Minutes of the Meeting of Green Committee of IIT Roorkee held on Jan 16, 2023

The following members were present:

1. Prof K K Pant, Director - Chairman
2. Prof U P Singh, Dy Director - Special Invitee
3. Prof Arun Kumar, HRED - Convenor
4. Prof Umesh Kumar Sharma, Dean Infrastructure - Member
5. Prof Sujay Chattopadhyay, Dean SRE - Member
6. Prof M A Iqbal Asso. Dean (Bhawan & Mess) - Member
7. Prof Anubrata Dey, Asso. Dean Infra (El) - Member
8. Shri Bhavneesh Lal, Institute Architect - Member
9. Prof Avlokita Agarwal, Arch & Planning - Member
10. Prof Bhanu Prakash Vellanki, CED - Member
11. Prof Ram Manohar Singh, HSS - Member
12. Shri Akshay Pandey, General Secretary (AA) PG - Member
13. Prof Bihu Suchetana, CED - Special Invitee

Prof ML Kansal, Institute Engineer and 2 Student members could not join the meeting.

Prof K K Pant, Director while welcoming the members of committee, desired to highlight the objectives and background of the green committee. Prof Arun Kumar, Convenor Green committee informed that the Council of IITs decided in 2013 that each IIT would establish a Green Office, which would carry out a Green Audit of its curriculum and its institutional management practices, such as energy, water, waste, construction projects, natural resource (forest, water etc.) and conservation of bio-diversity. More details are available at https://www.iitr.ac.in/GP/Agenda.html and https://www.iitr.ac.in/GP/green_office.html

Director further asked Prof Arun Kumar, Convenor Green committee to present the agenda scheduled for the meeting.

Agenda 1. Actions Taken Report:

The action taken report on the minutes of meeting held on Dec 20, 2021 were deliberated. The same is here presented as per action taken and are to be taken.

No.	Reference	Title / Matter	Actions Taken and deliberated
01	April 14 , 2021 (Agenda 1)	**Biodiversity on campus:** It was suggested that to create awareness among the campus residents, activities related to this can be planned with the students of eco club (e.g. Bird watching, etc.). It was also decided that the list of species of the flora and fauna found on the IITR campus through this survey,	Study for Biodiversity in the campus has been completed and a preliminary report was released on launching programme day of 175 years celebration on Nov 25, 2021. The final report was released on March 11, 2022 https://www.iitr.ac.in/GP/pdf/Biodiversity_of_an_Urban_Greenspace_IIT_Roorkee_Report.pdf **Discussed and decided**

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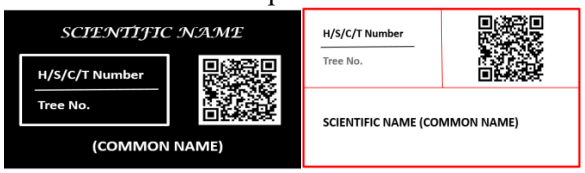
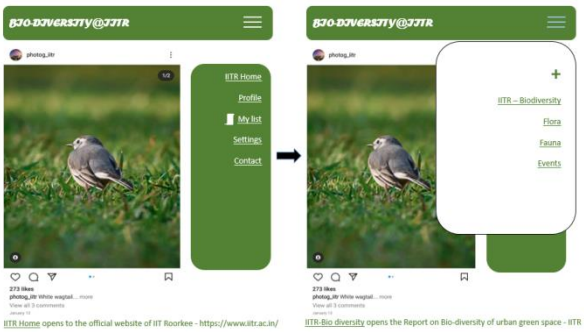
		shall be added on the IITR's website so that the campus fraternity can view the same and also add pictures new species if found by them. The images received will be initially screened and refined by WII before they are uploaded on the IITR database. WII shall make a presentation on the updated status.	1. As per the biodiversity report, labelling of trees may be carried out by Institute Horticulture Section. Green committee shall give the soft flies for classification of plants.  2. An App for Biodiversity may be developed to explore flora and fauna in the campus. IMG / Group of students shall be requested through DOSW / ICC to prepare the same. Budget requirement, if any, shall be requested from competent authority. 
02	April 14 , 2021 (Agenda 2)	**Water (Planning for distribution, monitoring, and maintenance including desired water quality to reduce water foot print):** Prof Bihu Suchetana, CED was assigned to undertake the water consumption issue and prepared a plan for the campus. It was discussed that the testing for the identification of dead zones and other regions within the water distribution system with relative lesser quality of water can be outsourced. Instruments can be deployed to detect water leakage. It was suggested that Prof Bihu should have a meeting with E&W to determine the zones for bulk water metering in the campus as well as the budget for the same, in a phased manner. It was informed that 1 MLD of treated waste-water from the sewage treatment plant is in use for watering of sports grounds and lawns. Prof Umesh Sharma Dean Infra informed the committee that the laying of underground pipeline	1. GPR survey is in the last legs, preliminary drawings have been prepared (attached) which will be finally validated in the upcoming weeks and submitted. Since the last meeting, GPR tender was floated, vendor was finalized- ESI Services India LLP, their work was initiated and preliminary GPR survey, aided by cable locator technology, was carried out. Currently, their on-site team has been de-mobilized and they have prepared initial drawings, which will be validated and finalized in the upcoming weeks. 2. From January, monthly informational emails to the campus community to serve as visual reminders for water conservation are being sent. Banners and pamphlets for display across various locations on campus have also been prepared (attached and shown below), which will be put up on display soon. 3. The final analysis of the campus-wide survey conducted to test public perception on water conservation has been completed and the findings are provided and shared. **Next steps:**

No.	Reference	Title / Matter	Actions Taken and deliberated
		for the same has been completed. To carry out this matter forward, it is essential to create awareness among the campus fraternity regarding sensible use of water and that the sweepers, gardeners and cleaners should also be part of this survey and awareness. Proposal of Prof Bihu Suchetana to carry out the survey of the water lines and carryout the water distribution quality and quantity analysis with the required funding of Rs.6.28 Lakh shall be supported by Dean Infra to kick-start the same.	Based on the results of the GPR survey, the following tasks will be performed: a. Water quality testing at dead zones/ critical locations and assessment of the risks/related measures b. Locations for installation of bidirectional and/or unidirectional flow meters within the network Further, preliminary decisions on installation of low-flow, water saving fixtures (related to cost, locations etc.) will be explored   **Further Actions** 1. Based on the survey a zone/area be selected for making 100% metering for monitoring the water consumption and a suitable telescopic tariff be planned and implemented. 2. In future all water efficient fixtures (taps, shower heads, cisterns, toilets, urinals, lawn

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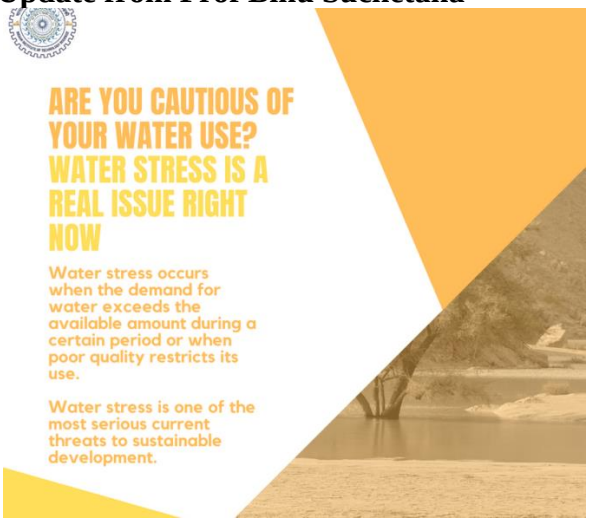
			sprinklers etc.), be used, whenever/wherever changed are required. For deciding the specifications and quality of these fixtures, a committee may be constituted by Dean (Infra) including Prof Bihu Suchetana.
			Update from Prof Bihu Suchetana  (Nov 01, 2022) • Results of the campus survey on water conservation practices presented during last meeting in Dec 2021. • GPR survey of campus has been completed: Entire water network has been mapped and the drawings are available. • WaterGEMS modelling has been done: Based on the results of the GPR survey, a tentative water quality analysis was done. Identification of poor water quality zones was carried out. • The water quality at the dead/poor water quality zones was tested by the Environmental Engineering lab at the Department of Civil Engineering. **Preliminary observations:** 1. Mapping campus water network is the first step towards improvement of our understanding and control over the system. However, our knowledge of water demands at various locations, chlorination protocol etc. is now clear. To improve conservation practices, a complete knowledge of water supply, use and reuse is necessary. 2. Decisions regarding location of control valves etc. cannot be made with the current level of knowledge of the network. It is recommended that a follow-up task be conducted to fill in the knowledge gaps, before smart control systems are placed.

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			3. Posters and pamphlets will be printed and distributed/displayed across various locations by this month.
			Discussed and decided
			Prof Bihu Suchetana shall submit the report along with the doable action and financial implication.
03	April 14 , 2021 (Agenda 3)	**Waste:** Prof BP Vellanki presented the matter of solid waste management on campus. After a detailed discussion on the same, it was decided that segregation of solid waste and Bio-methanation of organic part is considered as the option to reduce the waste contribution to the society and retrieving the energy from the waste. A detailed report on the feasibility, costing and land requirement shall be prepared by Prof BP Vellanki. For locating bio methenation plant the space shall be identified in the campus or otherwise Municipal Corporation of Roorkee shall be requested to provide. Any budget required for preparing the plan and detailed project report shall be provided by the institute.	Before the Bio-methanation unit can be installed, the plan was for sensitisation of the community in a phased manner with assistance of NSS students. Without segregation, the plant will fail. To discuss this and various aspects such as possible fines as a deterrent against not segregating waste, etc. a meeting was held under the aegis of Deputy Director, with relevant people. NSS was supposed to assist in the sensitisation program. Confirmation from NSS is awaited. Followed up with Dean Infra regarding logistic aspects. Meeting was held in September 7th with Infra Team. A DPR has been prepared. Permission given for fabrication of continuous feeder Vermi composting unit which will serve as back up to biomethanation unit and more importantly required for digesting the sludge from biomethanation unit fit for agricultural or horticultural use. The prototype vermi composting continuous feeder unit has been fabricated with help of students of Eco Group. It is set up opposite the STP near the rotary drum composting unit. Will be used to develop the population of Australian night crawlers (red wrigglers) required for larger scale operation later. Initial population of worms will be from a company in Meerut. Visits companies in Meerut which are into large scale vermi composting of cow dung has been completed. Have been running batch unit for 3 months to learn the nitty gritty first hand. 5. Regarding solid waste management, the draft DPR is ready and has been shared with Dean Infra for comments to make it more relevant to the objective. The link is below: https://iitracin-my.sharepoint.com/:w:/g/personal/bhanuprakashv_ce_iitr_ac_in/Ed19Z8z3yB1AhicBkvrl8PAB1m1oWEywklSHTS4Nbemj4Q?e=enfaoP
			Dean (Infra) and Prof Bhanu P Vellanki have been suggested to move forward on this matter. A cost estimate, time line and details on the proposal be

