

IIT-I gets patent for design invention

Professor Of The Institute Gets Another Individual Patent

TIMES NEWS NETWORK

Indore: Indian Institute of Technology (IIT), Indore has received a patent from Indian Patent Office for inventing a design exploration system inspired by a bacterial life cycle that is useful for designing digital chips of camera systems and mobile devices.

The invention "Design Space Exploration System and Method thereof using a Bacterial Foraging Optimization Mechanism," is several magnitudes efficient than other state of the art inventions used for this purpose, claimed the institute.

Speaking about the invention, Dr Anirban Sengupta, faculty at Computer Science Department, IIT-Indore said, "The invention is capable of enhancing the speed of the chips and reducing power using biological chemo-

taxis and elimination-dispersal process."

Sengupta said, "The present invention relates to design space exploration (DSE) and more particularly to method and system for design space exploration in high level synthesis using bacterial foraging optimization mechanism for designing or obtaining an application-specific processor (ASP) or Hardware Accelerator or Intellectual Property Core."

Another patent is granted to Professor Avinash Sonawane, faculty, Department of Bioscience and Biomedical Engineering, IIT-Indore on the development of asparaginase drug for the treatment of blood cancer.

The invention entitled "Novel Mutant L-Asparaginases", is a new asparaginase drug (M-ASPAR) using pro-

tein engineering approach to treat Acute Lymphocytic Leukemia (ALL), a type of blood cancer.

Approximately 25,000 new cases of ALL are diagnosed in India each year.

Professor Avinash Sonawane, principal investigator of the research said, "Since last 12 years, with the financial support from DBT, SERB, DST and BRNS, Government of India, we were working to develop a novel asparaginase drug that can reduce serious side effects as well as improve the treatment of primary and relapse ALL treatment."

The repeated administration of asparaginase currently in use for the treatment of ALL patients causes serious side effects such as allergic reactions, neurotoxicity, immunogenicity, hypersensitivity and toxicity to the pancreas, liver and spleen among other organs.

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