

Institutional Values and Social Responsibilities towards Sustainability – A Case Study of Srinivas University, India

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ABSTRACT

Purpose: To establish innovative practices for sustainability through executing Social Responsibilities at University level for creating safe environment and disseminating sustainable habits, practices and eco-friendly lifestyle among the stakeholders.

Methodology: Case Study is conducted by using an exploratory research design. The data is collected from the website of the University and its stakeholders including administrators, students, visitors, staff and service providers, etc. The literature survey is carried by using the google scholar search engine to establish a strong conceptual framework of this paper. ABCD (Advantages, Benefits, Constraints, and Disadvantages) framework is used to analyse the result of the study.

Results & Outcome: The study establishes the credibility of Institutional Values and Show case the implications of adopting sustainable practices in the Universities to make its campuses green.

Originality: The paper introduces to numerous Sustainable Green Practices to develop an exceptional learning environment having an eco-friendly campus lifestyle.

Type of Paper: Case study of a Best practice.

Keywords: Social Responsibilities for Sustainability, Green practices in University, Sustainable practices in University, Higher education Green Innovation, Eco Friendly Campus Life, University Green Habits and Practices

1. INTRODUCTION :

Higher education institutions aim to provide an exceptional learning environment with pollution free campuses along with disseminating sustainable habits and practices to students [1]. Institutions shall implement sustainability efforts in the new normal by waste recycling, minimize dependence over non-recyclable materials, preferring eco-friendly structures, energy conservation, adopt sustainable means of transport, etc [2]. Conservation of water through cutting down the volume, recycling the waste water and rain water harvesting is quite common. Effective waste segregation, disposal system, environmental awareness and adherence to the Green Standards have become threshold for sustainability.

2. RELATED WORKS :

Systematic review on the available literature is conducted from Google Scholar search engine between the published journals between 2015-2022 with the help of key words such as ‘Efforts on Gender Equity’, ‘Sustainable Construction design’, ‘alternative sources of energy’, ‘degradable waste management’, ‘solid waste management’, ‘institutional water conservation’, ‘green audit’, ‘environmental audit’, ‘inclusive environment’, ‘sensitizing constitutional obligations’. The analysis over the literature review is provided in the Table 1.

Table 1: Related works on Institutional Values and Social Responsibility for Sustainability

S. No.	Field of Study	Focus	Findings/Observations	References
1	Gender Equity	Impact of Covid on Academia	University Administration has adopted democratic	Oleschuk M. (2020). [3]

			governance practices in their decisions during pandemic.	
2	Gender Equity and Sustainable Goals	Women should get equal access to natural resources	Reduce gender inequality and improve health.	Gupta, G. R., et al. (2019). [4]
3	Sustainable Construction Design	Impact of Lean for Sustainability	There is a need for multi-dimensional approach in construction to achieve sustainability.	Solaimani, S., & Sedighi, M. (2020). [5]
4	Sustainable Construction	Improvement of environment, energy conservation and sustainability	Sustainable Construction brings competitive advantage.	Liu, Z. J., et al. (2020). [6]
5	Obligation of Universities to Society	Social Responsibility	The engagement of University in Social Responsibility Action is High.	Paunescu, C., et al. (2017). [7].
6	Energy Master Planning	Energy Conservation	Universities should consider Community goals in energy management.	Rao, L., et al. (2021). [8]
7	Renewable Energy	Impact of renewable energy on Carbon Emission	Education reduces the Carbon Emission.	Zafar, M. W., et al. (2020). [9].
8	Sustainable Energy	Less dependence on fossil fuels by alternating with renewable energy	Energy problem can be met by utilizing renewable energy for power generation.	Qazi, A., et al. (2019). [10]
9	Degradable Waste Management	Reduction of Conventional energy to improve the environment	Bio gas generated from biodegradable waste will replace the usage of conventional energy sources.	Katinas, V., et al. (2019). [11]
10	Composting Process	Methods of Biodegradable Waste	Pellets and Compost is obtained as by products.	Krstic, I. I., et al. (2018). [12].
11	Bio based Products	Recycling of bio based waste	The bio based products can be converted to organic by composting it.	Wojnowska-Baryła, I., et al. (2020). [13].
12	Waste Management	Drum filling as best practice in waste management	Electrical energy can be generated from bio degradable waste.	Salve, S., et al. (2021). [14]
13	Plastic Waste	Hazards of Single use Plastics	Biodegradable polymers are the solutions to the problem.	Narancic, T., & O'Connor, K. E. (2019). [15]
14	Sustainable Land Management	Soil and Water Conservation Measures	Short comings can be met through top down to bottom-up methods.	Nigussie, Z., et al. (2018). [16]

15	Behavioural responses on Water Conservation	Sustainable Behaviour	Time, water efficient devices, skill gap are the barriers.	Addo, I. B., et al. (2018). [17]
16	Water Management and Conservation	Declining surface and ground water	Water resource can be conserved by making behaviour changes to use water responsibly.	Pani, A., et al. (2021). [18].
17	Sustainability performance by green and non-green Universities	Comparison between green and non-green Universities	Green Universities are Environmentally Friendly.	Dagiliūtė, R., et al. (2018). [19].
18	Eco-friendly strategies	Universities commitment on Sustainability	Model Sustainability Framework.	Biswas, J. K., & Dash, M. C. (2019). [20].
19	Solar Energy	Relating Solar Energy to SDG.	Clean and affordable energy source.	Obaideen, K., et al. (2021). [21]
20	Solar energy and Sustainable Development	Impact of Solar Energy	Providing priority for Solar energy for sustainability.	Guney, T. (2022). [22]
21	Green Washing	Misleading the consumers on environmental concern	Awareness on Green Washing is essential.	More, P.V., (2019). [23]
22	Green building Movement in India	Evaluation of building performance	Separate Building performance evaluators are required.	Gupta, R., et al. (2019). [24]
23	Electricity Audit	Power saving fixtures and equipment's	Saves cost and carbon foot print.	Getu, B. N., & Attia, H. A. (2016). [25].
24	Environmental Audit	Appraisal on renewable energy generation	Suggesting Multi Criteria Decision making on Environmental Audit.	Adhikary, P., et al. (2015). [26].
25	Value focused Assessment	Connecting Sustainability and Institutional Performance	Value indicators need to be included in the performance evaluation on sustainability.	Ribeiro, M. M., et al. (2016). [27]

3. OBJECTIVES OF THE PRACTICE :

- (1) To describe the landscape of Sustainable best practices of Srinivas University.
- (2) To describe the measures initiated for promoting Gender Equity.
- (3) To understand the methods of energy conservation and reliance on alternative sources of energy.
- (4) To review the management of both degradable and non-degradable wastes.
- (5) To brief the facilities for Water Conservation.
- (6) To explain the Green Campus initiatives of the University.
- (7) To enlist various green audit measures and awards achieved for green initiatives by the University.
- (8) To know the efforts of the University to build disabled friendly and barrier free environment.
- (9) To brief measures taken to create an inclusive learning environment in the campuses.
- (10) To discuss the efforts on sensitization of stakeholders upon the Constitutional Obligations.
- (11) To understand Code of Conduct issued to the students, teachers, administrators and staff.
- (12) To highlight the efforts towards encouraging extra-curricular events and their importance to the National and International commemorative days.
- (13) To brief on efforts taken to march towards paper-free administration with a paperless office.
- (14) To suggest measures for promoting an eco-friendly lifestyle among youths by inculcating sustainable habits and practices.