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			considered by Dean (Infra) for further processing of the matter. **Discussed and decided** Prof Bhanu Vellanki and Dean Infra informed that a tender process is going on and likely date for its commissioning is March 31, 2023. The tender is also covering the collection of solid waste from the respective place and segregated solid waste shall be taken from the users. For this a massive awareness programme shall be undertaken around the commissioning time with institute community. It was informed that to cover short term needs, bids for a facility to segregate the unsegregated waste of campus and compost the biodegradable content via in vessel composting were invited. Facility is expected to be ready by March 31, 2023. In view of sustainability and meeting energy demands of the campus, the plans for biomethanation unit will progress simultaneously. In view of the need for segregated waste for biomethanation plant, awareness for waste segregation at source will continue.
		Under the guidance of Prof BP Vellanki, Shri Praharsh and Shri Devesh students from the ECO Group presented the study conducted by them on the Paper, Plastic & Styrofoam Cutlery problems and substitutes. It was decided that this idea can be initiated by Student's council along with the co-operation of Bhawans and Mess, with the support of Associate Dean (Bhawan and Mess) and guidance of Prof BP Vellanki. This issue can be addressed in stages. One bhawan can be targeted in the first instance. Further decisions can be taken after seeing the results stage-wise. Prof. Avlokita Agarwal also suggested about an organization 'Maathi' who make clay/earthenware cups. This option might be considered after studying the feasibility of this proposal and looking at the stage-wise results.	After coming back to the campus, **eco group have taken up several activities and the same is presented by them** and is available at Annexure 1**.** Penalty or return of non-segregated waste shall be started in order to improve the awareness for segregation among the residents. **Discussed and decided** 1. Waste segregation in the Bhawans: Segregated waste generated in the Bhawan is being done in few bhawans where biodegradable and non-biodegradable dustbins have been installed. For other bhawan is process is going on. 2. Majority of canteens are using biodegradable cutlery but some like Vigyan Kunj canteen & night canteen, Kasturba canteen, Jawahar Canteen and RKB night canteen are not using it. Associate Dean (Bhawan) has been advised to issue notification of different rates for the commodity in the canteen who are using biodegradable cutlery and who are bringing their owned cutlery. No non-biodegradable cutlery shall be used in the bhawans. 3. Sanitary Waste Management: PadCare Labs are proposed to be developed for which may cost a sum of Rs. 4 – 5 lakhs per year as per the bids which has been invited and may be

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			finalised by March 31, 2023. It is estimated that about 1.5 – 2 Lakh sanitary pads are to be disposed off annually in the campus. Proposed technology gives sterilized output out of used sanitary pads which is further used in manufacturing objects like plant pots, paper, paver blocks, and utilization in the Agri industry with the help of their patented technology of Sensor Operated Dustbins. 4. E-bikes Indeanta: Use of e-bikes within the campus be increased. This matter may be dealt by Dean Infra and DOSW being related to student affairs. Sufficient charging points may be installed. 5. To encourage the use of e-Cars, e-scooters and e-cycles by institute community (staff), it has been decided that the charging points shall be installed at the different location in the campus and details of those be informed to the institute community frequently. 6. Treated Sewage water is being supplied to various common lawns and grounds in the institute for which sufficient infrastructure has been laid. A strong awareness about the use of the same is to be done among the *Malis* of sports and departments and central units. The timings of the same has to be adjusted so that none of them use the normal portable water supply. An advisory shall be issued by the green committee to them and awareness session may be planned in consultation with sports council and estate horticulture. 7. E-Waste Management: To avoid the hazardous effect of these wastes on environment, institute is in discussion and is in the process of collaborating with Attero, who is India's Electronic Asset Management Company dedicated to the recycling of the electrical and electronic industry with zero landfill. As per MOU proposed by them, Attero will be picking up the e-waste from Bhawans and faculty apartments. They will recycle this waste by using their cutting edge technologies. In exchange for e-waste, Attero will provide monetary benefits to the waste generators. Bids have been invited and expected to be completed by March 31, 2023. 8. Aluminum Cans: there is large number of PET bottles generated in the campus which may be replaced by aluminum cans or glass bottles.

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			More details on this may be obtained and discussed later.
04	April 14 , 2021 (Agenda 4)	**Energy:** An order has been placed for the installation of 1 MWe Solar photovoltaic on hostels roof 1.89 per kWh for a power purchase agreement of 25 years expected to be completed by March 2021 and the work on Opex basis from a RESCO (Renewable energy sources company) recently. DPR prepared by PGCIL has been agreed by the institute and implementation work is under progress and expected to be completed by March 2021.	1000kWp capacity Grid Connected Solar Photo Voltaic System has been commissioned on 10.10.2021. Since IIT Roorkee is installing a capacity of 2.8 MW of roof top solar which may be the highest among sister institutions for which a thorough search may be made and if found confirmed, this initiative can be released to the media on 25th Nov, 2021 on occasion of IITRs 175 years of celebration. **Discussed and decided** A poster and brochure on solar initiatives taken by institute be prepared and circulated among the institute community for creating awareness and utilisation of solar energy in the campus. The details of the generation for the last 5 years shall be provided by Associate Dean (Infra) Electrical for both systems (1.81 MW Capex and 1.0 MW Resco).
	April 14 , 2021 (Agenda 4)	**Energy:** Use of energy efficient appliances and systems for reduction in electricity: Use of energy efficient appliances in the campus is being practiced for several years. However this is being done in piecemeal. Recently a MOU has been signed by IIT Roorkee with Power Grid Corporation where they agreed to support the activities of energy efficiency and reduction in power consumption. A report has been received from Power Grid Corporation and shall be shared by institute engineer with green committee convener. It was decided to conduct an energy audit especially of non-residential areas. As has been done in the past, this can be done by involving the students through internship programmes.	After several round of discussions PGCIL is inviting the tender shortly. **Discussed and decided** Associate Dean (Infra) El. informed that the tender has been issued several times without success by PGCIL. Meanwhile institute also has replaced star rated ACs appliances and lighting. Matter may be taken up with the CMD PGCIL for its early completion by convener Green committee (GC) and Dean Infra.
05	April 14 , 2021 (Agenda 5)	**Vehicles:** Proposal of procuring e-Car has been initially dealt by Prof In charge Vehicle and as per green committee minutes is being dealt by the convener of Green Committee since March 2020. MMS has again	Two vehicles have been procured and announced in the independence address by the Director IITR on Aug 15, 2021. Its operation strategy have been finalised and encouraging rates have been announced. Both vehicles are in operation. **Discussed and decided**

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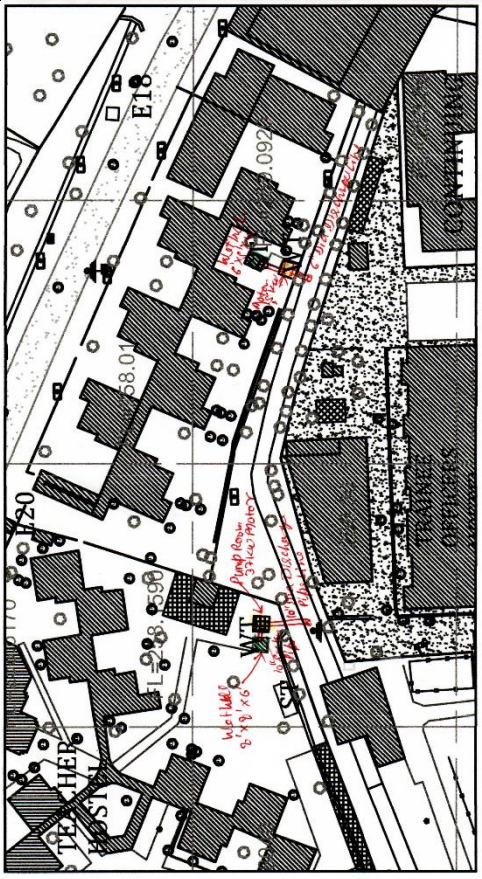
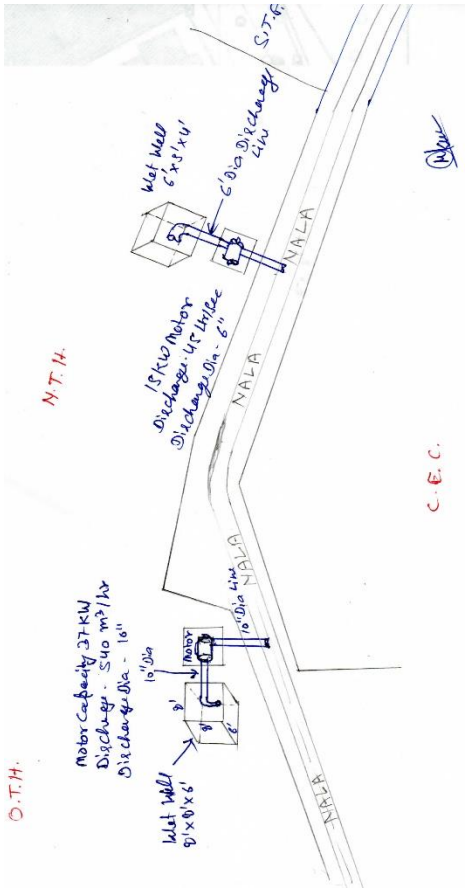
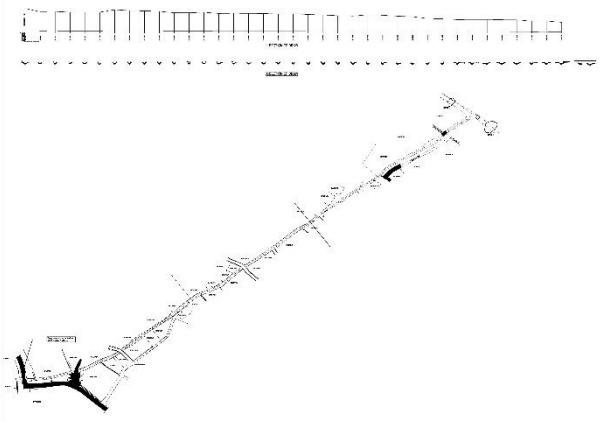
		proposed the procurement through GEM but no quotations on GEM are being received even after 3 trials. Prof Arun Kumar suggested that the proposal to procure e-cars should be done directly from the manufactures/dealers. Dy Director will discuss the matter with DR MMS and necessary action for early procurement for e-Car / vehicle using the money available shall be taken.	In view of its wider acceptability, a poster and brochure on this initiative be prepared and circulated among the institute community for creating awareness and utilisation of electrical vehicle in the campus. Convenor, Green Committee can take up this Work. Further e-charging stations in different locations may be planned so that community may go for e-scooters and e-cars in future. The charging stations be also monitored/paid with user cards or some other transparent process.
06	April 14 , 2021 (Agenda 6)	**Drainage on Campus:** Prof Arun Kumar, volunteered to undertake the planning of the mitigation for the drainage issue in the next 6 months with the support of E&W personnel as well as data (Topographical survey, details on existing drainage etc.) and other faculty members.	(a) Level sensor based auto operation of existing pumping station was done and it worked as expected during heavy rain on 28 and 29 July, 2021. A new pumping station at CEC of the same capacity as of the OTH pumping station i.e. 540 cubic meter per hour is being planned and shall be implemented after due process.   

