

Details of Patents (Filed/Granted) Department wise 2006 till date

Department of Applied Mathematics and Scientific Computing

S. No.	Title of the Disclosure	Disclosure submitted by	Patent filed on	Published on	Publication No./ Journal No.
1.	A water based ink formulation for rotogravure printing ink medium and pigmented ink	Yuvraj Singh Negi , Anurag Kulshreshtha, Brahma Prakash and Millie Pant PPE, DPT and AMSC	202211053533, Dt. 19.09.2022	30.09.2022	39/2022
2.	A water-soluble acrylic-styrene co-resin formulation and its method of synthesis	Dharm Dutt , Anurag Kulshreshtha, Akshay Dvivedi , Millie Pant and Brahma Prakash DPT, MIED and AMSC	202311038948, Dt. 07.06.2023	21.07.2023	29/2023

Department of Architecture and Planning Department

S. No.	Title of the Disclosure	Disclosure submitted by	Patent filed on	Published on	Publication No./ Journal No.
1.	Personalized comfort system	E. Rajasekar , Krishan Upadhyay, Lalit Mohan Sharma and Ganesh Kalanidhi APD	202311002928, Dt. 14.01.2023	20.01.2023	03/2023
2.	System for enthalpy dependent ventilation controller	E. Rajasekar , Garima Singhal and Sanjeev Krishnan R. APD	202311012465, Dt. 23.02.2023	17.03.2023	11/2023
3.	Device and method for human thermal stress assessment using wearable kit	E. Rajasekar , Kapil Sinha, Sanjeev Krishnan R. and Subramanian G. APD	202311022622, Dt. 28.03.2023	19.05.2023	20/2023
4.	Infill, modular and interlocking (IMI) AAC block wall-system for plumbing services in industrialized construction	Uttam Kumar Roy and Atul Kumar Biltoria APD	202311051678, Dt. 01.08.2023	01.09.2023	35/2023
5.	Vernacular materials based modular kinetic facade	Saptarshi Kolay and Vinay Pravinbhai Limbani Arc	202511020350, Dt. 06.03.2025	Not published	

Department of Biosciences and Bioengineering

S. No.	Title of the Disclosure	Disclosure Submitted By	Patent Filed on	Published on	Publication No./ Journal No.
1.	A Novel phytase and process for enhancing phytase titer	Sanjoy Ghosh and Richa Rani BSBE	1024/Del/2010, Dt. 29.04.2010	26.10.2012	43/2012
2.	A Novel fractionating hydrolysis process for production of fermentable sugar from lignocellulosic biomass of Kans grass (Saccharum Spontaneum)	S Ghosh, C. B. Majumdar and Mr. L.K Singh BSBE, CHE	201611005358, Dt. 16.02.2016	18.08.2017	33/2017
3.	A novel bio reactor system for solid state fermentation and process of operation thereof	Sanjoy Ghosh , Richa Rani and Sidharth Arora BSBE	201611020038, Dt. 11.06.2016	15.12.2017	50/2017
4.	Magnetic-field actuated hybrid nanofiber scaffold and apparatus for 4D tissue engineering	P. Gopinath and S. Uday Kumar BSBE	201711007507, Dt. 03.03.2017	07.09.2018	36/2018
5.	Orthopedic metallic implant for sustained drug release	Debrupa Lahiri, Partha Roy and Manoj Kumar Rangaswamy MMED, BSBE	201711024735, Dt. 13.07.2017	18.01.2019	03/2019

6.	A method for screening NSP1 capping enzyme inhibitors of chikungunya	Shailly Tomar, Pravindra Kumar and Ramanjit Kaur BSBE	201711039736, Dt. 08.11.2017	10.05.2019	19/2019
7.	Method for production of biodiesel from <i>chlorella sp.</i>	B.R. Gurjar, Vikas Pruthi and Richa Katiyar CED, BSBE	201811001749, Dt.16.01.2018	19.07.2019	29/2019
8.	Functionalized membrane-based process for selective isolation and enrichment of milk fat globules (MFGs)	Ambatipudi Srinivas Kiran , Saurav Datta and Aparna Verma BSBE	201811013231, Dt. 06.04.2018	11.10.2019	41/2019
9.	Asparaginase and its variants	Naveen Kumar Navani and Tamoghna Ghosh BSBE	201811019299, Dt. 23.05.2018	29.11.2019	48/2019
10.	An anti-viral composition of tamarind Chi-like lectin and uses thereof	Shailly Tomar, Pravindra Kumar , Ramanjit Kaur, Neetu Chaudhary and Vedita Anand Singh BSBE	201811019298, Dt. 23.05.2018	29.11.2019	48/2019
11.	Chikungunya virus protease inhibitors and used thereof	Shailly Tomar, Pravindra Kumar , Sonali Dhindwal, Harvijay Singh, Rajat Mudgal and Pooja Kesari BSBE	201811022065, Dt.13.06.2018	07.08.2020	32/2020
12.	A virus removal/recovery membrane and its preparation method	Saurav Datta , Ayushi Agarwal and Anju Kumari BSBE	201811022826, Dt. 19.06.2018	20.12.2019	51/2019

13.	A bioconversion process to produce bioactive Cordyceps species from food waste	Ambatipudi Srinivas Kiran and Aparna Verma BSBE	201811023344, Dt. 22.06.2018	27.12.2019	52/2019
14.	A biodegradable skin scaffold for healing deep wounds.	Debrupa Lahiri , Partha Roy and Swati Halder MMED, BSBE, CON	201911007235, Dt. 25.02.2019	28.08.2020	35/2020
15.	Single stranded nucleotides sequences specific for binding to Acinetobacter baumannii and uses thereof	Naveen K Navani , Shahnawaz A. Baba and Piyush Kumar BSBE	201911016947, Dt. 29.04.2019	06.11.2020	45/2020
16.	Probiotic edible film and method of its preparation	Naveen Kumar Navani and Anupama Semwal BSBE	201911018180, Dt. 07.05.2019	13.11.2020	46/2020
17.	Methods and compositions for identification of novel anti-persister activity of GRAS compounds	Ranjana Pathania , Timsy Bhandu and Ananth Casius BSBE	201911023795, Dt. 15.06.2019	18.12.2020	51/2020
18.	Bioengineered regenerative scaffold for burn wound healing	Debrupa Lahiri , Partha Roy , Swati Halder, Isha Goel, Souvik Ghosh and Viney Kumar BSBE, MMED, CON	201911026834, Dt. 04.07.2019	08.01.2021	02/2021
19.	Polyclonal human LINE-1 ORF2p antibody and method thereof	Prabhat Kumar Mandal , Koel Mukherjee and Debpali Sur BSBE	201911028257, Dt.15.07.2019	22.01.2021	04/2021

20.	Biosensor for detecting cancer using exhaled breath	Indranil Lahiri , Debrupa Lahiri , Partha Roy , Siddharth Sharma and Swati Haldar BSBE, CON, MMED	201911030871, Dt. 31.07.2019	05.02.2021	06/2021
21.	Lab-on-a Chip device for cytotoxicity assessment	Soumitra Satapathi , Ankit Kumar, Partha Roy and Neeladrisingha Das BSBE, PHY	201911037476, Dt. 17.09.2019	21.05.2021	21/2021
22.	Chikungunya virus titration and detection kit	Shailly Tomar , Parvindra Kumar , Neetu, Vedita Anand Singh and Shweta Choudhary BSBE	201911035044, Dt. 30.08.2019	27.08.2021	35/2021
23.	Cell cytotoxicity assay device and method of manufacturing thereof	Soumitra Satapathi , Ankit Kumar, Partha Roy and Neeladrisingha Das BSBE, PHY, CON	201911036596, Dt. 11.09.2019	12.03.2021	11/2021
24.	A Therapeutic composition for the treatment of resistant and persistent bacterial infections	Ranjana Pathania and Timsy Bhandu BSBE	201911043932, Dt. 30.10.2019	03.09.2021	36/2021
25.	An antiviral composition against alphaviruses	Shailly Tomar , Rajat Mudgal and Aakriti Dubey BSBE	201911049130, Dt. 29.11.2019	03.09.2021	36/2021
26.	3-D Porous scaffolds for bone tissue engineering	P. Gopinath and Sarim Khan BSBE, CON	202011003365, Dt. 24.01.2020	30.07.2021	31/2021

27.	Low-cost, autoclavable and multifunctional biomaterial based nanofibrous permeable hanging cell culture insert and fabrication thereof	P. Gopinath , Vinay Kumar and Soumyadeep Basak BSBE	202011003619, Dt. 27.01.2020	30.07.2021	31/2021
28.	Impedimetric sensors for cytotoxicity analysis	Sanjeev Manhas , Rangadhar Pradhan, P. Gopinath and Ashish BSBE, ECE, CON	202011003839, Dt. 29.01.2020	30.07.2021	31/2021
29.	Real time in-situ single optical density probe for biomass, substrate and product dynamics measurements in photobioreactor/bioreactor	Sanjoy Ghosh and Shaliendra Singh Khichi BSBE	202011007734, Dt. 24.02.2020	27.08.2021	35/2021
30.	Fluorescence based cost-effective rapid diagnostic kit for detection of cancer biomarkers	P. Gopinath , Ashish and Rangadhar Pradhan BSBE, CON	202011010110, Dt. 09.03.2020	10.09.2021	37/2021
31.	Polyacrylonitrile-graphene-oxide-silver nanocomposite based fibrous for air purification.	P. Gopinath , Sadasivam Raj Kumar and Abhishek Sharma BT	202011017645, Dt. 24.04.2020	29.10.2021	44/2021
32.	Antimicrobial coating system and method thereof	Naveen Kumar Navani , Pardeep Kumar, Arun Beniwal and Ajmal Hussain BSBE	202011021477, Dt. 21.05.2020	08.07.2022	27/2022
33.	A prophylactic and therapeutic antiviral composition and method thereof.	Shailly Tomar , Pravindra Kumar , Debabrata Sircar , Dr. Ravi Kumar, and Vedita Anand Singh BSBE	202011023131, Dt. 02.06.2020	03.12.2021	49/2021

34.	Probiotic formulation for growth enhancement of livestock and method thereof	Naveen Kumar Navani , Ajmal Hussain, Krishna Shankar, Rekha Sharma and Arun Beniwal BSBE	202011024018, Dt. 08.06.2020	08.07.2022	27/2022
35.	A universal portable disinfectant chamber against wide spectrum microorganisms for sterilizing personal belongings	Soumitra Satapathi , Prathul Nath, Naveen Kumar Tailor, Tejaswini Sharma, Anshu Kumar, Neeladrisingha Das and Partha Roy BSBE, PHY, CON	202011026417, Dt. 23.06.2020	29.10.2021	44/2021
36.	Silk fibroin nanofiber based edible coating for enhancing the shelf life of horticulture products	P. Gopinath and Soumyadeep Basak BSBE	202011028795, Dt. 07.07.2020	29.10.2021	44/2021
37.	A method of producing the polyhydroxyalkanoate (PHA) using waste water	Saugata Hazra and Girish Shrotri BSBE	202011031817, Dt. 24.07.2020.	29.10.2021	44/2021
38.	In-situ charging system for implantable pacemaker	Indranil Lahiri , Siddharth Sharma, Debrupa Lahiri and Partha Roy MMED, BSBE, CON	202011038412, Dt. 05.09.2020	05.11.2021	45/2021
39.	Photosensitizer-based highly efficient, rapid antimicrobial device and applications thereof	P. Gopinath and Soumyadeep Basak BSBE	202011028953, Dt. 08.07.2020	29.10.2021	44/2021
40.	Photosensitizer based antimicrobial tunnel device for disinfection	P. Gopinath and Soumya Deep Basak BSBE	202011043894, Dt. 08.10.2020	17.12.2021	51/2021

