

# NITK professor receives patent for invention in obtaining Cardanol

**MANGALURU, DHNS:** NITK Department of Chemical Engineering professor Raj Mohan B has secured a patent for his invention 'Thin film reactor for obtaining Cardanol' from the Indian Patent office.

His invention focuses on the cost-effective continuous process for obtaining cardanol from the waste cashew nut shell extract.

The cashew nutshell waste, after extracting CSNL (Cashew Nut Shell Liquid), is further subjected to a solvent extraction process to obtain the remaining CSNL (up to 40%).

The extracted CSNL is subjected to a catalyst-based decarboxylation process using a thin film reactor oper-



**Prof Raj Mohan B.**

ated in a continuous mode to obtain higher percentages of cardanol at lower temperatures compared to the existing cardanol extraction process. The cashew nut farmers and industries (Better conversion, energy savings and clean product) will benefit from this in-

vention. The application for patent was filed in 2015.

Shrutee L, presently serving as engineering analyst in Infosys, was the co-inventor.

This is the third patent for Prof Raj Mohan. He was granted with two patents for the invention of 'Arsenic removal from water using functionalised melanin' in 2021 and 'removal of heavy metals from contaminated water by adsorption using Melanin bound activated carbon' in 2020.

He is a recipient of the Karnataka state prestigious Prof Satish Dhawan award for Young Engineers and a recipient of VGST's award for the Publication in Research (APR) in 2019.