4. THE CONTEXT OF SUSTAINABLE BEST PRACTICES :

University is the mother of knowledge. It is a place for the youth to develop their personality, enrich their skill and learn way of life [28]. It is essential to disseminate sustainable habits and practices to prevent environmental degradation. We have to associate youths in the process of ecological rehabilitation and energy conservation for sustainability. Universities shall channelize its efforts to achieve gender equity, water conservation, waste management, going green, green audits, inclusive environment, propagating code of conduct, etc. In this regard, Higher education Institutions are required to create awareness among students, staff, faculties and society at large upon the Social Responsibilities of all towards environmental protection and safeguard. Sensitisation of students on sustainable best practices in the campuses and further motivating them to educate their families shall surely accelerate the efforts on conservation of environmental [29]. Organisations should consider environmental concerns for taking strategic decisions [30]. The Ecological issues are influencing business practices, as organisations started to perceive environmental issues to take up strategic changes, many establishments are adopting eco-friendly marketing strategies to gain competitive advantage. Fostering sustainability in the organisation is the need of the hour [31].

5. INSTITUTIONAL SUSTAINABLE VALUES - THE PRACTICE :

5.1 Adopted Sustainable Core Values of Srinivas University:

- (1) Showcase absolute concern for the environmental concerns.
- (2) Impart public sensitisation programmes to rehabilitate ecological imbalances.
- (3) Carry out Green Practices in the Teaching, Learning and Evaluation processes.
- (4) Creating 'Inclusive Culture' in its operations and propagate 'Gender Equity' through organising the sensitisation programmes.
- (5) Carry out effective Waste Management system by providing facilities for recycling of campus waste and best utilisation of recycled materials.
- (6) Encouraging Sustainable design in Construction.
- (7) Provide green infrastructural support to convert Campuses as 'Zero Pollution Zone'.
- (8) Maximise efforts for energy conservation in all walks of its operation.
- (9) Conduct Energy, Green and Environmental Audit annually from third parties without compromising the Sustainable Values of the University.
- (10) Establish and seek absolute compliance of 'Green Code of Conduct' of the University from all its stakeholders.
- (11) Support paper free Office Management System.
- (12) Digitalising the administration, admission, evaluation, IMS, certification, etc.

5.2 Adopted Generic Values of Srinivas University:

- (1) Developing Sustainable Green Campuses.
- (2) Conservation of energy and Water resources and making available for the best public utility.
- (3) Getting accredited as the best Green University and certified with Green Awards and Recognitions.
- (4) Best utilisation of Solar Power in the campuses.
- (5) Adopting sustainable means of transport.
- (6) Adherence to the green standards set by the government, local bodies and international bodies.

6. SUSTAINABLE SOCIAL RESPONSIBILITIES OF SRINIVAS UNIVERSITY - THE PRACTICES :

6.1 Measures initiated for Promoting Gender Equity:

Innovations and best practices carried by the educational institution will bring reformatory changes [32]. Gender Sensitization initiatives of Srinivas University aimed at executing the GOAL-5 (Gender Equity) as set by the United Nations Sustainable Development Goals (UN-SDG) and a best practice to improve the quality of its service [33]. The following are the important best practices in this regard.

(1) Safety and Security: Self-defence Training sessions are organised for girls. On campus Safety is secured through Surveillance Cameras by using mobile technology [34] and deployment of sufficient Security Staffs. Emergency contact numbers are displayed, fire mock drill is conducted annually. Staffs are provided with ESI facility. Complaint/Suggestion boxes are installed at all departments and hostel campus and students are well informed about these facilities. Special sessions on Cyber Crime and

Cyber Security is conducted to prevent cyber violations against students. College bus facility is provided to provide security to Hostel and distant commuting girls.

(2) **Counselling and Mentoring:** In order to mainstreaming the slow learners and fast learners counselling and mentoring facilities are provided at college to leverage the culture of inclusivity. 1:15 Mentor Student Ratio is being maintained in order to help student progress. Key cases will be referred to fulltime Psychiatrists and Counsellors through student counselling cells to maintain the mental health of the learners. Sessions on internet addiction, yoga, meditation, personality, self-esteem, relationship, identity crisis, personal hygiene etc. are organised.

(3) **Common Rooms:** Common Lounges facility and waiting rooms are made in every college office, hostel, waiting areas for the benefit of all. Separate ladies' rooms and boys waiting rooms are provided with locker facilities. Campus clinics are provided for taking rest in case of any illness or health problems.

(4) **Day Care Centre for Children of the Staff:** University maintains a day care centre in the campus to engage and care the small children of the staff during the working hours. The centre will be provided with trained staff and necessary play articles to engage children in the playful ways and protect from any kinds of abuse and problems [35].

(5) **Efforts on Gender Sensitization:** The following initiations are carried out.

- a) **Gender Equity in Student Ratio:** The admission is purely based on Srinivas University Entrance Test (SUET) merit to all irrespective of any preference. Out of total 3788 students 1721 are females, 2067 males, 1901 from within the state and 1886 from outside the state, 423 from economically backward section, 2764 belonging to socially challenged section of the society respectively. Inclusive growth of all is the need [36].
- b) **Gender Equity in Staff Ratio:** Recruitment policies is transparent only to incept qualified faculty members having experience and expertise in accordance with the UGC, AICTE and other regulatory bodies.
- c) **Campus based activities:** Awareness on Inclusive growth and gender equity is provided to students, faculties and staffs by carrying out guest lectures, conferences, programmes, at college level such as Celebration of International Women's Day, International Men's Day, Mother's day, Teachers day, National Youth Day, etc are organised.
- d) **Distressed Relief & Rehabilitation:** Annual donation programmes are carried out to support the inmates of old age homes by donating cloths, groceries, essentials etc. Organised blood donation camps, flood relief activities, BOSCH Care givers for mainstreaming unemployed youths, free physiotherapy OPD facility in the campus for rehabilitation of patients.
- e) **Embedded Curriculum:** The Board of Studies has included subjects such as Gender equity, Computer literacy, Soft Skills, Employability Enhancement, Environmental Sustainability, Nutrition, Social Service, Health, Yoga into its curriculum to develop gender sensitivity among students.
- f) **Atomic Research Centres on Gender Equity Areas:** The Research Council is successful to establish 100 Atomic Research Centres at the rate of 2 centres per faculty to conduct research and publication in the issues connected to Legal Studies, Minority Studies, Gender Studies, Management, Information Technology, etc. encouraging research on gender equity.
- g) **Gender Based Student Projects, Thesis and Research Publication:** The faculties and students of under graduation, Post-Graduation and Research studies are equally encouraged to take up minor projects on multi-disciplinary topics on gender issues and published several papers in the international journals on inclusive growth of women, women education, transgender rights, gender equity.
- h) **Publication of Books:** Faculties are encouraged to author books and publish in house under Srinivas Publication or with any reputed publisher. The faculties have published book titled Women Empowerment for Inclusive Growth.
- i) **Industry-Academia Collaboration on Skill Development:** With the aim of inclusive growth, Bosch has constituted its Industry-Academia Collaboration Centre in the Srinivas Campus to foster projects on skill development of youth, training the trainer, capacity building of MSME and NGO, Paramedics training, Social Service Professionals. Faculty Members are Certified as subject matter expert for building Capacity of NGOs and MSMEs in Dakshina Kannada.

