

**BASIC INFORMATION OF BUILDING PROJECT**  
( To be filled in by the Project Proponent)  
**PART A**

<b>PROJECT DETAILS</b>	
File No	I271/EC2/SEIAA/2019
Name /Title of the project	Permanent Campus for Indian Institute of Technology Palakkad (Institutional Project)
Name and address of project proponent.	Indian Institute of Technology, Palakkad, Kerala (Under the Ministry of HRD, Govt. of India) <b>Authorised Person</b> – Shri. Job Kurian <b>Designation</b> - Professor-in Charge Administration <b>Address</b> - Ahalia Integrated Campus, Palakkad District- Kozhipara, Kerala-678557
Owner of the land	IIT Palakkad
Survey Nos. District/Taluk/ and Village etc.	Survey Nos. - As per the Government Orders Enclosed
Category/Sub Category and Schedule	8 (b)
Date of submission of Application	26.02.2019
Total Built up Area& No. of Floors	<b>Academic zone: (phase 1A+phase 1B)</b> BUA (academic)- 1, 16,813.04 m <sup>2</sup> Max. No. of Floor- G+2 <b>Residential zone: (phase 1A+phase 1B)</b> BUA (Residential)- 1, 46,306.52 m <sup>2</sup> Max. No. of Floor- G+5
No of apartments	Residential units – 114 (Phase 1A) - 247 (Phase 1B)
Height of the building from the ground level	<b>Academic zone</b> 14.6 mtrs [Research Building] <b>Residential zone:</b> 21 mtrs [Type 4 housing]
GPS Co-ordinate	10°48'39.44"N, 76°43'57.86"E 10°48'6.92"N, 76°43'47.49"E 10°48'17.40"N, 76°43'44.50"E 10°49'6.18"N, 76°44'49.46"E 10°48'12.91"N, 76°44'21.66"E 10°48'30.58"N, 76°45'4.40"E
Brief description of the project.	Site is having total plot area of 504.5 Acres. The construction shall take place in phased manners. Currently the development shall be under phase 1A and 1 B, However phase 2 and phase -3 are future development. Plot area under phase 1A and 1B is 498.50 acres. Campus is designed as per Kerala Panchayat building rules, 2011. The campus site comes under the Category II village panchayat, as per this category permissible

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	Ground Coverage & FAR are 35% and 2.5 respectively.
Is it a new Project or expansion/modification of an existing project?	New project
Details of the Project Cost	Land Cost-NIL Development Cost- Rs. 2808 Crores
If CRZ recommendation applicable?	NA
Distance from nearby habitation	Kanjikode- approx. 1 km
Distance from nearby forest, if applicable	44.81 acres of forest land involve within site
Distance from protected area, Wildlife Sanctuary, National Park etc.	Chulanur Peafowl Sanctuary- approx. 31 km Parambikulam Tiger Reserve -approx. 32 km
Distance from nearby streams/rivers/ National Highway Roads and Airport	<b>River-</b> Malampuzha River which is a tributary of the Bharathapuzha approx. 5.5 km <b>National Highway-NH-47</b> approx. 1.4 km Railway station-Kanjikode railway station- approx. 1 km Airport- Cochin International airport- approx. 80 km
Is ESA applicable? If so, distance from ESA limit	NA
<b>IMPACT ON WATER</b>	
Details of water requirement per day in KLD	Total water demand for the proposed project shall be 2,062 KLD. Fresh water demand during non- monsoon season shall be 1,087 KLD however during rainy season shall be approx. 482 KLD
Water source/sources.	Municipal supply
Details of water requirements met from water harvesting.	Total approx. 4696 m <sup>3</sup> storm water has been calculated for which rainwater harvesting structures 33(Nos.) having 141.3 m <sup>3</sup> capacity are proposed
What are the impacts of the proposal on the ground water?	No major impacts as the buildings are only G+2 height.
<b>WASTE MANAGEMENT</b>	
Explain the facilities for Liquid waste Management	For the wastewater from the campus, in house STP shall be installed for the treatment of wastewater. Treated wastewater shall be utilised within the premises and will lead to Zero wastewater discharge. Quantity of sewage generated during operational phase shall be approx. 1,219 KLD. The sewage will be treated through sewage treatment plant of capacity 1,460 KLD. The treated domestic sewage i.e.975 KLD which will be re used for flushing (908 KLD) and for HVAC and DG cooling (67