No.	Reference	Title / Matter	Actions Taken and deliberated
			 

No.	Reference	Title / Matter	Actions Taken and deliberated
			(b) To examine and plan the smooth flow of rain water from the exit drain near the STP at Khanjarpur. A topographical survey has been carried out of the drain from the exit point of the drain of institute to end. (c) The drawings for the existing drains emerging from Niti Nagar area to NIH Chowk and covered drain from NIH chowk to STP area/Khanjarpur. E&W office have been sent by IA. This shall be studied Every year district administration is being communicated related to clearance of drain off from STP to Khanjarpur and ahead prior to the commencement to the rainy season. However, in order to prevent inundation of water inside the campus an external drain is also being cleared by our sanitation staff every year). (d) In last few years, the excavated soil from the different part of the campus have been brought and spread in the area near Saraswati Mandir ground and ABN Ground and this has led to higher elevation of the ground thus reducing the area for retention during high rains. In the past the level of ABN ground was also raised because of stacking of surplus soil excavated from the different sites of NBCC. It was levelled in emergency for taking up the student function. The dredging of the area has been done to some extent. However the level of this ground should be maintained about 15 – 25 cm below the normal ground so that these are used for water retention and reduction of peak flows. Since, because of mining issue the work of disposal of soil has become cumbersome process. Permission from the local district administration is a cumbersome process and also involved financial implication. 

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			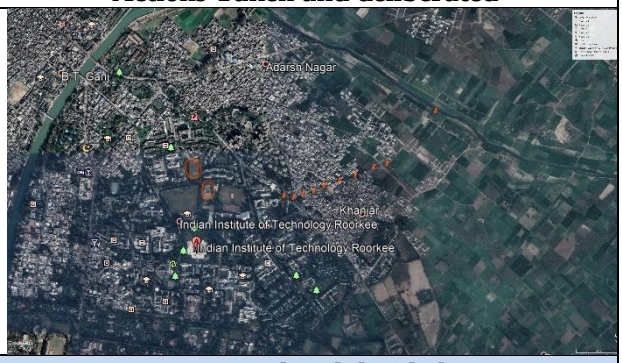 **Discussed and decided** Prof Arun Kumar shall work out on the plan and IA and IE shall support and provide the details of the existing drains. The work has been slow on this. The study and proposal may be completed by May 2023.
08	April 14 , 2021 (Agenda 7)	**Implementation of Mini-forests in IITR:**Green committee recommended that pilot site (Area beside Temple, along the periphery of the volley ball court-3 or 3.5 m wide strip) for Miyawaki forest project be approved by the ISCM (Institute Space Management Committee) and the required funding in the order of Rs. 2.5 lakh be provided by Estate and Works. Post the approval The Estate and Works office may write formerly to the NGO (SayTrees organisation) for starting the project.	The Miyawaki forest (1150 trees, around 70 species) has been planted. Watering the plantation regularly has been made. Growth will be limited during winter period. Should be exponential during the warmer months. **Further Actions** Institute community has been informed vide email dated March 25, 2022.    (Dec 2022)

No.	Reference	Title / Matter	Actions Taken and deliberated
			Discussed and decided It has been mentioned that damage of some of the plants done by some individuals. In case these are identified a counselling may be carried through their administrative heads to avoid such mis-endeavour. Further fencing and signage board shall be arranged on the existing Miyawaki forest site to prevent such damages. Due to inherent advantage of increasing carbon sequestration, the new sites were discussed, It was the new areas be identified to implement Miyawaki forest on the campus to increase forest area. The proposal for the same may be brought to the Green committee for consideration so that a comprehensive may be taken.
09	April 14 , 2021 (Agenda 8)	**Water Conservation Implementation Plan in IIT Roorkee**: As informed by Prof Khare, aggregates are available but are not the ideal choice for the filter material as compared to boulders and pebbles. Since boulders and pebbles are taken from the river bed, there are restrictions from the State Government for their use. Prof Sharma, Dean Infra suggested that the same can be arranged from the adjoining States. Prof Khare to provide Dean Infra with a detailed report along with the type and quantity of filter material needed to process the same. Prof Khare also informed that the testing of the 4 installations for the demonstration would be done in the upcoming monsoon season. It was also decided that the cleaning and maintenance of the roofs for this project can be assigned to the designated JEE of the area pre-monsoon just for these 4 installations (RT-RWH-Recharge, RT-RWH-Storage, Recharge Shaft and Recharge Pit). For long term purposes, the caretaker of the respective departments/bhawans as assigned by the institute shall carry out the cleaning and maintenance works periodically. It was also discussed that recharge shafts and	Photos of rain water harvesting system installed at WRDM and Kasturba Bhawan. The rain water is collected from the roof of Kasturba Bhawan and WRDM department. The filtered rain water is used to recharge the ground water at Kasturba bhawan through abandoned old tubewell and through recharge shaft and recharge pit at WRDM.   **Further Actions** A brochure on the same has been prepared and institute community has been informed by email dated March 31, 2022.

No.	Reference	Title / Matter	Actions Taken and deliberated
		groundwater recharge pits should be constructed along the roads, at the lowest points, to avoid the problem of flooding in the monsoons as well as to facilitate the issues of drainage as mentioned in the earlier point of 'Drainage on campus'. The maintenance and cleaning for the same shall be looked into as the project progresses further. The filter material is awaited from E&W.	
			Discussed and decided
			The green committee noted with great appreciation and asked the Dean Infra for its regular maintenance.
10	April 14 , 2021 (Agenda 9)	**Other Items:** The awareness campaign of the green committee has been started. E-poster has been sent to all the students, faculties and staff members of the institute. It was also displayed at the LED screen and hard copies of the same are being put up in the notice boards of all the departments and hostels. The poster for the same has been attached herewith. To further facilitate this, an email ID for the Green Committee office has been created where the campus community can share their feedbacks/suggestions/queries. The document with the compiled responses would be presented so that necessary actions can be taken by the concerned faculties. Also the first theme of, "Dry/waste leaves disposal", under this campaign has been rolled out along with the questionnaire to create awareness.	In view of this, the provision of any machinery related to Horticulture work i.e Electric lawnmower, Dry leaf shredder etc. is being kept in the current Tender which is scheduled to start from 1st Jan '2022 for which the contractor shall be asked to procure the same wherein its upkeep, maintenance and wear & tear lies to the contractor.
			Further Actions
			Institute Architect may inform the progress / status on this work in the meeting.
	April 14 , 2021 (Agenda 9)	**Other Items:** M&M office regarding purchase of the recycled paper, shall take necessary action immediately for the for the people use in departments and administrative offices.	The committee was informed that the M&M office has already arranged the sample of recycled paper for photocopying (A4 & A3 size) in the offices but were not of good quality. M&M office now arranging the samples envelopes and file covers made from recycled paper for feedback etc and based on the feedback they will proceed with further procurement.
			Further Action
			The status from MM Office be presented during the next meeting.

No.	Reference	Title / Matter	Actions Taken and deliberated
11	April 14 , 2021 (Agenda 10)	**Hazardous Waste:** Chairman informed that Hazardous waste is being successfully collected from the Department of Chemistry and Department of Metallurgical andMaterials Engineering. The deputy director has been requested to review the same in the meeting with the safety office so that this can become a regular sustainable feature in the campus.	<u>Response received from Safety office on Dec 21, 2021</u> • The sharing of data related to HW collection to the institute GC and related members is being ensured by Safety Office. The details are being shared once again for information,as attached. • The process of identification, collection, disposal is not streamlined and ensured by the Safety office of routine basis. • The safety office has done communication with the respective HODs and as a result of this activity two departments (i.e. Civil Engg and Hydro & Renewal Energy Department) have identified the HW and the safety office ensured its proper collection by the TSDF. Details available in the attached sheet. • The workshop was organised with the support of respected matter experts on 25th August'21.Total 122 students joined the session. • Awareness slides of HW management and disposal has been prepared and continuously displayed over the institute electronic display • Communication was done with mailer of the HW,but till date B&B dept,M&ME Dept and Chemistry Department have its dedicated collection centre,nothing like this is available in other departments. The collection of HW Chemical is being ensured by the Safety Office being personally involved. • As per the received guidelines,the safety office has initiated the collection of the HW by the TSDF from the identified & other (as per request) dept. locations. Following are under process (a) In the long term, to ensure sensitisation of research scholars from waste generating departments, every year, or at the time of registration of the PhD students, the students will have to pass an objective quiz. A set of slides about guidelines and what needs to be done in different scenarios, will be provided prior to the quiz. Also, to inculcate habit among the student community, student volunteers from each Department will try to ensure good lab waste handling and storage practices in the labs in the department. (b) Students who do well in the quiz along with a team of students from prominent departments (5-6) can assist the safety office in providing reports if any violations are observed in the labs relating to disposal of chemicals. Safety office can visit the labs, monitor and audit them.

