

# SUSTAINABLE DEVELOPMENT GOALS



## SDG 7 "Affordable and Clean Energy"

**Keyword: Affordable clean energy, Renovation of building, Solar energy, Energy efficiency measures**

**2021-2022**



## SUSTAINABLE DEVELOPMENT GOAL 7 – AFFORDABLE AND CLEAN ENERGY

Ensure access to affordable, reliable, sustainable and modern energy for all



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## About Us

Sri Sri University was established as a State Private University in Odisha, India which started its first academic year in 2012 and has been envisioned by Global Humanitarian, Gurudev Sri Sri Ravi Shankar ji. The University offers a range of pivotal, unique, and cutting-edge undergraduate, postgraduate degree programs under eight Faculties, short-term, diploma, and certificate courses, Doctoral studies (Ph. D.), that offers the best of the East and offers the best of the West.

The impressive list of undergraduate programmes offered at Sri Sri University includes B. Sc. (Data Science), B. Sc. (Osteopathy), B. Sc. (Psychology & Contemplative Studies), B. Sc. (Food, Nutrition, and Dietetics), B. Sc. (Agri-business), Bachelor in Interior Design, etc., and that of post graduate programmes offered includes M.Sc. Osteopathy (first time in Asia), MBA (Entrepreneurship), MBA (General Management), MBA (Agri-Business Management), M.Com., M.A./M.Sc. in Psychology and Contemplative Behaviour, M.Sc. Environment Science, B. Tech. & M. Tech. (Artificial Intelligence & Machine Learning), etc.

Located in a sprawling 188- acre green lush campus, Sri Sri University takes pride in offering a curriculum that enriches both domain expertise and life skills. It provides a unique social culture that nurtures a rich learning environment and aids excellence in students through its virtually smoke-free, alcohol-free, drug-free, and completely vegetarian campus. The University defines Excellence as an academic process of motivating the students to learn in ways that make a sustained, substantial, and positive influence on how they think, act, and feel which defines our core value of Learn-Lead-Serve.

Sri Sri University has been ranked by Times Higher Education World University Impact Rankings on Sustainable Development Goals (SDGs) in the band of 601-800 based on all 17 SDGs. In the top four individual SDGs, Sri Sri University was ranked in the band of 101-200 for SDG 12: Responsible Consumption & Production. For the SDG 2: Zero Hunger, SDG6: Clean





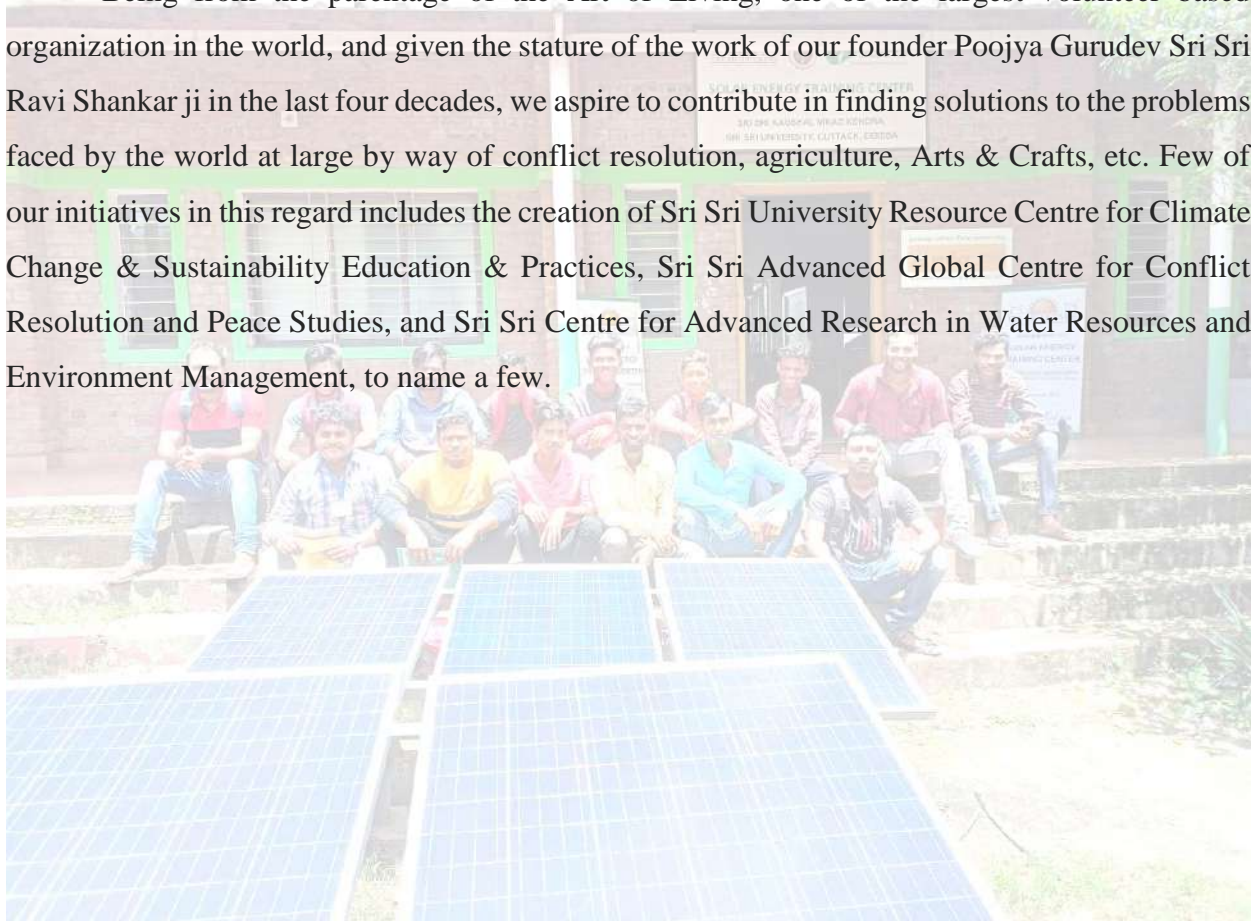
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Water & Sanitation, and SDG7: Affordable and Clean Energy stand in the band of 201-300. Sri Sri University has been ranked 1st in Odisha, 6th in India, and 248th in the world as per UI Green Metric Awards World University Rankings 2021 which is a quantum jump from 2020's ranking which was 3th in Odisha, 7th in India, and 304th in the world.