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	KLD)makeup fresh water would be needed for HVAC (93 KLD) and for landscaping (605 KLD) shall betaken from municipal supply.
Solid Waste Management	Municipal waste shall be mainly categories in two classes. 1. Bio degradable Waste 2 Non-biodegradable Waste. The biodegradable portion dominates the bulk of MSW. This ismainly due to food and paper waste. These solid wastes will be collected separately by putting separate bins at the source of generation. It is estimated that maximum solid waste generation would be about 7,272 kg/day; Bio-degradable waste will be subjected to the compost/resultant will be used as manure. STP sludge is proposed to be used for horticultural purposes as manure. Horticultural Waste is proposed to be composted and will be used for gardening purposes. The cropped grass will be spread on the green area. It will act as manure after decomposition. Recyclable wastes like paper, plastic, metals etc. will be sold off to recyclables
E-Waste Management	E waste shall be approx. 5% of all municipal solid waste i.e. approx. 363 kg.
Facilities for Sewage Treatment Plant	To treat wastewater STP of 1460 KLD capacity shall be proposed.The design of sewage network shall be done in accordance with the CPH&EO guideline, NBC guidelines and reverent Indian Standards. Sewage generation is assumed to be 100% of flushing waterand 80% of domestic water.
How much of the water requirement can be met from the recycling of treated waste water? (Facilities for liquid waste treatment)	Total quantity of wastewater generation will likely to be 1,219 KLD. The generated sewage will be collected and treated in the in-house Sewage Treatment Plant of 1,460 KLD capacity. For HVAC and DG cooling (67 KLD) makeup fresh water would be needed for HVAC (93 KLD) and for landscaping (605 KLD) shall be taken from municipal supply.
What is the incremental pollution load from waste water generated from the proposed activities?	There shall be no incremental pollution load as the wastewater generated from the site shall be treated within the premises and will be reused.
How is the storm water from within the site managed?	There are existing water streams at site. These water streams are running across the length & breadth of site and from the highest level area-to low-lying area. These are provisioned with check dams to manage the rate and amount of disposal.
Will the deployment of construction labourers particularly in the peak period lead to unsanitary conditions.	No, mostly local laborers will be employed during the construction phase and thus negligible quantities of wastes will be generated. Mobile toilets will be provided andthe wastewater

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around the project site (Justify with proper explanation)	generated will be collected in septic tanks.
What on-site facilities are provided for the collection, treatment & safe disposal of sewage? (Give details of the quantities of wastewater generation, treatment capacities with technology & facilities for recycling and disposal)	<p>Construction Phase The quantity of sewage generation during the construction phase will be approx. 13.5 KLD. Thus these waste will be treated by providing small septic tanks, soak trenches and sulabh shauchalaya type mobile toilets.</p> <p>Operational Phase Quantity of sewage generated during operational phase shall be approx. 1,219KLD. The sewage will be treated through sewage treatment plant of capacity 1,460KLD. The treated domestic sewage i.e. 975 KLD which will be re used for flushing(908 KLD) and for HVAC and DG cooling (67 KLD) makeup fresh water would be needed for HVAC (93 KLD) and for landscaping (605 KLD) shall be taken from municipal supply.</p>
Give details of dual plumbing system if treated waste is used for flushing of toilets or any other use.	Dual plumbing system that utilizes separate piping systems for freshwater and recycled wastewater will be adopted for the project. Treated water from the STP is estimated at 1,673 KLD. The recycled water system shall utilize this treated waste water and serve for non-contact uses such as flushing, horticulture, DG cooling etc.

