Extension Activities of Centre for Waste Management

2016-2017

Paumai Eriporulum adhan Athyavasiyamum Sirappu Vizhipunarvu Mugam

Centre for Waste Management conducted an awareness programme on 1st October 2016 to the villagers of Mittapalli, Krishnagiri district to popularize the usage of biodiesel to fuel their pumpsets. The villagers adopted to this and have started fueling the pumpsets since then. Research scjolars of the Centre are involved in providing the required fuel consistently.



Pump set fuelled with Biodiesel in a farm at Mittapalli

2017-2018

Centre for Waste Management convened an extension programme for Women self help group from Avadi, Chennai on 22nd August 2017. The women were taught about the sources of waste, segregation of waste and safe ways of handling the waste. They were also educated about what would happen if waste cooking oil generated in the kitchen is drained into the wash line in the kitchen or thrown into the domestic waste. The impacts on health when consuming food cooked using repeatedly fried oil. As an alternate to this, they were given hands on training to make detergent soap from waste cooking oil. The SHG women were created awareness on how waste can be used as resource to generate revenue.



Self Help Group women from Avadi

Centre for Waste Management jointly with Centre for Nanoscience and Nanotechnology during the course of identification of a village for inclusion to implement Unnat Bharat Abhiyan projects, went on an awareness creation drive to Venkatapuram and Kumizhi villages in Chengelpet district Tamilnadu. Women involved in 100 days work were gathered and were given awareness on how to occupy themselves with a livelihood. Several wastes to value added products were explained to them. They were given ideas of how they can generate income with less investment. This awareness drive happened in May 2019.



Women of Venkatapuram Village being addressed by Sathyabama team

During the visit Sathyabama team also interacted with the Anganwadi children. The Anganwadi teacher Ms.Nagomi was very much instrumental in connecting the Sathyabama team with the panchayat office of Kumizhi, the Govt.High School, Kumizhi and with the villagers for several activities executed in Kumizhi village as a part of the Unnat Bharat Abhiyan project and beyond. Anganwadi children were provided with chairs, study and drawing materials. They were also taught about the importance of waste segregation with demonstration. The children were also engaged with other fun activities.





Sathyabama team, Ms.Nagomi and Anganwadi children at Kumizhi







Anganwadi children were provided with chairs, study and drawing materials

The high school children were also given an awareness on Social Entrepreneurship and on Courses that can give them immediate job opportunities.



Govt. High School students interacting during an Entrepreneurship Awareness Programme

Awareness on Waste Management and Social Entrepreneurship was given to the Self Help Group women of Kuthambakkam village, Poonamallee block by the Sathyabama team.





The Centre for Waste Management, Sathyabama Institute of Science and Technology was sanctioned a project "Recycle of Ritual Waste Materials to Incense Sticks- An Eco-Friendly Approach for Rural Industrialization and Entrepreneurship Development" through which the self help group women of Kumizhi village were empowered with a skill. Of the many women who were given awareness, women were selected based on their interest and quickness in learning, they were given intensive training right from collection of raw materials to incense stick packing. The women acquired both skills of rolling the incense sticks and making agarbathis using the fabricated mould. They were trained to make paper packets to pack the agarbathis, which in turn will be put in a designed package .The sales of the agarbathis was proposed to be under a brand. "POOMANAM" - fragrance of flowers is the brand name given to the Incense sticks and agrabathis made from ritual waste. The project was executed from June 2019. The objective of the project was achieved by inaugurating POOMANAM – Agarbathi making Microenterprise on 19th September 2019. The microenterprise was inaugurated by Mr.Ravichandran, the Head master of the Kumizhi High school and Mr. Varadharajan, the Panchayat Secretary. Uniforms and ID cards were given to the members.















Centre for Waste Management (CWM) E-Waste Management Wing, comprising of Dr.Dawn S S, Dr.Arun J, Ms. Nirmala and Mr.Santosh A from CWM, Dr.Vinita Vishwakarma from Centre for Nanoscience and Nanotechnology; Dr.S.Barani and Dr.S.Poornapushpakala from Department of Electronics and Communication Engineering created Awareness on "E-Waste Collection and Management "at Jain Spring Meadows, Navalur on **6th March 2021**.Residents with their children participated in the event.The participants were given an overview of the sources, harms and impacts of Waste Electrical Electronic Equipments.Questionnaires were distributed and instructions were given to them to enable them collect and giveaway the household generated E-Waste during the Collection drive planned shortly. Kids participated enthusiastically in the games organized. Aloe Vera, Basil and Coleus (Karpooravalli) saplings were given to emphasize the medicinal effects they have in treating the health hazards associated with the exposure of E-Waste.Students from the Department of Chemical Engineering volunteered in convening the Programme.Vice Chancellor Dr.T.Sasipraba delivered the Presidential Address and Shri Venkatesha Murthy (Founder and CEO) Vans Chemistry, Bangalore inaugurated the Programme through Zoom.

