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<tr><th>No.</th><th>Reference</th><th>Title / Matter</th><th>Actions Taken and deliberated</th></tr>
<tr><td></td><td></td><td></td><td>
Inorganic waste collection details (hazardous waste) fy 2021-22
<table>
<tr><th rowspan="2">Sr. No</th><th rowspan="2">Collection Date</th><th rowspan="2">Department</th><th colspan="4">Category Wise Disposal Details</th><th rowspan="2"></th></tr>
<tr><th>Halogenated</th><th>Non-Helogenated</th><th>Heavy Metals</th><th>Others</th><th>Collection Agency Authorised By UKCPCB</th></tr>
<tr><td>1</td><td>09.04.2021</td><td>Metallurgical and material & chemistry</td><td>262.79</td><td>173.88</td><td>0</td><td>371.13</td><td rowspan="4">Bharat Oil & waste Management Ltd. (Authorised TSDF by UEPPCB and U.P Pollution Control Board)</td></tr>
<tr><td>2</td><td>23.07.2021</td><td>Metallurgical, chemistry, bio science & bio</td><td>143.28</td><td>408</td><td>6.5</td><td>149.5</td></tr>
<tr><td>3</td><td>30.11.2021</td><td>Chemistry, civil, hydro & renewable</td><td>74.5</td><td>204.4</td><td>44.3</td><td>200</td></tr>
<tr><td colspan="3">Total (Kgs)</td><td>480.57</td><td>786.28</td><td>50.8</td><td>720.63</td><td></td></tr>
<tr><td colspan="7">2038.28</td></tr>
</table>
Further Actions
Safety office may prepare a brochure on its efforts and be shared with the institute community.
</td></tr>
<tr><td>12</td><td>-</td><td>Solarification of the IITR: Based on the census, a status report prepared by Ms. Saylee Bhogle, Project Associate under guidance of Prof Arun Kumar, for all the 11 Bhawans with Solar Water heating system and 9 Mess areas with Solar Steam Cooking system so that actions can be taken in this regard wherever the systems are not working / non-operational. Reports for the same have already been sent to Associate Dean Electrical for taking remedial actions. E&W started working on the same</td><td>It was also mentioned that the team assigned with this work should take up this matter seriously and promptly to avoid such issues again in the future.
Further Actions
Associate Dean (Infra) may present during the next meeting about the solar energy related matter on the entire campus covering hostels, apartments, house residences, offices etc.</td></tr>
</table>

Agenda 2: Institute Annual Sustainability report for the year 2021-22: Reporting Item

The report has been prepared and approved by the Chairman and is available on the websitehttps://www.iitr.ac.in/GP/pdf/Annual_Sustainability_Report_2021-2022.pdf

The report may be shared with the institute community.

Agenda 3: UI GreenMetric Sustainability Ranking submission:

Institute participated in the UI GreenMetric Sustainability Ranking 2022 and got a rank 320 out of 1050 institutes from 85 countries. The details of the same are given at Annexure 2.

Institute ranking related matter has been reported. There are several areas such as converting softscapes into hardscapes, reduction/ conversion of waste to energy, reduction in energy consumption, reduction in water consumption, to be addressed by the institute. To begin with Institute may adopt a policy to refrain from converting softscapes into hardscapes for which advisory may be issued to the institute community be the green committee. In view of several actions required at the institute level, a separate meeting shall be planned with Deputy Director and Dean Infra and related officer to discuss its importance and scope of improvement in the ranking.

Agenda 4: Participation in the G20 Education Summit - Greening Education Partnership Sept 1 – 2, 2023 New Delhi

To consider the participation and also to consider the advisory from MOE dated Jan 06, 2023 in connection with G20 University connect programme. Annexure 3

Dear President/ Provost / Vice Chancellor,

Green Mentors is pleased to invite you and Your University

to Attend, Speak or Present your 21st Century education solution

for the Greening Education Partnership - Getting every learner climate-ready

at the G-20 Education Summit, taking place on September 01-02, 2023.

Register your UNIVERSITY NOW through Google Form

Few participants (faculty and students) may participate in this and present institute case.

Agenda 5: To consider the proposal of Buzz on Earth, Bangalore

Part 1: Annexure 4

(a) Behavioural Intervention: Energy-Use Reduction, with the initial cost of Rs 50,000/- + Travel Expenses
(b) Behavioural Intervention: Waste-Reduction, with the initial cost of Rs 50,000/- + Travel Expenses

Approval has been received towards the cost only. The approval for the travel expenses shall be requested from competent authority.

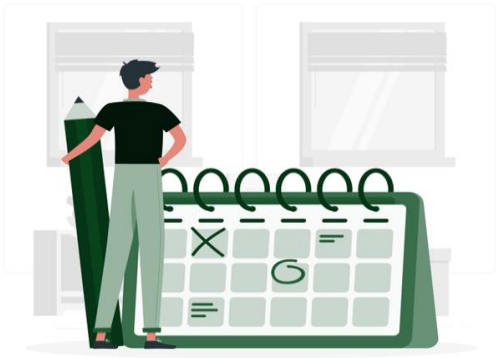
Part 2: Proposal for organising Event on sustainability.
A meeting shall be organized in coordination with Deputy Director for further discussion and approval after obtaining more details and fine tuning with proposed budget.
Annexure 5

Agenda 6: Any Other Item:

Meeting ended with the vote of thanks to the chair.

ANNEXURE 1

Agenda
ECO Group



Waste Segregation in Bhawans

Problem:

SDM recently enforced policies that waste generated in the campus will not be collected by municipality unless segregated. Therefore, more sophisticated and refined ways of segregation are required.

Solution:

In consultation with AEE sanitation, we organised a awareness session for sanitary workers and installed dustbins in bhawans for biodegradable and non-biodegradable waste to ensure segregation at source.

Current Progress:

Dustbins have been installed in few bhawans and the process is ongoing to complete the installation in all campus bhawans.

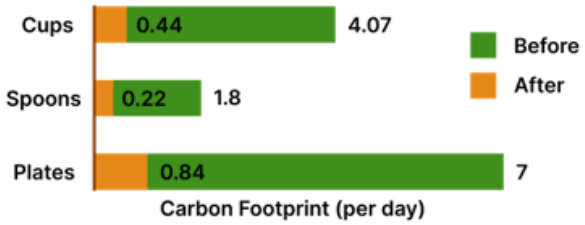
Biodegradable Cutlery

Problem: Plastic cutleries used in bhawan canteens is contributing to a significant amount of non biodegradable wastes in our campus

Solution: We had pursued canteen managers to replace them by biodegradable cutleries

This table below shows impact of usage of non biodegradable cutleries in Rajiv canteen:

Before		After	
Glasses	110	Glasses	12
Spoons	125	Spoons	15
Plates	100	Plates	12



Current Progress: Majority of canteens are using biodegradable cutlery but some like Vigyan Kunj canteen & night canteen, Kasturba canteen, Jawahar Canteen and RKB night canteen are not using it

Sanitary Waste Management : PadCare Labs

The Distress of sanitary workers: In an awareness session organized for the sanitary workers by our team regarding waste segregation, we came across the issue of sanitary waste management faced by their community.

PadCare Labs: PadCare Labs creates harmless and sterilized output out of used sanitary pads which is further used in manufacturing objects like plant pots, paper, paver blocks, and utilization in the Agri industry with the help of their patented technology of Sensor Operated Dustbins. The technology is backed by Department of biotechnology, Niti Ayog, and the American Society of Mechanical Engineering.

Annual stats for sanitary waste production in IITR campus:

- Number of female students: 1700
- Number of pads disposed: 163,200

Expected impact of the proposed initiative:

- Landfill area saved: 81,600 ltrs
- Carbon Emission Saved: 864,960 Kgs

Current progress on the project:
Bids have been invited and expected to be done in two months.

Miyawaki Forest: Initiative by Green Committee

Adverse effects of Urbanization:

Changing structure of world is leading to urbanization. To deal with the adverse effects of urbanization, urban forestry is one of the most effective measures.

Miyawaki in our campus:

Miyawaki forests is an effective afforestation technique that creates denser forests cover in less time on small areas working essentially on the natural reforestation principle. The forests initiated by Green Committee is maintained by ECO Group.

Current Progress:

We are searching for a new location to grow another Miyawaki forest in our campus.

E bikes: Indeanta

Need of E-bikes: Students buy cycles in their first years and roughly 65% of them are auctioned with low conversion rates. To provide a convenient mode of transportation and save the hassle of auction and disposal of waste bikes, we're introducing e-bikes in collaboration with Indeanta.

Indeanta: The company provides Electric mobility solutions, tailor made for large educational campuses, schools, corporate tech parks, factories and industries. It has built India's first in-campus multi-modal electric mobility service.

Working: The company will provide e-bikes to the campus. Six major cycle stands will be installed at different locations for lodging. Students can pick an e-bike from any installed station using their app "indeanta" and can be left at any other station.

Current situation: The MoU is ready and has been approved by our Dean of Infrastructure. An approval from Professor incharge transportation is needed for further processing.

Awareness Session for Reuse of Treated Sewage water:

Problem: We have underground infrastructure of treated sewage water for lawns. But even Gardeners are not aware of it. They use separate water tap for watering the lawns.

Current Situation: Only main building lawn and football ground uses the underground treated sewage water.

Solution: We are planning to organize a awareness session for all the gardeners. In the session we will address them the issue and guide them to utilize the infrastructure.

E-Waste Management : Attero

Problem: In an awareness session organized for the sanitary workers by our team regarding waste segregation, we came across the issue of e-waste management faced by their community.

Solution: To avoid the hazardous effect of these wastes on environment, we are collaborating with Attero.

Attero: Attero, India's Largest Electronic Asset Management Company is a group dedicated to the recycling of the electrical and electronic industry with zero landfill.

MOU: As per MOU proposed by them, Attero will be picking up the e-waste from Bhawans and faculty apartments. They will recycle this waste by using their cutting edge technologies. In exchange for e-waste, Attero will provide monetary benefits to students and residents.

Current progress: Bids have been invited and expected to be done in two months.

Biodiversity Portal For Flora and Fauna

- We are developing an interactive web based biodiversity portal, allowing the campus community to explore the species of flora and fauna of IITR.
- Portal will contain the images and details of the flora and fauna as per biodiversity report by Wildlife Institute of India (WII) conducted in March 2021.

Aluminium Cans

- Generation of large amount of PET bottles
- Solution can be the use of aluminum cans or glass bottles
- Use of aluminum cans also generates revenue

As per IIT Roorkee data collected,
Average consumption of bottles = 4500/day
Waste generated = 16,425 kg/year

In case of Aluminium cans:
Waste generated = 24,455 kg/year
If collected separately revenue of 23.2 lakhs/year can be generated

Aluminium cans can give more revenue with less carbon footprint.