41.	Fabrication of biodegradable triple layered nano-fibrous bandages and applications thereof	P. Gopinath and Vinay Kumar BSBE	202011049934, Dt. 17.11.2020	05.03.2021	10/2021
42.	Colorimetric assay for testing the presence of antimicrobial resistance	Saugata Hazra and Niteesh Kumar Pandey BSBE	202111003064, Dt. 22.01.2021	08.07.2022	27/2022
43.	A portable ultraviolet sterilization and disinfection device	Shailly Tomar , Prafful Kumar Khoba and Mandar Bhutkar BSBE & DIC	202111046071, Dt. 09.10.2021	21.10.2022	42/2022
44.	A portable sensing device and a method for rapid and non-destructive determination of the quality of coconut	Debabrata Sircar , Partha Roy , Nagendra P. Pathak , Mukund Kumar, Bhairavnath Waghmode, Komal Kushwaha and Arun Kumar Varshney BSBE &ECE	202111048606, Dt. 25.10.2021	26.11.2021	48/2021
45.	A system and method for detecting catalase negative lactobacillus using dnzyme and differentiate it from catalase positive bacteria	Maya S. Nair and Aishwarya Shukla BSBE	202111060125, Dt 23.12.2021	22.04.2022	16/2022
46.	A portable bioelectronic sensor for easy non-destructive prediction of fruit ripening stage and selected fruit physicochemical parameters of apples	Debabrata Sircar , Partha Roy , Nagendra P. Pathak , Bhairavnath Waghmode, Komal Kushwaha and Mukund Kumar BSBE, ECE	202211002188, Dt. 13.01.2022	28.01.2022	04/2022

47.	A system and method for identification of peptides from saliva to detect triple negative breast cancer	Srinivas Kiran Ambatipudi and Kuldeep Giri BSBE	202211019945, Dt. 01.04.2022	15.07.2022	28/2022
48.	A composition comprising of 2-aminoperimidine and polymyxin B for the treatment of multidrug-resistant bacterial topical infections	Ranjana Pathania and Mahak Saini BSBE	202211033140, Dt. 09.06.2022	17.06.2022	24/2022
49.	A polymeric hydrogel lens for non-invasive drug delivery	Mayank Goswami, P. Gopinath and Rajkumar Sadasivam PHY, BSBE	202211042907, Dt. 27.07.2022	05.08.2022	31/2022
50.	A method of preparing biocompatible hydrogel for non-invasive drug delivery	Mayank Goswami, P. Gopinath and Rajkumar Sadasivam PHY, BSBE	202211042908, Dt. 27.07.2022	05.08.2022	31/2022
51.	A phthalate binding protein-based system and method to extract phthalate from the contaminated water	Pravindra Kumar , Jai Krishna Mahtom Kamble Amith Kumar and Arpan Kayastha BSBE	202211044498, Dt. 03.08.2022	01.09.2023	35/2023
52.	A phthalate binding protein (PhtE) from Comamonas testosteroni KF1 N	Pravindra kumar , Jai Krishna Mahto, Kamble Amith Kumar and Arpan Kayastha BSBE	202211044919, Dt. 05.08.2022	28.07.2023	30/2023
53.	A perovskite single crystal-based hand-held x-ray detector and its method thereof	Soumitra Satapathi, Partha Roy , Naveen Kumar Tailor, Mohammad Adil Afroz, Yukta, and Manisha Chatterjee	202211051569, Dt. 09.09.2022	16.09.2022	37/2022

		PHY, BSBE			
54.	A system and method for an expression vector for producing recombinant fusion protein comprising spontaneous cleavage site to remove the fusion tag	Pravindra Kumar , Neetu, Jai Krishna Mahto and Ishani Mishra BSBE	202211051785, Dt. 10.09.2022	13.10.2023	41/2023
55.	Hydroxyapatite-nano crystal reinforced indigenous biopolymer-based composites for orthopedic implants and its method of preparation	Saugata Hazra , Preeti Tomer, Gireesh Kumar Shroti, Satish Jaiswal and Debrupa Lahiri BSBE and MMED	202211052660, Dt. 15.09.2022	30.09.2022	39/2022
56.	A biodegradable and biocompatible polymer-based functionalized bilayer scaffold for peripheral nerve and guided motor neuron regeneration	Debrupa Lahiri , Arabinda Majhi, Souvik Ghosh and Partha Roy MMED and BSBE	202211063139, Dt 04.11.2022	24.11.2023	47/2023
57.	Nanoluciferse reporter tagged virus-like particles, a method for producing the same, and applications thereof	Shailly Tomar , Pravindra Kumar and Vedita Anand Singh BSBE	202211066289, Dt. 18.11.2022	13.01.2023	02/2023
58.	Alphavirus virus-like particles (VLP) containing immunogenic proteins of pathogens and its uses thereof	Shailly Tomar , Pravindra Kumar , Vedita Anand Singh and Sanket Kumar Nehul BSBE	202311004737, Dt. 24.01.2023	03.02.2023	05/2023
59.	Novel fractional acid hydrolysis process/method for the production of fermentable sugar from LIGNOC	Sanjoy Ghosh and Pritam Singh BSBE and ONGC	202311006224, Dt. 31.01.2023	03.05.2024	18/2024

60.	Fractional hydrolysis reactor system for acid hydrolysis of lignocellulosic biomass	Sanjoy Ghosh and Pritam Singh BSBE and ONGC	202311006225, Dt. 31.01.2023	03.05.2024	18/2024
61.	A multilayered regenerative scaffold for ultra-deep wound healing and method of preparation thereof	Debrupa Lahiri , Souvik Ghosh and Partha Roy MMED & BSBE (With DRDO)	202311020038, Dt. 22.03.2023	27.09.2024	39/2024
62.	Scaffold having porous beads and preparation method thereof and its application as three dimensional tumor model	P. Gopinath and Vinay Kumar BSBE	202311020553, Dt. 23.03.2023	19.05.2023	20/2023
63.	System and method for detecting sub-clinical mastitis (SCM)	Srinivas Kiran Ambatipudi BSBE	202311022623, Dt. 28.03.2023	03.05.2024	18/2024
64.	An engineered oxygenase gene, its encoded protein and application of the oxygenase gene	Pravindra Kumar , Jai Krishna Mahto, Ishani Mishra and Kuldeep Jangid BSBE	202311037878, Dt. 01.06.2023	07.07.2023	27/2023
65.	A one-step process to selectively isolate milk fat globules directly from milk using asymmetric polysulfone membrane via microfiltration	Srinivas Kiran Ambatipudi , Sujay Chattopadhyaya and Ayushi Kapoor BSBE & PPE	202311044942, Dt. 04.07.2023	27.10.2023	43/2023
66.	Biocompatible, bioresorbable and drug eluting porous magnesium scaffolds for repairing bone defects and method for its fabrication	Debrupa Lahiri , Partha Roy , Satish Jaiswal and Anshu Dubey MMED & BSBE	202311044943, Dt. 04.07.2023	04.08.2023	31/2023
67.	A bio-polymeric film fabrication and its application thereof	P. Gopinath , Unnikrishnan B S and Asmita Mojumdar BSBE and CON	202311084237, Dt. 11.12.2023	Not published	

68.	Three-dimensional (3D)-printed cell loading cassette	Gopinath Packirisamy , Soumyadeep Basak, Ayush Tiwari and Deepanshu Sharma BSBE & CON	202311085231, Dt. 13.12.2023	Not published	
69.	A polymeric drug-releasing system comprising a hydrogel and a method of developing the same thereof	Debrupa Lahiri , Chandra Khatua and Partha Roy MMED, CON & BSBE	202311088160, Dt. 22.12.2023	23.02.2024	08/2024
70.	A 3D-printed, compact, wirelessly-controlled, uniaxial cyclic mechanical stretching device and method thereof	Gopinath Packirisamy , Soumyadeep Basak, Ayush Tiwari and Deepanshu Sharma BSBE & CON	202311089120, Dt. 22.12.2023	23.02.2024	08/2024
71.	A method for improved rice line with deeper penetrating roots, larger grains, and increased amino acid content	Shri Ram Yadav , Debabrata Sircar , Khrang Khrang Khunggur Mushahary and Pratibha Demiwal BSBE	202311089997, Dt. 29.12.2023	31.05.2024	22/2024
72.	A nano-catalytic membrane reactor for hazardous dye degradation	Krishna Mohan Poluri and Khusboo Rani Singh BSBE	202411003008, Dt. 16.01.2024	09.02.2024	06/2024
73.	Chimeric Neuraminidase tetramers as universal influenza vaccine candidates	Shaily Tomar BSBE (with ICAR)	202411006826, Dt. 01.02.2024	Not published	
74.	A biodegradable polymeric composite with enzymatic degradation for ureteral stent and its methods of preparation	Debrupa Lahiri , Gunjan Kaushik, Anil Mandhani and Partha Roy MMED & BSBE	202411011898, Dt. 20.02.2024	15.03.2024	11/2024

75.	Antibacterial, superhydrophobic and highly transparent coated glass	Arup Samanta , Saugata Hazra and Deepika Singh PHY & BSBE	202411015039, Dt. 29.02.2024	Not published	
76.	Method for polyamine detection in oral cancer	Gopinath Packirisamy , Asmita Mojumdar and Unnikrishnan B.S BSBE & CON	202411031154, Dt. 18.04.2024	Not published	
77.	Aerosol foam assisted nanostructured lipid carriers for the treatment of psoriasis	Ramasure Prasad and Amit Kumar Srivastava BSBE	202411038524, Dt. 16.05.2024	31.05.2024	22/2024
78.	A method for detecting antimicrobial resistant bacteria from environmental samples	Saugata Hazra , Kunal Dhankhar, Niteesh Kumar,, Subhecchha Bhaidya and Rajsekhar Adhikary BSBE & PPE	202411040598, Dt. 22.05.2024	Not published	
79.	Process for the purification of polyclonal antibodies and applications thereof	Prabhat Kumar Mandal , Manali Ganguly, Sandhya Rai, Gopal Sarkar, Sujay Kundu and Suman Singh BSBE	202411052502, Dt. 09.07.2024	18.10.2024	42/2024
80.	Novel nanoplastic and its method of preparation thereof	Krishna Mohan Poluri , Emansi Yadav, Mukesh Kumar Meher and Jasasmita Das BSBE & CON	202411059189, Dt. 05.08.2024	23.08.2024	34/2024
81.	Polyclonal antibody against L1ORF2P antigen and a method of preparing the same thereof	Prabhat Kumar Mandal , Gopal Sarkar and Sujay Kundu BSBE	202411062827, Dt. 20.08.2024	30.08.2024	35/2024
82.	A three-dimensional carrageenan-based aerogel, a method of preparing the same, and uses thereof	Krishna Mohan Poluri and Khushboo Rani Singh BSBE	202411069675, Dt. 14.09.2024	04.10.2024	40/2024
83.	A composition for protection against infections by multidrug-resistant Acinetobacter Baumannii and its method of preparation	Ranjana Pathania , Perwez Bakht, Arsalan Hussain and Shivam Pandey BSBE	202411072961, Dt. 26.09.2024	Not published	

