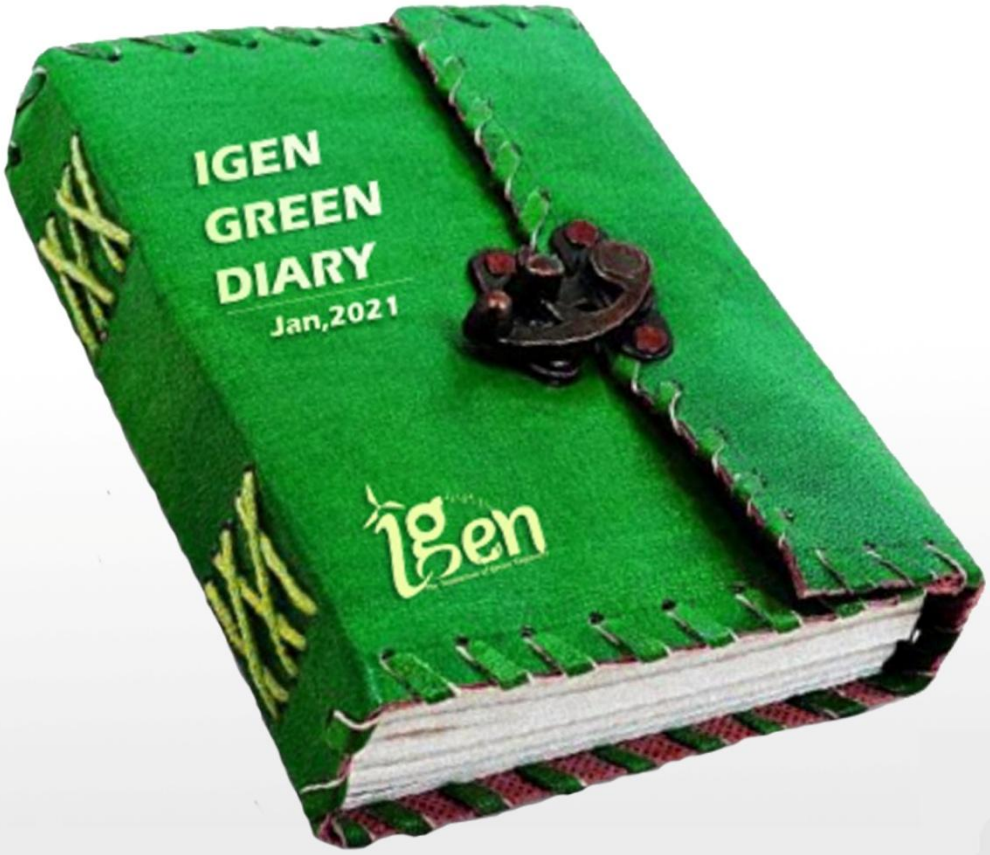
The Institution of Green Engineers

IGEN GREEN DIARY 2021



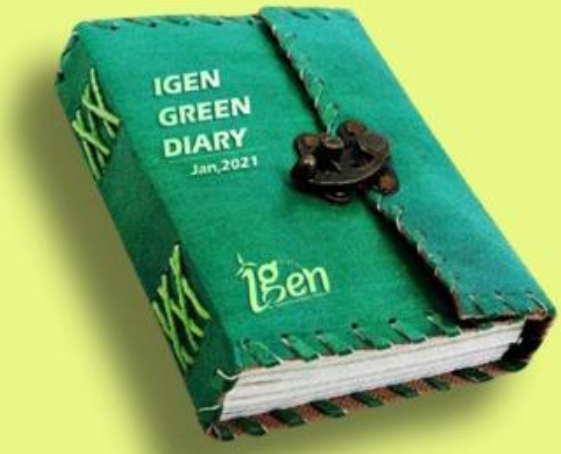
IGEN GREEN DIARY 2021

[Bridge to connect all GREEN Contributors across the Globe]

Launched on

JAN 01st | FRI 2021

@ 06.30pm



Chief Guest

Dr. S. Gomathinayagam
Former Director
National Institute of Wind Energy
Board of Advisor IGEN

Watch Live on https://www.youtube.com/c/IGENSDGplus

Any queries contact
Dr. Mohana Sundaram (IGEN - Director Publication) - +91 960 004 7399