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TRAFFIC MANAGEMENT				
Sufficiency of Parking Space (Explain)	There will be adequate provision will be made for car/vehicle parking at the project site			
	S.No.	No. of Car Parking Lots	Two wheeler Parking	Car Parking
			No. of 2 wheeler parking lots	
	1.	92	01	52
	2.	14	02	28
	3.	12	02	24
	4.	10	03	30
	5.	94	01	68
	6.	75	01	59
	7.	115	01	24
8.	75	01	30	
9.	54	01	20	
	<b>TOTAL PARKING</b>		253	587
Width of access road	The main access road/peripheral road width is 7.5 mtrs (two way traffic). Internal roads are 6m wide.			
ENERGY CONSERVATION				
Details of power requirement and source of supply, backup source etc. What is the energy consumption assumed per square foot of built-up area? How have you tried to minimize energy consumption?	<b>Power Details</b>			
	The power shall be supplied by KSEB (Kerala State Electricity Board). Demand load estimated for all the towers is approx. 11.1 MVA. Which shall be supplied by transformers: Transformers (33 kV/433V): D.G. Sets Details 6nos DG sets with 2000kVA capacity. The DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion. <b>Energy consumption assumed per sq. Foot of built up area is as follow.</b>			
What type of, and capacity of power back-up to you plan to provide?	S.No. Building name W per sqft			
	1 Department 3.16 2 Admin 3.16 3 Classroom 3.06 4 Research 15.45 5 Workshop 3.34			
What are the characteristics of the glass you plan to use? Provide specifications of its characteristics related to both short wave and long wave radiation?	11kv 2000kVA Diesel generator has been used and HVAC load has not been considered on the DG load to reduce the total load capacity of generator.			
What passive solar architectural features are being used in the building?	Energy efficient glazing windows shall be used for the project since they offers superior thermal performance (Reduced solar heat gain) and help in significantly reducing unwanted external noise of traffic. The specification of the glass used for the project is provided Glazing U - Value $3.3 \text{ W/m}^2\text{K} = 0.58 \text{ BTU/hrsqt } ^\circ\text{F}$ Glazing Shading Coefficient 0.25 (WWR <= 40%)			
	It is recommended to provide solar shading panels to block harsh summer & mid-season radiation while allowing winter radiation in open space.			

