7.3.1. Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words

Giving Back to society and Environment

Sree Buddha College of Engineering recognizes its responsibility to contribute to the holistic development of the rural community. It initiates and supports various community development projects, such as building infrastructure, providing healthcare services, and promoting sustainable agriculture practices.

SBCE serves as a catalyst for positive change in rural [Pattoor], empowering individuals, strengthening communities, and fostering sustainable development. Through its holistic approach to education and community engagement, SBCE exemplifies the transformative potential of higher education in creating a brighter and more equitable future for rural societies. As we continue to navigate the challenges of the 21st century, SBCE remains steadfast in its commitment to serving as a force for social progress and empowerment in the rural landscape

We provide an opportunity to every student to contribute to make the society in which they live a better place and to grow as better individuals. The SBCE has committed itself to the task of inculcating social values and responsibilities in its students.

Activities conducted:

Giving back to society and the environment is incredibly important for fostering positive change and sustainability. There are numerous ways individuals and organizations can contribute:

Students Projects and Technical Programs: The Institute organized mini project, project exhibition, competitions and technical programs for the students

NSS (National Service Scheme) activities are designed to engage students in community service and social development initiatives.

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POST FLOOD REHABILITATION

Prof. Amjith T R, NSS Programme Officer of Sree Buddha College of Engineering Pattoor receives special appreciation award from Sri. Pinarayi Vijayan, Hon. Chief Minister, Govt. of Kerala, for coordinating the post flood rehabilitation activities.

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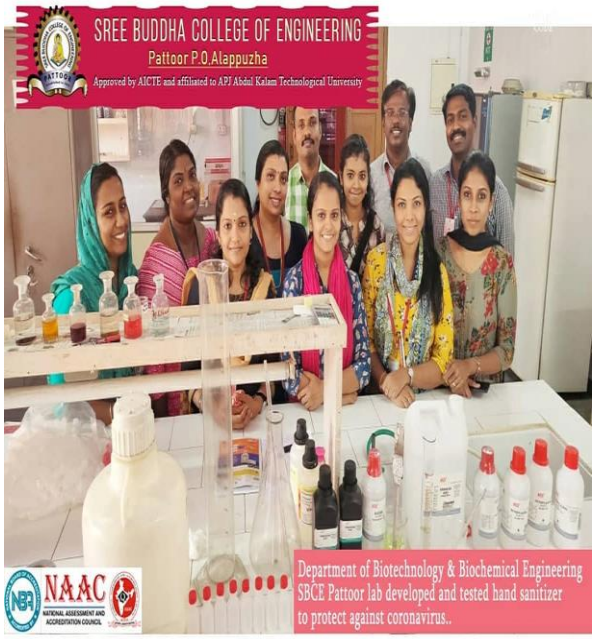
MASK MAKING CHALLENGE

Sree Buddha College of Engineering organized a Mask Making Challenge amidst the COVID-19 pandemic to promote safety awareness and foster creativity among its student body. The challenge aimed to engage students in designing and creating masks that are both functional and innovative, emphasizing the importance of mask-wearing in mitigating the spread of the virus.

SBCE Make their Own Hand Sanitizer for the Institute Community

As part of covid prevention measures Sree buddha college of engineering, Department of Biotechnology & Biomedical Engineering Developed and Tested Hand Sanitizer and the same is available for distribution nearby by areas. Especially for the Govt. Department like police, excise, health workers. Initiative of develop hand sanitizer lead by Dr. Anoop Raj (Head of BT) & his team of SBCE.