THE INSTITUTION OF GREEN ENGINEERS (IGEN)

www.theigen.org

INDEX

The Institution of Green Engineers

Dr. S. Kanmani

KPR Institute of Engineering and Technology, Coimbatore

IGEN/GD21/C01

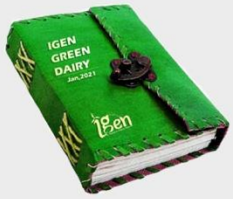
IGEN GREEN DIARY 2021

Contribution of UN SDG Goals: 6, 7, 9 & 11

Smart Grey Water Mgmt. System for Apartments

Abstract: Grey water is a wastewater (approximately 80% of fresh water consumption) without any contribution from toilet water. Grey water has high volume, low concentration of pollutants such as Soap, Detergents, Human bathing water, Food Particles, Oils, Fats and Cleaning Products. This grey water can be reused after on-site treatment. The major issues with grey water reuse are a). Public health perceptions and b). Current status of inappropriate technology. The aim of this proposal is to develop a smart system for the treatment of grey water. The current proposal aims to use grey water from an apartment building. This not only results in water conservation but also reduces the load to the city sewage treatment plants. The grey water is subjected to two stages of treatment in series after collection namely a). biological treatment and b). disinfection. The collected grey water is treated using mixed culture bacteria isolated from the grey water. Sensors are placed in appropriate locations for ensuring the smart process such as monitoring the quantity of flow and progression of each process.

Project Picture



Outcome of the Work

To optimize the usage of 65% of fresh water and to reduce the load on city sewage treatment plant

65% reduction was observed in the BOD removal in the treated grey water

40 % efficiency was obtained in the COD removal

Reduction in TDS was observed as 40% in the treated grey water

To make the system into sustainability approach by saving water

Nominator

Dr. G. Anusha, Dept. Head / Civil Engineering, KPRIET

The Institution of Green Engineers

Dr. S. Sambath

TNEB Mannargudi

IGEN/GD21/C02

IGEN GREEN DIARY 2021

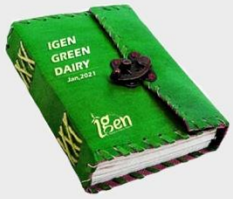
Contribution of UN SDG Goals: 7 & 13

Implementation of Energy saving @ 225 Agriculture pumpsets

Abstract: As to reduce energy demand and losses in agriculture pumpsets, I started promoting energy saving tips by a short film written and acted by me and posted in youtube channel and social medias and also contacted the farmers directly in villages and educate the necessity of energy savings in pumpsets.

The project started in the month of January in the year 2020 and created awareness with 400 pumpsets about using of started Energy Efficiency motors Installation of required capacity of capacitors in their pumpsets and avoid local rewinding motors. I had visited 300 farmers pumpsets and presented them about the importance of energy conservation and reduction of losses, electrical safety, Energy audit. After the visit, I insisted them with the help of my Energy savings short film to implement the above 3 techniques to save 3 units per day per service. It continued with the regular monitoring, visit and suggestion through phones and SMS. It had good result, when I visited after four months and measured the implementation they did and how they got reduction of losses and saved the Units. It was observed that 225 farmer simple mended the concept and got fruitful outcome, which is presented below.

Project Picture



Outcome of the Work

225 farmers successfully implemented the 3 Energy saving techniques in their pumpsets

Morethan 350 viewers seen my Energy conservation short film in the youtube *https://youtu.be/m7YaANShTPQ*

1,42,350 Unit saved/Annum towards 130 pumpsets

69,350 Unit Saved/Annum towards 95 pumpsets.

2,68,859 kg of Co2 Saved towards energy Saving

Nominator

Er.A.Senguttuvan, AEE Rural TNEB Mannargudi

Green Contributors towards UN SDG Goals

The Institution of Green Engineers

Karpagam College of Engineering

IGEN/GD21/C03

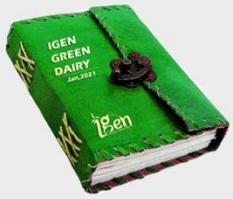
IGEN GREEN DIARY 2021

Contribution of UN SDG Goals: 3, 4, 6, 7 & 9

Implementation of ECO-FRIENDLY CAMPUS at KCE

The team of Karpagam college of engineering work within the framework of an environmental policy like Environmental best practices and their institutionalization, Prevention of pollution, Environmental management systems and their implementation, A clear communication of our commitment to environmental protection and sustainable development, Promotion of education, research and information exchange related to environmental protection, Using LED light bulbs, Solar panels, Use of electric vehicles, Water-usage control, Use of reusable plates and wash cups are encouraged. Vehicle access is prohibited inside the entire campus. The concrete steps which we take to actually make these policies work on the ground in KCE campus are solid waste management, wastewater management, rain water harvesting, energy conservation, use of renewable energy, Eco Care club, NSS team and Vidiyalai Nokki (student volunteers) team are jointly taking greater efforts for tree plantation and campus cleaning periodically inside and outside the campus. KCE allowed the out vendors to collect the food waste and vegetable waste for the livestock farm and it is being used as fodder. The manure collected from the farm is being used for organic gardening. Thus, the campus strives to work towards zero waste. KCE s energy is partly generated right here at our own solar power plant located on roof top of Admin block in campus. The plant produces electricity by solar panels. Greening the energy supply is a key consideration in KCEs Energy Plan. Most of KCEs potable water as much of groundwater supply. KCE installed a new reclaimed-water plant and rainwater harvesting are providing recycled water for toilet flushing and gardening purposes. Approximately 85% of the KCE s irrigation water comes from Sewage Treatment Plant of the campus

Project Picture



Outcome of the Work

Off-grid solar photo voltaic systems up to a maximum capacity of 100 kWp

Implemented Solar driven LED streetlights to avoid hassles of digging, lying down of cable wires .