Centre for Waste Management, Sathyabama Institute of Science and Technology (Deemed to be University) in association with Mirai Research Solutions, for commemorating National Science Day organized "SCIENCE FEST 2022" on February 28, 2022 at Government High School, Kumizhi, Chengalpet. Around 100 students participated in the event and nearly 75 working models, specimens and experiments were displayed. The Headmaster, Thiru E. Jayakumar (Government High school, Kumizhi, Chengalpet), delivered the welcome address. Dr. Dawn S.S., Professor (Research) and Head at the Centre for Waste Management, highlighted the "Importance of Waste Management" and elaborated on the several waste to value-added product outcomes of the Centre for Waste Management, Sathyabama Institute of Science and Technology. Invited guest Mr.M.Arun Govind ,Chairman of Mirai Research Solutions delivered the Inaugural address and motivated the students by indicating how Science can help them become Entrepreneurs. The school students honoured the guests, with their own handmade flower vase and greeting cards. Some of the exhibit models included Needle JCB, electric bike, vacuum cleaner, water dispenser, electric air cooler, sanitizer dispenser, ATM machine, water overflow alarm, hydraulic lift, 3D alarms, Grass cutter etc. The invited guest, Mr. Arun Govind and the Scientific team of the Centre for Waste Management, inspected all the displays. Prizes were distributed class wise. Master K.Dilip (Std.IX), Miss.Sandhiya (Std X), Master Harish (Std.VIII), Miss. Hari Sudha (Std.X), Miss Dharshini (Std.VI), Miss.Shalini (Std.VII), Uma Maheswari (Std.VI), E. Nisha (Std.VII), S.Shalini (Std.VII) and A. Abinesh (Std.VII) backed the prizes for their displays. Adhina, Shanthini, Tameen Basha and Deepa received special prizes from invited guest Mr.Arun Govind. All the participants received participation certificates. Vote of thanks wasdelivered by Mrs. Shanthana Lakshmi, BT Assistant Government High School, Kumizhi, Chengalpet.























Centre for Waste Management, Sathyabama Institute of Science and Technology organized a "Waste Cooking Oil Collection Drive" commemorate National Safety Day on 4th March 2022, elucidating Food Safety. The Scientific team started the drive from the institution campus and covered the Sozhinganallur and Medavakkam stretch covering about 5 kms. The team approached Ponnusamy Hotel, Salem R R Briyani, Hotel Ramanaa's and Sundari Restaurant. The team highlighted their focus on collecting the waste cooking oil that is generated during the frying operations in their restaurant. The health impacts posed by the Waste Cooking Oil reuse for frying and cooking were explained and how they will be playing a major role in prevention of health hazards by giving the used cooking oil to the centre for waste management who are in turn using it to produce biodiesel. The environmental hazards of throwing away the waste cooking oil into sewer lines and on landfills were also explained creating an awareness on both food and environmental safety by diverting the muchgenerated waste cooking oil for biodiesel production. The drive was completed with an agreement from the hotels and restaurants a major portion of their waste cooking oil to Centre for Waste Management, Sathyabama Institute of Science and Technology. As a consequence

of the drive, the centre will be getting waste cooking oil from the restaurants apart from the volume of waste cooking oil it has been receiving from the institution's mess that caters to the food needs of about ten thousand inmates on an average daily.













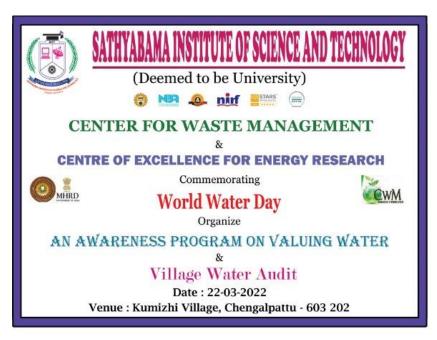




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Centre for Waste Management and Centre of Excellence for Energy Research, Sathyabama Institute of Science and Technology, to commemorate World Water Day convened an Awareness Programme for the High School Children of the Government school in Kumizhi on 23rd March 2022. Village Water Audit was conducted by the students under the mentorship of the scientific team.