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<p>Illustrate the applications made in the proposed project</p>	<ul style="list-style-type: none"> <li>* Internal roads shall be widened to allow more solar exposure during the winter daytime to improve social interaction. Temporary shades and deciduous trees can also be used in the street of site area to provide shade during summer and mid-season;</li> <li>⊕ Louvres/jali is being used as an element/arch feature</li> <li>⊕ Solar PV on roof can generate electricity that can offset significant amount of internal lighting requirement of the whole project;</li> <li>* Window areas shall be optimized for daylight and for well-being of occupants</li> </ul>
<p>Does the layout of streets &amp; buildings maximize the potential for solar energy devices? Have you considered the use of street lighting, emergency lighting and solar hot water systems for use in the building complex? Substantiate with details</p>	<p>Yes. It is proposed to install solar panels. The layout has been designed to maximize the potential for solar energy devices. Street lighting will be provided as per the required guidelines.</p> <p>Solar hot water systems shall be provided to meet at least 20% of total hot water requirement of the entire project. Possibilities shall be explored to further maximize the fulfillment of hot water demand through solar hot water systems.</p> <p>Roof top solar Photovoltaics and/or Building Integrated Photovoltaic on SW facade of building are being explored in the project to reduce dependency on conventional sources for electricity.</p>
<p>Is the shading effectively used to reduce cooling/heating loads? What principles have been used to maximize the shading of Walls on the East and the West and the Roof? How much energy saving has been effected?</p>	<ul style="list-style-type: none"> <li>⊕ Solar shading shall benefit by reducing external solar heat gains through windows.</li> <li>⊕ Fixed sun louvers shall be provided on the South West, West and east facades so that it blocks harsh summer and mid-season radiation while allowing winter radiation in open space.</li> <li>⊕ Openings on the buildings will be placed such that to facilitate proper air flow in the entire site;</li> </ul>
<p>Do the structure use energy-efficient space conditioning, lighting and mechanical systems? Provide technical details. Provide details of transformers and motor efficiencies, lighting intensity and air-conditioning load assumptions? Are you using CFC and HCFC free chillers? Provide specifications.</p>	<p>Yes. The walls and rooms will be insulated such that air conditioning load is reduced. Well-designed building structures will allow natural light to enter.</p> <p>Measures prescribed in Energy Conservation Building Code 2007 will be adopted to reduce the heat influx by walls, roofs and openings. Only prescribed quality of glasses will be used.</p>
<p>What are the likely effects of the building activity in altering the micro-climates? Provide a self assessment on the likely impacts of the proposed construction on creation of heat island &amp; inversion effects?</p>	<p>Heat emissions from the proposed construction may be from the following sources:</p> <ul style="list-style-type: none"> <li>⊕ Heat absorbed from the paved and concrete structures</li> <li>⊕ Heat generated from equipment/appliances</li> <li>⊕ Heat increase due to population increase in project.</li> </ul> <p>However, the heat generated will not be significant and will be dissipated in the green sand open areas provided within the project area. In the landscaping, cobble stones are being used, they have</p>

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	percolation & absorption properties and would absorb the heat.												
What are the thermal characteristics of the building envelope? (a) roof (b) external walls; and (c) fenestration? Give details of the materials used.	<table border="1"> <thead> <tr> <th>Description</th> <th>Parameter</th> </tr> </thead> <tbody> <tr> <td>Insulated Roof U - Value</td> <td>0.409 W / m<sup>2</sup>K = 0.072 BTU / hr sqft °F</td> </tr> <tr> <td>External Wall U - Value</td> <td>0.440 W / m<sup>2</sup>K = 0.0774 BTU / hr sqft °F</td> </tr> <tr> <td>Internal Wall U - Value</td> <td>1.84 W / m<sup>2</sup>K = 0.32 BTU / hr sqft °F</td> </tr> <tr> <td>Glazing U - Value</td> <td>3.3 W / m<sup>2</sup>K = 0.58 BTU / hr sqft °F</td> </tr> <tr> <td>Glazing Shading Coefficient</td> <td>0.25 (WWR = 40%)</td> </tr> </tbody> </table>	Description	Parameter	Insulated Roof U - Value	0.409 W / m <sup>2</sup> K = 0.072 BTU / hr sqft °F	External Wall U - Value	0.440 W / m <sup>2</sup> K = 0.0774 BTU / hr sqft °F	Internal Wall U - Value	1.84 W / m <sup>2</sup> K = 0.32 BTU / hr sqft °F	Glazing U - Value	3.3 W / m <sup>2</sup> K = 0.58 BTU / hr sqft °F	Glazing Shading Coefficient	0.25 (WWR = 40%)
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What is the rate of air non-conventional energy technologies are utilized in the overall energy consumption? Provide details of the renewable energy technologies used.	Solar street lights and solar blinkers. (2) LED will be used in buildings to minimize the energy consumption. (3) Green area is provided along with tree plantation which will result in natural air cooling and will reduce the load on conventional energy sources.												
Details of renewable energy (non - conventional) used.													
<b>IMPACT ON AIR ENVIRONMENT</b>													
What are the mitigation measures on generation of dust, smoke, odours, fumes or hazardous gases	Dispersion modeling of pollutants from DG sets using ISCST3 software, resultant G.C for various airs will be carried out. The DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion. This will cause emissions of PM, SO <sub>2</sub> , NO <sub>2</sub> and CO. However, the D.G. Sets will be operational only during power failure and low sulphur diesel will be used. Adequate stack heights of D.G. Sets will be provided as per the stipulated guidelines of Central Pollution Control Board(CPCB) to facilitate natural dispersion of exhaust gases as given below considering height of the building:												
Details of internal traffic management of the site.	There will be an adequate provision for vehicle parking at the project site. There shall also be adequate parking provisions for visitors so as not to disturb the traffic and allow smooth movement at the site. Proposed project will have open parking. There will be area for the parking of 587 cars and 201 Two wheelers.												
Details of noise from traffic, machines and vibrator and mitigation measures	No significant noise has been anticipated due to internal traffic as there shall be provision of wide roads for smooth flow of traffic and greenbelt along the roads. Impact due to machineries shall be temporary till the construction phase. However for that following adequate measure shall be taken care <ul style="list-style-type: none"> <li>• The construction areas shall be provided with sheet barriers or temporary walls along the boundary close to any habitations;</li> <li>• Rubber padding shall be provided in the construction machinery for vibration control; No noise generating activity shall be permitted from 22:00P.M-6:00 AM.</li> <li>• The contractors will adopt measures such as regular maintenance of its vehicles and repair of its equipment/ machinery.</li> <li>• Construction workers working near high noise generation shall be provided with ear plugs/ ear muffs to limit exposure to occupational hazards</li> </ul>												