Being from the parentage of the Art of Living, one of the largest volunteer based organization in the world, and given the stature of the work of our founder Poojya Gurudev Sri Sri Ravi Shankar ji in the last four decades, we aspire to contribute in finding solutions to the problems faced by the world at large by way of conflict resolution, agriculture, Arts & Crafts, etc. Few of our initiatives in this regard includes the creation of Sri Sri University Resource Centre for Climate Change & Sustainability Education & Practices, Sri Sri Advanced Global Centre for Conflict Resolution and Peace Studies, and Sri Sri Centre for Advanced Research in Water Resources and Environment Management, to name a few.

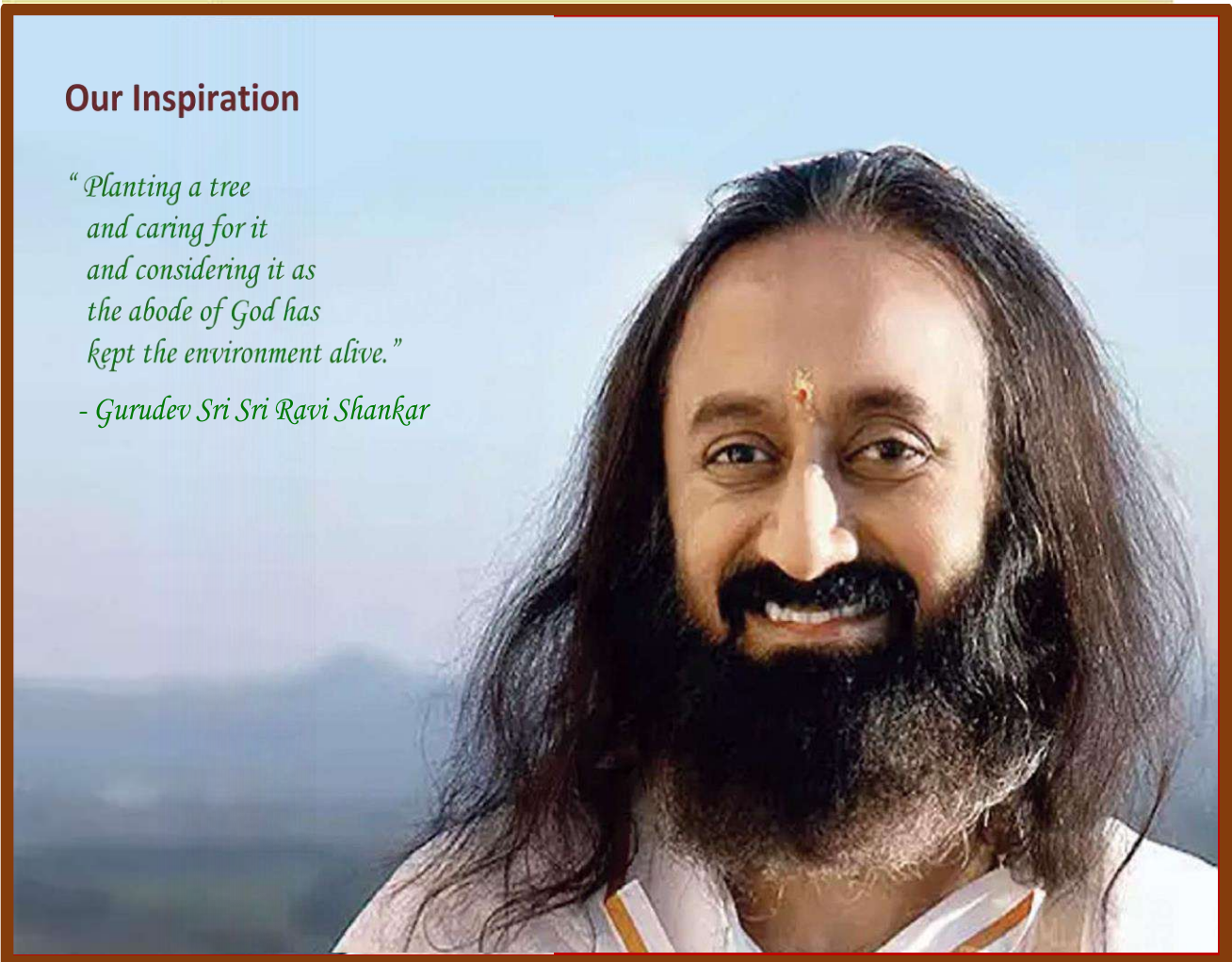




## Our Inspiration

*“Planting a tree  
and caring for it  
and considering it as  
the abode of God has  
kept the environment alive.”*

*- Gurudev Sri Sri Ravi Shankar*



**Sri Sri Ravi Shankar said, “Green energy is the only way we can sustain our planet”.**





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### **Sustainable Development Goals:**

**SDG7** aims to ensure access to affordable, reliable, sustainable and modern energy for all. The world is making good progress on increasing access to electricity and improving energy efficiency. However, millions of people throughout the world still lack such access, and progress on facilitating access to clean cooking fuels and technologies is too slow. In addition, a survey conducted in selected developing countries revealed that one quarter of the health facilities surveyed were not electrified, and another quarter had unscheduled outages, affecting their capacity to deliver essential health services. Such deficiencies weaken the health system's response to the current health crisis.