84.	An adjustable field -strength, 3D-printed, wirelessly controlled magnetic actuation device and its application thereof	Gopinath Packirisamy and Soumyadeep Basak BSBE	202411072161, Dt. 24.09.2024	22.11.2024	47/2024
85.	Edible coating composite, method of preparation and its application thereof	Gopinath Packirisamy and Dravin Pratap Singh BSBE & CON	202411084722, Dt. 05.11.2024	Not published	
86.	A system and a method for determining bilirubin concentration	Soumitra Satapathi , Prathul Nath PP, Anken Dey, Tathagata Kundu and Partha Roy PHY & BSBE	202411097058, Dt. 09.12.2024	Not published	
87.	A recombinant gene, its encoded recombinant protein and a system comprising the recombinant protein	Pravindra Kumar , Jai Krishna Mahto and Ishani Mishra BSBE	202511004074, Dt. 17.01.2025	31.01.2025	05/2025
88.	Synergistic plant-based formulation as an alternative of antibiotics for poultry and its method of preparation	Naveen Kumar Navani , Ranjana Pathania and Amit Gaurav BSBE	202511003923, Dt. 17.01.2025	14.02.2025	07/2025
89.	A topical formulation derived for skin tissue regeneration and its method of preparation	Saugata Hazra , Komal Singh, Narayan Chandra Mishra , Debabrata Sircar , Shiv Shakti Singh and Alaa Eddin Alhmeidi Alkhatib BSBE & PPE	202511015114, Dt. 21.02.2025	14.03.2025	11/2025
90.	Macroporous Nanofiber Hydrogel Composites and Method of preparation thereof	Gopinath Packirisamy and Soumyadeep Basak BSBE	202511020302, Dt. 06.03.2025	23.05.2025	21/2025
91.	A large naive high diversity vna nanobody phage library from bamboo shark	Rajesh Kumar and Vivek Kumar BSBE	202511021258, Dt. 08.03.2025	Not published	
92.	Antigen affinity column purified polyclonal mouse LIORF1P antibody and method thereof	Prabhat Kumar Mandal , Manali Ganguly and Sujoy Kundu BSBE	202511030130, Dt. 28.03.2025	Not published	

93.	A bio-patch formulation for the management of xerostomia	Gopinath Packirisamy , Harish Ganesan Sudha and Unnikrishnan B S BSBE	202511041425, Dt. 29.04.2025	16.05.2025	20/2025
94.	Self-assembled biopolymer functionalized nanocomposite matrix as a dual signal probe for heparin detection	Krishna Mohan Poluri and Aakanksha Pathak CON & BSBE	202511047415, Dt. 16.05.2025	30.05.2025	22/2025

Department of Civil Engineering

S. No.	Title of the Disclosure	Disclosure submitted by	Patent filed on	Published on	Publication No./ Journal No.
1.	A method and a device to improve the strength characteristics of pond ash deposits	B.K. Maheshwari , Swami Saran , D. K. Paul , S. Mukherjee, M.L. Sharma , Subodh Jain, H.P. Singh and N.P. Aterkar EQD, CED	142/Del/2010, Dt. 25.01.2010	29.07.2011	30/2011
2.	A method for improving the liquefaction resistance of pond ash	B.K. Maheshwari , Swami Saran , D. K. Paul , S. Mukherjee, M.L. Sharma , Subodh Jain, H.P. Singh and N.P. Aterkar EQD, CED	840/Del/2010, Dt. 06.04.2010	02.03.2012	09/2012
3.	Upflow septic tank	A.A Kazmi , Sudipta Sarkar and Meena Kumari Sharma	3635/del/2013, Dt.13.12.2013	20.06.2014	25/2014

		CED			
4.	Navigation system for an autonomous terrestrial vehicle	Jayanta Kumar Ghosh and Sharwan Ram CED	201711043997, Dt. 07.12.2017	14.06.2019	24/2019
5.	Method for production of biodiesel from <i>chlorella sp.</i>	B.R. Gurjar, Vikas Pruthi and Richa Katiyar CED, BT	201811001749, Dt.16.01.2018	19.07.2019	29/2019
6.	A hybrid iron sulfide impregnated anion exchanger (HISIIX) for selective removal of hexavalent chromium from contaminated water	Sudipta Sarkar and Laiju A. R CED	201911024269, Dt. 19.06.2019	25.12.2020	52/2020
7.	A synthesis process for the development of calcium silicate hydrate (C-S-H) based concrete hardening accelerator.	Sonalisa Ray , Saikat Das and Sudipta Sarkar CED with NBCC	202011017217, Dt. 22.04.2020	29.10.2021	44/2021
8.	On-demand-on-site earthquake early warning system	Bhanu Pratap Chamoli, Bhavesh Pandey, Ashok Kumar and Ajay Gairola CED, Centre of excellence Disaster Management	202011021708, Dt. 23.5.2020	26.06.2020	26/2020
9.	A method for determination of performance grade of unmodified asphalt binder using rheometer	Gondaime Ransinchung Rongmei Naga , Ankit Sharma and Praveen Kumar CED	202211042909, Dt. 27.07.2022	05.08.2022	31/2022
10.	A cold rolled bainitic steel with high strength and high elongation	Saurav Das , Sonu Yadav, Rajib Chowdhury and S. B. Singh MMED, CED and IIT Kharakpur	202211044546, Dt. 04.08.2022	02.06.2023	22/2023

11.	An accelerometer mounting device	Manorajan Parida CED	202211050355, Dt. 02.09.2022	13.10.2023	41/2023
12.	An enhanced advanced driver assistance systems (ADAS) based real-time transportation safety system and method through IoT and deep learning	Rahul Dev Garg and Neerav Sharma CED	202211065321, Dt. 15.11.2022	09.12.2022	49/2022
13.	Process for synthesis of calcium silicate hydrate as a pre-formed hardening accelerator	Rajib Chowdhury , Anupam Chakrabarti and Praveen Verma CED	202311005643, Dt. 28.01.2023	23.06.2023	25/2023
14.	Optimal neighborhood selection for geometric parameters extraction for aerial and terrestrial lidar data classification	Rahul Dev Garg and Mayank Sharma CED	202311007134, Dt. 03.02.2023	10.02.2023	06/2023
15.	A micro air pluviator for the preparation of reconstituted specimens in triaxial compression tests	Satyendra Mittal and Arpit Jain CED	202311061533, Dt. 13.09.2023	27.10.2023	43/2023
16.	A wireless edge computing-based adaptive traffic control system with real-time vehicle tracking and cloud integration	Amit Agarwal , Dhish Kumar Saxena , Karthik Krishnan and Dinesh Kumar R CED & MIED	202311079549, Dt. 23.11.2023	29.12.2023	52/2023
17.	A wireless edge-computing-based real time transit passenger counting system and method	Amit Agarwal , Manan Gupta, Hemanth Vasireddy and Aditya Kora CED & ECE	202411003605, Dt. 18.01.2024	09.02.2024	06/2024
18.	A portable system and method for in-situ tensile testing in high pressure gas environment including hydrogen	Sourav Das , Sumeet Mishra , Rajib Chowdhury and Shardendu Shukla MMED & CED	202411008299, Dt. 07.02.2024	Not published	
19.	Apparatus and method for producing recycled waste plastic modified bitumen	Praveen Kumar , Nikhil Saboo and Soumyadeep Deb CED	202411008363, Dt. 07.02.2024	16.02.2024	07/2024

20.	A method and a system for enhancing trajectory prediction in dynamic multi-agent environments	Pravendra Singh and Pranav Singh Chib CSE	202411012334, Dt. 21.02.2024	01.03.2024	09/2024
21.	Procedure for integrating sugarcane molasses into SBS modified bitumen	Nikhil Saboo and Dheeraj Mehta CED	202411016731, Dt. 08.03.2024	05.04.2024	14/2024
22.	Method of producing bio-bitumen through modification of waste engine oil residue as bitumen extender for roads	Satish Chandra and Bhavesh Bhambhani CED (with CSIR-CRRI)	202411038015, Dt. 14.05.2024	31.05.2024	22/2024
23.	An improved block masonry for enhancing earthquake-resisting features	Sanjay Chikermane and Survesh Chetiva CED	202411038575, Dt. 16.05.2024	31.05.2024	22/2024
24.	Method for developing a lane departure warning system for providing warnings based on severity levels	Pushpa Choudhary , Manoranjan Parida , Akshay Gupta, Shreyansh and Priyanshu Pansari CED	202411039413, Dt. 20.05.2024	31.05.2024	22/2024
25.	A real-time, wireless crowd alert and management system and a method thereof	Amit Agarwal and Karthik Krishnan O CED	202411039695, Dt. 21.05.2024	07.06.2024	23/2024
26.	A cellulose-based biodegradable hybrid adsorbent for selective phosphate and nitrate recovery from aqueous solutions	Sudipta Sarkar , Pradip K. Maji and Priya E CED & PPE	202411066297, Dt. 02.09.2024	Not published	
27.	A road hazard detection proficiency testing system and method thereof	Indrajit Ghosh & Anurag Thombre CED	202411069971, Dt. 16.09.2024	04.10.2024	40/2024
28.	Method of wastewater treatment using algae sludge inoculum and by suppressing nitrification activity	Raja Chowdhury and Sahil Tanwar CED	202411080371, Dt. 16.10.2024	07.03.2025	10/2025

29..	An improved grain-feeding system for uniform grain flow for gharat-based grinding mills	Vinay Sharma , Navneet Arora , Gajendra Giri, Kritika Sharma, Rakesh G. Nair, Prateek Sharma, Abhishek Shivakumar Pujar, Subham Kumar, Shubham Singh, Ayush Kishore and Shreyansh Jain DOMS, MIED and CED	202411103873, Dt. 27.12.2024	17.01.2025	3/2025
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Department of Chemical Engineering

S. No.	Title of the Disclosure	Disclosure Submitted By	Patent Filed on	Published on	Publication No./ Journal No.
1.	A Novel fractionating hydrolysis process for production of fermentable sugar from lignocellulosic biomass of Kans grass (<i>Saccharum Spontaneum</i>)	S Ghosh , C. B. Majumdar and L.K Singh BSBE, ChED	201611005358, Dt.16.02.2016	18.08.2017	33/2017
2.	Copper-zinc-magnesium catalyst for highly selective conversion of glycerol to 1,2-propanediol in liquid phase	Prakash Biswas , Al Ameen A, Smita Mondal, Satayanarayana M. Pudi and Nitin Naresh Pandhare ChED	201711017272, Dt. 17.05.2017	15.03.2019	11/2019
3.	A system and method for simultaneous removal of arsenic and fluoride from contaminated water using novel hybrid adsorbent.	Prasenjit Mondal and Vineet Kumar Rathore ChED	201811026603, Dt. 17.07.2018	24.01.2020	4/2020