Aluminium Cans (calculations):

As per data collected,

In case of PET bottles:
Average number of bottles selling each day = 1300 (in winters)
Consumption in summer = 5*consumption in winters
Average consumption = 4500/day
So, bottles generating per day = 1,642,500
Average weight of 1 PET bottle = 10 gram and revenue rate = 15Rs/kg
So, waste generated is 16,425 kg/year
Revenue generated = 2.46 lakhs/year

In case of Aluminium cans:
Average weight of each can is 14.9 grams and revenue rate is 95 Rs/kg
So, revenue generated = 23.2 lakhs/year

Aluminium cans can give more revenue with less carbon footprint

ANNEXURE 2

Country Ranking 2021	University
1	Mangalore University
2	Manipal Academy of Higher Education
3	S R M University (Institute of Science and Technology)
4	Chettinad Academy of Research and Education
5	National Institute of Technology Silchar
6	Sri Sri University
7	Nitte (Deemed to be University)
8	Acharya Nagarjuna University
9	Kalasalingam Academy of Research and Education
10	Saveetha Institute of Medical and Technical Sciences
11	SSM Institute of Engineering and Technology
12	Chitkara University, Punjab
13 (391 WR)	Indian Institute of Technology Roorkee
14	GITAM : Gandhi Institute of Technology and Management
15	Yenepoya University
16	Indian Institute of Management Indore
17	Hindustan Institute of Technology & Science
18	Guru Jambheshwar University of Science and Technology,Hisar, Haryana

Country Ranking 2022	University
1	Manipal Academy of Higher Education
2	Mangalore University
3	S R M University (Institute of Science and Technology)
4	Chettinad Academy of Research and Education
5	National Institute of Technology Silchar
6	Acharya Nagarjuna University
7	Sri Sri University
8	Nitte (Deemed to be University)
9	SSM Institute of Engineering and Technology
10	Saveetha Institute of Medical and Technical Sciences
11 (320 WR)	Indian Institute of Technology Roorkee
12	Yenepoya University
13	GITAM : Gandhi Institute of Technology and Management
14	Bhagat Phool Singh Mahila Vishwavidyalaya
15	Kalasalingam Academy of Research and Education
16	Indian Institute of Management Indore
17	Chitkara University, Punjab
18	Sndt Women's University

WORLD RANKING HISTORY DIAGRAM

UI GreenMetric World University Rankings

year	Rank	Total Participating institutions	%
2019	475	780	61%
2020	319	912	35%
2021	391	956	41%
2022	320	1050	30%
		85 countries	

IIT ROORKEE YEAR	WORLD RANKING					COUNTRY RANKING				
	World Ranking	SI Ranking	EC Ranking	WS Ranking		Country Ranking	SI Ranking	EC Ranking	WS Ranking	
2019	475	428	450	559		16	19	13	19	
		WR Ranking	TR Ranking	ED Ranking			WR Ranking	TR Ranking	ED Ranking	
		674	291	370			21	9	7	
	World Ranking	SI Ranking	EC Ranking	WS Ranking		Country Ranking	SI Ranking	EC Ranking	WS Ranking	
2020	319	236	331	517		8	9	7	10	
		WR Ranking	TR Ranking	ED Ranking			WR Ranking	TR Ranking	ED Ranking	
		440	313	193			15	10	4	
	World Ranking	SI Ranking	EC Ranking	WS Ranking		Country Ranking	SI Ranking	EC Ranking	WS Ranking	
2021	391	507	479	429		13	21	17	10	
		WR Ranking	TR Ranking	ED Ranking			WR Ranking	TR Ranking	ED Ranking	
		328	239	477			17	10	13	
	World Ranking	SI Ranking	EC Ranking	WS Ranking		Country Ranking	SI Ranking	EC Ranking	WS Ranking	
2022	320	165	619	536		11	5	23	19	
		WR Ranking	TR Ranking	ED Ranking			WR Ranking	TR Ranking	ED Ranking	
		59	182	386			1	9	8	

UI GreenMetric World University Rankings 2022 - India

S. No.	Rank	university	Country	Total Score	Setting and Infrastructure	Energy and Climate Change	Waste	Water	Transportation	Education and Research
1	121	Manipal Academy of Higher Education	India	8050	1025	1525	1500	900	1625	1475
2	152	Mangalore University	India	7850	1325	1400	1275	800	1525	1525
3	167	S R M University (Institute of Science and Technology)	India	7775	1025	1475	1650	900	1400	1325
4	180	Chettinad Academy of Research and Education	India	7700	1125	1850	1200	650	1525	1350
5	205	National Institute of Technology Silchar	India	7600	1050	1325	1350	850	1500	1525
6	246	Acharya Nagarjuna University	India	7325	1225	1475	1050	750	1500	1325
7	250	Sri Sri University	India	7300	1300	1425	1200	750	1400	1225
8	258	Nitte (Deemed to be University)	India	7225	1150	1325	975	700	1475	1600
9	289	SSM Institute of Engineering and Technology	India	7010	960	1575	825	750	1475	1425
10	314	Saveetha Institute of Medical and Technical Sciences	India	6925	900	1375	1050	700	1350	1550
11	320	Indian Institute of Technology Roorkee	India	6896	1155	1000	975	950	1450	1365
12	333	Yenepoya University	India	6825	1150	1225	1125	800	1300	1225
13	340	GITAM - Gandhi Institute of Technology And Management	India	6805	930	1400	1125	700	1275	1375
14	347	Bhagat Phool Singh Mahila Vishwavidyalaya	India	6790	1130	1225	1650	700	1260	825
15	367	Kalasalingam Academy of Research and Education	India	6700	975	950	1350	750	1675	1000
16	462	Indian Institute of Management Indore	India	6260	835	1175	1275	750	1250	975
17	464	Chitkara University, Punjab	India	6225	760	1000	1275	950	1150	1090
18	480	Sndt Women's University	India	6110	875	1600	1200	500	1010	925
19	503	Guru Ghasidas Vishwavidyalaya	India	6010	1085	1150	675	700	1250	1150
20	508	Avantika University	India	6000	1090	1050	1050	650	1300	860
21	511	Jamia Millia Islamia	India	5985	950	1185	900	650	1075	1225
22	605	Hindustan Institute of Technology & Science	India	5370	660	1200	900	560	1100	950
23	606	Kakatiya University	India	5370	835	885	900	600	1175	975
24	607	Guru Jambheshwar University of Science and Technology Hisar, Haryana	India	5365	830	1075	825	650	1010	975
25	621	PERIYAR MANIAMMAI INSTITUTE OF SCIENCE AND TECHNOLOGY	India	5290	980	1160	750	700	1110	590
26	663	Mizoram University	India	5120	890	1160	825	460	960	825
27	674	Indian Institute of Technology Bhubaneswar	India	5080	1200	860	975	510	860	675
28	712	Integral University	India	4870	585	425	1350	850	685	975
29	725	Bharathiar University	India	4800	800	915	525	360	1125	1075
30	726	Sri Padmavati Mahila Visvavidyalayam (Women's University)	India	4800	1025	775	375	150	1175	1300
31	744	Indian Institute of Management Bangalore	India	4665	790	865	975	700	785	550
32	762	MIT World Peace University	India	4550	1005	700	900	210	635	1100
33	764	National Institute of Technology Hamirpur	India	4545	885	460	825	600	975	800
34	881	Sri Ramachandra Institute of Higher Education and Research (SRIHER)	India	3760	925	450	600	450	835	500
35	891	Vignan's Foundation for Science, Technology and Research	India	3665	595	585	450	550	885	600

Category	Point	Maximum Point	Percentage
Setting and Infrastructure (SI)	1,155	1500	77.00 %
Energy and Climate Change (EC)	1,000	2100	47.62 %
Waste (WS)	975	1800	54.17 %
Water (WR)	950	1000	95.00 %
Transportation (TR)	1,450	1800	80.56 %
Education (ED)	1,365	1800	75.83 %
Total Score	6,895	10000	68.95 %

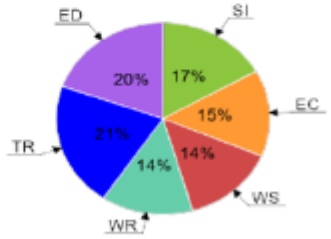


Figure 1.1 Overall Score Diagram

2022 OVERALL SCORE

Areas Requiring Immediate Attention:

- Waste (WS)
- Energy and Climate Change (EC)

2022 RESULTS DETAIL

SETTING & INFRASTRUCTURE (SI)

	Indicator	Score
SI.1	The ratio of open space area towards total area	100
SI.2	Area on campus covered in forest	25
SI.3	Area on campus covered in planted vegetation	200
SI.4	Area on campus for water absorbance	75
SI.5	The ratio of open space area divided campus population	200
SI.6	University budget for sustainability effort	150
SI.7	Percentage of operation and maintenance activities of building in one year period	100
SI.8	Campus facilities for disabled, special needs and or maternity care	100
SI.9	Security and safety facilities	100
SI.10	Health infrastructure facilities for students, academics and administrative staff's wellbeing	100
SI.11	Conservation: plant, animal and wildlife, genetic resources for food and agriculture secured in either medium or long-term conservation facilities	5

Figure 5.1 Percentage of Score to Maximum Score for Setting and Infrastructure

2019-2022
RESULTS DETAIL

SETTING & INFRASTRUCTURE (SI)

Additional Indicators added in 2021

	INDICATOR	SCORE-2019	SCORE-2020	SCORE-2021	SCORE-2022
SI.1	The ratio of open space area towards total area	150	150	50	100
SI.2	Area on campus covered in forest	0	0	25	25
SI.3	Area on campus covered in planted vegetation	300	300	200	200
SI.4	Area on campus for water Absorbance	50	200	50	75
SI.5	The ratio of open space area divided campus population	225	300	100	200
SI.6	University budget for sustainability effort	0	0	50	150
SI.7	Percentage of operation and maintenance activities of building in one year period			100	100
SI.8	Campus facilities for disabled, special needs and or maternity care			75	100
SI.9	Security and safety facilities			100	100
SI.10	Health infrastructure facilities			100	100
S1.11	Conservation: plant, animal and wildlife, genetic resources			0	05
	TOTAL SCORE	725	950	850	1155

Steps Forward – Settings and Infrastructure

- Create more forested area on campus
- No construction should be carried out on vacant lands
- Water retention ponds and water bodies shall be created
- Proper policy vetting for all new constructions

Responsible departments- Dean Infrastructure office, Green Committee, DAA, DF&P, DFA, DOSW

2022
RESULTS DETAIL

ENERGY & CLIMATE CHANGE (EC)

Indicator		Score
EC.1	Energy efficient appliances usage	100
EC.2	Smart building program implementation	75
EC.3	Number of renewable energy source in campus	75
EC.4	The total electricity usage divided by total campus population	15
EC.5	The ratio of renewable energy production towards total energy usage per year	150
EC.6	Element of green building implementation	200
EC.7	Greenhouse gas emission reduction program	200
EC.8	The ratio of total carbon footprint divided campus population	10
EC.9	Number of innovative program(s) in Energy and Climate Change	100
EC.10	Impactful university program(s) on climate change	75