No permission for Automobiles inside the campus to keep the campus pollution free.

Approximately 85% of KCEâ€™s irrigation water comes from Sewage Treatment Plant

Formation of Eco care club- made the students to keep their surrounding green and clean by undertaking plantation of trees source separation of waste and

Nominator

Dr. P. Vijayakumar, Principal, KCE

Green Contributors towards UN SDG Goals

The Institution of Green Engineers

Er. S. Saiprassanna

Aram Anbin Adaiyalam Trust, Trichy

IGEN/GD21/C04

IGEN GREEN DIARY 2021

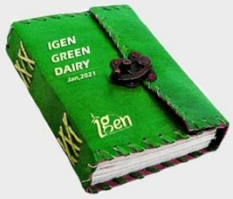
Contribution of UN SDG Goals: 13

Add Greeny to the Society

Abstract:

Aram Anbin Adaiyalam Trust focus to provide activities for Education, Medical and Social assistance to all children, needy and Relief to weaker section, physically and mentally challenged. As a part of Trust, aspecial Project - "Add Greeny to the Society" (Tree Plantation) has been initiated and planted about 300 Tree samplings in and around Salem and Mettur in the last 6 months. In this project, not only planting trees but also ensure proper supply of water.

Project Picture



Outcome of the Work

300 Trees samplings in Mettur and Salem

Created Awareness to 50 children to plant more trees.

Reduces amount of storm water runoff.

Improve the air quality by filtering harmfully dust.

Reduced almost 350kg of C02 emission.

Nominator

Mrs. R. Navetha , Founder and Managing Trustee,
Aram Anbin Adaiyalam Trust, Trichy.

Green Contributors towards UN SDG Goals

The Institution of Green Engineers

Richard Wan KumWah

VVM Enterprise (Singapore)

IGEN/GD21/C05

IGEN GREEN DIARY 2021

Contribution of UN SDG Goals: 4, 11, 13 & 17

Save Planet Earth

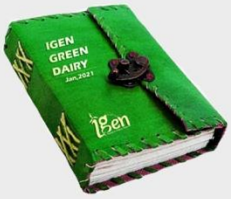
Abstract:

Richard Wan is a songwriter and animation producer since 1984. He has produced hundreds of educational song and educational videos for school children. The objective of children songs is to promote understanding of our living environment when children really need to learn to embrace other people and cultures through language and develop a sense of being a citizen of a global community. Children are not aware what is environmental threat and the purpose of protection and necessary measures. He looks at character development aspects and also values-in-action part, where and how good educational videos can be produced in understanding climate changes and protecting the living environment for the younger generations to impact communities. His works have been supported by Ministry of Education and his videos have become important educational materials among little children at all schools.

Project Picture

Geylang Methodist School (Primary) Yangzheng Primary School Angsana Primary School

ng Raja Majapahit at Mancawarna Palace Tampaksiring conferred Cihna Dalem award to Ric an



Outcome of the Work

Save Planet Earth" bagged the Best International Environmental Practice Award in Green Apple Organization Campaign 2020

As an educational teaching materials for preschools and Primary Schools (under Singapore Ministry of Education) in Singapore and many parts of the world / Singapore television broadcasters (StarHub TV and MediaCorp) are featuring his MTVs on air and the viewership rating is high

Commercial children album featuring this song has been launched since September 2020 and has been well-received

It has become important public reading materials for National libraries in Singapore (please read attachment on IGEN Green Diary writeup for more detail)

Featured on Youtube and Facebook.