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Air quality monitoring in detail	Air quality monitoring network given in proposed ToR.
Will the proposal create shortage of parking space for vehicles? Furnish details of the present level of transport infrastructure and measures proposed for improvement including the traffic management at the entry & exit to the project site.	No. there will be no shortage in parking space after coming up this project as adequate provision will be made for car/vehicle parking at the project site. There shall also be adequate parking provisions for visitors so as not to disturb the traffic and allow smooth movement at the site.
Provide details of the movement patterns with internal roads, bicycles tracks, Pedestrian pathways, footpaths etc., with areas under each category	<p><b>External ROW = 15.0mtrs.</b></p> <ul style="list-style-type: none"> <li>• Road = 7.5mtrs</li> <li>• Green belt = 1.3mtrs (either side)</li> <li>• Bicycle track = 2.0m width (inner side)</li> <li>• Pathway = 2.0m width (outer side)</li> <li>• Road area under phase 1A = 60000sqm (4km stretch x 15m ROW width)</li> </ul> <p><b>Internal ROW = 12.0mtrs.</b></p> <ul style="list-style-type: none"> <li>• Road = 6.0mtrs</li> <li>• Green belt = 0.7 mtrs (either side)</li> <li>• Bicycle track = 1.85m width (inner side)</li> <li>• Pathway = 1.85m width (outer side)</li> <li>• Road area under phase 1A = 12000sqm (1km stretch x 12m ROW width)</li> </ul>
Will there be significant increase in traffic noise & vibrations? Give details of the sources and the measures proposed for mitigation of the above.	<p>No significant increase in traffic noise and vibration however following mitigation measures shall be proposed at operational stage.</p> <ul style="list-style-type: none"> <li>• DG sets shall be provided with acoustic enclosures;</li> <li>• Trees with heavy foliage shall be planted as vegetative barriers to minimize the noise pollution</li> <li>• Traffic analysis shall be done and better alternatives should be found.</li> </ul>
What will be impact of DG sets & other equipments on noise levels & vibration in & ambient air quality around the project site? Provide details	To study the impact of DG sets, air modeling shall be done. And details shall be incorporated in EIA report along with recommendations from SEAC.
<b>IMPACT ON BIODIVERSITY AND ECO RESTORATION PROGRAMMES</b>	
Will the project involve extensive clearing or modification of vegetation (Provide details)	No. efforts are being made to minimize the clearing or modification of vegetation.
What are the measures	Total green area proposed for project is 6, 05,211.26 m <sup>2</sup> (30 % of plot area). A combination of evergreen and ornamental, fruit bearing trees.