Figure 5.2 Percentage of Score to Maximum Score for Energy and Climate Change

2019-2022
RESULTS DETAIL

ENERGY & CLIMATE CHANGE (EC)

Additional Indicators added in 2021

	INDICATOR	SCORE-2019	SCORE-2020	SCORE-2021	SCORE-2022
EC.1	Energy efficient appliances usage	100	100	100	100
EC.2	Smart building program implementation	75	150	75	75
EC.3	Number of renewable energy source in campus	75	225	225	75
EC.4	The total electricity usage divided by total campus population	75	75	0	15
EC.5	The ratio of renewable energy production towards total energy usage per year	150	150	0	150
EC.6	Element of green building implementation	300	300	200	200
EC.7	Greenhouse gas emission reduction program	50	100	200	200
EC.8	The ratio of total carbon footprint divided campus population	75	75	0	10
EC.9	Number of innovative program(s) in Energy and Climate Change			100	100
EC.10	Impactful university program(s) on climate change			75	75
	TOTAL SCORE	900	1175	975	1000

Steps Forward – Energy and Climate Change

- All appliances shall be changed to energy efficient appliances
- Implement smart building programs
- Reduce energy consumption
- Frame policy for reduction of combustion and emission of fuels
- Reduce carbon footprint

Responsible departments- Dean Infrastructure office, Green Committee, DAA, DF&P, DFA, DOSW

2022
RESULTS DETAIL

WASTE
(WS)

Indicator		Score
WS.1	Recycling program for university waste	75
WS.2	Program to reduce the use of paper and plastic in campus	300
WS.3	Organic waste treatment	75
WS.4	Inorganic waste treatment	75
WS.5	Toxic waste treatment	225
WS.6	Sewerage disposal	225

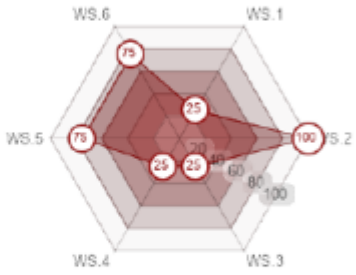


Figure 5.3 Percentage of Score to Maximum Score for Waste

2019-2022
RESULTS DETAIL

WASTE
(WS)

	INDICATOR	SCORE-2019	SCORE-2020	SCORE-2021	SCORE-2022
WS.1	Recycling program for university waste	75	75	75	75
WS.2	Program to reduce the use of paper and plastic in campus	150	300	300	300
WS.3	Organic waste treatment	75	75	75	75
WS.4	Inorganic waste treatment	75	75	75	75
WS.5	Toxic waste treatment	75	75	300	225
WS.6	Sewerage disposal	150	225	225	225
	TOTAL SCORE	600	825	1050	975
	PERCENTAGE %	33.33	45.83	58.33	54.17

Steps Forward – Waste

- Develop a waste minimization strategy. Include integrated planning, public participation and education about waste management (Reduce, Reuse, Recycle)
- Establish system for recycling office paper and reduce use of plastic water bottles by introducing alternatives (e.g: water dispensers, water filters on taps)
- Establish baseline of waste produced by volume and use; set targets for reduction
- Reduce and phase out polystyrene packaging and food containers. Preference should be given to suppliers who can offer environmentally acceptable packaging schemes and take-back.

Responsible departments- Dean Infrastructure office, Green Committee, Sanitation dept., Estate and Works, Civil Engineering dept.

2022
RESULTS DETAIL

WATER
(WR)

Indicator		Score
WR.1	Water conservation program	200
WR.2	Water recycling program	200
WR.3	The use of water efficient appliances	150
WR.4	Consumption of treated water	200
WR.5	Water pollution control in campus area	200

Figure 5.4 Percentage of Score to Maximum Score for Water

2019-2022
RESULTS DETAIL

WATER
(WR)

Additional Indicator added in 2021

	INDICATOR	SCORE-2019	SCORE-2020	SCORE-2021	SCORE-2022
WR.1	Water conservation program	0	150	100	200
WR.2	Water recycling program	0	150	50	200
WR.3	The use of water efficient appliances	150	150	150	150
WR.4	Consumption of treated water (New)	0	50	200	200
WR.5	Water pollution control in campus area			200	200
	TOTAL SCORE	150	500	700	950
	PERCENTAGE %	15.00	50.00	70.00	95%

Steps Forward – Water

- Establish baseline of consumption by volume and use.
- Install digital water sub-meters to each building to identify leaks and consumption
- Research harvesting of run-off and rainwater for use in irrigation
- Monitor and publish water consumption data
- Install water efficient fittings to all new buildings and major refurbishments

Responsible departments- Dean Infrastructure office, Green Committee, WRD & M, Estate and Works, Institute Architect, Institute Engineer

2022
RESULTS DETAIL

TRANSPORTATION (TR)

Indicator		Score
TR.1	The ratio of total vehicles (cars and motorcycles) divided by total campus population	100
TR.2	Shuttle services	150
TR.3	Zero Emission Vehicles (ZEV) policy on campus	150
TR.4	The ratio of Zero Emission Vehicles (ZEV) divided by total campus population	200
TR.5	Ratio of parking area to total campus area	150
TR.6	Transportation program designed to limit or decrease the parking area on campus for the last 3 years	200
TR.7	Number of transportation initiatives to decrease private vehicles on campus	200
TR.8	Pedestrian policy on campus	300

Figure 5.5 Percentage of Score to Maximum Score for Transportation

2019-2022
RESULTS DETAIL

TRANSPORTATION (TR)

	INDICATOR	SCORE-2019	SCORE-2020	SCORE-2021	SCORE-2022
TR.1	The ratio of total vehicles divided by total campus population	100	100	0	100
TR.2	Shuttle services	75	75	150	150
TR.3	Zero Emission Vehicles (ZEV) policy on campus	100	100	150	150
TR.4	The ratio of ZEV divided by total campus population	200	200	200	200
TR.5	Ratio of parking area to total campus area	150	150	150	150
TR.6	Transportation program designed to limit or decrease the parking area on campus for the last 3 years	100	100	200	200
TR.7	Number of transportation initiatives to decrease private vehicles on campus	150	150	200	200
TR.8	Pedestrian policy on campus	225	300	300	300
	TOTAL SCORE	1100	1175	1350	1450
	PERCENTAGE %	61.11	65.28	75.00	80.56

Steps Forward – Transportation

- Minimize on campus transportation to minimize carbon footprint; through better planning
- Develop non-motorized transport routes for better walkability on roads
- Develop park and ride scheme to limit private vehicle scheme on campus.
- Provide dedicated parking for scooters and bikes using existing vehicle bays
- Improve pedestrian and cycle access routes to campuses, providing safety and security.
- Provide adequate and secure bicycle storage at key locations and at transport hubs.
- Pilot hybrid vehicles and alternative fuel vehicles

Responsible departments- Dean Infrastructure office, Green Committee, Professors in-charge transportation, Security officers, Professor InCharge (Innovation and Incubation dept)

2022
RESULTS DETAIL

EDUCATION
&
RESEARCH
(ED)

Indicator		Score
ED.1	The ratio of sustainability courses towards total courses/modules	15
ED.2	The ratio of sustainability research funding towards total research funding	100
ED.3	Sustainability publications	200
ED.4	Sustainability events	200
ED.5	Sustainability student organizations	150
ED.6	Sustainability websites	200
ED.7	Sustainability report	100
ED.8	Number of cultural activities on campus	100
ED.9	Number of university program(s) to improve teaching and learning	100
ED.10	Number of sustainability community services project organized and/or involving students	100
ED.11	Number of sustainability-related startups	100

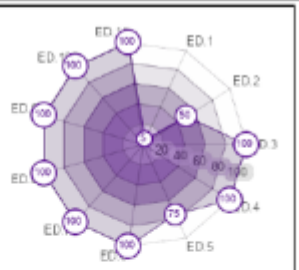


Figure 5.6 Percentage of Score to Maximum Score for Education

2019-2022
RESULTS DETAIL

EDUCATION
&
RESEARCH
(ED)

Additional Indicators added in 2021

	INDICATOR	SCORE-2019	SCORE-2020	SCORE-2021	SCORE-2022
ED.1	Ratio of sustainability courses to total courses/subjects	225	225	0	15
ED.2	Ratio of sustainability research funding to total research funding	225	225	0	100
ED.3	Scholarly publications on sustainability	75	225	200	200
ED.4	Events related to sustainability	150	300	200	200
ED.5	Student organizations related to sustainability	150	225	150	150
ED.6	University-run sustainability website	200	150	200	200
ED.7	Sustainability report	0	75	100	100
ED.8	Cultural activities on campus			100	100
ED.9	University program(s) to improve teaching and learning			100	100
ED.10	Sustainability community services project organized and/or involving students			100	100
ED.11	Sustainability-related startups			0	100
	TOTAL SCORE	1025	1425	1150	1365

Steps Forward – Education and Research

- Restructure courses to orient towards sustainability
- Encourage research towards SDGs
- Encourage student organizations working towards sustainability and environment
- Encourage more events related to sustainability
- Maintain sustainability website and sustainability report

Responsible departments- Dean Academics office, Dean of faculty Affairs Office, Dean Infrastructure office, Green Committee,

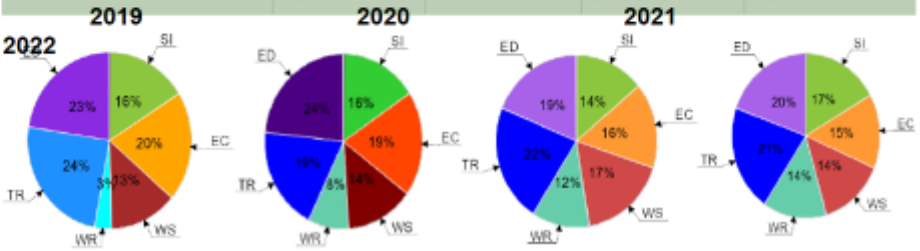
2019-2022

RESULTS DETAIL

CATEGORY	SCORE-2019	SCORE-2020	SCORE-2021	SCORE-2022
SETTING & INFRASTRUCTURE (SI)	725	950	850	1155
ENERGY & CLIMATE CHANGE (EC)	900	1175	975	1000
WASTE (WS)	600	825	1050	975
WATER (WR)	150	500	700	950
TRANSPORTATION (TR)	1100	1175	1350	1450
EDUCATION (ED)	1025	1425	1150	1365
TOTAL SCORE	4500	6050	6075	6895
PERCENTAGE %	45 %	60.50 %	60.75 %	68.95 %

2019-2022

OVERALL SCORE DIAGRAM



ANNEXURE 3:

F.No.7-23/2022-ICC
Government of India
Ministry of Education
Department of Higher Education
315-C, Shastri Bhawan, New Delhi
Dated 6th January, 2023

Office Memorandum

Subject: **Advisory in connection with G20 University Connect programme.**

The undersigned is directed to inform that India took over G20 Presidency on 01.12.2022. Over 200 meetings driven by various ministries and engagement groups are going to be held across the nation in 56 cities according to the calendar enclosed. In a meeting chaired at the highest level on 19th December 2022, and in subsequent communications from G20 Sherpa and G20 Chief Coordinator, it has been envisaged that India's G20 presidency should touch every student across the country, and that we project our youth as cultural ambassadors who can build long-lasting relationships with G-20 fraternity. For this, it has been decided that schools and higher education institutions across the country will organize special programmes on G20 themes starting from January upto September 2023. An e-booklet providing the concept and brief background to the events planned in this regard is attached herewith.

