

**ANDHRA UNIVERSITY TECHNOLOGIES AVAILABLE FOR LICENSING AND TECHNOLOGY TRANSFER**

S. No	Title	Description
1	ANTICANCER ACTIVITY OF FERMENTED SKIN OF ALLIUM CEPA	A method for fermenting an onion ( <i>Allium cepa</i> ) skin with <i>Aspergillus kawachii</i> . And a composition comprising fermented onion skin extract for inhibiting cancer cell growth and a method for preparing that composition. This can be further used in developing Anti-cancer drugs.
2	A MEDICINAL COMPOSITION WITH HIGH CHEBULINIC ACID CONTENT FOR CANCER TREATMENT	A composition of fruits with high Chebulinic acid content was found to be effective on A549 lung cancer cell lines, using MTT cell growth inhibition assay. The results showed that the maximum percentage inhibition of cancer cell lines. This composition could be further developed for treating Cancer.
3	FLOW FIELD DESIGN FOR PROTON EXCHANGE MEMBRANE FUEL CELL	The flow field design improves the output performance of a proton exchange membrane fuel cell (PEMFC) and offer better water management inside the cell. The flow field design having a partial blockage with baffles aid in reducing pressure drop and minimizing gas crossover effect. The new flow field design incorporated in a proton exchange membrane fuel cell (PEMFC) stack is useful for commercial applications like public transportation and stationery power.
4	SYSTEM AND METHOD FOR GENERATING ELECTRIC POWER BY USING FUEL BRIQUETTES	A system and method for generating electric power by using fuel briquettes. The system further includes a water boiler to generate steam for burning the plurality of fuel briquettes which are transferred from the moulding process and a dynamo is configured to generate electric power by supplying the generated steam to the dynamo for converting the steam energy into electric power.
5	PROCESS FOR PHENOL REMOVAL THROUGH ADSORPTION AND BIODEGRADATION	The waste eggshells were employed for adsorption of phenol present in waste water and biodegradation of adsorbed phenol was achieved by employing activated sludge.
6	THE MICROWAVE TRIMMING OF POLYMER THICK FILM RESISTORS	The invention is advantageous in trimming of resistors without requiring cutting of portions of resistor. The invention is applicable for upward or downward trimming of polymer thick film resistors.

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7	PULSE VOLTAGE TRIMMING METHOD OF POLYMER THICK FILM RESISTORS	The invention is advantageous in eliminating cutting of resistor portions for resistance variation.
8	PROTECTIVE ROLE OF NANOSUSPENSION OF OCIMUM SANCTUM AGAINST LEAD INDUCED TOXICITY	The composition of Ocimum sanctum nanosuspension is found to be an effective strategy for lead-induced oxidative stress or lead poisoning in Brain, Heart, Liver and Kidney. This could be further applied in treating the cases of Lead Poisoning.
9	NANOLIPOSOMES OF PUNICA GRANATUM PERICARP FOR THE MANAGEMENT OF DIABETIC CATARACTOGENESIS	The nano liposomal Punica granatum pericarp formulation showed significant antioxidant, antidiabetic and inhibits the advanced glycation end products associated diabetic cataractogenesis in STZ induced diabetic rats. This can be further explored in developing the anti-diabetic drugs.
10	FAST DISSOLVING SUBLINGUAL FILM OF TAPENTADOL HYDROCHLORIDE	The invention relates to a fast-dissolving immediate release sublingual film composition. It also relates to a process for the preparation of such composition thereof. It can be used for developing the fast-dissolving sublingual films.
11	CONTROLLED RELEASE FORMULATIONS OF ANTI-TUBERCULAR DRUGS USING DIFFERENT BIODEGRADABLE NATURAL POLYMERS	Microparticle-based drug delivery systems have considerable potential for treatment of tuberculosis. The important technological advantages of microparticles used as drug carriers are high stability, high carrier capacity, feasibility of incorporation of both hydrophilic and hydrophobic substances, and feasibility of variable routes of administration including oral application and inhalation. Preparation of conjugates between colloidal carriers (i.e., liposomes, microcapsules, nanoparticles) and lectins for pharmaceutical purposes can offer some advantages either in specific drug delivery applications or to increase the residence time of pharmaceutical form.
12	NOVEL CONTROLLED RELEASE TABLET OF POORLY SOLUBLE DRUG	This invention relates to a novel controlled release formulation that include drugs such as carbamazepine, and such other poorly soluble active pharmaceutical ingredients which require controlled release formulation. It can be used for developing controlled release tablets of a poorly soluble drug for controlled release of drug in the body.