The target outline below focuses on the efficient use of natural resources and on boosting sustainable energy sector expertise through targeted capacity development. Our solar energy-based training programme provides leading on-the-job education for emerging energy planners and to rural youth. And by exploring overlapping natural resource use, our research is determining integrated practices to improve energy efficiency and resource recycling, making modern energy production cleaner and more affordable.

### **Targets:**

#### **Goal 7.2: University measures towards affordable and clean energy**

- Goal 7.2.1 Energy-efficient renovation and building
- Goal 7.2.2 Upgrade buildings to higher energy Efficiency
- Goal 7.2.3 Carbon reduction and emission reduction Process
- Goal 7.2.4 Plan to reduce energy consumption
- Goal 7.2.5 Energy wastage identification
- Goal 7.2.6 Divestment policy

#### **Goal 7.3 Energy use density Goal**



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Goal 7.3.1 Indicator: Energy usage per sqm

### Goal 7.4 Energy and the community

Goal 7.4.1 Local community outreach for energy efficiency

Goal 7.4.2 100% renewable energy pledge Year: 2019 or 2020

Goal 7.4.3 Energy efficiency services for industry

Goal 7.4.4 Policy development for clean energy technology

Goal 7.4.5 Assistance to low-carbon innovation

### Introduction:

The 2030 Agenda for Sustainable Development, adopted by different countries, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests. For more information, please see: <https://sustainabledevelopment.un.org/sdgs>

Sri Sri University (SSU) Cuttack was established in 2012. Sri Sri University has devoted its commitment to a sustainable future that is equal and resource-abundant for everyone. Being endowed with the power, to create a positive impact in society, we believe the projects and the initiatives that we undertake, would also enlighten our students, who would carry forward the practices of sustainability from their individual capacity.