4.	Bactericidal metal nanoparticles and its method of preparation.	N. Siva Mohan Reddy and Utsav Dalal ChED	201811026558, Dt. 17.07.2018	24.01.2020	4/2020
5.	A method for producing synthesis gas from biomass residues	Basheshwer Prasad ChED	201911009915, Dt. 14.03.2019	15.01.2021	03/2021
6.	A one pot, two -step electrochemical method for the synthesis of graphene oxide and graphene oxide metal composite	V. C. Srivastava and Navneet Kumar ChED	201911026565, Dt. 03.07.2019	08.01.2021	02/2021
7.	A small sized reactor to produce biodiesel from non-edible oil	Raj Kumar Verma, Sumana Ghosh and P. Mondal ChED	201911044808, Dt. 05.11.2019	20.08.2021	34/2021
8.	A system and method of simultaneous denitrification and oxidation of industrial wastewaters	V.C. Srivastava and Rohit Chauhan ChED	201911046517, Dt. 15.11.2019	21.05.2021	21/2021
9.	Continuous flow (pass-through) ultraviolet light illuminated disinfection system	Vimal Chandra Srivastava and Navneet Kumar ChED	202011028601, Dt. 06.07.2020	07.01.2022	01/2022
10.	A pot process for synthesis of nanometal carbon hybrids and bio-oils from metal contaminated waste water and biomass	N. Siva Mohan Reddy and Priyanka Yadav ChED	202011051146, Dt. 24.11.2020	05.03.2021	10/2021
11.	Development of epoxy composites reinforced by waste Kans grass (<i>Saccharum Spontaneum</i>) filler by hand-layup method	Shishir Sinha and G.L. Devnani ChED & HBTU Kanpur	202011051143, Dt. 24.11.2020	05.03.2021	10/2021

12.	Magnetic biochar manufactured from industrial effluent treatment plant (ETP) sludge for the removal of pollutants	V C. Srivastava and Vikash Singh ChED	202011051144, Dt. 24.11.2020	05.03.2021	10/2021
13.	Sono-electrochemical method for the degradation of the recalcitrant pollutants in wastewater	V C. Srivastava and Ritesh Patidar ChED	202011055867, Dt. 22.12.2020	12.03.2021	11/2021
14.	Molybdenum Vanadium Niobium Tellurium Oxide (Mo-V-Nb-Te-O) catalyst for the ammoxidation of propane to acrylonitrile	Prakash Biswas and Shishir Sinha ChED & Centre of Excellence in Petrochemicals	202011055866, Dt. 22.12.2020	04.02.2022	05/2022
15.	A flame retardant natural fiber reinforced composite material and its method of preparation thereof	Shishir Sinha and Jyoti Jain ChED	202011056780, Dt. 28.12.2020	12.03.2021	11/2021
16.	A natural fiber reinforced polymer composite film consisting PVA and moringa Oleifera seed filler (MOSF)	Shishir Sinha and Kajal Mishra ChED	202111004106, Dt. 29.01.2020	10.09.2021	37/2021
17.	A process for the production of Bio CNG from Biogas	Basheshwer Prasad ChED	202111016514, Dt. 08.04.2021	10.09.2021	37/2021
18.	Ni-Fe bimodal catalyst for syngas production from carbon dioxide reforming of methane and process for the preparation thereof	Prasenjit Mondal and Mumtaj Shah ChED	202111030753, Dt. 08.07.2021	10.09.2021	37/2021
19.	A system and method for extracting shikimic acid from chir pine needles	Vimal Kumar , Gaurav Kumar Silori and Naveen Kushwaha ChED	202111038776, Dt. 26.08.2021	22.07.2022	29/2022

20.	A method of recovering sulfur from industrial solid wastes/sludge	Vimal Chandra Srivastava and Vikash Singh ChED	202111046070, Dt. 09.10.2021	05.11.2021	45/2021
21.	A method for removing Acrylonitrile from aqueous solution heterogenous catalysts	Basheshwer Prasad and Arvind Kumar ChED	202111046759, Dt.13.10.2021	05.11.2021	45/2021
22.	Method of ultrasound induced catalytic detoxification of acrylonitrile from aqueous solution	Basheshwer Prasad and Arvind Kumar ChED	202111062254, Dt. 31.12.2021	04.02.2022	05/2022
23.	A method for the dissociation of gas hydrates	Anupama Kumari, Shadman Hasan Khan, Monika Gandhi, Chandrajit Balomajumder , Amit Arora and Gaurav Dixit ChED	202211003671, Dt. 21.01.2022	04.02.2022	05/2022
24.	Novel equipment for the dissociation of gas hydrates	Anupama Kumari, Shadman Hasan Khan, Monika Gandhi, Chandrajit Balomajumder , Amit Arora and Gaurav Dixit ChED & ONGC	202211004290, Dt. 25.01.2022	04.02.2022	05/2022
25.	A low-cost ecofriendly process for the recycling of waste polyethylene packets to prepare paver blocks and wall tiles	Prasenjit Mondal , Hemant Goyal and Navneeta Lal ChED	202211005946, Dt. 03.02.2022	18.02.2022	07/2022
26.	A method for direct synthesis of nanometal carbon composites and Hydrogen rich fuel gas mixture using biomass and aqueous metal effluent	N. Siva Mohan Reddy and Pankaj Kumar ChED	202211018631, Dt. 30.03.2022	08.04.2022	14/2022

27.	An iron and manganese oxide double impregnated modified alumina supported catalyst and its method of preparation	Taraknath Das and Vijendra Kumar Yadav ChED	202211035354, Dt. 20.06.2022	15.07.2022	28/2022
28.	A process for the capture of carbon dioxide from flue gas	Basheshwer Prasad ChED	202211038895, Dt. 06.07.2022	15.07.2022	28/2022
29.	A formaldehyde modified thermoplastic starch and its blending with low density polyethylene (LDPE) for preparing biodegradable film	Patit Paban Kundu ChEd	202211051869, Dt 12.09.2022	23.09.2022	38/2022
30.	A biodegradable and water repellent polypropylene based coating material for packaging applications and its method of preparation	Patit Paban Kundu and Deepak Kumar ChED	202211066668, Dt. 21.11.2022	02.12.2022	48/2022
31.	Calcite filled biodegradable ribbons made from a blend of polypropylene, pbat and pla for cement packaging applications	Patit Paban Kundu and Thirumalazhagan D. K ChED (With JSW Cement Pvt. Ltd., Mumbai)	202211074733, Dt. 22.12.2022	06.01.2023	01/2023
32.	An electrocoagulation based treatment system and method for arsenic and fluoride contaminated water	Prasenjit Mondal and Hemant Goyal ChED	202311014986, Dt. 06.03.2023	23.06.2023	25/2023
33.	Production of bio-oil and amorphous silica nanoparticles from rice husk	Shushil Kumar , Manvendra Singh and Ankit Chauhan ChED	202311017074, Dt. 14.03.2023	17.03.2023	11/2023

34.	A heaving point absorber wave energy converter for generating electricity from ocean energy	Sumana Ghosh , Mukesh Kumar Pathak , Shivam Gupta and Ravi Prakash ChED, EE (with ONGC)	202311017076, Dt. 14.03.2023	19.05.2023	20/2023
35.	Electrospun nanofiber hybrid bilayer indicator film and the use thereof	Shishir Sinha and Kajal Mishra ChED	202311036781, Dt. 27.05.2023	30.06.2023	26/2023
36.	A method of synthesis of Graphene Quantum Dots (GQD) from a waste unburnt carbon	Shishir Sinha and Devendra Rai ChED	202311043263, Dt. 28.06.2023	21.07.2023	29/2023
37.	A low cost mili fluidic device and method for production of double emulsion	Sumana Ghosh , Ravi Prakash and Pushpender ChED	202311057858, Dt. 29.08.2023	08.12.2023	49/2023
38.	Layered double hydroxide-based nanocomposite for electrochemical hydrogen storage and method of preparation thereof	Ashish Yadav and Himanshu Chauhan ChED	202311075027, Dt. 03.11.2023	24.11.2023	47/2023
39	An apparatus and process to synthesize propylene carbonate (PC) from propylene oxide (PO) and carbon dioxide (CO ₂) using a metal oxide catalyst	Vimal Chandra Srivastava , Vimal Kumar, Shishir sinha and Anag Katiyar ChED	202311082963, Dt. 05.12.2023	12.01.2024	02/2024
40	A process for the synthesis of non-isocyanate polyurethanes from propylene carbonate	Shishir Sinha , Vimal Chandra Srivastava and Ishwar Saran ChED	202311082964, Dt. 05.12.2023	12.01.2024	02/2024

41.	Tri-reforming of methane to syngas over nickel zirconia catalyst	Prakash Biswas , Prateek Kumar Jha , Akansha Pandey and Arisha Sharma ChED	202311083937, Dt. 08.12.2023	12.01.2024	02/2024
42.	Sulfur encapsulated free-standing carbon cathode electrode for metal-sulfur batteries and its method of preparation thereof	Ashwini Kumar Sharma , Poonam Rani and Abhishekh Dharmesh ChED	202411016185, Dt. 07.03.2024	05.04.2024	14/2024
43.	Assault trackway planks and system from composite prepared from waste plastic and other waste	Prasenjit Mondal , Hemant Goyal and Yash Dua ChED	202411021654, Dt. 21.03.2024	03.05.2024	18/2024
44.	Nickel-alumina catalyst derived from metal-organic frameworks (MOFs) precursors for tri-reforming of methane to hydrogen-rich syn-gas	Prakash Biswas , Arisha Sharma and Akansha Pandey ChED	202411036208, Dt. 07.05.2024	17.05.2024	20/2024
45.	A system and method for removing pesticides from water through advanced oxidation hybrid process	Sumana Ghosh , Prasenjit Mondal , Priti Kumari and Pushpender Chaudhary ChED	202411050667, Dt. 02.07.2024	19.07.2024	29/2024
46.	Compositions of nail lacquer and their method of production	Basheshwer Prasad and Rishabh Didel ChED	202411056644, Dt. 25.07.2024	09.08.2024	32/2024
47.	Telluride and mxene-based electrode for supercapacitor and method of preparation thereof	Ashish Yadav and Antra Choubey ChED	202411062191, Dt. 16.08.2024	18.10.2024	42/2024
48.	Bimetallic telluride and mxene-based supercapacitor	Ashish Yadav and Antra Choubey ChED	202411070635, Dt. 18.09.2024	22.11.2024	47/2024
49.	A method of processing of multi-layer packaging waste	Narapureddy Siva Mohan Reddy and Ayush Dave ChED	202411072960, Dt. 26.09.2024	18.10.2024	42/2024

50.	A robust catalyst for oxidative dehydrogenation of cycloalkane to cycloalkene	Taraknath Das and Krunalsinh Yogendrasinh Chauhan ChED	202511007749, Dt. 30.01.2025	04.04.2025	14/2025
51.	A synthesis of multi-walled carbon nanotubes (MW-CNTS) and regeneration of nickel-ceria catalyst for dry reforming of methane	Taraknath Das and Akanksha singh Rajput ChEd	202511029236, Dt. 27.03.2025	18.04.2025	16/2025
52.	Coated zinc anode for zinc batteries and process for preparation thereof	Ashwini Kumar Sharma and Dinesh Patel ChED	202511030128, Dt. 28.03.2025	Not published	
	A process and an apparatus for synthesis of metal-loaded multiwalled carbon nanotubes	Narapureddy Siva Mohan Reddy and Vikas Pate ChED	202511048725, Dt. 20.05.2025	Not published	