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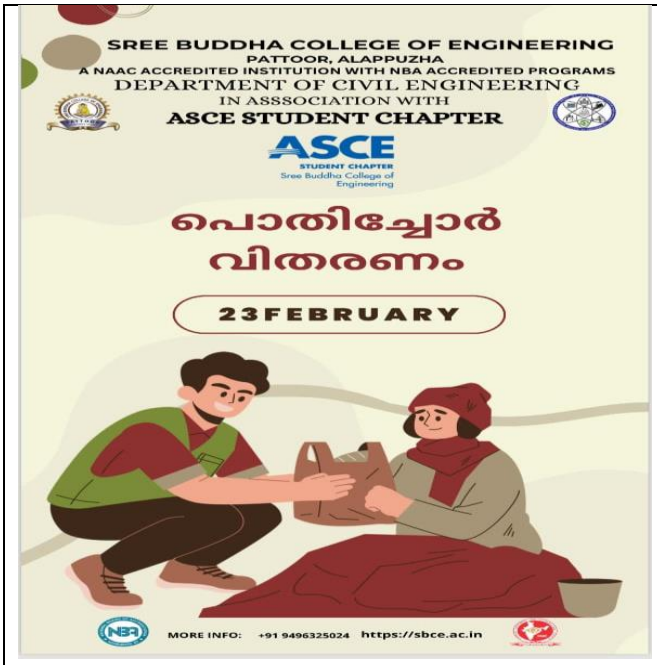
Food Distribution to Hospital

Distributing food to hospitals as a community service initiative can provide crucial support to both healthcare workers and patients



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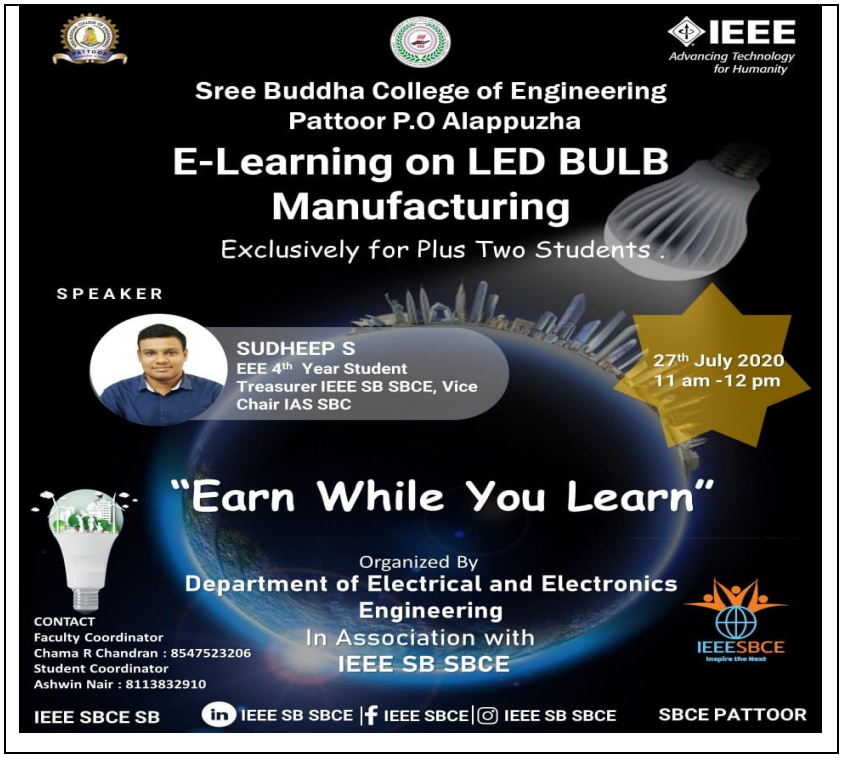
"E Learning on LED Bulb Manufacturing" Exclusively for Plus two Students

As part of the Electrical Department Association activity, Department of Electrical and Electronics in association with IEEE SB SBCE, Sree Buddha College of Engineering, organized an "E Learning on LED Bulb Manufacturing", exclusively for Plus two Students on 27th July, 2020. Mr. Sudheep S, 3rd year student of EEE Department was the speaker.



Hands on Training on "LED Lamp Making"

In this workshop, the students were given a chance to have practical exposure on LED bulb manufacturing process. The main objective of this training is that it offers a range of benefits, from personal cost savings to employment opportunities, sustainability, and community development. It equips individuals with skills that are in demand in a rapidly evolving technological landscape.

