**IIT Delhi’s technology in domain of health care**

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| **S. No.** | **Title**  | **Description** |
|  | **Enhanced imaging version of MRI with super magnetic iron nanoparticles** | A process providing active-targeting of superparamagnetic metal oxide nanoparticulate formulation as an MRI contrast enhancing agent for imaging of organs of the RES. |
|  | **Knot secure suture from polyethylene** | The present invention relates to surgical suture made from linear low density polyethylene and a specific process for suture development with imparts high knot security as well as excellent antimicrobial property and sustainable release from polymer matrix. |
|  |  **A Low Power ASIC Design to Detect Cardiovascular Diseases based on a Novel Algorithm for QRS Complex Detection** | A system and method for detection of cardiovascular diseases using QRS complexes in ECG signals |
|  | **Non-invasive system and method for glucose monitoring**  | A Non-invasive system and method for glucose monitoring  |
|  | **Hip protective device** | This invention relates to a hip protective device for elderly people to protect neck of femur and trochanteric region during fall. |
|  | **Scar preventing wound dressing material** | The present invention relates to the wound dressing and its medical applications. It relates toa scar preventing wound dressing material and the process of preparing the same. |
|  | **A Surgical Stapler (Design)** | Surgical staplers are sophisticated devices used in place of sutures to close [skin](http://en.wikipedia.org/wiki/Skin) wounds, connect or remove parts of the bowels or lungs. An improved stapler has been developed to enhance ease of use. |
|  | **Clubfoot deformity measuring device****(Patent and Design)** | A single device equipped to detect and measure the level of deformation that is sufficient for measuring all of types of deformations of clubfoot. |
|  | **Multifunctional Bioactive Wound Dressing** | An ideal bioactive dressing and its process of preparation that promotes wound healing by enhancing angiogenesis, prevents microbial infection and is biocompatible. |
|  | **A wheeled walker with braking system ( Multifunctional Wheelchair)** | The present invention provides a wheelchair which helps the user navigate from one place to other and also which helps the user to access toilets without any extra assistance( A multifunctional, navigational wheel chair helps in accessing toilets) |
|  | **Novel Clinical Kit to estimate iron overload in humans** | A kit and assay method for use in pathology for direct estimation of non transferring bound iron (NTBI) in circulating body fluids |
|  | **Electro-Oculogram (EOG) based multimode controller to rehabilitate severly disabled** | A method for measuring electrophysiological signals of a mammal towards enabling hands-free wireless or wire enabled execution of commands. |
|  | **Antimicrobial Sutures and process**  | An antimicrobial polypropylene grafted suture for preventing bacterial and fungicidal invasion, with better mechanical and knot security. |
|  | **Contralateral limb controlled prosthetic knee joint** | A contralateral controlled prosthetic knee joint which eliminates the need to train the user, with the reliable and secured wireless transmission for data transfer from normal to prosthetic limb.  |
|  | **A Process for Preparation Of Nanosilver Gel And Smart Structures** | A less time consuming process of preparation of antimicrobial nanogel comprising of nanosilver that can be attached to surface of any biomaterial and is biocompatible. |
|  | **Industrial & Pharmaceutical purpose L-Asparaginase** | A high thermal and pH stable enzyme with no glutaminase activity, reduced side effects such as immunotoxicity and immunosuppression that finds application in cancer treatment as well in food industry. |
|  | **Scaffolds for creation of different peptide conformations** | Molecular scaffolds for control of peptide conformation ranging from alpha helix, beta sheet and reverse turn for protein engineering and drug design. |
|  | **Multi-functional Knee joint of FRP composites for polio and cerebal Palsy patients**  | A multifunctional light weight offset knee joint for polio and cerebral palsy patients, by being able to be used as a drop lock device or gravity operated locking device on orthotic braces. |
|  | **light weight offset knee joint for above knee amputees.**  | A low cost, light weight fully functioning universal knee joint knee joint designed in a way that it takes into account all the changes to accommodate a multifunctional knee joint. |
|  | **A process for the preparation of scaffold of polycaprolactose by in-situ coagulation for tissue engineering**  | A polycaprolactone based porous scaffold for potential use in blood vessel regeneration. The invention also provides a method of preparation for porous scaffold by pre-coagulation of polymer and evaporation of solvent and nonsolvent during dip coating. |
|  | **A sustained release formulation coating methotrexate and folate nanoparticles and a method for preparing the same**  | A sustained release formulation and a method of production consisting of nanoparticles comprising of methotrexate and folate molecules. |
|  | **Dual functionalized redox sensitive biodegradable polymeric nanosystem for targeted drug delivery in cancer therapy** | A technology for production of stimuli sensitive biodegradable polymeric nanosystems which act as a magic bullet with flexible functionality and high specificity for cancer. The key objective of the technology is to improve chemotherapeutic efficacy of anticancer drugs with reduction in chemotherapy associated side effects. |
|  | **A low cost process for production of snake antivenom peptide**  | A process for preparation of low-cost peptide based treatment for snake bite. |
|  |  **A method of enhancing growth of a probiotic bacterial strain, reagents, compositions and uses thereof**  | The technology offers an indigenous probiotic strain to Indian market for its better acclimatizing potential and a growth promoter for the probiotic strain for enhancing its storage stability and other biological properties. A process for the production of the probiotic strain in an optimized medium such that its physiological properties are stable is also offered. The probiotic can be incorporated in beverages (milk and non-milk based), diary products etc. |
|  | **In-Vitro engineered virus-like particles from flock house virus capsid proteins and uses thereof**  | Virus-based nanoparticles capable of incorporating and delivering foreign cargo to specific cells and method of production. |
|  | **Green fluorescent carbon dots for PH sensing**  | Carbon dots having florescence properties, which change in the range relevant to biological systems and can be used for sensing the pH changes in cellular microenvironment. |
|  | **Organelle-Targeting Nanocarrier**  | A peptide based organelle-targeting nanocarrier for macromolecular delivery to targeted sub-cellular locations and a method for transduction and transfection of mitochondria for human therapeutics. |
|  | **Textile strctures for controled in vitro bone cell differentiation**  | In vitro methods and kits for controlled osteogenic differentiation wherein the said method comprising culturing progenitor cells in an osteogenic medium in the presence of silk textile braid shaving a three dimensional structure to obtain controlled differentiation of the progenitor cells to differentiated osteogenic cells. |
|  | **A device for automated diagnosis of Epilepsy**  | A device for automatic diagnoses of epilepsy using electroencephalogram (EEG) signals. |