

Solid Waste Management



SRM

INSTITUTE OF SCIENCE & TECHNOLOGY
(Deemed to be **University** u/s 3 of UGC Act, 1956)

How do we manage and
recycle our solid & E-waste's?

REDUCE, REUSE, RECYCLE

Waste management & Recycling supports the campus goal to reduce the volume of waste material entering the waste stream. There are more than 1,000 segregated recycling bins on campus for biodegradable and non-bio degradable materials like paper, plastic, and aluminum cans, as well as a newspaper and cardboard drop-off.



REDUCE

Paper is the most significant component of the solid waste stream in the SRMIST by weight, comprising about 10-15% of total waste. The amount of paper used in office settings can be reduced by using less paper, to begin with, reusing where appropriate, and recycling.

REUSE

Get creative when it comes to reusing materials. Items like plastic bags and packaging can have a variety of uses once they serve their original purpose. Single sided printed paper can be reused to print drafts or for scratch paper or shredded and used as packing material. Unwanted magazines and books can also be donated to libraries or local schools to be reread.



The Institute of Science and Technology diverts more than 50 % of its waste from landfills, but the goal is to reach 70% before 2020.



SOLID WASTE REDUCTION & RECYCLE

SRMIST is committed to reducing the volume of waste generated in addition to increasing the proportion of waste which is recycled.

WE AIM TO:

- Deliver a 40 % reduction in solid waste by 2022 from 2012 levels;
- Recycle 50% of our waste by 2022;
- Compensate for remaining emissions by developing research and low carbon technology solutions

OUR PERFORMANCE

- We have reduced solid waste generation by recycling the **34 % of the total waste**, since the base year 2012;
- We need to reduce our solid waste by a further **16%**—based on our current recycling - to achieve our 2022 target.

WE' RE REDUCING SOLID WASTE & E-WASTE BY . . .

- Composting food waste;
- Recycling IT equipment through our IT supplier;
- Composting garden waste;
- Reducing / Banning disposables & straws at Cafes

By managing your waste, you can help to decrease the impact that the university's operations have on the environment, by reducing the waste we send to landfill. SRM recognizes the importance of its societal role in working with its supply chain and help others to minimize waste generation and working in close with the authorities for waste collection. We are committed to good practice in reducing and managing waste effectively, innovatively and integrating the policy within all departments at all levels.

TABLE 11 : TOTAL WASTE GENERATED AND RECYCLED AT SRMIST

Years	2013	2014	2015	2016	2017	2018 Up to June
Total wastage generated	1,14,400	1,70,400	2,02,800	1,20,900	218,809	125,105
Plastic	17,070	7,550	4,920	7,600	10,277	6952
Papers	17,000	50,800	39,800	58,400	62,775	32,232
Total waste Recycled	34,070	58,350	44,720	66,000	73,052	39,184
Percentage of waste Recycled	30%	34%	22%	55%	33%	31%

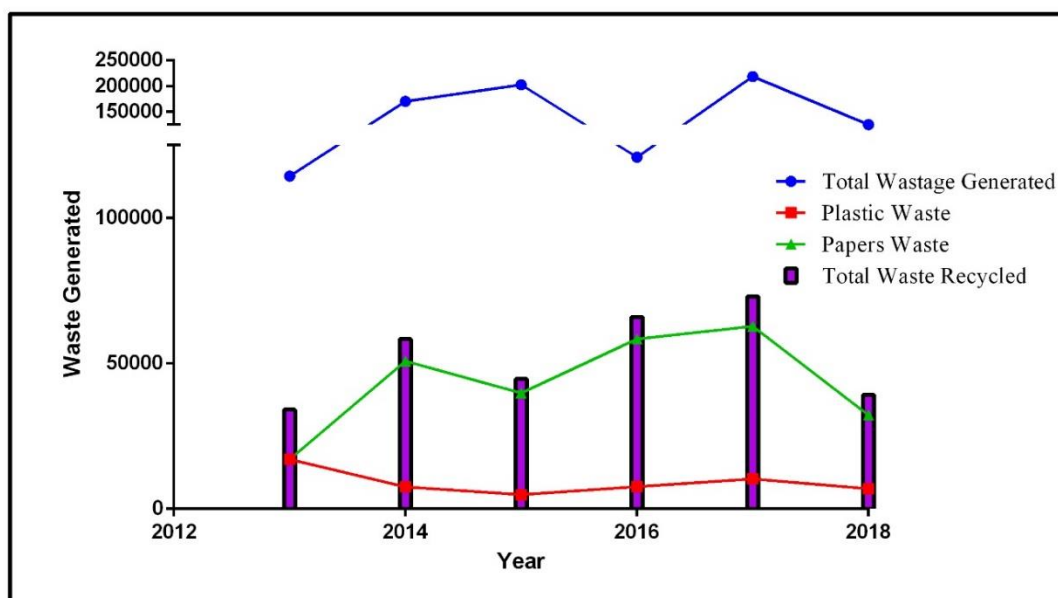


Figure 27: Waste Generated and Waste recycled at SRMIST



Carbon Mitigation



We have recycled an average of 34 % waste, and our goal is to recycle 50% of the waste by 2022.