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Mathrubhumi
മാതൃഭൂമി

എൽ.ഇ.ഡി. ബൾബുകൾ പുറത്തിറക്കി ശ്രീബുദ്ധ എൻജിനിയറിങ് കോളേജ് വിദ്യാർഥികൾ

പാറൂർ ശ്രീബുദ്ധ എൻജിനിയറിങ് കോളേജിലെ വിദ്യാർഥികളുടെ സംരംഭമായ എൻ-ലൈറ്റ് എൽ.ഇ.ഡി പുറത്തിറക്കിയ ചടങ്ങ് സംസ്ഥാന ഇൻവസ്റ്റ്മെന്റ് ഡിവലപ്മെന്റ് കോർപ്പറേഷൻ ലിമിറ്റഡ് മാനേജർ ഡോ. ആഷിക് ഷെഴ്സ് ഉദ്ഘാടനം ചെയ്യുന്നു

പാറൂർ► എൽ.ഇ.ഡി. ബൾബുകൾ പുറത്തിറക്കി എൻജിനിയറിങ് കോളേജ് വിദ്യാർഥികളുടെ സംരംഭത്തിനു തുടക്കമായി. നൂറനാട് പാറൂർ ശ്രീബുദ്ധ എൻജിനിയറിങ് കോളേജിലെ ഇലക്ട്രിക്കൽ ആൻഡ് ഇലക്ട്രോണിക്സ് വിഭാഗം വിദ്യാർഥികളാണ് എൻ-ലൈറ്റ് എൽ.ഇ.ഡി. എന്ന പേരിൽ എൽ.ഇ.ഡി. ബൾബുകൾ പുറത്തിറക്കിയത്.

കേരള സ്റ്റേറ്റ് ഇൻഡസ്ട്രിയൽ ഡിവലപ്മെന്റ് കോർപ്പറേഷൻ ലിമിറ്റഡ് മാനേജർ ഡോ. ആഷിക് ഷെഴ്സ് യോഗം ഉദ്ഘാടനം ചെയ്തു. സംരംഭത്തിന്റെ ലോഗോ പ്രകാശനവും അദ്ദേഹം നിർവഹിച്ചു. ശ്രീബുദ്ധ എജുക്കേഷണൽ സൊസൈറ്റി സെക്രട്ടറി പ്രൊഫ. വി. പ്രസാദ് അധ്യക്ഷനായി. പ്രിൻസിപ്പൽ ഡോ. കെ. കുഞ്ഞുകുമാർ ആശംസിൽപ്പന നടത്തി. അസോസിയേറ്റ് പ്രൊഫസർ ഡോ. വി.പി. വിനോദ് വിദ്യാർഥികൾക്കുള്ള സർട്ടിഫിക്കറ്റുകൾ വിതരണം ചെയ്തു. സ്റ്റുഡന്റ് മെമ്പർ എ. ചൈത്ര പ്രസംഗിച്ചു.

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Pradhan Manthri Kaushal Vikas Yojana Food Processing and Preservation

As part of Pradhan Manthri Kaushal Vikas Yojana (PMKVY), Department of Biotechnology and Biochemical Engineering, Sree Buddha college of Engineering conducted a two months short term course on “Food processing and preservation”.

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Criterion 7

7.3 Institutional Distinctiveness

"Programming in PYTHON"

As part of the extension activity, Department of CSE organized a two-day workshop on "Programming in Python" for Plus two CBSE school teachers on 19th and 20th July 2019. Major objective of this workshop was to start collaboration with the plus two teachers in order to bridge the gap between the school education system and professional education.

Programme started with the welcome speech by Ms. Lakshmi S. followed by the keynote address of Dr. S. V. Annlin Jeba, HOD, Dept. of CSE. She gave an introduction about the institution and introduced the resource person Mr. Arun P.S. Later Mr. Arun P.S. continued the sessions at FOSS lab of CS block. Total 15 teachers from various CBSE schools attended the workshop.

