

Technologies developed in Tezpur University ready for Transfer/Commercialization

Sl No.	Application No	Status	Title of Invention	Function	Inventor (s)	Date of filing	Date of Expiry
1	201831009528	Patent Applied	A portable optical fiber instrument for instant petrol purity detection	This instrument will enable instant/online petrol purity detection with very less amount of petrol.	Partha Pratim Sahu	15.03.2018	15.03.2038
2	201831009592	Patent Applied	Designed 2d graphitic sheet for viscous oil removal using magnet	This technique will enable quick and efficient removal of crude oil spill during extration/drilling works and accidental spilage form water/waste water	Pritam Deb and Meenakshi Talukdar	15.03.2018	15.03.38
3	201831009678	Patent Applied	Integrated and automated set up for preparation and vending of panipuri	The setup shall enable automatic panipuri making and vending.	Saurav Jyoti Sarma, Abhijit Nath, Polas Pratim Dutta and Chandeeep Suman Gogoi	16.03.2018	16.03.2018
4	201831010002	Patent Applied	Toxin-epitope based detection of species-specific snake envenomation	The kit has a detection system for genus/species-specific identification of the Big Four snakes . This snake envenomation detection kit will pave the way for administration of specific/monovalent antivenom (MAV) instead of non-specific/polyvalent antivenom to snakebite patients.	Asish Kumar Mukherjee and Sumita Dutta	19.03.2018	19.03.2038
5	201831010001	Patent Applied	Synthetic anticoagulant peptides derived from <i>Naja naja</i> snake venom	The current invention describes the anticoagulant potential of a 7-mer synthetic peptide that can provide an enhancement in the treatment of thrombosis associated disorders	Asish Kumar Mukherjee and Sumita Dutta	19.03.2018	19.03.2038
6	201831009091	Patent Applied	A smokeless multifunctional and multipot solid fuel stove	The invention provides a portable smokeless multifunctional and multipot solid fuel stove	Biswajit Gogoi and Debendra Chandra Baruah	13.03.2018	13.03.2038
7	201731009379	Patent Applied	Magnetic secondary nanostructure as contrast agent for Magnetic resonance imaging	Present invention relates to MRI (Magnetic Resonance Imaging) contrast agents based on magnetic secondary nanostructures	Pritam Deb and Kausik Saikia	17-03-2017	17-03-2037

8	201731000104	Patent Applied	Selective para-hydroxylation of substituted aromatic hydrocarbons using H ₂ O ₂ catalyzed by waterborne hyperbranched polyurethane/carbon quantum dot nanocomposite”	Provides hydroxyl-arene motif which is a core unit of many modern polymers, agrochemicals and pharmaceuticals. The invention provides exclusive para-selective hydroxylation of substituted aromatic compounds using H ₂ O ₂ under UV light	Niranjan Karak, Vijay Kumar Das and Satyabrat Gogoi	02-01-2017	02-01-2037
9	201631022922	Patent Applied	Smartphone based system for detection and measurement of chemical and biological species in liquids	The invention facilitates <i>in-situ</i> portable water quality measurement using a smartphone	Iftak Hussain, Syed Ibtisam Tauhidi, Kamal Uddin Ahamad Pabitra Nath	04-07-2016	04-07-2036
10	201631016888	Patent Applied	A Two Way Ratchet	Conventional pawl and ratchet mechanism allows continuous linear or rotary motion in only one direction while preventing motion in the opposite direction. This modified design of the pawl and ratchet mechanism relates to a two way ratchet. The invention provides a means of facilitating the forward and backward motion of easily operable wheelchairs specially designed for differently abled persons.	Arup Jyoti Chutia	14-05-16	14-05-2036
11	201631016889	Patent Applied	Intelligent Helmet System	Present invention is directed to develop an intelligent helmet wearable riding system that would detect wearing of the helmet by a motorbike rider and also detects alcohol beyond acceptable limits in the motorbike rider’s breath and automatically disables the ignition system of the motorbike to prevent the rider drunk with alcohol from riding the motorbike thereby ensuring safety of the rider and public.	Ratul Kumar Baruah, Amit Kumar, Saurav Dutta and Surajit Paul	14-05-16	14-05-2036