WASTE SEGREGATION BINS AT SRM

Color of BIN	White Bin	Yellow Bin	Blue Bin	Black Bin
Types of Waste	Paper waste	Glass, Metal Waste and E-waste.	Plastic Waste	Food Waste
Reduce	<ul style="list-style-type: none"> • Print and copy on both sides; • Use email to exchange documents and memos instead of printing or faxing; • Use electronic data storage instead of hard copy files. 	<ul style="list-style-type: none"> • Broken items may be recycled as scrap wood or metal. 	<ul style="list-style-type: none"> • Just say no to straws & disposables inside the campus 	<ul style="list-style-type: none"> • Engage with students to find out what could be improved and recruit them to sample new food items you'd like to offer. • Awareness posters
Recycle	<ul style="list-style-type: none"> • Reuse paper printed on one side for internal memos, "draft" documents or scratch pads; • Use recycled-content, chlorine-free paper products, and use soy or other agri-based inks for printing projects. 	<ul style="list-style-type: none"> • E-waste is segregated and send to vendors for recycling; • Recycling depots for recyclable containers are found inside and outside campus buildings. 	<ul style="list-style-type: none"> • Use a reusable bottle for drinks and use your backpack when carrying extra items, instead of using plastic and paper bags 	<ul style="list-style-type: none"> • Compost food waste for gardens. • Provide food scraps to farmers;



Figure 28 : Installed Waste Collection Bin at SRM

DONATION OF BOOKS

At the end of every semester exams, the donation box for books is available in all hostels to collect the books and the books will be re-distributed and available to needy students. For request for collection of books contact the Directorate of Student Affair, Room #8, 9, 4th Floor, University Library Building, SRM IST, SRM Nagar, Potheri-603203 Contact : 044-27,417,320



Figure 29 : Donation Box for Book Drop at Campus

BOOK SWAPPING AT SRMIST

Students of SRMIST came together for networking through a healthy exchange of books. Book swap was a successful and interactive initiative where the students have to go with books in hand. Swapping allows you to have the items you want, give someone else the things they have been searching for, while saving you both the cost of buying entirely new products. Trading your items also helps the environment, because you are not helping to create the need for more products to be made.

These new products require new packaging, which eventually ends up in landfills. If you bypass the new products when you are able to swap for the same items, you are not contributing to that cycle.



Figure 30 : Book Swapping events at SRM

BIO COMPOST

Biodegradable material such as paper waste, organic waste generated within the campus is converted into biofertilizer. The environmental benefits of diverting organic materials from landfill include reduced methane emissions (a potent greenhouse gas), and decreased leachate quantities from landfills.



Figure 31 : Bio compost Process at SRM



Collection and Transportation to Dump yard



Classification of Waste



Dumping



Composting



Biofertilizer

Figure 31 : Collection and processing of Solid waste

The SRMIST has set up one solid waste management yard at East Potheri, where engaging outsourcing segregates solid wastes generated from the campus. The segregated recyclable wastes are disposed off by sale.

TABLE 12 : BIOFERTILIZER GENERATED AND ITS COST BENEFIT

Year	Biofertilizer Generated	Cost Benefit	
2013			
2014			
2015			
2016			
2017			
2018			

Waste to Wealth

In SRMIST we have generated the revenue of Rs. -----
- by converting the waste to wealth in year 2018.

STEPS TAKEN TO REDUCE WASTE IN OFFICES OF SRMIST

- Use a ceramic mug for tea / coffee in your office;
- Reduce your paper consumption by printing on both sides of the paper;
- Scan and email instead of photocopying and sending in the post/ Circulars;
- Write on both sides of the pages in a notebook;
- Only print what you need to File–No Draft Prints

SRM INITIATIVES TO REDUCE PAPER WASTE:

For Students	For Faculties
1. Use Email to send & receive documents.	1. Use email to exchange documents and memos instead of printing or faxing.
2. Always print and copy double side.	2. Allow students to submit coursework electronically, if a hard copy is necessary, insist on it being double-sided.
3. Reuse discarded single sided paper.	3. Reuse discarded single sided paper by printing on the other side or use for notes taking.
4. Research information on the internet and store on a USB stick or CD–avoid printing out documents at all times.	4. Bring laptops to meetings and lectures–avoid using paper at all times.
5. Printing of invitations and posters for events is banned.	6. Make use of online information tools for communications.