- j) **MoU's with Stakeholders:** University has entered into several MoU's with Bosch Vocational Centre, Bengaluru to work in the area of Skill Development of Youth, Venture Capital to facilitate students for Startups with absolute financial support, etc.
- k) **Women Scholarship and Financial Assistance:** University provides Chancellors Scholarship to the eligible candidates to financially support meritorious students from weaker sections, provides education loan support to all through the nationalised banks. Absolute assistance is provided to all the students to avail government scholarships such as 'Arivu', Single Child Scholarship, Minority Scholarships, OBC Scholarships, SC/ST Scholarships, etc.
- l) **Infrastructural Support:** University provides sophisticated hostel facility separate for boys and girls with security, pure drinking water, hygienic food, health care, recreation, wardenship etc. Separate bus facility for staff, boys and girls is provided from Hostel. Sufficient number of Boys and Girls waiting rooms, wash rooms, drinking water points, yoga rooms, etc has been installed.
- m) **Subsidised Health Care for all:** Students, Staff and their family are provided with free medical, dental and physiotherapy care by in-house expert Medical & Paramedical Staffs.
- n) **Internal Regulation:** Gender equity is ensured through investigation and enquiry of any issues connected to student harassment [37] under the chairmanship of Student Welfare Officer under various regulatory committees such as Anti Ragging Committee, Grievance Redressal Committees, and Anti-Women Harassment Cell.
- o) **Social Sensitization Programme:** In order to carry out community sensitization among schools' children University has adopted 5 government higher primary schools by providing teaching assistants, organised science sensitization programmes, celebration of festivals, etc. The University has adopted 5 villages under Unnat Bharat Abhiyan a flagship programme and carries out social service activities to encourage community participation in general.
- p) **Digitalisation:** The usage of facilities such as teachmint platform for online classes, library digitalisation, automation of Academics and Evaluation, updated University website, Blogs, You Tube Channels, Cashless fee deposit scheme for greater transparency ensuring gender equity in its services.
- q) **Faculty Development Programmes:** Centre for faculty training conducts separate FDPs for both teaching and non-teaching staffs to sensitize team work and motivation.
- r) **Women sensitive Facilities:** University provides gender sensitive women education [38]. It provides exclusive Ladies common rooms, medical and dental clinics, physiotherapy care, full time lady medical staff, separate reading lounge in the library, women cells, anti-harassment cells, anti-ragging committees, surveillance cameras, counselling services, securities, individual mentors, uniform and identity cards, separate ladies Hostel with warden, biometric attendance, college bus facility, safe locker facility, book bank, etc.

6.2. Sustainable Construction Design:

(1) **Compliance to Building Regulations:** Constructions are made of good quality in accordance with the specified safety norms such as fire exits, drainage system, sufficient number of overhead tanks, water purifying systems, good ventilation, solar power supply, insulated wires and fixtures, etc.

(2) **Minimize Heat Exposure to Sun:** All the top floors of the buildings are internally double roofed with heat resistant materials so as to minimize the exposure to heat.

(3) **Universal Design:** Pedestrian friendly pathways for easy commutation are provided along the sides of the roads. Lifts are provided in all buildings. Ramp, wheel chairs, disable friendly washrooms, scribe, personal assistance are provided for people with disability. Campus Clinics are provided to meet any emergencies. Each floors are accessible to fire exit and fire extinguishers. Solar power supply is available. Drinking water points, toilets and wash rooms, waiting lounges, sign boards is provided in every floor.

6.3. Facilities provided by the Institution for alternate sources of energy and energy conservation measures:

(1) **Solar Energy:** Green energy is highly productive [39]. The Campuses are installed with 48 KW Solar Power worth energy meters/solar meters. It produces 192 KW power per day leading to the production of 5760 KW to 7200 units of power per month.

(2) **Biogas Plant:** Biogas Plant is installed in the campus so as to convert the wet waste generated in the canteen and hostels as fuel. The generated fuel is supplied to the Canteen and the slurry that is the liquid waste generated out of the process is used as manure.

(3) **Wheeling to the Grid:** Energy grid meter of 120 KW of sanctioned power is installed in the city campus. Separate energy consumption meters from MESCOM are installed. Separate solar meters are connected to the grid.

(4) **Sensor-based energy Conservation:** Sensor controlled LED lights are installed in the toilets, waiting lounges, entrances, etc.

(5) **Power efficient Equipment's:** Srinivas University purchase only eco-friendly refrigerants and Air Conditioners, Juicers, Mixers having 5 Star ratings only. These freezers and refrigeration system is used in the Hotel Management Training Kitchen. Eco friendly air conditioners are installed in the library, chambers, industry-academia collaboration centres, etc. Energy efficient LED lights are installed in the toilets, quadrangles, entrance, chambers and classrooms. Energy efficient BS6 Silent Generators are used for alternative power. Energy saving appliances and equipment's are installed in appropriate places.

6.4. Facilities in the Institution for the Management of different types of degradable and non-degradable wastes:

Srinivas University carried out several Waste Management in adoption to the Swachh Bharat Abhiyan, national cleanliness campaign initiated by the Government of India. The institute maintains waste management to keep the campus clean and green by observing it as one among the institutional core values maintained in its campuses.

(1) **Solid Waste Management:** Multi bin system is used in the campuses in conformity to the rules/guidelines issued by the local authority the University maintain *Green Bins* to dispose wet/domestic waste arising from canteen, coffee shop and individual consumption. *Blue Bins* are used to collect dry waste and *Black Bins/ Red Bins* are used to collect bio medical wastes. An MoU with the City Municipality Corporation for collection of bio waste on daily basis and dry waste shall be collected one a week i.e., on every Friday. The disposed books, papers, will be handed over to the professional scrap contractors once a year.

(2) **Liquid Waste Management:** Water recycling plant is installed in the main campus having capacity to recycle 400 litres of waste water per day. The recycled water is used for toilet and gardening purposes in the main campus. Separate pipelines carrying rain water, gray water is fitted to in built pits connected to recycling plants and remains after recycling will be emitted to the public waste disposal pathways.

(3) **Biomedical Waste Management:** Sufficient napkin disposal bins are provided in the Girls hostel and cleared on daily basis by the house keeping department and waste generated from the physiotherapy urban centre and dental clinics will also be disposed through Red Bins by adhering to the rules concerned with the disposal of bio medical waste including used sanitary pads.

(4) **E- Waste Management:** Electronic and electrical waste including bulbs, electrical equipment's, computer monitors, key boards, printers, UPS, cables, etc are disposed to authorised scrap dealers who segregates poisonous components and dispose as per the government guidelines. The University has entered into a MoU with Green Impact Foundation Nandila, Puttur, Dakshina Kannada.

(5) **Waste Recycling System:** Food Waste generated in college canteen, coffee shop, hostel mess is dumped to decomposition pits of 5x5x5 feet dimension specially made for this purpose. The decomposition is carried out to make Verme-Compost. Manure generated out of waste is used for gardening.

(6) **Hazardous Chemicals from Laboratories:** The hazardous waste is emerged only in the chemistry labs of Engineering College. The waste disposal is done with the help of Suppliers of Chemicals who act as the third party in this regard. The third party follow a strict SOP while disposing off the waste ensuring no harm to atmosphere, animals or human beings and other creatures.

6.5 Facilities for Water Conservation:

(1) **Rain Water Harvesting:** Rain water harvesting units are installed in the campus to collect rain water accumulated in the roof of the building. Filters are connected to the open well to recharge the ground water.

(2) **Borewell/Open Well Recharge:** Sufficient number of wells and bore wells are constructed to source water for regular use. Since the land is situated in the low level area it experiences high water flow during the rainy season showing increase in the ground water level.

(3) **Construction of Tanks and Bunds:** Sufficient number of overhead tanks, underground tanks and bunds are constructed to store the water for the daily usage.

(4) **Waste Water Recycling:** Water Recycling Unit is installed inside the campus which recycles almost 400 litres of water on daily basis. The treated grey water is used for maintenance and gardening and toilet purposes.

(5) **Water Distribution System:** Water efficient plumbing fixtures are installed. Drip irrigation is provided to the gardens to prevent wastage of water. Water usage is measured with supply meters, Water Saving fixtures and taps are installed to minimize the usage of water. The outflow of treated water supply will also be measured by pumping duration and volume, etc. The supply of water is regulated at the Pump house.

6.6. Green Campus Initiatives of the University:

(1) **Restricted entry of Automobiles:** Restricted entry of automobiles is imposed by providing screening facility at the entrance by the deployed security personnel's.

(2) **Use of Bicycles/Battery Powered Vehicles:** Usage of electric vehicles is encouraged by installing 'Electric Vehicle Charging Points' and Awareness programmes are conducted to encourage students to use bicycles for commutation. Separate Bicycle stands are made in the parking area.

