

Cities

# IIT-Delhi researchers develop technology to recycle e-waste



Naveen Bharat • 5 days ago • 0 • 3 • 2 minutes read



The Institute said on Monday that the Indian Institute of Technology has developed a zero-emission technique by researchers at the Indian Institute of Technology in Delhi, to manage and recycling e-waste, to deal with the fastest growing waste streams in Delhi.

It said that a team led by KK Pant and his research group in the Catalytic Reaction Engineering Laboratory in the Department of Chemical Engineering have adopted a methodology that uses e-waste as an "urban mine" for metal recovery and energy production Uses. Researchers said that using their method, e-waste is sliced and pyrolyzed to obtain liquid and gaseous fuels, leaving behind a metal-rich solid fraction. Upon further separation using a novel technique, 90–95% pure metal mixtures and some carbonaceous materials are obtained from the remaining solid residue. The carbonspace material is further converted to airgel for use in oil spill cleaning, dye removal, carbon dioxide capture, and supercapacitors. The technology is a result of the

Department of Science and Technology of the Government of India, the funded project and the developed technology will meet the requirement of the government's "Smart Cities," "Swachh Bharat Abhiyan," and "Atamanbir India" initiatives, IIT-Delhi said.