Nominator

Green Apple Organization

Green Contributors towards UN SDG Goals

The Institution of Green Engineers

Dr. Murugananth Gopal Raj

Ahalia School of Engineering and Technology

IGEN/GD21/C06

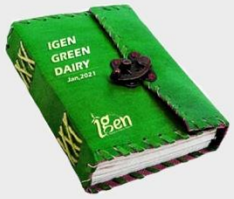
IGEN GREEN DIARY 2021

Contribution of UN SDG Goals: 7 & 13

Energy Conservation Measures Implementation in Domestic & industrial Sectors

Abstract: Instrumental to inaugurate ASET Green 9 ENSAV club at Ahalia School of Engineering & Technology, Palakkad and Veda Vyasa Institute of Technology, Malappuram. Created energy conservation awareness and taught the measures among family members in get together functions. Installed solar water heater and thereby reduced energy consumption at my home. organizedprogrammes for public in and around Ahalia campus. The programmes include walkathon, signature campaigns and awareness creation talks. Through these programmes promoted Green 9 Mantras for energy conservation. Delivered webinar though ASA, Govt. of Kerala and addressed on Green 9 Mantras to the public. Conuducted energy audit at various industries and institutions

Project Picture



Outcome of the Work

Savings of Rs. 500/- and above was achieved after the installation of Solar Water Heater in my home.

Achieved savings of Rs. 2000/- including electricity bill and labour cost at Nirmala College of Arts & Science

Installed PIR based lighting system at Manjilas Food Tech Pvt. Ltd., Pollachi and achieved energy savings of Rs. 300/- bimonthly

Achieved energy savings of 1200 Units per annum at Ahalia Medicine Manufacturing Unit

Developed PIR based LED light system through students and sold at low cost of Rs. 75/- per product.

Nominator

Mr. A. Manickavasagam, Coordinator, ASET Green 9 ENSAV Club

Green Contributors towards UN SDG Goals

The Institution of Green Engineers

Dr. K. Dhayalini

K.Ramakrishnan College of Engineering, Tiruchirappalli

IGEN/GD21/C07

IGEN GREEN DIARY 2021

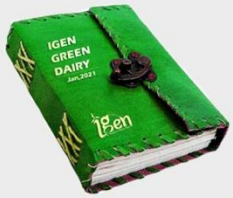
Contribution of UN SDG Goals: 7

Implementation of Energy Saving and Energy audit

Abstract: As an initiative to contribute to United Nation sustainable development goals energy saving awareness tips was done and given to the student and faculty community of our institution. Green 9 mantra posters to save one unit per day were distributed to the faculty members and students of our college before lockdown. The importance of energy conservation and electrical safety rules are educated to the students and faculty community. In order to educate the energy saving, energy audit was carried out using power quality analyser in the college by a team of students under my guidance. In order to start with the sketch of our five floor institutional building was made and load details of each floor was calculated. After listing the overall connected loads in KRCE buildings was calculated. The best way to check out for the higher degree of power consumption is through discriminating the usage in a floorwise manner. With the clear data of floorwise calculation, the power consumption was evidently analyzed and the proper measures of conservation are implemented.

This work deals with the calculation and analysis of energy utilized by various electrical gadgets in the premises of K. Ramakrishnan College of Engineering academic building. Through analysis the highest energy consumption floor in KRCE Academic building is SECOND floor. The main reason for energy consumption is due to the presence of 526 numbers of personal computers and 34 numbers of air conditioners. The energy consumption can be reduced by implementing several changes such as replacing conventional lamps with LED lamps, replacing conventional fan with BLDC fan with remote control. The conventional fan can also be placed with electronic regulators. Motion sensors can be placed in corridors. By switching off the power button when the computer is not in use. Proper cleaning of air conditions can be maintained.The overall power consumption with this existing system

Project Picture



Outcome of the Work

Created Energy Saving Awareness with student and faculty members approximately around 650 members.

Implemented the nine green mantras in the college building and also in the houses of the faculty and student members.

Total energy consumption was calculated by performing energy audit and power saving was calculated as 70.611KWh at our institution

Present electricity bill amount of a month can be paid approximately for three months if the suggested measures are implemented.

16.45kg of CO_2 saved.

Nominator

Dr. D. Srinivasan, Principal, KRCE

The Institution of Green Engineers

G Pirakathiswaran

Prathyusha Engineering College

IGEN/GD21/C08

IGEN GREEN DIARY 2021

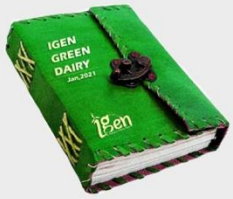
Contribution of UN SDG Goals: 3

Internship Programme on Rural Community

Abstract:

We Prathyusha engineering college have conducted Swachh bharath internship programme on rural community in association with government of India, In which we created awareness among the people of adopted village, papparampakkam about the health and cleanliness such as open defecation ill effects, avoiding plastic usage, cleaned pond and water logged area, about water resource management, educated the school children about proper sanitation.

Project Picture



Outcome of the Work

Cleaned 2 pond in adopted village in association with Tiruvallur block Development officer

20 students volunteers disposed plastic wastes and cleaned water logged in adopted village

10 numbers of newly constructed building with rain water harvesting plant.