(3) **Pedestrian Friendly Pathways:** Artificial footpaths are constructed adjacent to roads to facilitating free movement of pedestrians throughout the campus.

(4) **Ban on the Use of Plastics:** University has declared its campus as "Plastic Free Zone". Single use plastics are banned from usage. Notice with regarding to the ban will be circulated to all the classes during the beginning of the semesters. Students will also be oriented to inculcate the habit of zero tolerance to single use plastics. The canteen, coffee shops are banned from using plastic products. Programme planning committees are instructed to use only organic products throughout the programme period.

(5) **Landscaping with Trees and Plants:** Measures are taken to plant more trees across the campuses to control the soil erosion. The wet waste will be converted to Verme compost and used as a manure to plants. Housekeeping and maintenance staffs are appointed to maintain the garden. The recycled water is used for gardening. Plantation programmes are occasionally carried in the campus in collaboration with the forest department.

(6) **Public Transport:** For encouraging eco-friendly commuting practices students are motivated to use public transport to attend field works, internships, project works, agency visits, etc.

(7) **Green House-keeping:** Campus is kept clean free from dust, pollution, odour, free from plastics, tobacco or any narcotic substances. Full time housekeeping staffs are deployed to carry out housekeeping on daily basis. The organic phenol and disinfectants are used to clean. Housekeeping will also be taught as a subject to the Hotel Management students.

6.7. Quality Audits on Environment and Energy and Recognitions on Green Campus initiatives:

(1) **Annual Audit:** Sustainable Education Committee is constituted under the Chairmanship of Student Welfare Officer. The Deans of the Institutes will be the member by default with minimum of 10 members. 1 member will be nominated from the Social Sciences and Humanities department who shall have exposure in the environmental concerns and 1 external member is selected from any NGO. The Registrar of the University will be the Ex-Officio. The committee shall meet once in 3 months and decide upon the agendas to be carried out. The committee shall keep records over all the sustainable practices. University conducts Green Audit, Energy Audit and Environment Audit on yearly basis from the third parties. The report for the audit shall be prepared by the auditors.

(2) **Clean and Green Campus recognitions:** Srinivas University is the founding member of Indo-American Green University Network from February, 2022 and Founding member of Green Mentors powered by law of nature special consultative status with the economic and social council of united nations from 2021.

(3) **Beyond the Campus Environmental Promotion Activities:** The social outreach programmes are planned under Srinivas Institute of Rural Reconstruction Agency (SIRRA), National Service Scheme

(NSS), Unnat Bharat Abhiyan Forum of Srinivas University banners. The details of environmental promotion activities carried by Srinivas University is listed in Table 2.

Table 2: Environmental Promotion Activities conducted between 2017-2022

S. No.	Name of the Programme	Organising Institute	Date	No of Participants
1	Plantation at International Airport Mangalore	IAS	14/8/2018	20
2	Social Service Activity	IMC	3/10/2018	40
3	Cleaning Drive	ISSH	26/3/2019	25
4	Green Campus Programme	IMC	22/7/2019	15
5	Vanamahotsava Programme	ISSH	28/08/2019	15
6	Fire and Safety Awareness Programme	IMC	20/9/2019	200
7	Fire Safety Awareness Programme	IHMT	30/9/2019	60
8	Community Outreach Programme	ISSH/SIRRA	18/11/2019	15
9	Cleanliness Drive	ISSH	26/11/2019	15
10	Environmental Day Celebration	IAS	5/5/2021	200
11	Special Lecture on Tobacco Health and Mental Health Risk	ISSH, NIMHANS, Bangalore	12/6/2021	30
12	Special Lecture on Tobacco Health and Mental Health Risk	ISSH, NIMHANS, Bangalore	12/6/2021	30
13	Cycle Awareness Programme	UBA	28/1/2022	150
14	Coconut Shell Craft Making Competition	IAS	31/1/2022	200
15	Yogic Management of Health	ISSH	3/2/2022	60
16	Craft Making	IAS	7/2/2022	200
17	Visit to Waste Management Project, Puttur	ISSH	23/2/2022	45
18	Environment Awareness Drive	IAS	9/3/2022	50
19	Environment Awareness Drive	IAS	9/3/2022	50
20	Environmental Awareness Drive	IAS	11/3/2022	25
21	Swatch Bharat	IMC	20/5/2022	60
22	Malaria Awareness Programme	UBA	28/5/2022	80
23	One day Campaign on Malaria and Dengue	IMC	31/5/2022	200
24	Survey for evolving a Demonstrable Model ward with Citizens Participation for enhanced ULB Services	ISSH	1/6/2022	10
25	World Environmental Day	ICSIS	4/6/2022	35
26	World Environmental Day	IET	6/6/2022	150
27	Webinar on Sustainable Earth Living in Harmony with Nature	ICIS	13/6/2022	60
28	Co-Note Sustainable Communities: Coping with Climate Change	Future earth Global Secretariat Hub South Africa	16/6/2022	100

29	Awareness Programme on Environmental Hygiene at Z.P.H.P. School, Malar	UBA, SIRRA, NSS	23/6/2022	40
30	Awareness Programme on Environmental Hygiene at Z.P.H.P. School, Pavor	UBA, SIRRA	27/6/2022	45

6.8. The efforts of the University to build disabled-friendly, barrier free environment:

University has constructed ramps and lifts for all the buildings for easy access for all. ‘Divyangjan’ friendly washrooms are constructed in the academic blocks with all the required disable friendly fixtures. Disable friendly Signage including tactile path, lights, display boards and signposts are installed wherever necessary. Assistive technology such as screen-reading software and mechanized equipment’s are also installed for making the campus disabled friendly. Human assistance is provided at the entrance of academic blocks. To support the students with disability in the examination process, reader, and scribe facilities are provided. Central library is equipped with audio study materials for the use of students.

6.9. University initiatives in creating an inclusive environment:

Srinivas University is situated at coastal city famous for tourism, education, health and culture. Students and Staffs are belonging to multicultural people from diverse locations, culture, languages, communal and socio-economic backgrounds. Inclusivity, harmony and tolerance is maintained as a sign of our pluralistic approach. Independence Day, Constitutional day, National Service Day, Mental Health Day, Labours Day, Friendship Day, Mother’s Day etc. are observed. Higher education Institutions should always focus for transmission in its pedagogies and approaches [40].

(1) Cultural Integrity: Cultural relativism and peaceful coexistence is propagated in the code of conduct and oriented to all in induction programme. All colleges follow the culture of welcoming first batch students by organising freshers party every year. Annual Cultural Day is celebrated with unique themes as a platform to showcase their culture and performances are honoured with prizes. ‘Traditional Day’ is celebrated at college level with fashion shows, traditional outfits, costumes, etc. University celebrates all the major festivals such as Onum, Sri Krishna Janmashtami, Holi, Deepavali, Navaratri, Christmas, Ramzan, Ganesh Chaturthi.

(2) Multi Geographic Student Community: University with its first come first admit policy is successful in admitting students belonging to all geographical locations. It is notable that 49.78 % of the students are from outside Karnataka with representation from 10 States, international students from 1 country. Students from North Eastern States, Jammu and Kashmir, Mizoram, Calcutta, Tamil Nadu, Kerala, Gujrat, Andra Pradesh, Maharashtra, U.P etc. Student exchange programmes are agreed with Poland University and Grimsby Institute, U.K.

(3) Linguistic Plurality: One language other than their mother tongue is allowed to be chosen as an optional paper in UG Courses. Hotel Management teach ‘French’ language. Medium of teaching is in English. Spoken English and soft skill training is provided to improve linguistic minorities. The Social Service activities under NSS, Red Cross forums are carried with ‘Kannada’ the regional language and ‘Tulu’ the local languages. Better understanding over the subject is sought by trying to explain in the local languages in the first year UG and PG classes. Kannada and Hindi are provided as electives. TOEFEL training is provided to students to crack international studies and placement avenues.