As a promise to imbibe sustainability, SSU aims to engage with policymakers, industry leaders, businesses, NGOs, media, students, and academic scholars to find and implement collaborative solutions and innovations to minimise the power consumption and production of renewable energy





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and hence work towards sustainable world order. Additionally, there are many SDG-7 related activities and operations happening in the campuses related to research, innovation, teaching, operations, outreach, and partnership.

Through SSU started to categorize the University's teaching activity by mapping courses offered at the University to the relevant SDG-7 by keyword matching to create a sustainability course inventory. Additional categorization of student based engagement, such as community engaged learning is underway.

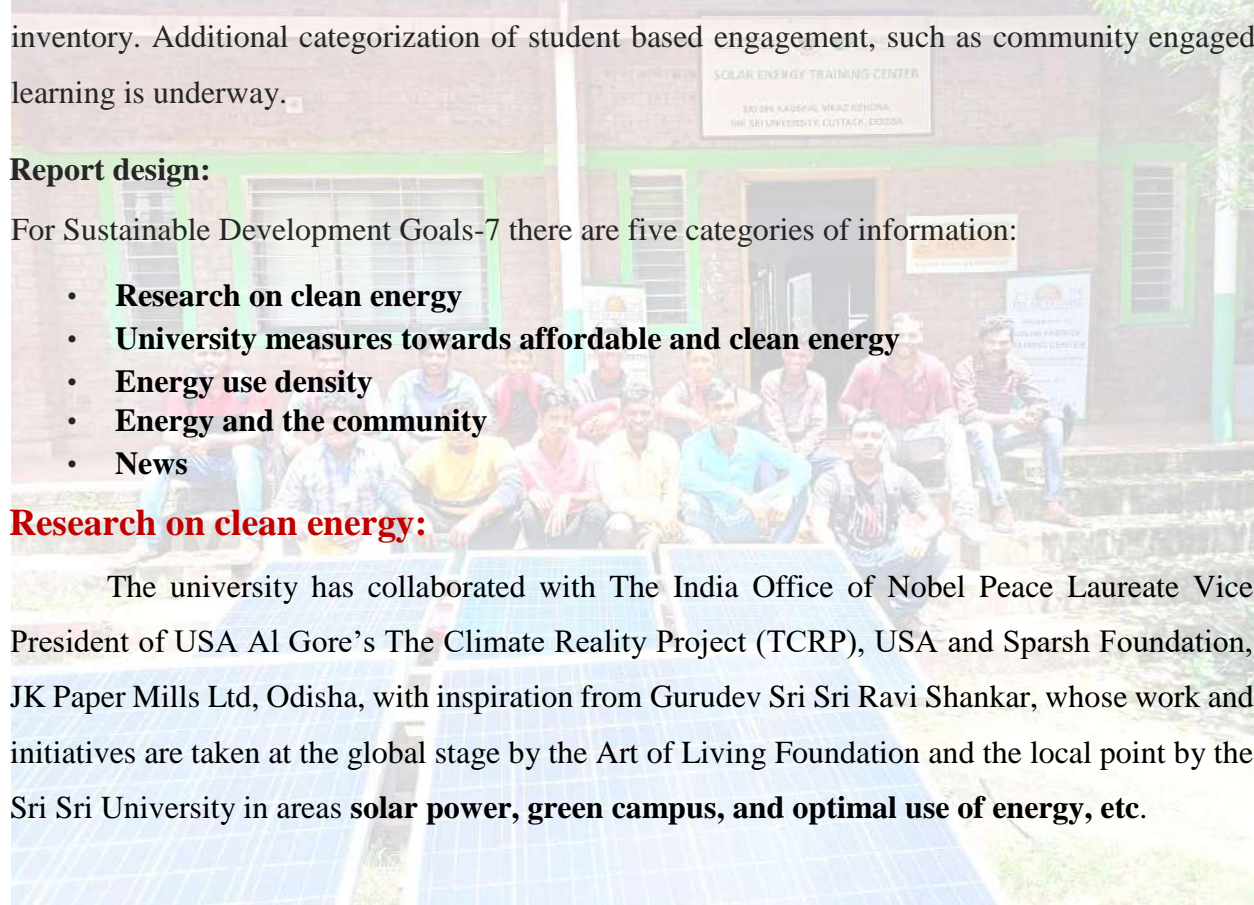
### Report design:

For Sustainable Development Goals-7 there are five categories of information:

- **Research on clean energy**
- **University measures towards affordable and clean energy**
- **Energy use density**
- **Energy and the community**
- **News**

### Research on clean energy:

The university has collaborated with The India Office of Nobel Peace Laureate Vice President of USA Al Gore's The Climate Reality Project (TCRP), USA and Sparsh Foundation, JK Paper Mills Ltd, Odisha, with inspiration from Gurudev Sri Sri Ravi Shankar, whose work and initiatives are taken at the global stage by the Art of Living Foundation and the local point by the Sri Sri University in areas **solar power, green campus, and optimal use of energy, etc.**

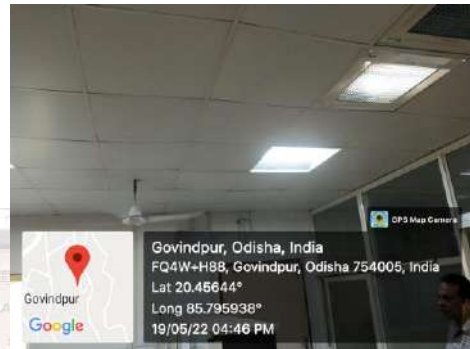






## University measures towards affordable and clean energy:

- Sri Sri University are committed to follow the prevailing energy efficiency standards in India for our renovation and constructions of buildings. The policy for energy efficiency standards for builds has been aimed to decrease the Carbon emissions, to optimize the electricity consumption and minimize the wastage and to use energy efficient fixtures and reduce the running cost.
- The relevant measures include the buildings designed for reduced heat absorption and temperature control, natural ventilation, lighting and natural laterite stone for construction, smart classes, use of LED lights in the hostels, use of local materials for the construction.
- To enhance the energy efficiency, the 8Kw solar panels is installed in the campus, which generate 35 units of electricity every day and approx. 13000 units per year.
- Total 75 solar lights are used in the University campus. Total generation from solar street lights is measured to be 35 units per day = Approx. 13,000 units per year.
- Sri Sri University pays close attention to monitor energy consumption at the campus area. There are energy meters in every building to monitor the electrical consumption.





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- SSU has taken several step to prevent the electricity from leakage as well as monitor the unnecessary use of AC, light, fan in different buildings.
- How SSU has keep in balanced the energy consumption in a year is shown below

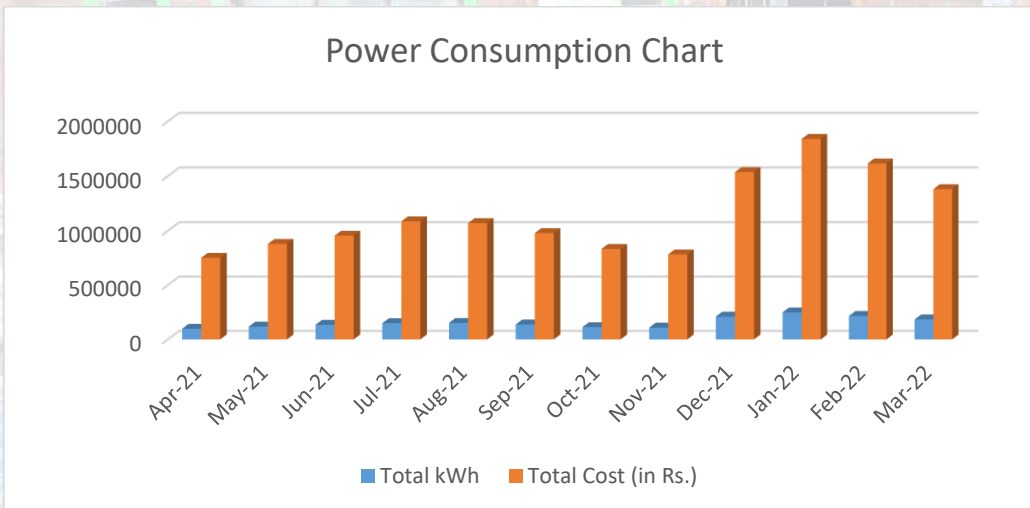


Fig: Electrical consumption details from April, 2021 to March, 2022

	Apr-21	May-21	Jun-21	July-21	Aug-21	Sept-21	Oct-21	Nov-21
Total kWh	98370	117930	134465	149470	151622	137748	112922	108777
Total Cost (in Rs.)	751789	879316	955458	1087362	1070039	979444	833156	782917
	Dec-21	Jan-22	Feb-22	Mar-22	Total			
Total kWh	210112	248429	215931	183922	1,869,698			
Total Cost (in Rs.)	1536423	1840905	1615551	1380898	13,713,258			