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S. No.	Title of the Disclosure	Disclosure Submitted By	Patent Filed on	Published on	Publication No./ Journal No.
1.	A novel process for the synthesis of vesicular acetylcholine transporter inhibitors vesamicol and its analogues	Rama Krishna Peddinti and Jyoti Agarwal CY	2567/Del/2011, Dt. 07.09.2011	08.03.2013	10/2013
2.	A process for enantioselective synthesis of vesicular acetylcholine transporter inhibitors vesamicol and its analogues	Rama Krishna Peddinti and Jyoti Agarwal CY	3087/Del/2011, Dt. 31.10.2011	27.09.2013	39/2013

3.	A process for the synthesis of luminescent citrate stabilized gold nanoparticles with high stokes shift	Kalyan Kumar Sadhu and Meenaxi CY	201611022462, Dt. 30.06.2016	05.01.2018	01/2018
4.	A system method of synthesis of gold-iron oxide and gold zinc oxide nanocomposites in aqueous medium at room temperature	Kalyan Kumar Sadhu and Shahbaz Ahmad Lone CY	201711024170, Dt. 10.07.2017	11.01.2019	02/2019
5.	Nut shaped Li_3VO_4 having hierarchical mesoporous structure and its method of synthesis	Tapas Kumar Mandal , Anjan Sil , Paritosh Mohanty and Nishant Gautam CY, MMED	201711038135, Dt. 27.10.2017	03.05.2019	18/2019
6.	Synthesis of iron oxide Nano hybrids (maghemite phase) employing raw spend wash from distillery industry as a precursor material.	Himanshu Joshi , Anil Kumar and Ajay Kumar HYD, CY	201711035146, Dt. 04.10.2017	19.07.2019	29/2019
7.	A method of synthesis of lithium vanadium on graphene oxide	Tapas Kumar Mandal and Nishant Gautam CY	201811022066, Dt. 13.06.2018	07.08.2020	32/2020
8.	A method for synthesis of nitrogen doped reduced graphene oxide (N-RGO) for high performance supercapacitor	Anil Kumar and Sahil Thareja CY	201811031021, Dt. 20.08.2018	03.07.2020	27/2020
9.	Process for synthesis nitrogen enrich high surface area nanoporous polytriazines and their multifunctional applications	Paritosh Mohanty and Monika Chaudhary CY	201811045502, Dt. 03.12.2018	12.06.2020	24/2020
10.	Synthesis of N&P enriched hybrid material made from cyclophosphazene and 2,6-diaminopyridine for supercapacitor and gas sorption applications	Paritosh Mohanty and Nisha Dhiman CY	201911002957, Dt. 24.01.2019	03.09.2021	36/2021

11.	A process for immobilization of metal oxide/ metal hydroxide nanofillers in paper matrices by a rapid microwave assisted method.	Paritosh Mohanty, Raeesh Muhammad and Anuj Rawat CY	201911031524, Dt. 05.08.2019	12.02.2021	07/2021
12.	An ultrafast resistive type humidity sensor based on nanohybrids	Atul Kumar, Anil Kumar and G.D. Varma CY, PHY, CON	202011007304, Dt. 20.02.2020	11.06.2021	24/2021
13.	A method of synthesis of nanoporous polymeric adsorbents from polycyclic aromatic hydrocarbons by microwave assisted method	Paritosh Mohanty, Raeesh Muhammad and Anuj Rawat CY	202011019017, Dt. 04.05.2020	12.11.2021	46/2021
14.	A method for the synthesis of amides from various carboxylic acids and amine derivatives	Debasis Banerjee and Shuvojit Haldar CY	202111025725, Dt 09.06.2021	10.09.2021	37/2021
15.	Cobalt-based boron-nitride supported heterogeneous-catalysts involving nitrogen-ligand and its method of preparation thereof	Debasis Banerjee and Shuvojit Haldar CY	202111025726, Dt 09.06.2021	10.09.2021	37/2021
16.	A method for the synthesis of primary amides	Debasis Banerjee and Shuvojit Haldar CY	202111039949, Dt. 03.09.2021	05.11.2021	45/2021

17.	A Ni(II)-pincer complex for catalytic amination of alcohols	Debasis Banerjee and Atanu Bera CY	202111039950, Dt. 03.09.2021	05.11.2021	45/2021
18.	A method for photocatalyzed knoevenagel condensation	K.R. Justin Thomas and Anupam Das CY	202111049183, Dt. 27.10.2021	26.11.2021	48/2021
19.	A method of synthesis of aldehyde and ketones from dicyanovinyl derivatives using photochemical method for C=C bond cleavage of dicyanovinyl derivatives and NBS under light irradiation	K.R. Justin Thomas and Anupam Das CY	202111049184, Dt. 27.10.2021	26.11.2021	48/2021
20.	A one-pot synthesis method of heteroatom(s)-doped porous reduced graphene oxide as electrode material by the reduction of graphene oxide for the fabrication of high voltage aqueous symmetric supercapacitor	Anil Kumar and Ikrar Ahmad CY	202211072704, Dt. 15.12.2022	30.12.2022	52/2022
21.	Catalyst free method for C-2 alkylation in Heteroarene-N-Oxides using katritzky salts	Anuj Sharma , Nihal Singh and Shivani Sharma CY	202311010983, Dt. 17.02.2023	17.03.2023	11/2023
22.	Hydrogen production by aurivillius perovskite semiconductors from dye-polluted water	Tapas Kumar Mandal and Shubham Kumar CY	202311053718, Dt. 10.08.2023	30.08.2024	35/2024

23.	Aurivillius perovskite photocatalysts, their preparation method and process of persistent organic pollutants removal from contaminated water	Tapas Kumar Mandal and Shubham Kumar CY	202311065213, Dt. 28.09.2023	20.10.2023	42/2023
24.	A process of photoacid-assisted esterification of carboxylic acids	Anuj Sharma and Jaya Tripathi CY	202311075970, Dt. 07.11.2023	05.01.2024	01/2024
25.	Method for synthesizing C-3 substituted Quinoxalin-2 (1H)-one compounds	Anuj Sharma & Nihal Singh CY	202311081034, Dt. 29.11.2023	29.12.2023	52/2023
26.	A cost-effective route for the synthesis of pyrimidine derivatives by a novel co-based catalyst	Kaushik Ghosh and Prasant CY	202311083565, Dt. 07.12.2023	12.01.2024	02/2024
27.	A method of synthesis of Lithium Lanthanum Zirconium Oxide (LLZO) and doped LLZO, solid-state electrolytes for Li-ion battery	Paritosh Mohanty and Bishnupriya Swain CY	202411040069, Dt. 22.05.2024	07.06.2024	23/2024
28.	A novel covalent organic framework adsorbent beads for Rhodamine B removal	Bhaskar Jyoti Deka , Ravindra Pandey , Yogesh Kumar and Shubham Ketan Sharma CY, CON & HYD	202411055455, Dt. 20.07.2024	Not published	

29.	A method of synthesizing covalent organic framework based polymer beads	Bhaskar Jyoti Deka , Ravindra Pandey , Yogesh Kumar and Shubham Ketan Sharma CY, CON & HYD	202411055456, Dt. 20.07.2024	Not published	
30.	A process for the preparation of β - ketosulfone	Anuj Sharma and Barakha Saxena CY	202411058425, Dt. 01.08.2024	18.10.2024	42/2024
31.	An electrocatalyst for air cathode electrode of a metal-air battery and a process of preparation thereof	Tapas Kumar Mandal and Sujan Sen CY	202411059717, Dt. 07.08.2024	18.10.2024	42/2024
32.	An electrocatalyst for hydrogen gas production and sulfur recovery and its method of preparation synthesis	Tapas Kumar Mandal , Rahul, Ritik Payak and Kunal Shaw CY, EE and PHY	202411066843, Dt. 04.09.2024	Not published	
33.	Low temperature synthesis of single atom catalysts embedded on layered polytriazine matrices by complexation approach	Paritosh Mohanty , Pratibha Kiran Giri and Tanya Gupta CY	202511001821, Dt. 08.01.2025	24.01.2025	4/2025
34.	Light-driven synthesis of 3-Aryl/Alkyl-1-Indanone derivatives from Indan-1,3-Diones and boronic acids via N-Sulfonylhydrazones	Yadagiri Dongari , Mohammad Junaid and Yamini Pokhriyal CY	202511008860, Dt. 03.02.2025	21.02.2025	08/2025

35.	A method for visible-lightinduced thioesterification of carboxylic acid for synthesis of thioester	Anuj Sharma , Harshita Gupta and Jaya Tripathi CY	202511015156, Dt. 21.02.2025	14.03.2025	11/2025
36.	Porphyrin derivatives, process for their preparation and test kits of porphyrin derivatives for cyanide detection	Muniappan Sankar and Rohit CY & CON	202511016931, Dt. 26.02.2025	28.03.2025	13/2025
37.	A process for the preparation of aryl esters through photoinduced catalysis	Anuj Sharma and Jaya Tripathi CY	202511021923, Dt. 11.03.2025	23.05.2025	21/2025
38.	A method for metal free trifluoroethylation and perfluoroalkylation of amines and application thereof	Debasis Banerjee and Tarun CY	202511049588, Dt. 23.05.2025	Not published	
39.	A method for N-methylation of amines using a Ni-based catalytic system	Debasis Banerjee and Tarun CY	202511049589, Dt. 23.05.2025	Not published	
40.	A method of synthesis of paracetamol using cobalt nanocatalyst	Debasis Banerjee and Shuvojit Haldar CY	202511049590, Dt. 23.05.2025	Not published	

41.	A method for synthesizing n-formylated amines using CO ₂ as a green feedstock	Debasis Banerjee and Tarun CY	202511049591, Dt. 23.05.2025	Not published	
42.	A method of synthesis of BIS(PERFLUOROALKOXYIODO) benzene and application thereof	Debasis Banerjee and Shuvojit Haldar CY	202511050104, Dt. 24.05.2025	Not published	

Department of Computer Science and Engineering

S. No.	Title of the Disclosure	Disclosure Submitted By	Patent Filed on	Published on	Publication No./ Journal
1.	A novel system and method providing advanced web search for multimedia contents	Sandeep Kumar , Shikhar Srivastav and Kuldeep Kumar CSE	3815/DEL/2013, Dt. 30.12.2013	03.07.2015	27/2015
2.	A novel system and method for automatic generation of wikipedia articles	Sandeep Kumar , Vikrant Yadav, Faisal Khan, Anshul Singhal, Devendra Pratap Singh and Kuldeep Kumar CSE	3280/DEL/2015, Dt. 13.10.2015	21.04.2017	16/2017
3.	Real-time fog removal system and its method thereof	Rahul Kumar, Brajesh Kumar Kaushik , Balasubramanian Raman and Gaurav Sharma ECE, CSE and University of Rochester	202011047686, Dt. 02.11.2020	12.03.2021	11/2021
4.	A traffic-light control system and method utilizing the deep reinforcement learning technique to balance the traffic flow and prevent congestion	Neetesh Kumar CSE	202111005979, Dt. 12.02.2021	10.09.2021	37/2021
5.	A system and method for dynamic allocation of communication resources for DVB-RCS complaint satellite terminals and implementation thereof	Sandeep Garg and Abhishek Kumar Roy CSE	202111010107, Dt. 10.03.2021	10.09.2021	37/2021
6.	Facilitating secured access to protected resources hosted in one cloud from another cloud	Sandeep Kumar and Manish Kumar Agrawal CSE with Oracle International Corporation	202344039967, Dt. 12.06.2023	11.10.2024	41/2024
7.	System for autonomous vehicular communication based on a blockchain network and method thereof	Neetesh Kumar and Indukuri Mani Varma CSE	202411000589, Dt. 03.01.2024	02.02.2024	05/2024