(4) Annual Food Fests: The taste of multi cuisines, deserts, chats, mocktails, starters can be enjoyed in the campus in the annual food fest organised by the hotel management college.

(5) Grievance Redressal: College committees on anti-ragging, anti- harassment, etc. will strictly investigate any cases of misconduct, discrimination, harassment disturbing the peace and harmony in the campus.

(6) Assistance for availing scholarship: Economic support for meritorious students is provided through Institutional Chancellors complete fees waiver for the eligible candidates for the entire course duration. Support is provided to avail educational loans, ‘Arivu’ loan, scholarships, fellowships, etc.

(7) Transparent Recruitment Policy: University recruits’ faculties purely on merit without adhering to any influence or any other political interference as per its recruitment policy.

(8) **Institutional Awards:** University annually felicitates achievers for their contribution to the Society with A. Shama Rao Best Teachers Award, Best Social Worker Award, Best Business Award and Best Service Award with salutation and cash prize in the Founders Day Celebration. During the annual day celebrations best performing students of each course are awarded with best Academic Performer, Best Field Worker, Best Cultural, Best Sports Person and Best Student of the year. University is launching Srinivas University Industry awards to recognise the good service of the local industries.

(9) **Subsidised fees Structure for Karnataka Students:** To leverage education to the students of Karnataka, University provides up to 25 per cent subsidised fees structure for all the courses and annual fees structure will be displayed in the University website.

(10) **Student and Faculty Development Programmes:** FDPs and SDPs on personality development, self-esteem, self-defence, career guidance, life skills to upbringing Universal brotherhood and harmony is organised. Vivekananda Study Centre involves students in Swatchtha Abhiyan, Cleaning Drives, Awareness drives, service activities, etc.

(11) **Yoga-Samskrith Adhyayana & Research Centre:** To facilitate learning Sanskrit language through online mode the University has initiated 'Srinivas Bharathi-Proficiency Certification' programme.

6.10. Sensitization of students and employees on the constitutional obligations- values, rights, duties and responsibilities of citizens:

The University has incorporated courses on Constitution of India in many Under Graduate Courses. Several Co-curricular activities are organised to sensitize students [41] and staff on their rights and duties as responsible citizens of the country:

(1) **Courses with Constitution of India as a subject:** As per the New Education Policy, 2020 courses such as B.Sc. Allied Health Courses, BSc Nursing, BBA (All Disciplines), BCA, BHMCT, B.Sc.HM, BSW and B.Com.

(2) **Sensitization Programmes** [42]: University observe Indian Constitutional Day. The students have participated in the voter awareness programme in collaboration with District Administration during the 2019 Lok Sabha election. Training programme was conducted on entrepreneurship by encouraging them for Startups by the help of Venture Capital. Celebrated festivals with the children of Govt. Higher Primary School. Organised Cancer Camps, Street Plays, Blood Donation etc. Provided employment to care givers under the Bosch Bridge Centres. Participated in public rally and oath taking by students is sought during the graduation ceremony.

(3) **Orienting Service to Youngsters:** Rural Immersion programmes at post graduate level to engage and empower people from socially backward and minority sections. A rural camp was organised by MSW department at Gulbarga. Social Service activities are carried under the NSS wings and Unnat Bharat Abhiyan forums to create awareness on environmental protection, health, empowerment, skill development, etc.

(4) **Preparing Youth to Fight against Hazards and Contingencies:** Preparing students to fight hazards with technical training on First Aid, Fire Fighting, Self Defence, etc. Social Engagement of students under Unnat Bharat Abhiyan to create awareness about gross root problems of communities. Guest lectures are organised on life skills, road safety, personality development, nation building, yoga, health, hygiene etc. The students and staff of para medical discipline have assisted in fighting COVID-19 pandemic as warriors. University has organised 6 COVID Vaccine drives in the campus to help public to get vaccinated.

(5) **Propagating Unity and Integrity:** Annual Sports meet is organised to nurture sportsmen spirit among the students. Celebration of Independence Day, Republic Day, National Service Day, Teachers Day, National Youth Day to impart spirit of sacrifice, dedication, patriotism etc. Celebration of Festival Celebrations including Holy, Navarathri, Sri Krishna Janmashtami, Christmas, Onum to spread love, tolerance and universal brotherhood among the young minds.

6.11. Universities prescribed Code of Conduct for students, teachers, administrators, and other staffs and conducts periodic programmes in this regard:

Separate code of Conduct is framed for employees, staff, and administrators and approved by the Board of Management. The approved code is published in the official website of the University. Any breach of code of conduct shall be dealt by the Grievance Redressal Committee. Professional ethics programmes are conducted to Students during the orientation classes. The centre for faculty training

conducts periodic orientation on the matters connected to the Code of Conduct for both teaching and non-teaching members.

6.12. Universities efforts to celebrates / organizes National and International Commemorative days, events, and festivals:

The University commemorates days of national and international importance by offering budget, administrative and logistical support. The following events are organised.

(1) **National Days:** Commemoration of Independence Day, Republic Day, Mahatma Gandhi Jayanthi on 2nd October, Children's Day on November 14th, National Youth Day on 12th January, Teachers Day on 5th September, Senior Citizens Day with the inmates of old age homes, World Physiotherapy Day on September 8, Engineers' day, etc.

(2) **International Days:** The international days including International Yoga Day was celebrated on 21st June, International Women's Day on 8th March, World Heart Day on 30th September, World Mental Health Day on 12th October, International Cyber Security Day on 30th November, World Radiography Day on 8th November, World No Tobacco Day on May 31st, World Anaesthesia and Operation Theatre Technologist Day on 20th July, World Environment Day on June 5th, etc.

(3) **Festivals:** University celebrates Onam festival by conducting competitions on flower arrangement, tug of war, games, etc. 'Onum Sadhya' in which traditional meal served on banana leaf as per the tradition of Kerala. Holy, Christmas, Ramzan and Sri Krishna Janmashtami are celebrated by conducting cultural programmes.

(4) **Events:** 'Rashtriya Ekta Diwas' was commemorated by conducting fests. Free Breast Cancer Screening camp was organised commemorating World Cancer Day at Cheliaru Village of D.K. District in association with Cancer Society of India, Bengaluru.

(5) **Week Celebration:** One week long orientation programmes will be offered to both UG and PG students. Nutritional Week, Road Safety Sapthaha are organised.

7. EVIDENCE OF SUCCESS:

7.1. From University Point of View :

- (1) Implemented zero plastic policy in the campuses.
- (2) Zero tolerance on the usage of Tobacco, Alcohol and Narcotic Drugs in the campus.
- (3) Reduced cost due to renewable energy such as Solar Power, Bio Gas, Verme Compost etc.
- (4) Effectively utilised rain water with the help of installed 'Rain Water Harvesting System' thereby found an increase in ground water in the wells and tube wells in the campus.
- (5) Implemented energy conservation measures in its operations.
- (6) Installed Energy saving fans and LED lights in the class rooms.
- (7) Developed Green Landscape in the Campus with plants and trees.
- (8) Built culture of commemorating national and international days on environmental concerns.
- (9) Sensitisation of students on ecological concerns.
- (10) Conservation of water through minimizing the usage volume.
- (11) Introduced innovative "Adopt a Plant" programme for the students.
- (12) Increased the dependence over organic fertilisers and pesticides.
- (13) Maintain toxic and dust free environment with lighting and ventilation in the campuses.
- (14) Usage of local materials in the day to day affairs of the University.
- (15) Strict compliance over the Green Policy will bring sustainability in the longer run.
- (16) Encouraged fuel less vehicles in the campus.
- (17) Clean and Hygienic Campus with full time staffs for maintenance.
- (18) Installed Waste Water Recycling Plant with the capacity of 400 litres per day.
- (19) Constituted Sustainable Education Committee (SEC) to monitor the environmental concerns of the University.

