SOT SCHOOL OF TECHNOLOGY
SPM SCHOOL OF PETROLEUM MANAGEMENT
SPT SCHOOL OF PETROLEUM TECHNOLOGY
SLS SCHOOL OF LIBERAL STUDIES

PDEU Newsletter

ISSUE 13 - SEPTEMBER, 2022

Kudos to Everyone!

Pandit Deendayal Energy University has been re-accredited with A++ NAAC Grade and a score of 3.52/4. Hearty congratulations to everyone for being the mighty task force behind a success like such. Kudos to another feather in the hat of PDEU.

Orientation Program for B. Tech First year Students

The orientation programe for B. Tech first year students was organized from 22nd September 2022 to 30th September 2022. It was an interactive session with deemed guest speakers wherein the students got enlightened.

Student Feat

Jainam Panchal, student of SOT, recently published a book entitled "Applications of Artificial Intelligence (AI) and Machine Learning (ML) IN Petroleum Industry via Routledge Publishing House.

PDEU Newsletter

3rd September 2022

With more than 150+ youngsters registered for voter ID successfully, the one day camp organized by the Electoral Literacy Club, PDEU emerged successful.

6th September 2022

H.E. Arne Jan Flolo, Consul General of Norway in Mumbai visited PDEU Campus on 6th September 2022 to discuss the opportunities for academic and research collaborations.

20th September 2022

Prof S SManoharan, DG; along with Dr Sivaraman Dhanasekharan and Dr P S Pradeep have developed 'Nanosol' for treating burns, NanoHyFi to treat hard-to-heal wounds, and PentaNanoplast to treat pain at certain spots.

'DRESSING NOT REQUIRED FOR A LONG PERIOD, NO SIDE-EFFECTS'

PDEU team develops nanotech patches for burns, wounds

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Ahmedabad: Burns, especially over a part of the body, are hard to manage with a greater risk of sepsis and frequent infections. As they also leave scars, they take a long time to heal.

A team from Pandit Deendayal Energy University (PDEU) has tried to address these problems with a hydrogel-based nano scaffolding. The team has multiple patents for this along with two other innovations that are also based on nanotechnology.

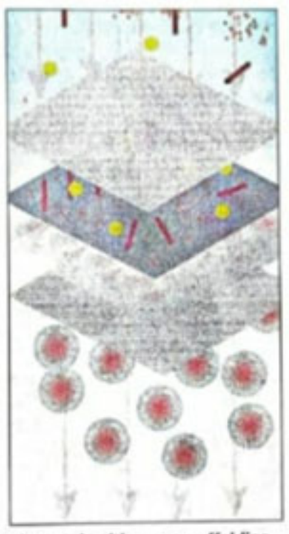
The team of Prof S S Manoharan, DG of PDEU along with Dr Sivaraman Dhanasekaran and Dr P S Pradeep, both assistant professors at PDEU, has developed 'Nanosol' for treating burns, NanoHyFi to treat hard-to-heal wounds, and Penta Nanoplast to treat pain at certain spots. All three are based on nano-scaffolding technology, which uses millions of nanofibres in a patch infused with medicines such as antibiotics and analgesics.

All three projects have been identified by central government entities such as the ministry of education and the department of science and technology (DST) for funding and support. Nanosol got development funding of Rs 49.7 lakh under the Scheme for Transformational and Advanced Research in Sciences (STARS). Prof Manoharan said their aim is to provide affordable Made in India alternative to patients and medical practitioners. The size of the global market for wound care is about $11.2 billion.

"This is our attempt to use nanotechnology for real-life issues by reducing the risk of re-infection. The patches are made such that dressing is not required for a long period. Most importantly, they are devoid of side effects including scar formation due to the sustained drug release," he said, adding that the innovation will also help reduce dependence on medical technology imports.

Dr Pradeep said NanoHyFi is aimed at surgical wounds and those developed by persons with diabetes. "Encapsulating millions of antibiotic-loaded nanoparticles in hydrogel derived fibres has the dual advantages of delivering the drug on one side and restricting the entry of germs (viruses and bacteria) on the other," he said.

"As the name suggests, penta nanoplast has five medicines that help management of pain, swelling and spasms. Compared to oral pain relievers, they are directly released into the muscle concerned and provide faster relief," said Dr Sivaraman.



The patch with nano scaffolding prevents entry of virus, bacteria and fine dust through multiple layers of nanofibre