20 students volunteers educated school students on open defecation, sanitation, cleanliness and tree plantation

A rally conducted with 50 student volunteers and 50 school children of adopted village to "save water"

Nominator

Dr. P L N Ramesh, Principal, PEC

The Institution of Green Engineers

Ms. K.Uma

Prathyusha Engineering College

IGEN/GD21/C09

IGEN GREEN DIARY 2021

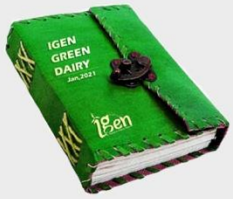
Contribution of UN SDG Goals: 3, 4 & 11

Internship programme on rural community

Abstract:

A great initiative taken to create awareness on the Impacts of plastic and to make our environment free from pollution. This workshop was organized as a part of SWACHH BHARAT. Many number of students ware participated in Seminars, Essay Competitions, and many activities. And also we highlighted about the various health hazards posed by the use of single use plastics and the importance to look for other alternatives which can help in making the use of plastics viable and safe for the environment. Workshop was arranged to promote the usage of Palm plates and Jute bags to control the Plastic pollution. Many number of students were educated about the Eco friendly alternatives to protect our environment Clean and Green.

Project Picture



Outcome of the Work

120 number of students were educated about the impacts of Plastics.

200 Kgs of plastics were removed from the college campus and created awareness on Eco friendly alternatives for Plastics

Students ware turned as Volunteers to eradicate the Plastics in College Campus.

Usage of plastics is drastically reduced day by day

Great impact on students community towards the Clean and Green Environment for Sustainable nature.

Nominator

Dr. P L N Ramesh, Principal, PEC

Green Contributors towards UN SDG Goals

The Institution of Green Engineers

Dr. M. Mary Linda

Ponjesly College of Engineering

IGEN/GD21/C10

IGEN GREEN DIARY 2021

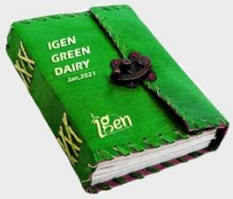
Contribution of UN SDG Goals: 7 & 13

Implementation of Energy Saving in Rural Areas

Abstract:

I started promoting energy saving tips and implemented in group of houses.The project started in the year 2018 and created Energy saving awareness in rural areas about, #green9mantras to save one unit per day at home. I had visited 120 houses and presented them about the importance of energy conservation, electrical safety, wastage audit and basic of electricity. After the visit, I insisted them to implement the 9mantras tips to save energy at home. It continued with the regular monitoring and suggestion through online discussion. It had good result, when I visited after three months and measured the implementation they did and how they got saved the Unit. It was observed that 120 houses implemented the concept. Conducted World Energy Conservation day awareness program on 14th December 2019 at Madathatuvilai.

Project Picture



Outcome of the Work

Created Energy Saving Awareness with 500 members.

3.120 houses successfully implemented 9mantras @ Home

15200 units saved per annum.

Awareness program was conducted in Kanniyakulam village, vadivesvaram, Manakudi and Rajakkamangalam

1.Shyni P Nair and Mary Linda M, An Efficient maximum power point tracking in hybrid solar and wind energy system: A combined MDA-RNN technique, Journal of Intelligent and Fuzzy Systems, Vol 37, No.4, 2019.

2.Sivakumar T.A and Mary Linda M, Improving the dynamic performance of grid connected wind farms using modern UPFC,Microprocessors and microsystems Elsevier, Volume 74, April 2020.

Nominator

Dr. G. Natarajan, Principal, PCE

Green Contributors towards UN SDG Goals

The Institution of Green Engineers

Dhivakar K.V

Dr. M.G.R. Educational and Research Institute

IGEN/GD21/C11

IGEN GREEN DIARY 2021

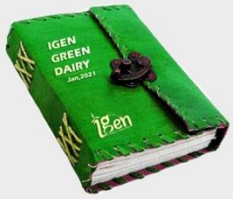
Contribution of UN SDG Goals: 7 & 11

Implementation of Energy Savings @ 130 houses

Abstract:

I Joined GREEN9 Ensav Club in 2018. As very small initiative to reduce energy demand, I started promoting energy saving tips and implemented in group of houses. The project started in the year 2019 and I created awareness with 130 houses about,Green9 mantras to save one unit per day at home. I had visited 130 houses and presented them about the importance of energy conservation, electrical safety, wastage audit and basic of electricity. After the visit, I insisted them to implement the 9mantras tips to save energy at home. It continued with the regular monitoring and suggestion through online discussion. It had good result, when I visited after three months and measured the implementation of their work and how they got saved the Unit. It was observed that 95 houses implemented the concept and got fruitful outcome, whichis presented below.