2. In view of the above it is proposed to organize an innovative outreach programme, **"University Connect"** in which schools and higher education institutions can involve their students in a range of events on G20 themes spread across the year with a culmination around 9th/10th September, 2023 which is the date for the G20 Summit. These events can include the following:

- Routine/ pre scheduled events of the institution like convocation, annual days, sporting events, seminars etc, should be branded as G20 event.
- Logos, posters, standees of G20 should be displayed on the campus and all events of the institution. The open file for the design is being shared.
- Special events including seminars, quiz, painting, crossword, declamation, marathon, cycling marathon, Insta Reel and other competitions, sporting events, youth camps, model G20etc, can be organized on G20 related themes at the institution and state levels with a grand finale in September at the national level.
- RIS (Resource & information Centre for Developing Countries) is organizing seminars at 75 universities. A template of the same will be shared separately. All HEIs should organize similar seminars on G20 themes based on this template.
- All Institutions to undertake regular Swachchta Campaign in and around their respective campuses as part of G20 event.

- G-20 T-Shirts, Caps, Wrist Bands, G20 Badges can be distributed to participating students and to NSS/ NYKS volunteers
- The celebrations will culminate in a grand event in September in which there can be prize distribution of competitions, Jazz/Band/ NCC Parade on G-20
- All events must be amplified through the local and social media platforms.
- Institutions may ensure maximum community participation in these events.
- The above list is only indicative. HEIs can take up any other activity related to G20 events.

3. All BHs to ensure that Institutions under their administrative control comply with the advisory and send a status report to the Ministry.

4. This issues with the approval of Secretary (HE).

(Dr. Shalia Shah)
Deputy Secretary to the Government of India
Tel No.011-23381695

Encl: As above.

1. Calendar of G20 meetings
2. RIS e booklet on G20 themes and concepts
3. Open file of G20 logo, poster and other designs

To

1. All BHs
2. All Heads of CFTIs

Concept Note for G20 University Connect Meeting

Objective:

Four Education Working Group (EdWG) meetings followed by an Education Ministers' Meeting will be held during January 2023 to June 2023. The themes for EdWG meetings are as under:

i. Ensuring Foundational Literacy and Numeracy especially in context of Blended Learning

ii. Making Tech-enabled Learning more Inclusive, Qualitative and Collaborative at every level

iii. Building Capacities, Promoting Life-Long Learning in context of Future of work

iv. Strengthening research and promoting innovation through richer collaboration

To position the G20 Presidency under India as an opportunity to highlight India's contribution to the Global Community in Critical Areas such as

- Energy Transition
- Skill and Future of Work
- Promoting Eco friendly Lifestyle
- Green Growth
- Making world a better place to live in

Cultivating and strengthening the India experience for G20 through the mind and aspirations of our youth & Gen-Next**"Voices of the Youth for a Better Tomorrow".**

Topics and issues that interest the Youth

- Future of Work: Industry 4.0, Innovation, & 21st century Skills.
- Climate Change and Disaster Risk Reduction: Making Sustainability a Way of Life.
- Peacebuilding and Reconciliation: Ushering an Era of No War.
- Shared Future: Youth in Democracy and Governance.
- Health, Well-being, and Sports: Agenda for Youth.

- Our G20 Presidency should manifest a "whole-of-government" and a "whole-of-society" approach. G20 meetings should be made into a 'citizens' endeavor with 'Jan-bhagidari'.
- **Mission LiFE that promotes the P3 model i.e. Pro Planet People**. Mission Life, unites the people of the earth as pro planet people, uniting them all in their thoughts. It functions on the basis principles of 'Lifestyle of the planet, for the planet and by the planet'.
- **Concept of 'Reduce, reuse and Recycle'** and circular economy and mention it has been a part of the lifestyle of Indians for thousands of years. "Mission

LiFEencompasses every lifestyle related to the conservation of nature, which our ancestors adopted, and that can be made a part of our lifestyle today".

- **One Sun, One World, one Grid**, India now wants to increase its partnership with the world even more while strengthening its resolve towards such goals. "By leading the creation of Coalition for Disaster Resilient Infrastructure, India has conveyed its concept towards environmental protection. Mission LiFE is a next step.

- The main theme of S20 for India's G20 Presidency is **"Disruptive Science for Innovative and Sustainable Development"** and 3sub-topics are:
  - Universal Holistic Health: Cure and Prevention of Disease
  - Clean energy for a greener future
  - Connecting Science to Society and Culture

Outreach Strategy

Suggestive Activities under Outreach

- **Model G20**
  Engaging students in critical thinking and coming up with solutions for local, regional, national and global issues.

- **G20 Rebranding Campaign competition**
  (Redesigning the logo, visualising the digital presence, creative hashtags, strategizing content)

- **Youth Fair**
  Displaying tech, innovation, skill based talent made by students, e.g. robotics, innovative models/social entrepreneurship, app development, wood carving, etc.

- **Cultural Connect**:
  - Guess the cuisines.
  - Fusion of folk dances of India and dance forms from G20 countries.
  - Fusion music - e.g. VidyaVox

- **Youth Editorial Team**
  Selecting students who can write, design and are interested in photography and giving them access to all working group meeting events and compile the data to create a **coffee table book** for G20. This team will also create and operate G20 student social media handles, may also act as MoJo (Mobile Journalists covering the events)

  Similarly, requesting campus magazines to come up with a special edition on G20.

- **Youth Ambassadors-** Students who are experts in different foreign languages can be part of the event as a reporter, facilitators for delegates, translators, and rapporteurs.
- **Environmental Youth Ambassadors** - Twin Cities/Towns concept - a city from India can be twinned with the city from another G20 member.

For e.g. Bengaluru- San Francisco. Students from the Indian city will be encouraged to research the twin city/town and make a model/solution for their own city based on that. It may pertain to different themes, e.g. managing solid waste, cleaning up river pollution, etc. Such excellent presentations can be taken further at a G20 event.

Incentive: Students who have excelled in the competition can be a part of the G20 summit or different working group events, Certificates, Letter of Appreciation, Medals, etc.

- Institutions to encourage promote model G20 forums, G20 branding in festivals and encourage the participation of the students in poetry, quiz and logo competitions being organized by the G20 Secretariat in alignment with a People's G20 movement.
- Participation of students across different locales in the country where meetings are being organized, facilitating foreign delegates, being rapporteurs at seminars being organized at side events, translation assistance in foreign languages requires for meetings, organizing G20 discussion forums on issues related to different vertical under India's Presidency etc.
- An online monthly journal containing research articles on G20 themes may be brought out by UGC with focus on how India can play a leading global role in these areas in the coming years. This would enable us to build a strong human resources pool for such kind of global events that India may host in the future.

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ANNEXURE 4:

BuzzOnEarth
Mainstreaming Sustainability

TECHNO-COMMERCIAL PROPOSAL FOR

SUSTAINABILITY INTERVENTIONS

AT IIT-ROORKEE CAMPUS

PILOT-1

BEHAVIOURAL INTERVENTION-1 : ENERGY-USE REDUCTION

OBJECTIVE:

The objective of this pilot intervention is to study & analyze the distinct behavioral patterns among the **student-users** at various functional locations and suggest a set of preliminary behavioral interventions or programs that can bring tangible, measurable and time-bound **Energy-Use** reduction.

This will entail creating specific communication plans, awareness sessions, group activities and campus-wide campaigns that can be led and run by the student-user groups.

METHODOLOGY:

The following **3 methodologies** would help achieve the above objectives:

A. **STUDY:** BuzzOnEarth will use the following survey methodologies specific to figure out the **Energy-use** patterns among student-users in large educational campuses
   - Online Questionnaires
   - Off-line Interviews
   - Drop-Box Feedback

B. **ANALYZE:** All the data thus gathered in various forms – written, oral and pictorial – is processed and analyzed to establish a set of clear user behavioral patterns as far as Energy-use is concerned among student community.

C. **INTERVENTION:** The objectivized and actionable insights derived from analyzing the behavioral patterns will form the basis for proposing a preliminary set of interventions needed to drive the desired change in lowering Energy-use among the student users.

DELIVERABLES:

The following **6 deliverables** would be part of BuzzOnEarth's services:

1. Circulating a set of Survey Questionnaires for the student-users on their energy-use preferences
2. Deploying 2 trained persons from BoE for a period of 1 week for conducting visual observations and personal interviews
3. Deploying one trained resource at back-office for analyzing the data gathered
4. Establishing a reliable Baseline for the Energy-use in specific functional areas/locations
5. Coming up with a set of **3** interventions to reduce the energy-use by **5-10%** over a pre-agreed Baseline
6. Organizing a larger stakeholder workshop to deliberate on the data insights and interventions proposed

COMMERCIALS:

#	TIMELINE	VISITS	FEE	Remarks
	45 Days	Up to 2 Visits by 2 Persons of 7 Days duration	**Rs.50,000 . 00** Inclusive of 18% GST	Professional fee for the Sustainability Consulting services by BuzzOnEarth, Excluding Travel and Accommodation, which shall either be extended by the institute or reimbursed on actuals, with prior approval:

Gayatri Chauhan (+91 99706 44271)
Founder-CEO
BuzzOnEarth

Rk Gautham (+91 96639 27625)
Sr Director-Operations
BuzzOnEarth

BuzzOnEarth
Mainstreaming Sustainability

TECHNO-COMMERCIAL PROPOSAL FOR

SUSTAINABILITY INTERVENTIONS

AT IIT-ROORKEE CAMPUS

PILOT-3

BEHAVIOURAL INTERVENTION-3 : WASTE-REDUCTION

OBJECTIVE:

The objective of this pilot intervention is to study & analyze the distinct behavioral patterns among the **student-users** at various Waste generation locations and suggest a set of preliminary behavioral interventions or programs that can bring tangible, measurable and time-bound **Waste** reduction at source.