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proposed to minimize the likely impact on vegetation (details of proposal for tree plantation/ landscaping)	palms, shrubs and ground covers planted along the sides of the road and in open space and set back area within the complex layout.
Is there any displacement of fauna – both terrestrial and aquatic. – If so what are the mitigation measures ? Presence of any endangered species or red listed category (in detail)	Project shall involve displacement of fauna. Detailed study of flora and fauna of core zone and buffer zone shall be done after obtaining approval.
<b>SOCIO- ECONOMIC ASPECTS</b>	
Will the proposal result in any change to the demographic structure of local population? Provide the details.	Project involve land of Pudussery grama panchayat which was being cultivated by local people as per the SIA report. for this, study has been carried out mitigation measures such as social forestry, R&R plan etc. are proposed.
Give details of the existing social infrastructure around the proposed project	Topo sheet maps and google maps showing site surroundings within 500 mtrs. 2 km. 10+15 km are attached.
Will the project cause adverse effects on local communities, disturbances to sacred sites or other cultural values? What are the safeguards proposed?	Impacts study on local community is given SIA report.
<b>BUILDING MATERIALS</b>	
May involve the use of building materials with high-embodied energy. Are the construction materials produced with energy efficient process? (Give details of energy conservation measures in the selection of building materials and their energy efficiency)	The proposed project has been planned incorporating green building principles and ECBC (Energy Conservation Building Code) standards. The project will include eco-friendly design, energy efficient systems, state of the art technology and compliance to all statutory regulations. It has been proposed to incorporate solar passive techniques in a building design to help minimize load on conventional systems such as heating, cooling, ventilation & light. Following will be considered to achieve a solar passive building design: ① Extra fresh air over minimum requirements of ASHRAE 62 for well-being of occupants in buildings ② optimized insulation will be done in building envelope (walls & roof) to reduce external heat gain for better energy efficiency and reduced air-conditioning loads; ③ For the purpose of paved path, sun dried pavers will be used instead of baked pavers as they are manufactured through energy efficient processes.
Transport and handling of materials during construction may result in pollution, noise & public nuisance. What measures are taken to	Mitigation Measures for Air Pollution during Construction Stage: <ul style="list-style-type: none"> <li>• Construction materials will be suitably covered with tarpaulin cover etc during transportation.</li> <li>• Water sprinkling shall be done on haul roads where dust generation is anticipated.</li> </ul>

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	<ul style="list-style-type: none"> <li>• Raw material storage and handling yard will be enclosed from all sides.</li> <li>• To minimize the occupational health hazard, proper personal protective gears i.e. mask shall be provided to the workers working in the dust prone areas.</li> </ul>
minimize the impacts?	<p>Mitigation Measures for Noise Pollution during Construction Stage:</p> <ul style="list-style-type: none"> <li>• Administrative as well as engineering control of noise will be implemented.</li> <li>• Isolation of noise generation sources and temporal differentiation of noise generating activities will ensure minimum noise at receiver's end.</li> <li>• To prevent any occupational hazard, earmuff / earplug shall be given to the workers working around construction plant &amp; machinery emitting high noise levels.</li> <li>• Use of such plant or machinery shall not be allowed during night time. Careful planning of machinery operation and scheduling of operations shall be done to minimise such impact.</li> </ul>
Are recycled materials used in roads and structures? State the extent of savings achieved?	<p>Yes, for road construction plastic will be utilized. Recycled materials will be bought from outside sources and will be used as fillers in base and sub-base of the carriageway, footpaths pavements or pedestrian way, as needed</p>
Give details of the methods of collection, segregation & disposal of the garbage generated during the operation phases of the project.	<p>During the operational phase, following arrangements will be made at the site in accordance to Municipal Solid Wastes (Management and Handling) Rules, 2016</p> <p>Collection and Segregation of waste</p> <ul style="list-style-type: none"> <li>• The local vendors will be hired to provide separate colored bins for dry recyclables and Bio-Degradable waste.</li> <li>• For waste collection, adequate number of colored bins (Green and Blue &amp; dark grey bins- separate for Bio-degradable and Non Bio-degradable) are proposed to be provided at the strategic locations of the area.</li> <li>• Litter bin will also be provided in open areas like parks etc.</li> </ul> <p>Treatment of Waste</p> <ul style="list-style-type: none"> <li>• Bio degradable Waste Bio-degradable waste will be subjected to Organic Waste Converter and the compost/resultant will be used as manure.</li> <li>• STP sludge is proposed to be used for horticultural purposes as manure. Horticultural Waste is proposed to be composted and will be used for gardening purposes.</li> </ul> <p>Recyclable Waste</p> <ul style="list-style-type: none"> <li>• Recyclable wastes like paper, plastic, metals etc. will be sold off to recyclables.</li> </ul> <p>Disposal</p> <ul style="list-style-type: none"> <li>• Recyclable and non-recyclable wastes will be disposed through Govt. approved agency. Hence, the Municipal Solid Waste Management will be conducted as per the guidelines of Municipal Solid Wastes (Management and Handling) Rules, 2016.</li> </ul>