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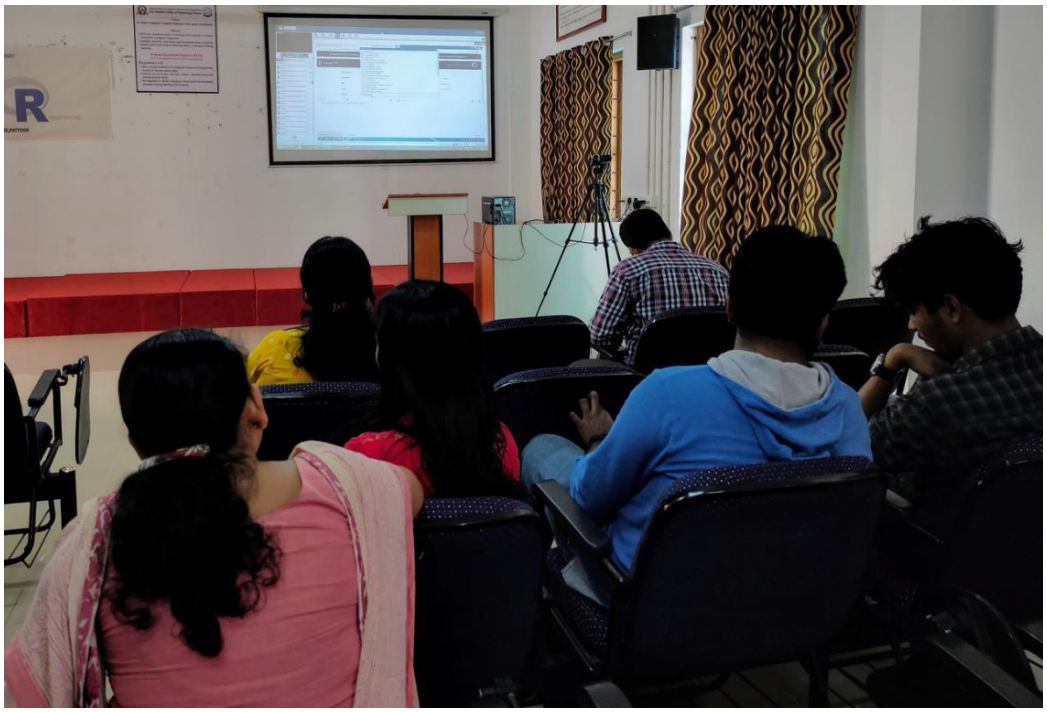
The Department of Computer Science & Engineering of Sree Buddha College of Engineering has hosted a **One Day Workshop on R Programming Language** for Teachers on 9 Nov. 2019. This was being organized by the Teaching Learning Centre (ICT) at IIT Bombay, funded by the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT), an initiative of the Ministry of Human Resource Development, Government of India. Teachers from different institutions participated in this workshop.



Helping the needy people around us. The NSS unit of SREE BUDDHA COLLEGE OF ENGINEERING handed over Rs 43,000 for the treatment of a kidney patient. Hon. Treasure, Sri K K Sivadsan handing over the money.

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NSS volunteers of Sree Buddha college of Engineering Pattoor conducted an awareness campaign on road safety at Padanilam HSS

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Socially relevant project

Urbanization has led to increased waste generation, posing significant challenges for waste management systems. In response to this pressing issue, our engineering college has initiated a socially relevant project focused on developing a sustainable pampers, sanitary napkin to enhance urban sustainability. By integrating technology, data analytics, and community engagement, this project aims to revolutionize waste management practices and promote a cleaner, healthier environment for all.

Hyacinth fiber replaces Polypropylene in a baby's diaper

Large quantities of disposable diapers are utilized, and because they are disposable, they are discarded after a single usage. This causes a significant environmental problem. The primary this project is a remedy to this issue, includes the creation of diapers made from natural cellulose.

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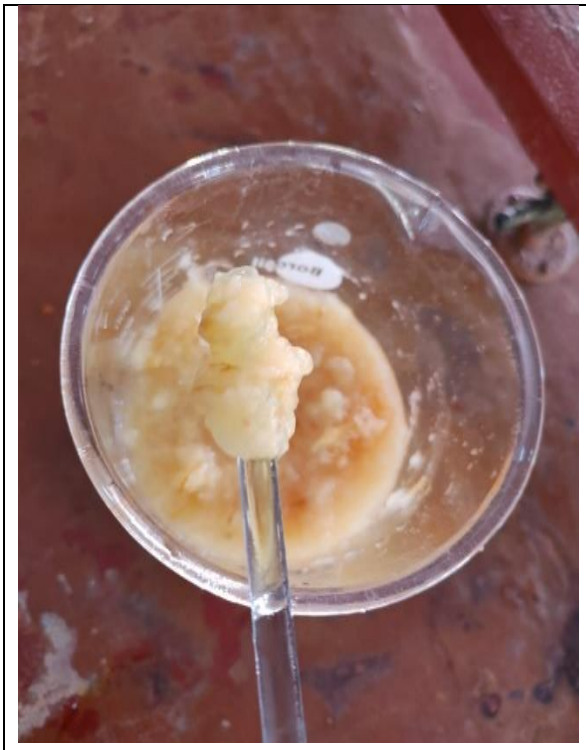