This will entail creating specific communication plans, awareness sessions, group activities and campus-wide campaigns that can be led and run by the student-user groups.

METHODOLOGY:

The following **3 methodologies** would help achieve the above objectives:

A. **STUDY:** BuzzOnEarth will use the following survey methodologies specific to figure out the **Waste Generation** patterns among student-users in large educational campuses
   - Online Questionnaires
   - Off-line Interviews
   - Drop-Box Feedback

B. **ANALYZE:** All the data thus gathered in various forms – written, oral and pictorial – is processed and analyzed to establish a set of clear user behavioral patterns as far as Waste-generation among the student community is concerned

C. **INTERVENTION:** The objectivized and actionable insights derived from analyzing the behavioral patterns will form the basis for a preliminary set of interventions needed to drive the desired change in lowering waste generation at source among the student users.

DELIVERABLES:

The following **6 deliverables** would be part of BuzzOnEarth's services:

1. Circulating a set of Survey Questionnaires for the student-users on their Waste-generation patterns
2. Deploying 2 trained persons from BoE for a period of 1 week for conducting visual observations and personal interviews
3. Deploying one trained resource at back-office for analyzing the data gathered
4. Establishing a reliable Baseline for the Waste-generation in specific functional areas/locations
5. Coming up with a set of **3** interventions to reduce the Waste Generation by **5-10%** over a pre-agreed Baseline
6. Organizing a larger stakeholder workshop to deliberate on the data insights and interventions proposed

COMMERCIALS:

#	TIMELINE	VISITS	FEE	Remarks
	45 Days	Up to 2 Visits by 2 Persons of 7 Days duration	**Rs.50,000 . 00** Inclusive of 18% GST	Professional fee for the Sustainability Consulting services by BuzzOnEarth, Excluding Travel and Accommodation, which shall either be extended by the institute or reimbursed on actuals, with prior approval:

Gayatri Chauhan (+91 99706 44271)
Founder-CEO
BuzzOnEarth

Rk Gautham (+91 96639 27625)
Sr Director-Operations
BuzzOnEarth

ANNEXURE 5

IIT-ROORKEE SUSTAINABILITY EVENT
DRAFT PROPOSAL

BuzzOnEarth
Mainstreaming Sustainability

CONTEXT:

IIT-Roorkee has expressed its intent to organize a Sustainability-themed event at the national level on its Greater Noida Campus during the 4th quarter of 2022 and approached BuzzOnEarth to organize / curate the event and its sessions.

BUZZ ON EARTH:

BuzzOnEarth has agreed to be the Knowledge-partner for IIT-Roorkee for the purpose of this event and ready to work on curating the event in its entirety.

APPROACH

The initial work require finalizing a broad approach for organizing the event and the following aspects shall be considered for further discussion

1-AUDIENCE
- Academic Institutions
- Industry Stakeholders

2-MODE
- Physical Event
- With provision for online attendance

3-LOCATION
- IIT-Roorkee-GNEC campus
- OR Vignan Bhavan | Pragati Maidan

4-THEME
- Sustainability / Regeneration
- Net-Zero Campuses

5-SCOPE
- Knowledge-Partnering
- Event Curation

6-DURATION/DATES
- 3-Day
- During Mid-Dec 2022

7-SPEAKERS
- Mix of National | International
- Professionals | Academicians

8-PROFILE
- Headlines Grabbing
- Outcome Focussed

9-FUNDING
- Paid Delegation
- Event/Session-specific Sponsorships

10-PARTNERS
- Institutional Partners
- Industry Partners

11-FORMAT
- Key-Notes & Panel Sessions
- Workshops & Exhibitions

12-ACTIVITIES
- Souvenirs | Product Launches
- White-Papers | Research Findings

SERVICES & FEE#

PART-1 : Fee towards curating the event in its entirety : **Rs.12,00,000 . 00***

PART-2 : Fee towards organizing & Managing the event: **Rs.21,00,000 . 00***

* Plus the applicable taxes) # Detailed Scope & Deliverables under each Part are proposed in **Annexure-A**

PROPOSAL FOR CURATING

SUSTAINABILITY EVENT

FOR IIT-ROORKEE CAMPUS

ANNEXURE-A

SCOPE:

Curating the Sustainability Event (title of the event to be decided later) to be hosted by IIT-Roorkee as part of its 175th year of inception will entail the following scope of Work & Services.

SCOPE OF WORK:

1. Organizing a national-level symposium with "Sustainability, Regeneration & Climate Change in the realm of Institutional Campus Infrastructure" as the core theme
2. The symposium will have all the premium academic and research institutions in India as its primary audience/participants/contributors
3. The symposium will invite & host national & international speakers to bring in the global & national perspectives

SCOPE OF SERVICES:

1. Working on the theme & format of the symposium, session topics, speaker profile & recommendations,
2. Working on the marketing strategy and publicity collaterals for the event
3. Curating the ground logistics, venue preparations and delegate experience
4. Designing & achieving the desired outcomes
5. Activating the larger ecosystem of IIT Roorkee including its alumni, faculty, students, staff and collaboration partners.
6. Roping in qualified, relevant, and worthy partners and Building an ecosystem of donors and sponsors

DELIVERABLES FROM BUZZONEARTH:

1. Propose the most workable and impactful approach for a smooth and successful conduct of the symposium
2. Propose, discuss and finalize the broad strategy, tentative hourly agenda and a detailed plan of action
3. Propose, discuss, finalize and roll-out marketing & publicity activities at least 3 months prior to the event
4. Identify the stakeholder, participating institutions, potential partners/sponsors and reach out to them for their preferences on dates, sessions, participation and support
5. Identify, recommend and get concurrence on potential speakers, their sessions and topics and sound them on their availability, interest and willingness to participate
6. Plan and execute the ground logistics prior to, during and post the event along with the partnering agencies

DELIVERABLES FROM IIT-ROORKEE:

1. Extend administrative and networking support for the successful conduct of the event
2. Allocate appropriate and sufficient material and human resources as and when requested by the organizing team
3. Spare sufficient quality time to discuss the proposals from the organizing team and provide timely inputs, approvals and monetary support
4. Provide strategic access and facilitate collaboration with academic / institutional partners for their participation and support as needed
5. Facilitate strategic access and interaction with important authorities and dignitaries for required permissions/support, as and when requested by the organizing team
6. Facilitate access and permission to use the venue, institutional vehicles, utilities and communication facilities (broad-band, wi-fi etc) as required before, during and post the event.

IIT-ROORKEE

SUSTAINABILITY EVENT

DAY-LONG INTERNATIONAL CONFERENCE

BuzzOnEarth
Mainstreaming Sustainability

ANNEXURE-B : EVENT BUDGET

A	SOFT COSTS						
#	SERVICES/SCOPE	PARTICULARS	QUANTITY	UNIT	RATE	ESTIMATED COST / FEE	REMARKS
					Rs/-	IN RUPEES	
1	Event & Sessions Curation	Curating the event mode, theme, sessions and topics	240	Man-Hours	1,500.00	3,60,000.00	These are mostly the 'Desk-Top' activities taken up by the BoE staff & their associates
2	Marketing, Communications	Professional Resources	360	Man-Hours	1,200.00	4,32,000.00	
		Digital Marketing Tools	2	Per Month	1,20,000.00	2,40,000.00	
3	Press, Media & Publicity	Hiring a PR Agency for running the Media/Press Campaign	1	Per Month	1,90,000.00	1,90,000.00	
	TOTAL					12,22,000.00	

B	HARD COSTS						
#	SERVICES/SCOPE	PARTICULARS	QUANTITY	UNIT	RATE	ESTIMATED COST / FEE	REMARKS
					Rs/-	IN RUPEES	
1	On ground Logistics	Physical Security, Reception, Hosts, Dias, Podiums, Stage Seating	1	Lumpsum	2,00,000.00	2,00,000.00	These are the 'brick & mortar' activities that are taken up / managed physically on ground by Outsourced Professional Agencies
2	Branding Designs /props	Banners, Signage, Posters, Backdrop	1	Lumpsum	1,90,000.00	1,90,000.00	
3	AV Equipment & Additional Lighting	Over & above what is normally available at the venue	1	Days	1,50,000.00	1,50,000.00	
4	Travel & Accommodation	Air fare, Hotel & Local Commute for Guests/speakers	20	People	40,000.00	8,00,000.00	
5	Food & Beverages	Lunch, Tea/Snacks, Drinking water, candies	800	People	1,000.00	8,00,000.00	
	TOTAL					21,40,000.00	

C	SPONSORED COSTS						
#	SERVICES/SCOPE	PARTICULARS	QUANTITY	UNIT	RATE	ESTIMATED COST / FEE	REMARKS
					Rs/-	IN RUPEES	
1	Awards & Recognition	For special categories - like exceptional environmental performances	10	No.s	10,000.00	1,00,000.00	BuzzOnEarth Would work with IIT-Roorkee team to identify, pursue and bring in sponsorships for these 5 cost categories
2	Campaigns & Side Events	Thematic campaigns on digital and electronic media	4	No.s	2,00,000.00	8,00,000.00	
3	Cultural Evening & Sponsored Dinner	Special screenings and select cultural performances with thematic Dinner	1	LS	5,00,000.00	5,00,000.00	
4	Delegate Goodies	Useful & curated gift bags for all the attendees	750	No.s	500.00	3,75,000.00	
5	Souvenirs & Mementos	For Speakers, Guests & Supporting Partners	20	No.s	5,000.00	1,00,000.00	
	TOTAL					18,75,000.00	

	DISCLAIMERS :
1	All the figures quoted above are preliminary, approximate and indicative costs and are presented for Budgetary purposes
2	The costs would vary based on the final scope, volume and the quality standards to be agreed upon between the Institute and BuzzOnEarth
3	The number of Guests, Speakers and Delegates mentioned are spaceholders and need to be decided / agreed upon among the organising team
4	It is assumed that IIT-Roorkee would use its own Campus/Venue at NCR for hosting the conference, hence its rentals are not included in the costs/budget
5	It is also assumed that all international Guests/ Speakers would attend the conference virtually
6	It is further assumed that the event will be held for one day during the month of November - dates and time to be decided