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**RISK MANAGEMENT**

<p>Are there sufficient measures proposed for risk hazards in case of emergency such as accident at the site during construction &amp; post construction phase.</p>	<p>During the Construction Phase, there is risk to the workers. Potential hazards for workers in construction include:</p> <ul style="list-style-type: none"> <li>• Falls (from heights)</li> <li>• Trench collapse</li> <li>• Scaffold collapse</li> <li>• Electric shock and arc flash/arc blast</li> <li>• Failure to use proper personal protective equipment</li> <li>• Repetitive motion injuries</li> </ul> <p>Safety measures will be as follow:</p> <ul style="list-style-type: none"> <li>• Scaffold must be sound, rigid and sufficient to carry its own weight plus four times the maximum intended load without settling or displacement. It must be erected on solid footing.</li> <li>• Unstable objects, such as barrels, boxes, loose bricks or concrete blocks must not be used to support scaffolds or planks.</li> <li>• Use the correct ladder for the task.</li> <li>• Have a competent person visually inspect a ladder before use for any defects such as: Structural damage, split/bent side rails, broken or missing rungs/steps/cleats and missing or damaged safety devices</li> <li>• Never enter an unprotected trench.</li> <li>• Always use a protective system for trenches feet deep or greater.</li> <li>• Employ a registered professional engineer to design a protective system for trenches 20 feet deep or greater</li> <li>• Be sure that workers wear hard hats where there is a potential for objects falling from above, bumps to their heads from fixed objects, or accidental head contact with electrical hazards.</li> <li>• Workers shall wear hard hats where there is a potential for objects falling from above, bumps to their heads from fixed objects, or of accidental head contact with electrical hazards.</li> <li>• Work on new and existing energized (hot) electrical circuits is prohibited until all power is shut off and grounds are attached.</li> <li>• An effective Lockout/Tag out system is in place.</li> <li>• Frayed, damaged or worn electrical cords or cables are promptly replaced.</li> <li>• All extension cords have grounding prongs.</li> <li>• Protect flexible cords and cables from damage. Sharp corners and projections should be avoided.</li> </ul>
<p>Storage of explosives/hazardous substance in detail</p>	<p>There shall be no storage of hazardous material except the diesel for DG sets. Storage of explosives and blasting activities (if required) shall be undertaken as per the requirements of PISO and established good practices</p>