8.	System and method to predict trajectory by waypoint dropping	Pravendra Singh and Pranav Singh Chib CSE	202411004396, Dt. 22.01.2024	02.02.2024	05/2024
9.	A method and a system for enhancing trajectory prediction in dynamic multi-agent environments	Pravendra Singh and Pranav Singh Chib CSE	202411012334, Dt. 21.02.2024	Not published	
10.	A system and method for feature enhancement with channel fusion in convolution for image classification	Brajesh Kumar Kaushik , Amit Monga, Nehete Hemkant, Partha Kaushik and Rohith Varma Buddaraju ECE & CSE	202411020373, Dt. 19.03.2024	10.05.2024	19/2024
12.	System and method for providing location guidance by detecting and identifying targets within infrared images	Pravendra Singh and Pranav Singh Chib CSE	202411036211, Dt. 07.05.2024	Not published	
13.	Techniques for a self-learning scalable event broker	Sandeep Garg and Manish Manish Agrawal CSE (with Oracle)	202441036239, Dt. 07.05.2024	Not published	
14.	System and method for enhancing fairness in imaging applications through mutual correction and groupwise intra-class sample interaction	Pravendra Singh , Anshul Pundhir and Balasubramanian Raman CSE	202411037096, Dt. 10.05.2024	Not published	
15.	System and method for diagnosing medical images using image segmentation model	Pravendra Singh and Suruchi Kumari CSE	202411037298, Dt. 11.05.2024	Not published	
16.	System and method for predicting trajectories to navigate autonomous entities by performing trajectory imputation	Pravendra Singh and Pranav Singh Chib CSE	202411041066, Dt. 27.05.2024	Not published	
17.	A machine learning enabled sers sensing system and method for single-shot, rapid detection and classification of respiratory viruses	Sachin Kumar Srivastava , Partha Roy , Arti Yadav and Rakesh Naik PHY & CSE	202411045160, Dt. 11.06.2024	22.11.2024	47/2024
18.	A secure advanced driver assistance system and method for mobile autonomous vehicles for deploying trusted quality of service in autonomous vehicles through software-defined networking controller	Neetesh Kumar , Shikhar Vashistha and Indukuri Mani Varma CSE	202411055457, Dt. 20.07.2024	30.08.2024	35/2024
19.	Techniques for scaling an event broker via two-way traffic learning	Sandeep Garg and Manish Manish Agrawal	202541009576, Dt. 05.02.2025	Not published	

		CSE (with Oracle)			
20.	Method and system for managing intersection mobility in traffic environments	Neetesh Kumar , Anuj Sachan, Ashok Arora and Nisha Singh Chauhan CSE	202511015176, Dt. 21.02.2025	14.03.2025	11/2025
21.	Routing diverse incoming requests to optimal computing option while satisfying requisite performance metrics	Sandeep Garg and Manish Agrawal CSE (with Oracle)	202544024223, Dt. 18.03.2025	Not published	
22.	Validating predicate-based filters used in asynchronous messaging systems	Sandeep Garg and Manish Manish Agrawal CSE (with Oracle)	202544039601, Dt. 24.04.2025	Not published	

Department of Design

S. No.	Title of the Disclosure	Disclosure Submitted By	Patent Filed on	Published on	Publication No./ Journal No
1.	A four valve for directional control and mixing of fluids	A.K. Sharma , M. Shah Faizan, Radha Raman Mishra and T. R. Chelliah MIED, WRDM, DIC	202011009048, Dt. 03.03.2020	10.09.2021	37/2021

2.	A cam and follower mechanism for reducing the thread count variation in pedal-operated handlooms	Rajat Agrawal , Ashutosh Samadhiya and Tejas Pramod Naik DoMS & DIC	202011057535, Dt. 31.12.2020	10.09.2021	37/2021
3.	A cylindrical extension device	Rachit Birla DIC	202111026786, Dt. 16.06.2021	31.12.2021	53/2021
4.	A portable ultraviolet sterilization and disinfection device	Shailly Tomar , Prafful Kumar Khoba and Mandar Bhutkar BSBE & DIC	202111046071, Dt. 09.10.2021	21.10.2022	42/2022
5.	A multi-purpose seating device	Sonal Atreya , Abhishek Srivastava and Prakhar Singh Chauhan DOD	202411070952, Dt. 19.09.2024	Not published	
6.	A method of chemical-free fiber extraction from water hyacinth	Inderdeep Singh , Bibhuti Ranjan Bhattacharjya and Pinki Kumari MIED & DoD	202411097941, Dt. 11.12.2024	10.01.2025	02/2025

Department of Electronics and Communication Engineering

S. No.	Title of the Disclosure	Disclosure Submitted By	Patent Filed on	Published on	Publication No./ Journal No.

1.	System and method for reliable and flexible mobile agent computing	Kumkum Garg ECE	136/KOL/2009, Dt. 27.01.2009	01.05. 2009	18/2009
2.	Method of fabrication of dual/asymmetric dielectric constant (Dual-k) spacers in multigate FET devices	S. K. Manhas , Anand Bulusu and Saurabh Kumar Nema ECE	3164/Del/2012, Dt. 10.10.2012	15.08.2014	33/2014
3.	Time interleaved digital transmitter using multi-level digital quantization	Karun Rawat and Nishant Kumar ECE	201811021993, Dt. 12.06.2018	13.12.2019	50/2019
4.	Highly-directional compact semicircular angular-phased antenna array in 9.35GHZ-42.89 GHz	Amalendu Patnaik and Tushar Goel ECE	201811035222, Dt. 19.09.2018	20.03.2020	12/2020
5.	Reconfigurable concurrent multiband digital transmitter using delta sigma modulator and augmented shaping	Karun Rawat and Nishant Kumar ECE	201811038732, Dt. 12.10.2018	17.04.2020	16/2020
6.	A system and method for through wall imaging	Dharmendra Singh , Bambam Kumar and Smitha Puthucheri ECE	201911004784, Dt. 06.02.2019	07.08.2020	32/2020
7.	Baseband controlled linearization of High Power Amplifiers	Meenakshi Rawat and Girish Chandra Tripathi ECE	201911014390, Dt. 10.04.2019	16.10.2020	42/2020
8.	CMOS Compatible Micro-machined Piezoelectric Energy Harvester	Sanjeev Manhas , Sandeep Singh Chauhan and M. M. Joglekar ECE, MIED	201911020224, Dt. 22.05.2019	27.11.2020	48/2020

9.	A single stage multi-spectral image and video dehazing system and its method thereof	B. K. Kaushik , Gaurav Sharma, and Rahul Kumar ECE	201911024268, Dt. 19.06.2019	25.12.2020	52/2020
10.	Electromagnetic radiation reduction box (EMR2B) in the communication bands (0.5 to 3.0GHz)	Dharmendra Singh , Varsha Mishrah and Smitha Puthucheri ECE	201911030845, Dt. 31.07.2019	05.02.2021	06/2021
11.	A lifetime enhancer for non-rechargeable battery powered wireless sensor node	Pyari Mohan Pradhan and Ritesh Garg ECE	201911044035, Dt. 31.10.2019	07.05.2021	19/2021
12.	Impedimetric sensors for cytotoxicity analysis	Sanjeev Manhas , Rangadhar Pradhan, P. Gopinath and Ashish BT, ECE, CON	202011003839, Dt. 29.01.2020	30.07.2021	31/2021
13.	A low cost portable mechanical ventilator with feedback control and respiratory monitoring with remote interface.	Akshay Dvivedi , Arup Kumar Das , MaranR. Lokesh Rohilla, Darshan M B, Avik Saha, Vikas Kannojiya, Tanmay Tiwari, Anuj Vats, Sandeep Kumar, Subramanian G., Navin Chandra Rai, Gajanand Saini, Yashpal Singh, Shahwez, Debendra Kumar Tripathi and Abhishek Sehgal MIED, EE, ECE, Tinkering Lab and AIIMS (Rishikesh)	202011015014, Dt. 04.04.2020	16.09.2022	37/2022
14.	A low cost portable mechanical ventilator with feedback control and respiratory monitoring with remote interface.	Akshay Dvivedi , Arup Kumar Das , Maran R. Lokesh Rohilla, Darshan M B, Avik Saha, Vikas Kannojiya, Tanmay Tiwari, Anuj Vats, Sandeep Kumar, Subramanian G., Navin Chandra Rai, Gajanand Saini, Yashpal Singh, Shahwez, Debendra Kumar Tripathi and Abhishek Sehgal	202011019016, Dt. 04.05.2020	12.11.2021	46/2021

		MIED, EE, ECE, Tinkering Lab and AIIMS (Rishikesh)			
15.	Multi-Octave modes for switching power amplifiers	Karun Rawat and Yericharla Ashalatha ECE	202011029361, Dt. 10.07.2020	14.01.2022	02/2022
16.	A system method to reduce KT/C noise-reduction by using negative capacitance FETS	Ishant, Swarga Mandal and Sudeb Dasgupta ECE	202011029711, Dt. 13.07.2020	14.01.2022	02/2022
17.	A system and method for enhancing the performance of SDR and DPD	Meenakshi Rawat and Girish Chandra Tripathi ECE	202011036017, Dt. 21.08.2020	12.03.2021	11/2021
18.	A system and method for adjusting analog predistortion linearizer for linearizing wideband high-power amplifiers	Meenakshi Rawat and Ashish Kumar ECE	202011046368, Dt. 23.10.2020	29.04.2022	17/2022
19.	Real-time fog removal system and its method thereof	Rahul Kumar, Brajesh Kumar Kaushik, Balasubramanian Raman and Gaurav Sharma ECE, CSE and University of Rochester	202011047686, Dt. 02.11.2020	12.03.2021	11/2021
20	An output system for a w-band second harmonic gyrotron	Surbhi Adya, Debasish Mondal, Sivasubramanian Yuvaraj, Santanu Karmakar and Machavaram Venkata Kartikeyan ECE & DRDO	202111042485, Dt. 20.09.2021	24.03.2023	12/2023
21.	A portable sensing device and a method for rapid and non-destructive determination of the quality of coconut	Debabrata Sircar, Partha Roy, Nagendra P Pathak, Mukund Kumar, Bhairavnath Waghmode, Komal	202111048606, Dt. 25.10.2021	26.11.2021	48/2021

		Kushwaha and Arun Kumar Varshney BT &ECE			
22.	Green high speed railways communication by mitigating power amplifier nonlinearity for mimo transceivers.	Meenakshi Rawat and Anurag Vijay Agrawal ECE	202111059093, Dt. 17.12.2021	31.12.2021	53/2021
23.	A portable bioelectronic sensor for easy non-destructive prediction of fruit ripening stage and selected fruit physicochemical parameters of apples	Debabrata Sircar, Partha Roy, Nagendra P Pathak, Bhairavnath Waghmode, Komal Kushwaha and Mukund Kumar BT, ECE	202211002188, Dt. 13.01.2022	28.01.2022	04/2022
24.	A scalable balun filter	Gowrish B. ECE	202211022250, Dt. 14.04.2022	22.04.2022	16/2022
25.	A wideband ferrite transformer based power divider	Gowrish Basavarajappa ECE	202211044718, Dt. 04.08.2022	19.08.2022	33/2022
26.	A system and method for estimating the location of a base station using RSSI available on the mobile station	Abhay Kumar Sah ECE (with Dr B R Ambedkar National Institute Of Technology Jalandhar)	202211054392, Dt. 22.09.2022	13.10.2023	41/2023
27.	A low radar cross section (RCS) circularly polarized (CP) reflectarray	Debidas Kundu ECE	202211057030, Dt. 04.10.2022	14.10.2022	41/2022
28.	An intelligent rainfall intensity measurement system and method	Rajib Kumar Panigrahi and Amrita Joshi	202311006646, Dt. 01.02.2023	17.02.2023	07/2023