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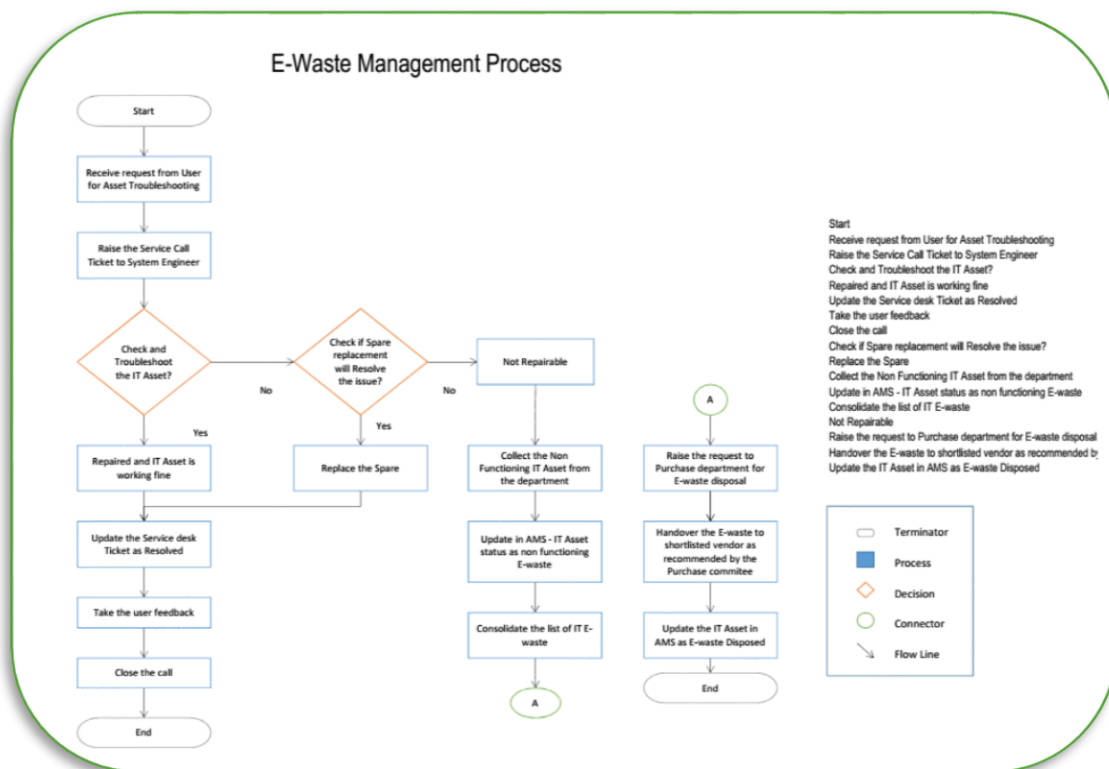
REDUCTION OF E- WASTE AND RECYCLING



Students are instructed, motivated and encouraged to dispose of any unwanted electronics in conjunction with Information Technology and Knowledge Management (ITKM). The E-waste collected from the hostels and from other sites will be transferred for recycling to the local vendors on a monthly basis. **The E-waste for recycling can be submitted to the ITKM Department between Monday to Friday, 08.00 a.m. to 16.00 p.m.**

MINIMIZING E-WASTE

- Re-evaluate. Do you really need that extra gadget? Try finding one device with multiple functions.
- Extend the life of your electronics. Buy a case, keep your device clean, and avoid overcharging the battery.
- Buy environmentally friendly electronics. Look for products labeled Energy Star or certified by the Electronic Product Environmental Assessment Tool.



- Donate used electronics to social programs—and help victims of domestic violence, children safety initiatives, environmental causes, and more.

There is no charge to bring electronics to this facility. Examples of electronic waste include, but not limited to:

- TVs, computer monitors, printers, scanners, keyboards, mice, cables, circuit boards, lamps, clocks, flashlight, calculators, phones, answering machines, digital/video cameras, radios, VCRs, DVD players, MP3 and CD players
- Kitchen equipment (toasters, coffee makers, microwave ovens)
- Laboratory equipment** (hot plates, microscopes, calorimeters)
- Broken computer monitors, television tubes (CRTs)

For Further Information Contact

Coordinator (E-waste)

Office of ITKM.

Room No. 20, 4th Floor, University Library Building,

SRM IST, SRM Nagar, Potheri-603203

Contact: 044-27,417,320

For disposal of equipment's for recycle, the respective department lab supervisors are requested to contact the ITKM for collection. The collected items will be sent to local retailers for recycling services.

TABLE 13: E-WASTE COLLECTED AND RECYCLING

Year	E-waste Collected	E-Waste Recycling through retailers
2012	CRT Monitors & TFT Monitors 448 Nos Keyboards 7Nos UPS seven Nos Inkjet Printers-10 Nos Dot-matrix Printers-16 Nos LaserJet Printers-24 Nos CPU cabinets-240 Nos	Balamurugan Traders
2013	Canon / HP Used Cartridges-135 Nos	Janani Computer
2015	CPU Cabinets Units-304 Nos CRT monitors -73 Nos TFT Monitors-262 Nos HDD-255 Nos CD Writers-24 Nos RAM-225 Nos Printers-14 Nos Laptop Battery-34 Nos Motherboards without processor- 277Nos SMPS Units-237 Nos Keyboards & Mouse-176No Networking Passive Cables, Switches, Racks, Hubs-130 nos	Balamurugan Traders
2016	Canon / HP Used Cartridges-225 Nos	Janani Computer
2018	HP/Cannon Empty Used Cartridges-382 Nos	M/S Janani Computers



Our goal is to reduce the E-waste generation and recycle the 100% of the E-waste Generated.