12	201631010727	Patent Applied	Novel Soil Conditioners	Present invention provides an industrially scalable process for the production of iron oxalate capped metal (Fe, Mn, and Cu) oxide nanomaterials as solid conditioners that can enhance iron availability to plants from the soil.	Sanjay Pratihar, Satya Sundar Bhattacharya, Pallabi Das and Kasturi Sarmah	29-03-16	29-03-2036
13	201631005351	Patent Applied	Casein Nanoparticles for Colon Targeted Controlled Delivery of Biologically Active Agents in Foods	The invention relates to carrier systems for colon-targeted controlled release of nano-encapsulated hydrophobic biologically active molecules without degradation. Further, the present invention relates to application of the said nanosystems in foods and beverages.	Pallab Kumar Borah and Raj Kumar Duary	16-02-16	16-02-2036
14	201631006546	Patent Applied	Microwave mediated processing of turmeric	An improved process for the processing of turmeric to produce turmeric powder involving a process of microwave mediated curing of turmeric to yield high quality turmeric powder with enhanced curcumin content and colour value than traditionally cured samples, with similar texture as traditional curing and use of extremely short processing time saving the energy.	Brijesh Srivastava, Baby Z. Hmar and Dipsikha Kalita	25-02-16	25-02-2036
15	1313/KOL/2015	Patent Applied	Anticoagulant actives and synergistic anticoagulant composition and method of producing the same	Anticoagulant	Ashish Kumar Mukherjee and Debananda Gogoi	18-12-15	18-12-2035
16	211/KOL/2014	Patent Applied	A Synthetic hyperbranched epoxy surgical sealant and a process for preparation thereof.	Present invention relates to a synthetic surgical sealant which is biocompatible and biodegradable. The sealant is antibacterial to S. aureus. In-vitro degradation product of the material is non cyto-toxic.	Niranjan Karak, Saswat Barua and P. Chattapadhyaya	19-02-14	19-02-2034

17	1296/KOL/2014	Patent Applied	Nanocatalyst for bio oil production	Present invention discusses a method of enhanced production of bio-oil which using ceria nanocatalyst which helps in efficient extraction of high quality bio-oil through pyrolysis of biomass. The nanocatalyst is suitable for high temperature applications (up to 500°C).	Pritam Deb and Kasmiri Dekka	15-12-14	15-12-2034
18	1295/KOL/2014	Patent Applied	Mesoporous secondary nanostructures as multifunctional heavy metal scavenger	Present invention relates to a cost effective industrial process of preparing adsorbent material comprising mesoporous secondary nanostructures of Fe ₃ O ₄ as multifunctional heavy metal scavengers for removing one or more heavy metals from various mediums/aqueous systems. The regenerative adsorbent can effectively adsorb the heavy metals, avoid the bleeding of either the adsorbent and/of the heavy metals through the filters	Pritam Deb, Kakoli Bhattacharya and Devaborniny Parasara	15-12-14	15-12-2034
19	786/KOL/2013	Patent Applied	A tough synthetic low dielectric hyperbranched epoxy thermoset and a process of preparation thereof.	Present invention relates to an elevated as well as room temperature curable hyperbranched epoxy composition that exhibited high performance including excellent adhesive strength, toughness, and flexibility with ultra low dielectric constant and very low moisture sensitivity.	Niranjan Karak and Bibekananda De	28-06-13	28-06-2033
20	1742/DEL/2013	Patent Applied	Multifunctional nanoparticles, methods of synthesis thereof, and methods of biomedical uses thereof.	Present invention relates to an ascorbic acid capped Pt-FePt nanoparticles composite (interchangeably referred to as "ascorbic acid capped Pt-FePt composite nanoparticles") that can be used dually i.e. for imaging and therapy.	Pritam Deb and Madhulekha Gogoi	11-07-2013	11-07-1933

23	20/KOL/2011	Patent Applied	Digital Occupany Meter for Commercial Passenger Vehicles	Digital Occupancy Meter	Pradyumna Kr. Choudhury	10-01-2011	10-01-2-2031
25	1460/KOL/2010	Patent Applied	Vehicle on board alignment detection and correction system (For Mac Pherson and Double Wishbone type)	Vehicle on board alignment detection and correction system	Santanu Sarma, Barnalee Sarma, Riku Chutia and Partha Pratim Dutta	28.12.2010	28.12.2030
26	522/KOL/2008	Patent Applied	A Reduced Size Linearly Tapered 3dB (Half Power Splitter) Multimode Interference (MMI) Coupler	No Info	Partha Pratim Sahu	14-03-2008	14-03-2028
27	203816, date of filing is 30-Aug-2000, Date of Grant: 09-Mar-2007	Granted	An indicator system	The indicator system would enable constant monitoring of physical operating parameters such as tea dryer temperature for tea drying and also favour indication of drying conditions such as whether it is within normal limits or causing overdrying of fermented leaves or underdrying of fermented leaves.	Manabendra Bhuyan.	30-08-2000	30-08-2020
28	216876, date of filing is 23-Jan-2001, Date of Grant: 19-Mar-2008	Granted	Microwave tea dryer	Tea Dryer	Manabendra Bhuyan & Amarjyoti Choudhury	23-01-2001	23-01-2021
32	297449, date of certificate issue:06/06/2018	Granted	Single step process for the synthesis of polyaniline nanofiber reinforced polymer nano composites	This reinforced polymer nanocomposites that may be useful in future for: 1. Coating window glasses to absorb UV radiation and protect against 2. preparing anti-static coatings for the vehicles and buildings for safeguarding vehicles and buildings during lightning and hostile weather. 3. Packaging electronic gadgets for shielding electromagnetic interference during transportation. 4. May have applications in solar cells, UV-protective and anti-static coatings on glass substrates,	Ashok Kumar and Somik Banerjee	23-06-2010	23-06-2030

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