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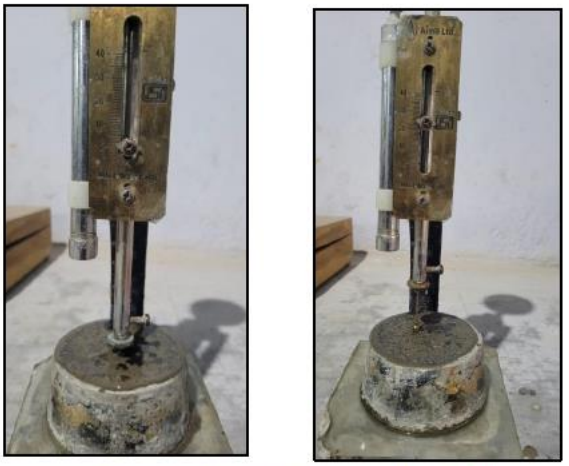
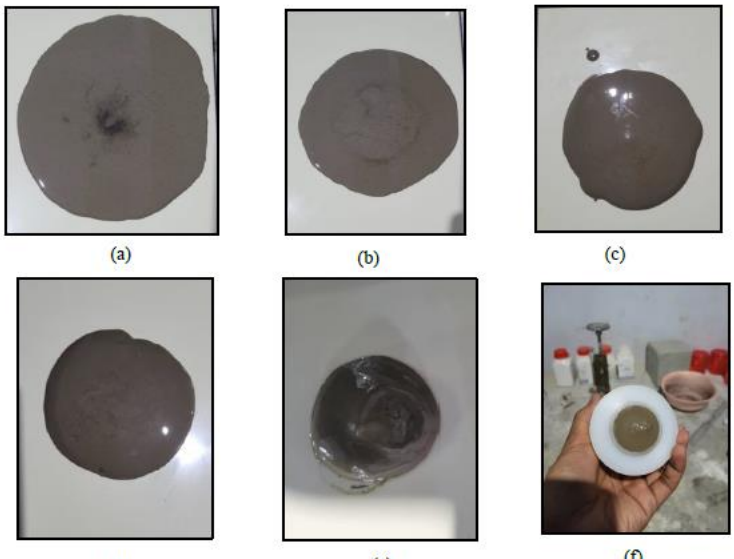
Effect of age of alkali activator on the characteristics of slag- fly ash-based

Alkali-Activated Binders (AAB) have emerged as a promising alternative to traditional cement, offering reduced carbon emissions and enhanced material performance. AAB prepared using slag and fly ash suitably activated by a combination of sodium silicate solution and sodium hydroxide solution is used for the study.



Setting time and penetration resistance test on AAP



(a) (b) (c) (d) (e) (f)

Flowability of AAP at (a) 5 min, (b) 10 min, (c) 15 min, (d) 20 min, (e) 25 min, (f) 30 min

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GROUNDWATER POTENTIAL MAPPING OF KUMMIL GRAMAPANCHAYATH USING GIS SOFTWARE

In response to the acute water scarcity issues faced by the Kummil Gramapanchayath in the Chadayamangalam block of Kollam district Kerala, particularly three years ago when governmental agencies intervened to supply drinking water through tankers, this extensive project analyses the ground water characteristics. Extending from Nov 2023 until Feb 2024, the initiative aims to utilize advanced Arc GIS software, addressing groundwater quality parameters such as pH, turbidity, conductivity and chloride.