7.2. From Faculty Members Point of View:

- (1) Unnat Bharat Abhiyan forum, National Service Scheme (NSS) and Institutional Sponsored NGO named Srinivas Institute of Rural Reconstruction Agency (SIRRA) are engaged in the task of disseminating eco-friendly practices and habits is carried through Unnat Bharat Abhiyan forum.
- (2) Ban on Plastic is implemented strictly in departmental levels.
- (3) Student orientation classes comprises workshops on environmental protection.
- (4) Environmental Club is constituted consisting of student convenors and volunteers.
- (5) Collaborative efforts for conservation of environment with forest department, local NGO's, Clubs including Rotary, JC's, etc have built external network to the faculties.
- (6) All institutions shall carry out 02 programmes in the adopted villages on cleanliness.
- (7) Faculty Convenors working for UBA and NSS will get training on social extension activities.
- (8) Fests organised at Institutional level will include 'Best out of Waste' event to sensitise students on the utilities of Waste Management.
- (9) Guest lectures are organised from experts on Waste Management and Going Green topics.
- (10) Exposure visits are organised to Waste Segregation and Management Units of Municipality Corporation and Town Municipalities.
- (11) Gifting plant saplings to guests in the programme is carried as a best practice.
- (12) Pot plantation is encouraged by the students.
- (13) Workshops are conducted on harvesting rain water and Conservation of Water.
- (14) Public student rally is organised to sensitise people on environmental concerns.
- (15) Commemoration of Environmental related national and international days makes the students and faculties cautious about conservation of environment.
- (16) Students and faculties will extend hand to the victims of flood, rain, calamities by donating grocery, medicine, food, cloth, and money.
- (17) Fire mock drill from the fire and safety department is organised annually.

7.3. From Industry & Society Point of View:

- (1) Business opportunity will get generated to the industries which produce green products such as solar panels, bio gas plants, plants and saplings, rain water harvesting filters, power saving electrical equipment's, lift, green insectants, turf designs, lawns, eco-generator, etc.
- (2) There will be an increase in the level of environmental sensitisation in the rural areas due to social responsibilities of the University.
- (3) Substantial reduction in the level of manmade pollution due to the dissemination of eco-friendly habits and practices to students.
- (4) Creates market for the local green products at University Campuses.
- (5) Encouragement to utilise the recycled materials will be environment friendly.
- (6) Waste Management has opened up avenues for new business opportunities.
- (7) Reliance over the recycled water by the University will reduce the dependence over public water supply which will benefit the public in general.

8. PROBLEMS ENCOUNTERED AND RESOURCES REQUIRED :

Key problems encountered while planning and implementing the practice are listed below.

- (1) Implementing green initiatives such as Solar Panels, Bio Gas, Rain Water Harvesting Plants, developing green landscape required huge investment.
- (2) Converting from normal lightings to LED and Power saving equipment's was a great challenge in the initial phases.
- (3) Proper training sessions shall be conducted to the faculties initially about environmental issues and concerns to empower them was a real challenge.
- (4) Taking decisions on environmental concerns by the Sustainable Education Committee (SEC) was a real challenge since convincing management about investment on green initiatives was also tough.
- (5) The Green Assessment and Accreditation cycle carried by the AICTE is time specific and after the closing date issued, University has to wait for the next cycle for getting assessed in spite of developing the required green infrastructure.
- (6) Sensitising students on reduction of usage of water was a real challenge.
- (7) Fee charged by the Green Audit firms for the audit is an additional burden to the Universities.
- (8) No common accreditation guidelines issued by the government.

(9) Differences are found in the measuring indexes followed by different Universities [43].

9. ABCD LISTING OF HEI VALUES & SUSTAINABLE SOCIAL RESPONSIBILITIES :

The study uses ABCD framework to analyse upon the utilities and constraints of the Sustainable Social Responsibilities of Srinivas University [44-47].

9.1. Advantages:

Key advantages of the model are listed below.

- (1) Encourage sustainable building designs and structures.
- (2) Conservation of top soil through green landscapes.
- (3) Eco friendly Commuting Practices.
- (4) Effective Water Management is possible.
- (5) Effective Waste water conservation can be realised.
- (6) Effective energy management and cost control.
- (7) Reduce the disposal quantity of Ozone depleting substances.
- (8) Increase the dependability on-site renewable energy.
- (9) Usage of eco-friendly materials in the campuses.
- (10) Impart effective Waste Management and Recycling skills.
- (11) Enhanced compliance to Green Policy.
- (12) Reduce the Carbon footprint.
- (13) Brings inclusivity in the campus and culture of living with nature.
- (14) Adoption of Organic Waste Management.
- (15) Tobacco and Drug free Campus life.
- (16) Fresh air, ventilation, lighting and toxin free environment.
- (17) Health and Hygiene level will increase in the campus.

9.2. Benefits:

Key benefits of the model is listed below:

- (1) Reduce Carbon emission and reduce the addition of Ozone depletion materials to the environment.
- (2) Contributes a major role in controlling the usage of Single Use Plastics.
- (3) Sensitize students against the usage of Narcotic drugs and consumption of alcohol and tobacco.
- (4) Reduce the power consumption and reduce the power cost to great extent.
- (5) Conserve the Rain Water and recharge the ground water for sustainability.
- (6) Reduce water consumption and increase the best utilisation of recycled water.
- (7) Improves the quality of fresh air and ventilation by reducing the level of pollution.
- (8) Energy conservation techniques will reduce the energy cost up to 40 per cent.
- (9) Commemoration of environmental days to increase the environmental consciousness.
- (10) 'Adopt a Plant' programme generates love towards nature among students.
- (11) Usage of organic fertilisers will protect the nutritional value of the soil in the campus.
- (12) Teach effective Waste Management and the best utilisation of recycled products.
- (13) Reduce the carbon foot print.
- (14) Brings in inclusivity, culture and tradition of living with the nature.
- (15) Institutional Values on sustainability will teach eco-friendly lifestyle without harming the nature.

9.3 Constraints:

Key constraints of the model is listed below:

- (1) Initial investment on green products such as solar energy, bio gas, rain water harvesting, green land scaping, green technology, fixtures and fittings, etc is burden for the private managements.
- (2) Strict compliance of green policy has limitations.
- (3) Annual Green Audit is expensive.
- (4) Deployment of maintenance staff for green products are costly.
- (5) For the already existing institutions, transformation to sustainable practices requires time.
- (6) Educating the students, staff, faculties and administrators on the utilities of sustainable social responsibilities is a difficult task.

- (7) Green Audit proformas and assessment guidelines may bring pressure of transformation upon the newly born private universities.
- (8) Non availability of Common Environmental Standards issued by the Government.
- (9) Lack of funding on sustainable practices.
- (10) It may give rise to a new way of Corruption in the name of Sustainability.

9.4 Disadvantages:

Key disadvantages is listed below:

- (1) Non availability of Common Environmental Standards for Higher Education Institutions.
- (2) Every best sustainable best practice is costly.
- (3) There exists a chance of manipulation of Green Audit reports and Recognitions.
- (4) Sustainable Social Responsibility is not effective for short period but profitable for long run.
- (5) Lack of cooperation from the faculties of Government Higher Education Institutions.
- (6) Reduce the income to Power supply Corporation.
- (7) It is difficult to realise the complete sensitization of students on eco-friendly practices and habits.
- (8) Investment by the Management on Sustainable best practice is costly affair.
- (9) Introducing Green Products to Higher Education Institutions need to be strategized [48].