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Fig: Electrical consumption details from April, 2020 to September, 2021

**Energy use density:**

Total electricity consumption from Apr 21- Mar 22 is 1,869,698 kWh = 6730.9128 GJ

Building area of university buildings (square meters): 77289.66

Electricity consumption per square metre in 2022 =  $6730.9128 / 77289 = 0.087 \text{ GJ/m}^2 = 8.7\%$

**Energy and The Community:**

In the spirit of contributing to the field of sustainable energy, SSU University is coordinating activities with other organization to promote joint academic and technical endeavours, keeping in view the following scope of collaboration.



**1. Renewable Energy Generation/Harvesting:**

Adopting Clean and Sustainable Energy, such as Solar renewable energy sources.

**2. Carbon Reduction and Emission Reduction Process:**

When it comes to removing human-caused emissions of the greenhouse gas carbon dioxide from Earth's atmosphere, trees are a big help. Through photosynthesis, trees pull gas out of the air to help grow their leaves, branches, and roots. Our university organizes plantation drives throughout the year inside the campus as well as in nearby localities. Our university ranks 6th in India and 238th in the world in the UI Green Metric World University Rankings. Various other process that helps in reduction of carbon are



**3. Energy Audit and Management:** Exchange of procedures and ideas for Energy Audit and Management in the Institutions.



**4. Training program on Renewable Energy systems:** In the premises, the SSU is collaborating with its technology partner, Schneider Electric, on course development and implementation for the training of professionals and students on solar energy systems. This centre also provides training to Rural Youth on Solar energy, which is getting traction from renewable energy market.



- So far SSU has trained over 300 No. (Solar & Electrical Trade) of rural unemployed youth.

After completion of their training, we have facilitated their placements and helped them self-employment/entrepreneurship. Due to Covid19 pandemic we have stopped our skill training program from march 2020 since it's purely practical based training. But again we have restructured the training centre on 1<sup>st</sup> Jan 2022 and till date we have trained 19 local youth on solar energy.

- Also SSU has trained 15 Asst. Electrician in 2022. Besides EDP (Entrepreneurship Development Program) we motivate our Trainees to be self-sufficient through their skill. And some of them have started their own company.

Along with technical training, students are oriented and trained in soft skills including behavioural and emotional development of personalities. Centre is situated in lush green environment for students to appreciate GREEN environment.

- Free training which is typically being charged from 50k to 75k in the professional training course outside.
- In this process of training, the program will create Urja Sevaks (Social Entrepreneur in Solar business), to support the growing skill need in the commercial market.
- The centre will also create a force of certified solar trainers to impart the solar training to others.





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**5. Collaborative Research:** Collaborative research, conclave, symposia, conferences, etc. on Affordable, Sustainable, Reliable and Modern energy. SSU looks forward to such fruitful responses to enhance academic and research opportunities for staff and students and to develop cultural linkages between them and for sharing of perspectives and a way forward for planning activities in the relevant SDG.

Speaking about the research, SSU is committed to excellence and diversity in research that enhances the quality of life. The University is undertaking research in the generation of affordable energy from new and renewable sources in a cost-effective manner targeted for use in rural areas of the country. In addition, the research areas are focussed on the use of Energy in an optimized manner for the conservation of natural resources for future generations.

**News:**

SDG	Short title	Description
7		<b>October 28<sup>th</sup> &amp; 29<sup>th</sup>, 2021:</b> Virtually addressed the 'UP Climate Change Conclave 2021' organized by Department of Forest, Environment and Climate Change, Government of Uttar Pradesh. ( <a href="https://www.linkedin.com/posts/srisriravishankar_climatechange-environment-sustainability-activity-6860052252145676288-DPOb/?trk=posts_directory">https://www.linkedin.com/posts/srisriravishankar_climatechange-environment-sustainability-activity-6860052252145676288-DPOb/?trk=posts_directory</a> )
7		<b>Sept 7<sup>th</sup>, 2021:</b> Schneider Electric India Foundation partners with Sri Sri Rural Development Programme Trust

SSU thrives on taking an active part in the global endeavour of ensuring universal access to affordable, reliable and modern energy services. The University intends to lead the way in



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substantially increasing the share of renewable energy in the requirement of the total energy mix and looks forward to collaboration in academic and research opportunities for facilitating access