Fig 1: Measurement of water level, well projection and sample collection

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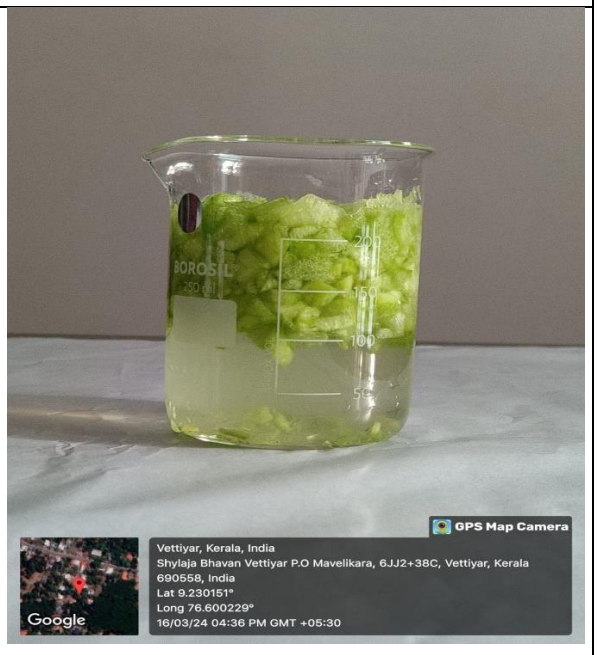
Transparent Bioplastic Derived from Elephant foot yam Extract for Food Packaging applications



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Hydro Sense: Empowering Water Quality Monitoring Through ML and IoT

Clean water is a vital resource for sustaining life, and ensuring the quality of drinking water is crucial for promoting the wellbeing and health of individuals. Water quality monitoring systems are essential for evaluating and guaranteeing the safety of water sources. The current water quality monitoring system lacks real-time information, which is a drawback. Manually checking water quality continuously is impractical. To address this issue, we have developed a cost-effective real-time water quality monitoring system specifically for drinking water. Key parameters such as pH, turbidity, and temperature need to be measured to detect contaminants and prevent water-related illnesses. Our system includes specially designed sensors connected to a microcontroller with an integrated ADC circuit for signal conversion, data processing, and analysis. The hardware component is connected to the main system via a USB cable. The system displays parameter values in the Iot and Machine Learning part. From the hardware the values of the parameters will automatically transmits them to a trained model for decision making. In the ML part we have trained the model using the Random Forest classification Algorithm to determine if the water is good for drinking or not. In the IoT part the values of the parameters will automatically transmits to the Blynk server and based on the values of the parameters it will decide if the quality of the water can be used for drinking purpose or not. An automatic real-time monitoring system is crucial to ensure the safety of water stored in water treatment plants, industrial processes, environmental monitoring, agriculture, and wastewater treatment.

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Got special mention and Cash prize for Project Expo conducted at Adi Sankara College of Engineering, Kalady

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IoT Based Smart Garbage Detection System

Efficient waste management is becoming more difficult due to the swift increase in urbanization and population. This system suggests a novel remedy in response: a smart garbage detection system based on the Internet of Things (IoT). By using sophisticated data analytics and real-time monitoring, the main goal is to sensing the fill level of the garbage in the dustbin, foul smell detection, waste segregation and provide cashback. Our system employs various sensors such as IR sensor, Inductive Proximity sensor, Dispersed water sensor module, odour sensor and weight sensor. First three sensors detect plastic, metal and wet waste, after detection the waste will be segregated to apt bin. We have servomotor for opening and closing the lid of the bin and stepper motor for rotating the three bins. When waste enter into the bin, the Inductive Proximity sensor hold the waste in 2, 3 seconds for sensors being detecting the type of waste and weight sensor measure weight of the waste. Then send signal to servomotor and stepper motor, they can assist to dispose the waste in appropriate dustbin. And also have mechanism for sending alert using GSM module, when dustbin fills upto 50%. Odour sensor is used for detecting foul smell. Get cashback based on the item (weight of the item in grams * price).

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IoT Based Smart Garbage Detection System on an expo at Govt higher secondary school Pallickal,

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Criterion 7

7.3 Institutional Distinctiveness