10. CONCLUSION :

Higher Education Institutions are going green with neutral products to claim early mover advantages offered by the government [49]. Going green with eco-friendly initiatives will bring sustainability [50]. Srinivas University is engaging in many social responsibilities such as conservation of energy through renewable sources, installed sensor based energy devices, LED and Power efficient equipment's, etc. A bio gas plant and multi bin disposal systems are followed. Water conservation is done by minimizing the usage volume by fixing necessary fixtures, caution boards and awareness programmes are carried occasionally. A Waste water recycling plant having capacity to recycle 400 litres of water per day is installed. Napkin disposal is carried through the disposal bins available in the girl's hostel. Memorandum of Understanding is entered with NGO working on green initiatives for the effective disposal of E Waste generated in the campus. Wet waste generated out of canteen and hostel are decomposed to derive Verme Compost. Rain water harvesting units are also installed to recharge the ground water. Eco friendly commutation is encouraged with usage of bicycle and battery driven vehicles. Prohibition is laid on the usage of 'Single Use Plastics' in the campus. The efforts are carried to build landscaping with trees and plants. Special infrastructure is built to support 'Divyangjan' such as separate washrooms, ramp, lift, wheel chair, signage boards and voice assistive system in the website, scribe, etc. Under the Unnat Bharat Abhiyan, a national programme of MHRD and National Service Scheme (NSS) several environmental sensitization programmes are carried in the community. Important environmental days such as World Environmental Day, World Water Day, International Yoga Day, State Plantation Day, Safety Day, etc are celebrated. Institutional Values and Social Responsibilities for sustainability is the need of the day. Even though shifting to green products is costly affair but it is advantageous for the long run [51]. University follows an open feedback system to improve its sustainable efforts [52]. Consistent feedback is taken to further improve the best practices of the University for achieving greater sustainability for the future [53].

REFERENCES :

- [1] Malinverni, L., Schaper, M. M., & Pares, N. (2016). An evaluation-driven design approach to develop learning environments based on full-body interaction. *Educational Technology Research and Development*, 64(6), 1337-1360. [Google Scholar](#)
- [2] Kolb, M., Frohlich, L., & Schmidpeter, R. (2017). Implementing sustainability as the new normal: Responsible management education—from a private business school's perspective. *The International Journal of Management Education*, 15(2), 280-292. [Google Scholar](#)
- [3] Oleschuk, M. (2020). Gender Equity Considerations for Tenure and Promotion during COVID-19. *Canadian review of sociology- Revue Canadienne de Sociologie*, 57(3), 502–515. DOI: <https://doi.org/10.1111/cars.12295>. [Google Scholar](#)

- [4] Gupta, G. R., Oomman, N., Grown, C., Conn, K., Hawkes, S., Shawar, Y. R., & Darmstadt, G. L. (2019). Gender equality and gender norms: framing the opportunities for health. *The Lancet*, 393(10190), 2550-2562. [Google Scholar](#)
- [5] Solaimani, S., & Sedighi, M. (2020). Toward a holistic view on lean sustainable construction: A literature review. *Journal of Cleaner Production*, 248(1), 119213. [Google Scholar](#)
- [6] Liu, Z. J., Pyplacz, P., Ermakova, M., & Konev, P. (2020). Sustainable construction as a competitive advantage. *Sustainability*, 12(15), 5946. [Google Scholar](#)
- [7] Paunescu, C., Dragan, D., & Gauca, O. (2017). Examining obligations to society for QS Stars best ranked Universities in social responsibility. *Management & Marketing Challenges for the Knowledge Society*, 12(4), 551-570. [Google Scholar](#)
- [8] Rao, L., Ontiveros, J., Yonkoski, J., Wauthy, J., & Holt, P. (2021). Energy Master Planning for Resilient Public Communities-Best Practices from North American Universities. *ASHRAE Transactions*, 127(1), 660-672. [Google Scholar](#)
- [9] Zafar, M. W., Shahbaz, M., Sinha, A., Sengupta, T., & Qin, Q. (2020). How renewable energy consumption contribute to environmental quality? The role of education in OECD countries. *Journal of Cleaner Production*, 268(1), 122149. [Google Scholar](#)
- [10] Qazi, A., Fayaz Hussain, N. A., Rahim, Glenn Hardaker., Daniyal Alghazzawi, Khaled Shaban, & Khalid, Haruna. (2019). Towards Sustainable Energy: A Systematic Review of Renewable Energy Sources, Technologies, and Public Opinions. *IEEE Access*, 7(5), 63837-63851. [Google Scholar](#)
- [11] Katinas, V., Marciukaitis, M., Perednis, E., & Dzenajaviciene, E. F. (2019). Analysis of biodegradable waste use for energy generation in Lithuania. *Renewable and Sustainable Energy Reviews*, 101(1), 559-567. [Google Scholar](#)
- [12] Krstic, I. I., Radosavljevic, J., Djordjevic, A., Avramovic, D., & Vukadinovic, A. (2018). Composting as a method of biodegradable waste management. *Facta Universitatis Series: Working and Living Environmental Protection*, 15(2), 135-145. [Google Scholar](#)
- [13] Wojnowska-Baryła, I., Kulikowska, D., & Bernat, K. (2020). Effect of bio-based products on waste management. *Sustainability*, 12(5), 2088. [Google Scholar](#)
- [14] Salve, S., Shinde, S., & Bhojwani, K. (2021). Drum Composting: A Unique Solution in Environmental Engineering for Biodegradable Waste Management and Electricity Generation. *AMC Indian Journal of Civil Engineering*, 4(1), 39-45. [Google Scholar](#)
- [15] Narancic, T., & O'Connor, K. E. (2019). Plastic Waste as a Global Challenge: Are Biodegradable Plastics the answer to the Plastic Waste Problem?. *Microbiology*, 165(2), 129-137. [Google Scholar](#)
- [16] Nigussie, Z., Tsunekawa, A., Haregeweyn, N., Adgo, E., Cochrane, L., Floquet, A., & Abele, S. (2018). Applying Ostrom's institutional analysis and development framework to soil and water conservation activities in north-western Ethiopia. *Land use policy*, 71(1), 1-10. [Google Scholar](#)
- [17] Addo, I. B., Thoms, M. C., & Parsons, M. (2018). Barriers and drivers of household water-conservation behavior: A profiling approach. *Water*, 10(12), 1794. [Google Scholar](#)
- [18] Pani, A., Ghatak, I., & Mishra, P. (2021). Understanding the Water Conservation and Management in India: An Integrated Study. *Sustainable Water Resources Management*, 7(5), 1-16. [Google Scholar](#)
- [19] Dagiliute, R., Liobikiene, G., & Minelgaite, A. (2018). Sustainability at Universities: Students perceptions from Green and Non-Green Universities. *Journal of Cleaner Production*, 181(1), 473-482. [Google Scholar](#)
- [20] Biswas, J. K., & Dash, M. C. (2019). Building a Green Image: Best Sustainability Practices in Universities. *Science and Culture*, 85(5), 308-314. [Google Scholar](#)