Project Picture



Outcome of the Work

Created Energy Savings Awareness at more than 130 houses & 95 houses implemented, with 32,000 Unit saved/Annum Towards 95 houses.

Created Energy Awareness green9mantras to more than 2000 students of Avadi government higher secondary school and Moggapair government higher

Distributed 10w LED bulbs to 120 houses in Thirumullaivoyal village and request them to use LED bulbs in there houses.

Created Awareness of Green9mantras to 700 faculty members and 200 members implemented in our University

300 students from thaimugambihai polytechnic college benefited from our energy awareness program

Nominator

Dr. L. Ramesh, FIE, Tiruvallur Local centre, IE (India)

Green Contributors towards UN SDG Goals

The Institution of Green Engineers

Mr. G. Sundararajan

NPR College of Engineering & Technology, Dindigul

IGEN/GD21/C12

IGEN GREEN DIARY 2021

Contribution of UN SDG Goals: 13

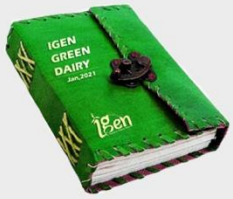
Launch the Green Patch 161 Initiative

Abstract: A mature tree absorbs carbon dioxide at a rate of 48 pounds per year. In view, Launch the Green Patch 161 Initiative saplings were planted in our campus on 02/08/2019 in the presence of the famous Indian Cricketer Mr.RavichandranAshwin in memories of the highest best batting partnership of 161 runs of Dindigul Dragons cricket team in TNPL history in our NPRCET turf cricket ground. Our students staying in the hostel took the responsibility of watering those saplings thereafter, with interest and in turn march towards the awareness of planting trees for protecting the environment.

Bamboo potentially acts as a valuable sink for carbon storage and on an average, one hectare of bamboo absorbs about 17 tons of carbon per year. In connection with that, Bamboo trees were planted in our campus near our Mega Cafeteria. Every year on 5th June, World Environment Day is celebrated in our college. Environmental protection, Air pollution, Tree plantation are the regular topics discussed for creating awareness among students.

The students of third and final year doing projects are regularly encouraged to select topics in environmental domain to find solutions for the issues related to pollution, energy conservation and alternate materials for wood to avoid cutting trees for that purpose.

Project Picture



Outcome of the Work

Created Energy Saving Awareness' with 325 members

130 houses successfully implemented 9mantras @ Home

2280 Unit saved/Annum towards 70 houses

4380 Unit Saved/Annum towards 60 houses

9676.8kg of CO_2 Saved towards energy Saving

Nominator

IGNITE Engg. & NPR College of Engg. & Technology

Green Contributors towards UN SDG Goals

The Institution of Green Engineers

G R K D Satya Prasad

GIET University, Orissa

IGEN/GD21/C13

IGEN GREEN DIARY 2021

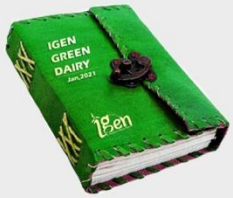
Contribution of UN SDG Goals: 3, 7, 9, 11, 12 & 13

Construction of Zero Energy Building model by implementing sustainable Technologies

Abstract:

Constructed a cost-effective & affordable sustainable Zero Energy building with various passive energy technologies like solar thermal and solar chimney, AAAC bricks, glazing etc.

Project Picture



Outcome of the Work

Adopted the Green and Zero-energy Building technology in the Entire university building and reducing the Energy performance index (EPI) from 375 to 300 EP

Saving of annual electricity bill of entire university with 125kwp Solar Power plant and implanting few innovating approaches generating of 1,87,500 units of power through solar

Using of Solar pump (3Hp) and Wind power plant (3 Kw) and mini-hydro power plant (5 Kw) another saving of 54,750 units of power

Implemented consultancy projects in approximately 250 houses, 12 offices, 5 apartments and an addition of approx. 2 lakh units of power-saving

Training the students through Internships, workshops, case studies, mini projects of around 3000 students as a consultant of Suryabala Energy Solutions Pvt. Ltd.

Nominator

Dr. N V J Rao, Registrar, GIET University, Orissa

The Institution of Green Engineers

Dr. J. Muruganantham

Vivekanandha College of Technology for Women

IGEN/GD21/C14

IGEN GREEN DIARY 2021

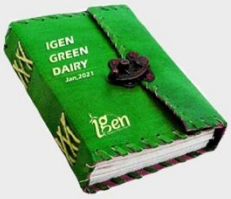
Contribution of UN SDG Goals: 4 & 9

Implementation of High Efficiency E-Bicycle

Abstract:

E-bicycle are the electric motor-powered versions of motorized bicycles. E-bikes use batteries with solar panel and typically travel up to 18 to 20 km/h .An electric bicycle also known as an e-bike. The idea is to make the bicycle last longer and can be automatically recharge when the bicycle is not in use by the renewable solar energy. The concept of the solar energy is that a high torque motor will be put on the bicycle which will be generated by the solar energy. The solar energy will be absorbed by the portable solar panel to generate the power. The power that had been absorbed by the panel can be used directly by the motor if the power matches the power requirement. If not, the motor will use the power from a battery. When the bicycle was not in use during the day, the solar panel will charge battery. The system will make bicycle operate more efficiently.