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13	COCTOSE A NEW SUGAR MOLECULE IN COCONUT MILK AND A METHOD AND AN APPARATUS FOR EXTRACTING IT	The process consists of beating of coconut milk and a new sugar with significant features can be used to produce acids and alcohol by fermentation. Applications of the new sugar can further be explored.
14	PROCESS OF DEVELOPING COATINGS FOR HIGH TEMPERATURE OPERATIONAL EQUIPMENT	This invention discloses a method of development of high temperature functional material system. It boosts the effective working temperature of heat generating systems such as furnaces, ovens and other equipment's which operates at elevated temperatures. This eliminates the replacement or dependency on new heating system as it can easily upgrade the existing system. An engineered material is coated on the mullites which greatly improves the maximum operational temperature of the specific environmental (inert gas or vacuum) operated equipment. This invention can be industrially used for handling high temperature operational equipment.
15	SYSTEM AND METHOD FOR A SUPERCHARGED IDI DIESEL ENGINE RUN BY BIODIESEL	Exemplary embodiments of the present invention are directed towards a system and method for a supercharged IDI diesel engine run by biodiesel as a main fuel and smaller quantities of additive as a secondary fuel. Parameters like HC, CO, CO <sub>2</sub> , NO <sub>x</sub> and smoke were compared with diesel fuel. Biodiesel with additive combination exhibited better engine performance and lesser emission when compared to petro-diesel. This technology can be further explored for its applications in automobile industry
16	SMART HAND SANITIZER MAKING AND DISPENSING MACHINE	Exemplary aspects of the present invention is the Smart Hand Sanitizer Making and Dispensing Machine consisting of Electrically-Actuated valve and Thermal sensor. Thermal sensor detects the heat-signature of the Hand and actuates Electrically-Actuated valve and Spray-Nozzle, Heat signature intensity proportionate the level of liquid dispensed. Microcontroller and Mobile-Application accomplish liquid level monitoring, control and homogenizing through communication media. This invention can have its application in heavy public areas such as railway stations, shopping malls, exhibition centres, movie theatres etc.,

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17	PREDICTION AND EXPLORATION SYSTEM OF LOCATING MINERAL AND FUEL RESOURCES IN OCEANIC ENVIRONMENTS	The present invention relates to a system for predicting mineral and fuel deposits in oceanic environments. The invention proposes an effective, accurate and less expensive system to explore oceanic environments, where the ocean bottom was terrestrial or continental as established by our model and process. It can find its applications in mining industry and fuel exploration sectors.
18	ALUMINIUM COMPOSITE WITH METALLIC REINFORCEMENTS	The present invention relates to a method of manufacturing reinforced aluminium metal matrix composite that can be secondary processed at much lower energy level than the alloy and the MMCs.
19	HYBRID COLOUR IMAGE DECOMPOSITION SYSTEM USING FINITE DOUBLY TRUNCATED BIVARIATE GAUSSIAN MIXTURE MODEL	The present invention is directed towards a colour image decomposition system using finite Doubly Truncated Bivariate Gaussian Mixture Model with feature vector (Hue and Saturation) under HSI colour space. The developed decomposition technique is much useful for object recognition using image decomposition in medical diagnosis, security monitoring, remote sensing, Robotics, Law enforcement and etc.
20	FACE RECOGNITION SYSTEM USING DOUBLY TRUNCATED MULTIVARIATE GAUSSIAN MIXTURE MODEL WITH DCT COEFFICIENTS UNDER LOGARITHM DOMAIN	The present invention is related to a face recognition system using Doubly Truncated multivariate Gaussian Mixture Model with DCT coefficients under logarithm domain and a matching unit configured to match the found image with the maximum probability for recognizing face. This technology is much useful for security monitoring, remote sensing, Robotics, Law enforcement and etc.
21	METHOD FOR SKIN COLOUR SEGMENTATION WITH GENERIC BIVARIATE PEARSON MIXTURE MODEL	The present invention is related to a method for skin colour segmentation by using generic bivariate Pearson mixture model used for differentiating skin and non-skin segmentation.

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22	CONTENT BASED IMAGE RETRIEVAL SYSTEM WITH EDGE BASED STRUCTURAL FEATURE EXTRACTION	<p>The Majority of the Multimedia Data is due to the Digital Images. The Complexity in the multimedia data is increasing day by day as the greater number of Digital Images are being uploaded every minute. The traditional text-based search can be used to retrieve the Digital Images from the several repositories. The retrieval of the correct Image is difficult with the traditional text-based search to identify the Image Index as there is large database for the multimedia data. The strongest feature of an Image is Edge for its characterization, Edge regions can be detected by the Edge detection. The Present Invention is a Content based Image Retrieval System with Edge based structural Feature Extraction comprising of: Dataset (201); Image Query (202); Edge Detection Operator (203); Feature Extraction (204); Classification (205); Image Retrieval (206); can automatically retrieve the query image from the large multimedia database by identifying image indexing, with Edge based structural Feature Extraction. The present invention uses Image based search to retrieval of similar Contents of an Image.</p>
23	A SYSTEM AND METHOD FOR DETECTING CLOUD TRANSIENTS, CLOUD DENSITY USING OPTIMIZED SOLAR TRACKING SYSTEM	<p>The present disclosure relates to a system and method for detecting cloud switching transients (surges) and cloud structure analysis using optimized dual axis solar tracking (ODAST). ODAST 103 system is comprised of optimized Cadmium sulphide light dependent resistor (CdS-LDR) 102 light sensors, Minimum dull intensity of sun light (MDISL)104, and Multi state machine 105execution process of control unit. Maximum intensity of the sun is captured using ODAST 103 system in low illuminance conditions. Optimization process of CdS-LDR light sensor is designed from CdS-LDR characteristic curve of Intensity and photo-resistance using power approach. The power gained by ODAST 103 system is 50.63% more than the fixed panel. The generated power of ODAST 103 system is analyzed under shading effect of cloud. All data variables are collected in server file for every 2–3s of time interval using real-time virtual instrumentation Parallax Data Acquisition tool. Cloud sudden transients (surges)107 are detected using sudden high-power impulses (<math>P_{HI}</math>) and temperature humidity index (THI) variables. Cloud structure 108 is analyzed using cloud density, Direct normal intensity during cloudy (<math>DNI_{cloudy}</math>).</p>