		ECE			
29.	Smart wireless sensor network (WSN) device enabling continuous monitoring of remote location and method thereof	Rajib Kumar Panigrahi and Amrita Joshi ECE	202311023711, Dt. 30.03.2023	03.05.2024	18/2024
30.	A configurable sram-based IN-MEMORY COMPUTATION (IMC) accelerator	Bishnu Prasad Das and Saragada Prasanna Kumar ECE	202311026726, Dt. 11.04.2023	02.06.2023	22/2023
31	Biomimetic method to enhance quantum photovoltaic cell efficiency	Vishvendra Singh Poonia and Abhishek Chakraborty ECE	202311027173, Dt. 12.04.2023	02.06.2023	22/2023
32.	A multi-capacitor piezoelectric accelerometer for high sensitivity and lower noise	Sanjeev Manhas and Rahul Kumar Gupta ECE	202311030458, Dt. 27.04.2023	Not published	
33.	A system and method of transition from rectangular waveguide to perforated h guide	Nagendra Prasad Pathak , Arpit Kumar Baranwal and Akhilesh Mohan ECE	202311031176, Dt. 02.05.2023	09.06.2023	23/2023

34.	A flow sensing apparatus and a RF flow sensor thereof	Nagendra Prasad Pathak and Deeksha Pandey ECE	202311040653, Dt. 14.06.2023	21.07.2023	29/2023
35.	A grant-free random access method for cell-free networks	Abhay Kumar Sah and Santosh Kumar Singh ECE	202311045133, Dt. 05.07.2023	04.08.2023	31/2023
36.	A system and method for gain enhancement in pyramidal horn antenna using band pass gain boosting surface (GBS)	Gowrish Basavarajappa and Kalyan Mohan Patnaik ECE	202311057857, Dt. 29.08.2023	06.10.2023	40/2023
37.	An analog predistortion (APD) assisted multiple-input-multiple-output (mimo) predistorter system and method	Meenakshi Rawat , Shipra and Ashish Kumar ECE	202311060561, Dt. 08.09.2023	27.10.2023	43/2023
38.	Systems and methods for hyperspectral image processing in remote sensing using reflexivity based approximate computing	Sparsh Mittal ECE with TCS	202321078005, Dt. 16.11.2023	Not published	
39.	An in-memory computation (IMC)-based hardware accelerator system using a configurable digital-to-analog converter (DAC) and method capable of performing multi-bit multiply-and-accumulate (MAC) operations	Bishnu Prasad Das and Prasanna Kumar Saragada ECE	202311065832, Dt. 29.09.2023	15.12.2023	50/2023
40.	A slotted waveguide for dual-band radio frequency orbital angular momentum (RF-OAM) beam generation	Amalendu Patnaik and Yuvraj Baburao Dhanade ECE	202311069081, Dt. 13.10.2023	24.11.2023	47/2023
41.	A shaped dielectric antenna for W-band applications	Nagendra P Pathak , Akhilesh Mohan and Arpit Kumar Baranwal ECE	202311069082, Dt. 13.10.2023	24.11.2023	47/2023

42..	Wideband doherty power amplifier with device parasitic compensation and impedance inversion	Karun Rawat , Mohammad Abdul Shukoor and Ahmad Zakaria Ahmad ECE (With WIPRO)	202341082863, Dt. 05.12.2023	Not published	
43.	An artificial intelligence (AI) based adaptive prompt learning assisted device and method for effective mental health	Tharun Kumar Reddy Bollu and Kumar Gaurav ECE	202311083935, Dt. 08.12.2023	12.01.2024	02/2024
44.	A system and method for depression stage detecting human-computer interaction	Tharun Kumar Reddy Bollu and Srikireddy Dhanunjay Reddy ECE	202311083936, Dt. 08.12.2023	12.01.2024	02/2024
45.	A wireless edge-computing-based real time transit passenger counting system and method	Amit Agarwal , Manan Gupta, Hemanth Vasireddy and Aditya Kora CED & ECE	202411003605, Dt. 18.01.2024	09.02.2024	06/2024
46.	A system and method for feature enhancement with channel fusion in convolution for image classification	Brajesh Kumar Kaushik , Amit Monga, Nehete Hemkant, Partha Kaushik and Rohith Varma Buddaraju ECE & CSE	202411020373, Dt. 19.03.2024	Not published	
47..	A method for achieving threshold adaptation in leaky integrate and fire (LIF) neuron using a magnetic domain wall (DW) device	Brajesh Kumar Kaushik and Arshid Nisar ECE	202411027387, Dt. 02.04.2024	03.05.2024	18/2024
48.	A system and method for drone onboard real-time crowd and vehicle detection, counting and mapping	Dharmendra Singh and Laxman Singh Khangarot CSE	202411028445, Dt. 06.04.2024	10.05.2024	19/2024
49.	A mimo antenna for W-band and beyond	N. P. Pathak , Arpit Kumar Baranwal and Akhilesh Mohan ECE	202411038016, Dt. 14.05.2024	31.05.2024	22/2024
50	Ferroelectric field effect transistor and method to perform the multi-bit operation using the ferroelectric field effect transistor	Avirup Dasgupta and Abhishek Kumar ECE	202411038573, Dt. 16.05.2024	31.05.2024	22/2024

51	Reconfigurable low-intermediate frequency harmonic mixing receiver for wireless communication systems	Darshak Bhatt and Anupam Kumari ECE	202411041139, Dt. 27.05.2024	28.06.2024	26/2024
52	Reconfigurable receiver with programmable filters and amplifiers for enhanced RF performance in wireless communication systems	Darshak Bhatt and Anupam Kumari ECE	202411041710, Dt. 29.05.2024	21.06.2024	25/2024
53	A multi-functional system for providing co-axial to waveguide transitions for power combining applications	Gowrish Basavarajappa , Karun Rawat and Manoj Kumar ECE	202411047134, Dt. 19.06.2024	05.07.2024	27/2024
54	Multiple input multiple output (MIMO) radar system for through-wall imaging (TWI)	Dharmendra Singh , Vineet Singh, Suman Anand, Pravin Mali and Shailza Gotra ECE	202411048736, Dt. 25.06.2024	02.08.2024	31/2024
55.	Method for inducing electrical and magnetic properties in a substrate	Vivek Kumar Malik , Parvesh Chander, Alisha and Nagendra Prasad Pathak PHY & ECE	202411051402, Dt. 04.07.2024	19.07.2024	29/2024
56.	Method and apparatus for automatic modulation selection and recognition for the modern radio access networks	Abhay Kumar Sah and Debajit Choudhury ECE	202411081569, Dt. 25.10.2024	Not published	
57.	A fabrication method for generating a multicolor two dimensional spatial array	Arnab Datta , Mandeep Jangra and Jasvinder Singh ECE	202411078580, Dt. 16.10.2024	22.11.2024	47/2024
58.	A low-cost tunable S-band and X-band RF source and its method for microwave analysis	Gowrish Basavarajappa ECE	202411081326, Dt. 22.10.2024	15.11.2024	46/2024
59.	Reconfigurable cordic architecture with non power-of-2 angle set of microrotations and method thereof	Bishnu Prasad Das and Anu Verma ECE	202411081147, Dt. 24.10.2024	Not published	
60.	A piezoelectric accelerometer for high sensitivity and lower noise	Sanjeev Manhas and Rahul Kumar Gupta ECE	202511011276, Dt. 10.02.2025	14.03.2025	11/2025
61	A system and method for network resource allocation in a multi-connected cell-free massive multiple-input-multiple-output (CF-mMIMO)	Abhay Kumar Sah , Santosh Kumar Singh and Lokesh Patidar	202511015154, Dt. 21.02.2025	14.03.2025	11/2025

		ECE			
62.	Wideband doherty power amplifier	Karun Rawat , Mohammad Abdul Shukoor and Ahmad Zakaria Ahmad ECE (with WIPRO)	202541030846, Dt. 29.03.2025	Not published	

Department of Electrical Engineering

S. No.	Title of the Disclosure	Disclosure Submitted By	Patent Filed on	Published on	Publication No./ Journal No.
1.	An integrated cooling system and hydrogen processing for power generation plants.	G.R Biswal , R P. Maheshwari and M.L. Dewal , EE	689/Del/2012, Dt. 12.03.2012	21.12.2012	51/2012
2.	Cost effective solution for cranking of diesel generator in low power autonomous DC micro grid	Sanjeev Pannala, N.P. Padhy and Pramod Agrawal EE	201911007804, Dt. 28.02.2019	04.09.2020	36/2020

3.	NPA: A multilevel high power factor AC-DC converter	Pramod Agrawal and Naveen Yalla EE	201911014389, Dt. 10.04.2019	16.10.2020	42/2020
4.	Add-on device and its method to prevent breaker-failure mal-operations	Bhavesh R. Bhalja and Soumitri Jena EE	201911053612, Dt. 24.12.2019	25.06.2021	26/2021
5.	A low cost portable mechanical ventilator with feedback control and respiratory monitoring with remote interface.	Akshay Dvivedi , Arup Kumar Das , Maran R., Lokesh Rohilla, Darshan M B, Avik Saha, Vikas Kannojiya, Tanmay Tiwari, Anuj Vats, Sandeep Kumar, Subramanian G., Navin Chandra Rai, Gajanand Saini, Yashpal Singh, Shahwez, Debendra Kumar Tripathi and Abhishek Sehgal MIED, EE, ECE, Tinkering Lab and AIIMS (Rishikesh)	202011015014, Dt. 04.04.2020	16.09.2022	37/2022
6.	A low cost portable mechanical ventilator with feedback control and respiratory monitoring with remote interface.	Akshay Dvivedi , Arup Kumar Das , Maran R., Lokesh Rohilla, Darshan M B, Avik Saha, Vikas Kannojiya, Tanmay Tiwari, Anuj Vats, Sandeep Kumar, Subramanian G., Navin Chandra Rai, Gajanand Saini, Yashpal Singh, Shahwez, Debendra Kumar Tripathi and Abhishek Sehgal MIED, EE, ECE, Tinkering Lab and AIIMS (Rishikesh)	202011019016, Dt. 04.05.2020	12.11.2021	46/2021