Project Picture



Outcome of the Work

The Design of E-Bike Trends to Environmentally clean

E Bike with light weight and does not recharge Frequently.

No Noise, No Vibration and Easy Travel

E Bicycle used inside Campus visiting work travel up to 18 to 20 km/h

E bicycle additionally include mobile charger and FM facilities

Nominator

Dr. M. Devi, Principal, VCTW

The Institution of Green Engineers

R. Raja

K. Ramakrishnan College of Engineering, Trichy

IGEN/GD21/C15

IGEN GREEN DIARY 2021

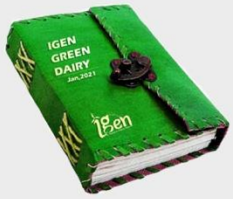
Contribution of UN SDG Goals: 13

Plant Monitor

Abstract:

Plants are the important contributors in balancing the nature and people's lives. Plant monitoring system is designed to monitor parameters which are important for plant growth. It monitors moisture content of soil,atmosphere humidity and temperature of plants. The soil moisture sensor is implanted in the plant. The information about the monitored plant can be seen in the individual webpage using the unique IP address. The data collected from the sensor can be seen in the webpage by using node MCU server. With this, the above parameter of the plants can be found and watered accordingly. The student volunteers worked in this project are Kennedy Infant.S, Viswa Bharathi.S and Roshana.S

Project Picture



Outcome of the Work

10 houses successfully implemented this system in 60 plants

Created awareness for 250 members

It saves plant from decaying because of over watering.

Effectively tracks changes in the plant

Plant life can be prolonged

Nominator

Dr. D. Srinivasan, Principal, KRCE

The Institution of Green Engineers

Dr. B. Gopinath

Vivekanandha College of Technology for Women

IGEN/GD21/C16

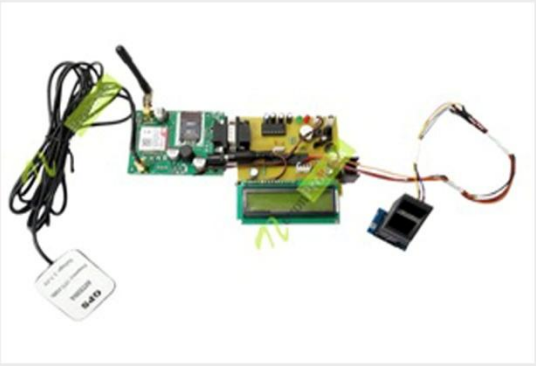
IGEN GREEN DIARY 2021

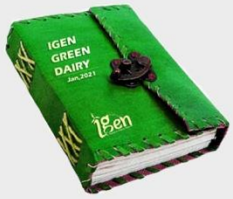
Contribution of UN SDG Goals: 4 & 9

Womens Safety Device with GPS Tracking & Alerts

Abstract: Women's safety is a very important issue due to rising crimes against women these days. To help resolve this issue we propose a GPS based women's safety system with solar powered source that has dual security feature. This device consists of a system that ensures dual alerts in case a woman is harassed or she thinks she is in trouble. This system can be turned on by a woman in case she even thinks she would be in trouble. It is useful because once an incident occurs with a woman she may or may not get the chance to press the emergency button. In a button press alerting system, in case a woman is hit on the head from behind, she may never get the chance to press panic button and no one will know she is in trouble. Our system solves this problem. This device is to be turned on in advance by a woman in case she is walking on a lonely road or some dark alley or any remote area. Once started the devices requires the woman to constantly scan her finger on the system every 1 minute, else the system now sends her location to the authorized personnel number through SMS message as a security measure and also sounds a buzzer continuously so that nearby people may realize the situation. It has the ability to help women with technologies that are embedded into a compact device. The system is designed in such a way that it could withstand up to 2 days with no charging. Overall the women security system is charged by foldable solar panel.