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<p>What precautions &amp; safety measures are proposed against fire hazards? Furnish details of emergency plans</p>	<p>Firefighting measures shall be adopted as per the guidelines of NBC. External yard hydrants installed around all buildings in the complex and galvanized steel fire hose boxes/cabinet (weather proof). All external yard hydrants shall be at one meter height from finished ground level as per NBC at a distance of 45 m along the road. External fire hydrants shall be located and the external hydrants are not vulnerable to mechanical or vehicular damage.          Fire hydrant system will be provided within the buildings, fire escape staircases and refuge areas will be provided and the building structures will be planned as per NBC.          In addition, 10 kg fire extinguishers will be provided for class A, B, and C fires. CO2 extinguishers will also be provided</p>
<p>Litigation/court cases if any</p>	<p>NIL</p>
<p><b>AESTHETICS</b></p>	
<p>Will the proposed constructions in any way result in the obstruction of a view, scenic amenity or landscapes? Are these considerations taken into account by the proponents?</p>	<p>The site well planned keep in mind the nature and scenic view. Thus, no obstruction of view or scenic beauty or landscape is anticipated. Furthermore, the construction will be planned in such a way that the organized open spaces and landscaped areas will render the plot aesthetically appealing</p>
<p>Will there be any adverse impacts from new constructions on the existing structures? What are considerations taken into account?</p>	<p>No impacts anticipated.</p>
<p>Whether there are any local considerations of urban form &amp; urban design influencing the design criteria? They may be explicitly spelt out.</p>	<p>The project will strictly follow the Area Building Regulation of NBC. All norms on Ground Coverage, FAR, Height, Setbacks, Fire Safety Requirements, Structural Design and other parameters will be strictly adhered to</p>
<p>Are there any anthropological or archaeological sites or artefacts nearby? State if any other significant features in the vicinity of the proposed site have been considered</p>	<p>No anthropological or archaeological sites or artifacts are found near the site area.</p>
<p>Details of CSR activity and the amount set apart per year</p>	<p>Shall be as per Government of India norms</p>
<p>Details of NABET approved EIA Consultant engaged- Their name, address and accreditation details</p>	<p>Amaltas Enviro Industrial Consultants LLP (AEC) Is an ISO 9001:2008, is certified company. It has been accredited by Quality Council of India (QCI / NABET) an Environment Consultancy Organization approved by the Ministry of Environment, Forests and Climate Change (MoEF&amp;CC),          (Certificate no.-NABET/EIA/1518/1A 0017)</p>

AKJ

Details of Authorized Signatory and address for correspondence	<b>Authorised Person</b> – Shri. Job Kurian <b>Designation</b> - Professor-in Charge Administration <b>Address</b> - Ahalia Integrated Campus, Palakkad District- Kozhikpara, Kerala-678557
<b>SUMMARY AND CONCLUSION</b>	
Overall justification for implementation of the project.	Indian Institutes of Technologies (IITs) are institutes of national importance and are established and governed by a central statute - <i>the Institutes of Technology Act 1961</i> . Project objective are as follow a. To impart world class education in engineering and technology b. To conduct research in the relevant fields c. To further advancement of leaning and dissemination of knowledge.
Explanation of how adverse impact have been mitigated.	The Project proposes to obtain green building GRIHA certification for the project whereby it will conserve/save approx. 35-40 % of water then conventional usage. The project also proposes to reduce energy consumption and also provide solar/ renewable power to offset the annual power consumption thereby further reducing carbon footprints of the project. The construction of project shall be done on large scale which will give the employment opportunities to the nearby unskilled, semi-skilled and skilled labour. Infrastructure development shall take place as detailed traffic analysis shall be done and alternatives shall be proposed for roads transport, water and sanitation will be improved by proposing wastewater treatment facility, solid waste management facilities etc. Overall project shall have positive benefit

I certify that the information given above are true to the best of my knowledge and belief. If any of the information is found incorrect or misleading, I agree that the proposal may be rejected.

I also certify that I have not started any construction work in the site without prior Environmental Clearance as per the provisions of EIA notification 2006.

Date: 01.05.2019  
Place: Palakkad



Signature of the Project Proponent