- [21] Obaideen, K., AlMallahi, M. N., Alami, A. H., Ramadan, M., Abdelkareem, M. A., Shehata, N., & Olabi, A. G. (2021). On the contribution of solar energy to sustainable developments goals: Case study on Mohammed bin Rashid Al Maktoum Solar Park. *International Journal of Thermofluids*, 12(1), 100123-32. [Google Scholar](#)
- [22] Guney, T. (2022). Solar energy and sustainable development: evidence from 35 countries. *International Journal of Sustainable Development & World Ecology*, 29(2), 187-194. [Google Scholar](#)
- [23] More, P. V. (2019). The impact of Greenwashing on Green Brand Trust from an Indian perspective. *Asian Journal of Innovation and Policy*, 8(1), 162-179. [Google Scholar](#)
- [24] Gupta, R., Gregg, M., Manu, S., Vaidya, P., & Dixit, M. (2019). Customized Performance Evaluation Approach for Indian Green Buildings. *Building Research & Information*, 47(1), 56-74. [Google Scholar](#)
- [25] Getu, B. N., & Attia, H. A. (2016). Electricity Audit and reduction of Consumption: Campus Case Study. *IJAER*, 11(6), 4423-4427. [Google Scholar](#)
- [26] Adhikary, P., Roy, P. K., & Mazumdar, A. (2015). ESIA and Environmental Audit for Small Hydro Power Projects–MCDM Approach. *IASH Journal-International Association for Small Hydro*, 4(1), 24-32. [Google Scholar](#)
- [27] Ribeiro, M. M., Hoover, E., Burford, G., Buchebner, J., & Lindenthal, T. (2016). Values as a bridge between sustainability and institutional assessment: A case study from BOKU University. *International Journal of Sustainability in Higher Education*, 17(1). 40-53. DOI: <https://doi.org/10.1108/IJSHE-12-2014-0170>. [Google Scholar](#)
- [28] Pradeep, M.D., & Kalicharan, M. (2016). Life Centric Skill Enrichment Framework–An Effective Pedagogy for Empowerment. *International Journal of Computational Research and Development (IJCRD)*, 1(1), 40-46. [Google Scholar](#)
- [29] Pradeep, M. D., & Ravindra, B.K. (2017). Pedagogies to Improve Teaching, Learning and Evaluation in Higher Education. *International Journal of Scientific Research and Modern Education (IJSRME)*, 2(2), 21-26. [Google Scholar](#)
- [30] Abdul Samad, Shaikh, & Mustghis Ur, Rahman. (2011). Consumer Perception of Green Products: A Survey of Karachi. *Journal of Independent Studies & Research-(MSSE)*, 9(2), 15-23. [Google Scholar](#)
- [31] Naim, A. (2021). Green Business Process Management. *International Journal of Innovative Analyses and Emerging Technology*, 1(6), 125-134. [Google Scholar](#)
- [32] Aithal, P. S., & Kumar, P. M. (2015). How innovations and best practices can transform Higher Education Institutions: A Case Study of SIMS. *International Journal of Management (IJM)*, 6(2), 83-98. [Google Scholar](#)
- [33] Pradeep, M. D., & Ravindra, B. K. (2017). Pedagogies to Improve Teaching, Learning and Evaluation in Higher Education. *International Journal of Scientific Research and Modern Education*, 2(2), 21-26. [Google Scholar](#)
- [34] Madhushree, L. M., Pradeep, M. D., & Aithal, P. S. (2019). Boosting Education through Mobile Technology in India – Study with reference to Generation Z. *International Journal of Applied Engineering and Management Letters (IJAEML)*, 3(2), 96-105. DOI: <http://doi.org/10.5281/3597588>. [Google Scholar](#)
- [35] Pradeep, M. D., & Saumya, S. K. (2019). Child Welfare – Measures to Combat Violation, Exploitation & Abuse. *International Journal of Management, Technology, and Social Sciences (IJMSTS)*, 4(1), 52-67. DOI: <http://doi.org/10.5281/zenodo.3047048>. [Google Scholar](#)
- [36] Pradeep, M. D. (2018). Study on the Mobility in Status of Women Evolutionary Phases towards Empowerment in India. *International Journal of Management, Technology and Social Sciences (IJMSTS)*, 3(2), 73-86. DOI: <http://doi.org/10.5281/zenodo.1462570> [Google Scholar](#)

- [37] Thomas, A. (2015). Incidents of Sexual Harassment at educational institutions in India: Preventive Measures and Grievance Handling. *International Journal of Recent Advances in Multidisciplinary Research*, 2(03), 0317-0322. [Google Scholar](#)
- [38] Pradeep, M. D., & Ravindra B. K. (2017). Review on the Gender Sensitive Women Education-Legal Revolution in Higher Education. *International Journal of Management, Technology, and Social Sciences (IJMTS)*, 2(1), 53-65. DOI: <http://dx.doi.org/10.5281/zenodo.821378>. [Google Scholar](#)
- [39] Acharya, S., & Aithal, P. S. (2016). Impact of Green Energy on Global Warming-A Changing Scenario. *International Journal of Scientific Research and Modern Education (IJSRME)*, 1(1), 838-842. [Google Scholar](#)
- [40] Pradeep, M. D., & Aithal, P. S. (2015). Learning through team centric exercise & key point pedagogy-an effective learning model for slow learners in social work higher education training. *International Journal of Multidisciplinary Research and Development*, 2(9), 265-270. [Google Scholar](#)
- [41] Lata, K. (2016). Right to Healthy Environment and Sustainable Development. *ACADEMICIA: An International Multidisciplinary Research Journal*, 6(3), 245-251. [Google Scholar](#)
- [42] Bhat, S. A., Zahid, A. T., Sheikh, B. A., & Parrey, S. H. (2017). Environmental education in India: An approach to Sustainable Development. *FIIB Business Review*, 6(1), 14-21. [Google Scholar](#)
- [43] Olcay, G. A., & Bulu, M. (2017). Is measuring the knowledge creation of Universities Possible?: A review of University Rankings. *Technological Forecasting and Social Change*, 123(1), 153-160. [Google Scholar](#)
- [44] Aithal, P. S. (2017). A critical study on Various Frameworks used to analyse International Business and its Environment. *International Journal of Applied Engineering and Management Letters (IJAEML)*, 1(2), 78-97. [Google Scholar](#)
- [45] Aithal, P. S. (2017). ABCD Analysis of Recently Announced New Research Indices. *International Journal of Management, Technology, and Social Sciences (IJMTS)*, 1(1), 65-76. [Google Scholar](#)
- [46] Aithal, P. S. (2017). ABCD Analysis as Research Methodology in Company Case Studies. *International Journal of Management, Technology, and Social Sciences (IJMTS)*, 2(2), 40-54. [Google Scholar](#)
- [47] Aithal, P. S. (2017). ABCD Analysis of Recently Announced New Research Indices. *International Journal of Management, Technology, and Social Sciences (IJMTS)*, 1(1), 65-76. [Google Scholar](#)
- [48] Deekshitha, M. A., Udaya, Kumar, & Pradeep, M. D. (2017). A Study on Changing Consumer Behaviour towards fast moving Consumable Goods in India. *International Journal of Multidisciplinary Research and Modern Education*, 3(1), 392-398. [Google Scholar](#)
- [49] Pradeep, M. D., & Akhilesh Suresh, A. K. (2016). Green Marketing to meet Consumer demands and Sustainable Development-Challenges and Opportunities. *International journal of Advanced Trends in Engineering and Technology (IJATET)*, 1(1), 34-41. [Google Scholar](#)
- [50] Pradeep, M. D., & Akhilesh Suresh, A. K. (2017). Going Green in Business- A Study on the Eco-friendly initiatives towards Sustainable Development in India. *International Journal of Applied Engineering and Management Letters (IJAEML)*, 1(2), 40-50. DOI: <http://dx.doi.org/10.5281/zenodo.1017596>. [Google Scholar](#)
- [51] Yasmin, Begum R., Nadaf, & Shamshuddin, R Nadaf (2014). Green Marketing: Challenges and Strategies for Indian Companies in 21st century. *IMPACT International Journal of Research in Business Management (IMPACT: IJRBM)*, 2(5), 91-104. [Google Scholar](#)
- [52] Pradeep, M. D., & Kalicharan, M. L. (2019). Feedback Management System with reference to Institutions of Higher Education: Opportunities & Challenges – An Exploratory Study,

International Journal of Management, Technology and Social Sciences (IJMSTS), 4(1), 26-37. DOI: <https://doi.org/10.5281/zenodo.2594621>. [Google Scholar](#)↗

- [53] Pradeep, M. D., & Kalicharan, M. L. (2019). Feedback Management System with reference to Institutions of Higher Education: Opportunities & Challenges – An Exploratory Study. *International Journal of Management, Technology, and Social Sciences (IJMSTS)*, 4(1), 26-37. DOI: <https://doi.org/10.5281/zenodo.2594621>. [Google Scholar](#)↗