Project Picture





Outcome of the Work

Tested with EEE Department 150 students

Improved tracking system with Solar Charging

Safety and security system to women society with Green Technology

System used in college level with Sustainable Energy

Automatic message tracking system with parents and college

Nominator

Dr. M. Devi, Principal, VCTW

Green Contributors towards UN SDG Goals

The Institution of Green Engineers

Mr. S. Sathyamoorthi

NPR College of Engineering & Technology

IGEN/GD21/C17

IGEN GREEN DIARY 2021

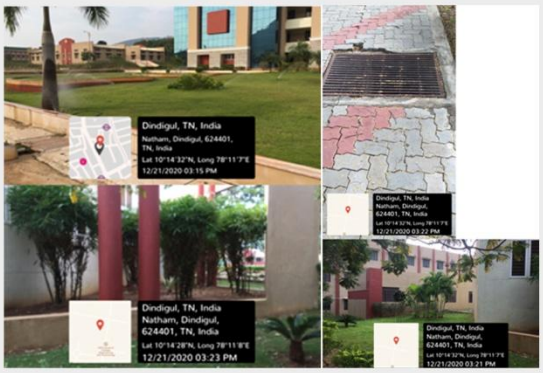
Contribution of UN SDG Goals: 6

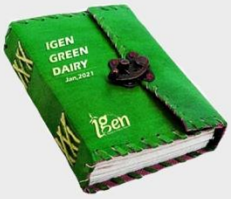
Implementation of Clean water and Sanitation

Abstract: Adequate sanitation is maintained in our college campus by the regular practice of cleaning the toilets twice a day, proper drainage system, ever operating sewage treatment plant and water recycling plant. Awareness is given to all the students about sanitation and the ill-effects are clearly explained through the NSS and YRC of our college. Implementation of effective waste management system supports and facilitates sanitation. The waste water from the kitchen, dining halls of boys and girls hostel mess and canteen are recycled and used for watering the plants in the garden. Drip irrigation system is in implementation so as to conserve water and effective utilization in the garden area throughout the campus.Rain water harvesting is done effectively by collecting rain water from all buildings and storage is done in a small pond available very near to the college with the purpose of recharging the water bodies. Well and bore well recharging is also done in some specific locations inside the campus. Even though, our college is located in a dry area, due to these practices we did not suffer from scarcity of water till date.

Mineral water plants are installed in the college and all the blocks are supplied with the hygienic water for drinking purpose. The ground water available in this locality itself is in par with the potable water and further recharging by rain water improves the quality somewhat even better.

Project Picture





Outcome of the Work

Mineral water plants installed in the campus supply clean water for drinking

Recycling of waste water enables resource for watering plants in the garden

Water bodies are recharged by Rain Water Harvesting

Proper maintenance of toilets, drainage system and sewage treatment provides sufficient sanitation

Waste Management Systems implemented facilitates pollution free environment

Nominator

Principal, NPR College of Engineering & Technology

Green Contributors towards UN SDG Goals

The Institution of Green Engineers

M.R. Saravanan

Stelmec Limited, Mumbai

IGEN/GD21/C18

IGEN GREEN DIARY 2021

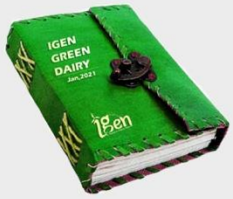
Contribution of UN SDG Goals: 7

Completion of Energy Saving Campus at 5 Schools

Abstract: In order to drive mass awareness about the importance of energy efficiency and conservation as well as bridge the gap between the supply & energy demand, I started promoting energy saving tips to the students of 5 Schools in the Rural Village of Kanyakumari District and 500 students were educated with the importance of saving electricity at their houses through 9 proved principles. To meet this objective with the aim of saving one unit per day at home, I had visited 102 houses and presented them about the importance of energy conservation, electrical safety, wastage audit and basic of electricity. After the visit, I insisted them to implement the 9mantras tips to save energy at home. It continued with the regular monitoring and suggestion through online discussion.

It had good result, when I visited after three months and measured the implementation they did and how they got saved the Unit. It was observed that 79 houses implemented the concept and got fruitful outcome, which is presented below.

Project Picture



Outcome of the Work

Created Energy Saving Awareness with 950 members

79 houses successfully implemented 9 greenmantras @ Home

21,900 Unit saved/Annum towards 60 houses

3,567 Unit Saved/Annum towards 19 houses

80,400 kg of Co2 Saved towards energy Saving

Nominator

Dr. R. Suresh Premil Kumar,
Principal, Stella Mary;s College of Engineering

IGEN GREEN DIARY 2022

Calling Nomination Open Jan 2021 and Close Nov 2021

1. Any of your recent completed work resulted in GREEN outcome

2. Get a "Certificate of Verification Letter" for your project from the nominator in Letter Head

3. Submit the required information @ Registration Link on or before November 2021

4) IGEN Review committee members will evaluate the nomination forms and finalize the GREEN Page Contributors

5. IGEN GREEN DIARY 2022 will be released on 1st Jan 2022

Any Queries to be communicated to

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Director IGEN Publication

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