"World Water Day 2022"

Centre for Waste Management, Department of Electronics and Communication, Centre for Nanoscience and Nanotechnology, Sathyabama Institute of Science and Technology organized An Awareness Programme on Hydroponics: An Alternate Farming Technique for Soil Conservation" on **22nd April 2022** for the farmers of Thirukazhukundram block at Gokul Krishna Farm, Neikkupi, Kalpakkam. Agri Dr. Shanthi Sivakumar, CEO, SS FARM TECH, Chennai introduced to the participants the concept of Hydroponics and the different farming techniques involved in it for soil conservation. The Scientific team also visited the Gokul Krishna Farm at Neikkupi, Kalpakkam and witnessed the Hydroponics farming practised in at Gokul Krishna Farm. Agri Dr. Shanthi Sivakumar explained how hydroponics farming is favorable for the cultivation of cucumber, micronutrients, tomatoes etc. The team is also executing a Science Technology Innovation Hub at Kattumannarkoil, C,D Block,

Cuddalore District supported by Department of Science and Technology, Government of India,in which Automated Hydroponics Framework will be implemented shortly for promoting the cultivation of agricultural produces for the livelihood promotion of the identified beneficiaries in the Aadhanur, Eachampoondi and Periakottagam villages. About 50 marginal workers will be benefited through this intervention.







2022-2023

Centre for Waste Management, Centre of Excellence for Energy Research jointly with Centre for Aquaculture Sathyabama Institute of Science and Technology organized "An Awareness Programme on "Popularization of Biodiesel for Fueling Fishing Boats" commemorating World Biofuel Day on 10th August 2022 at Tsunami Quarters Karikkattukuppam Muttukadu. Dr. M.V. Rajeswari, Assistant Professor (Research), Centre for Aquaculture co-ordinated the program. 25 fishermen returning after fishing enthusiastically participated the programme. Dr. Dawn S.S., Professor (Research) Centre for Waste Management, explained about the various initiatives of the centre. The importance of biofuel and its role in Climate resilience was explained. Fishing boat fuel (Diesel) requirements per boat, frequency of fishing in a year and related information were gathered by the research team for further studies. The scheme of producing biodiesel from waste cooking oil and its benefits from environment, economy and efficiency points of view were explained. The participants were encouraged to fuel the boats with biodiesel in blends with diesel gradually from 1% - 10%. They showed keen interest and involvement in blending biodiesel with diesel and using the blends in their boats. The

program ended with handing over of biodiesel to the fishermen as an encouragement to fuel their boats. The fuelling of the boats with biodiesel blends was announced and the participants eagerly welcomed the event planned to be convened on 17th August 2022.



Centre for Waste Management jointly with Centre for Nano science and Nanotechnology, Department of Electronics and Communication Engineering and Sathyabama Institute of Science and Technology organised "Cancer Awareness Programme for Women" Commemorating National Cancer Awareness Day on 07.11.2022. The highlights of the programme was to remove the stigma and fear attached, recognise the early signs and symptoms of cancer, educate the key risk factors and inform the importance of regular screening and check ups. The programme began with a welcome address delivered by Dr. Vinita Vishwakarma, Professor (Research), Centre for Nano science and Nanotechnology, followed by an inaugural address given by Dr. T. Sasipraba, Vice Chancellor, Sathyabama Institute of Science and Technology. Invited talks given by chief guests Dr.Balaji Ramani, Clinical Lead / Senior Consultant, Surgical Oncology, MGM Health care and Cancer Institute, Chennai, Dr. Parveen Banu. R Head, Department of Psycology, Sathyabama Institute of Science and Technology. Mrs. R.S. Srilakshmi, Member, WEEGA, Women Empowerment and Employment Generaton Association. The titles are "Women and Cancer... The way ahead", "Psychological aspects of cancer patients (How to cope with a variety of stressors)" and "Mensural Hygiene and the need of Organic Sanitary Napkins for Women". Dr. Dawn S S, Professor (Research), Centre for Waste Management, Sathyabama Institute of Science and Technology delivered the talk on "Cancer Preventing Foods". Dr. Poornapushpakala,

Associate Professor, Department of Electrical and Electronics Engineering, Sathyabama Institute of Science and Technology delivered vote of thanks. The Participants enthusiastically attended and benefitted through this program which was conducted in online mode.

Cancer Awareness Program