7.	Cost-Effective Isolated operation of the DFIG wind system supported by the DC microgrid	Gururaj M V, Narayana Prasad Padhy , Bandla Krishna Chaithanya and Rashmi Prasad EE	202011048384, Dt. 05.11.2020	05.03.2021	10/2021
8.	A system and method for active reactive power based speed and/or Torque control of multiphase asynchronous machines	M K Pathak and Harshit Mohan EE	202111007450, Dt. 23.02.2021	10.09.2021	37/2021
9.	An isolated single-stage AC-AC converter suitable for a solid-state transformer	M.K Pathak and Wajahat Khan EE	202211032809, Dt. 08.06.2022	17.06.2022	24/2022
10.	A web application, user interface based automatic mobile robot (WAMR) to carry payload with obstacle avoidance feature	Samsaptak Ghosh, Sohom Chakrabarty , Ujjwal Gupta and Etta Dheeraj Kumar Reddy EE	202211041469, Dt. 20.07.2022	19.08.2022	33/2022
11.	A smart bi-directional charger for simultaneous charging of multiple electric vehicles	Avanish Tripathi , Sangeet Yadav and Roshan Raja Samuel. A EE	202211054258, Dt. 22.09.2022	21.10.2022	42/2022
12.	A system and method for drive cycle for railway vehicles	Bhaveshkumar Rameshchandra Bhalja , Ashtabhuj Kumar Srivastava and Saran Satsangi EE	202211072353, Dt. 14.12.2022	30.12.2022	52/2022
13.	A system and method for estimation of pore-size distribution in carbonates using spectral induced polarization (SIP)	Ravi Sharma and Neha Panwar ESD	202211072354, Dt. 14.12.2022	30.12.2022	52/2022

14.	A solid-state transformer (SST) with reduced switch count	Mukesh Kumar Pathak and Karthik Singh Parihar EE	202311002905, Dt. 13.01.2023	20.01.2023	03/2023
15.	A system and method to improve post LVRT/MVRT performance of wind turbines with coupling slippages	Jishnu Kavil Kambrath and Anil Kumar Tiwari EE	202311006645, Dt. 01.02.2023	17.02.2023	07/2023
16.	A three phase four wire cascaded h-bridge based reduced switch hybrid shunt active power filter	Avik Bhattacharya , Muneer V and Arkabrata Dattaroy EE	202311009572, Dt. 14.02.2023	24.02.2023	08/2023
17.	A heaving point absorber wave energy converter for generating electricity from ocean energy	Sumana Ghosh , Mukesh Kumar Pathak and Ravi Prakash ChED, EE (with ONGC)	202311017076, Dt. 14.03.2023	19.05.2023	20/2023
18.	A system and method to locate partial discharge in transformer winding using electromagnetic time reversal	Ganesh Balu Kumbhar , Bhaveshkumar Rameshchandra Bhalja and Viral Bipinchandra Rathod EE	202311037658, Dt. 31.05.2023	30.06.2023	26/2023
19.	A system and method for effective grounding and protection for DC microgrid	Manoj Tripathy and Chetan Srivastava EE	202311042424, Dt. 24.06.2023	21.07.2023	29/2023
20.	A reconfigurable system and method for testing and validation of the power electronics circuit and the control for power electronic converter systems	Sohom Chakrabarty and Samsaptak Ghosh EE	202311065275, Dt. 28.09.2023	15.12.2023	50/2023

21.	Thyristor guided converter for statcom application	Siba Kumar Patro and Shourya Sharma EE	202311084115, Dt. 09.12.2023	12.01.2024	02/2024
22.	A constant switching frequency based current controller for grid connected 3-phase voltage source inverter with L or LCL filter	Anubrata Dey , Biswarup Das and Ravi Varma Chavali EE	202411016085, Dt. 07.03.2024	26.04.2024	17/2024
23.	A single-phase five-level transformerless solar photovoltaic grid-connected inverter	Anubrata Dey and Sanket Subhash Tambe EE	202411034406, Dt. 30.04.2024	17.05.2024	20/2024
24.	Converter for converting multipoint medium voltage direct current to single point high voltage direct current	Siba Kumar Patro and Chandan Kumar EE	202411036520, Dt. 08.05.2024	17.05.2024	20/2024
25.	Criss-cross winding pattern for reducing parasitic capacitance in planar winding assembly	Anubrata Dey , Shashank Mishra and Priyangsi Dey EE	202411053600, Dt. 13.07.2024	26.07.2024	30/2024
26.	Self adaptive frequency support control and method of increasing efficiency for variable head pumped storage hydro-generation unit	Thanga Raj Chelliah , Abdul Saleem Mir , K.S. Kasiviswanathan , Ritu Tiwari and Pattabiraman B WRDM & EE	202411054536, Dt. 17.07.2024	Not published	
27.	A multi-phase electromagnetic coupler for contactless charging of electric vehicles	Apurv Kumar Yadav and Sukumar Das EE	202411054537, Dt. 17.07.2024	09.08.2024	32/2024
28.	A hybrid-bridge based isolated DC-DC converter for multiport electric vehicle charging infrastructure	Siba Kumar Patro , Princekumar Ajaybhai Vaghasiya and Chandan Kumar EE	202411057045, Dt. 26.07.2024	18.10.2024	42/2024
29.	A parallel conductor reduction process for impedance calculation of distance relays utilized in parallel multi-conductor and traction systems	Bhavesh Kumar R.Bhalja and Jitendra Prajapati EE	202411060023, Dt. 08.08.2024	30.08.2024	35/2024

30.	A printed patterns of thin film heaters on a quartz substrate using silver nanoparticle ink and its method of printing	Sumathi Parasuraman and Nikhila Patil EE (With IIT Madras)	202411065129, Dt. 28.08.2024	Not published	
31.	High voltage level modular converter for medium and high power applications	Pramod Agarwal , Jyoti Ranjan Dash, Asad Hussain and Rohit Raj EE	202411066310, Dt. 02.09.2024	20.09.2024	38/2024
32.	An electrocatalyst for hydrogen gas production and sulfur recovery and its method of preparation synthesis	Tapas Kumar Mandal , Rahul, Ritik Payak and Kunal Shaw CY, EE and PHY	202411066843, Dt. 04.09.2024	Not published	
33.	A wearable device and its method to combat essential tremor in the hand	Sanjeev Manhas ECE (with AIIMS Rishikesh)	202411073477, Dt. 28.09.2024	03.01.2025	1/2025
34.	2D-sliding discrete fourier transform (DFT) kernel based analog ic for edge detection	Sumathi Parasuraman and Varun Kumar EE	202411079061, Dt. 16.10.2024	Not published	
35.	An active gate driving system and method for the voltage balancing of series connected GaN devices for higher voltage application	Apurv Kumar Yadav , Siddhartha Suyal and Shambhunath Dutta EE	202411081557, Dt. 25.10.2024	15.11.2024	46/2024
36.	A robust fault isolation method for inverter dominant hybrid microgrid system using novel dual overcurrent relay characteristics	Premalata Jena and Mir Uzair Kanth EE	202511007355, Dt. 29.01.2025	21.02.2025	08/2025
37.	Misalignment tolerant inductive contactless charging system for electric vehicles	Apurv Kumar Yadav and Adarsh Dubey EE	202511024626, Dt. 19.03.2025	04.04.2025	14/2025
38.	A method and device for fault detection in power transformers using clarke transform	Bhaveshkumar Rameshchandra Bhalja , Pramod Agarwal and Bhalja Het Sanjaykumar EE	202511029235, Dt. 27.03.2025	18.04.2025	16/2025

Department of Earthquake Engineering

S. No.	Title of the Disclosure	Disclosure submitted by	Patent filed on	Published on	Publication No./ Journal No.
1.	A method and a device to improve the strength characteristics of pond ash deposits	B.K. Maheshwari , Swami Saran , D. K. Paul , S. Mukherjee, M.L. Sharma , Subodh Jain, H.P. Singh and N.P. Aterkar EQD, CED	142/Del/2010, Dt. 25.01.2010	29.07.2011	30/2011
2.	A method for improving the liquefaction resistance of pond ash	B.K. Maheshwari , Swami Saran , D. K. Paul , S. Mukherjee, M.L. Sharma , Subodh Jain, H.P. Singh and N.P. Aterkar EQD, CED	840/Del/2010, Dt. 06.04.2010	02.03.2012	09/2012
3.	Earthquake resistant viscoelastic energy dissipator link elements	Pankaj Agarwal and Amit Goyal, EQD	201711014897, Dt. 27.04.2017	02.11.2018	44/2018

4.	Friction based energy dissipation device for seismic protection	Manish Shrikhande EQD	201711036003, Dt. 10.10.2017	14.06.2019	24/2019
5.	A system and method for seismic response control.	Manish Shrikhande EQD	201811031019, Dt. 20.08.2018	21.02.2020	08/2020
6.	A system and method for seismic retrofitting of severely damaged reinforced concrete frame buildings using coupler-box section	Pankaj Agrawal , K. V Naveen Kumar and R. Siva Chidambaram EQD	202011007735, Dt. 24.02.2020	27.08.2021	35/2021
7.	Tilt meter with liquid-liquid measuring unit.	M. L. Sharma and Govind Rathore EQD	202011018828, Dt. 02.05.2020	05.11.2021	45/2021
8.	A discrete energy dissipating damper device with adaptive yield link elements	K.V. Naveen kumar, Nidhin S. Pachappoyyi and Prof. Pankaj Agrawal EQD	202111027203, Dt. 17.06.2021	10.09.2021	37/2021
9.	A strong ground motion sensor	Govind Rathore, Dr. Ashok Kumar , Dr. Ravi Sankar Jakka , Dr. Mukat Lal Sharma , Dr. Kamal EQD, DES	202111061557, Dt. 29.12.2021	04.02.2022	05/2022
10.	A low-cost earthquake early warning siren (EEWS) for home/office	Govind Rathore, Dr. Ashok Kumar , Dr. Ravi Sankar Jakka , Dr. Mukat Lal Sharma , Dr. Kamal EQD, DES	202111062011, Dt. 30.12.2021	04.02.2022	05/2022
11.	A low-cost earthquake early warning siren for public	Govind Rathore, Dr. Ashok Kumar , Dr. Ravi Sankar Jakka , Dr. Mukat Lal Sharma , Dr. Kamal EQD, DES	202211000637, Dt. 05.01.2022	04.02.2022	05/2022

12.	Bioinspired skirted footing and its method of installation	Ravi S. Jakka and Khalid Bashir EQD	202211000638, Dt. 05.01.2022	06.01.2023	01/2023
13.	Method of utilization of sugarcane waste in large earthworks	Ravi S. Jakka and Jithin P. Zachariah EQD	202311035890, Dt. 24.05.2023	02.02.2024	05/2024
14.	Measurement of strain and displacement of soil slopes for dynamic loads using Digital image correlation (DIC)	B.K. Maheshwari and Sukanta Das EQD	202311035891, Dt. 24.05.2023	30.06.2023	26/2023
15.	Method of application of MICP to improve life of natural fiber reinforced soils	Ravi S. Jakka and Jithin P. Zachariah EQD	202311035892, Dt. 24.08.2023	30.08.2024	35/2024
16.	System and method for estimating void ratio of soil using digital image processing	B.K. Maheshwari and P. Gowtham EQD	202311058087, Dt. 30.08.2023	29.09.2023	39/2023
17.	System and method for data-assimilated geophysical site investigation	Ritesh Kumar EQD	202311070183, Dt. 16.10.2023	24.11.2023	47/2023
18.	Damping devices to mitigate the impact of seismic events	Pankaj Agarwal and Shibi Rajaram EQD	202411062246, Dt. 16.08.2024	30.08.2024	35/2024
19.	A stainless steel core buckling restrained brace and its application in seismic retrofitting of reinforced concrete frame	P. C. Ashwin Kumar , Devyani Tewatia, Krishna Murari, Tamilselvan Nambirajan, Aashima Sharma and Anirudh Painuly EQD	202411067725, Dt. 07.09.2024	15.11.2024	46/2024

20.	Force balance accelerometer (fba) assembly	Manish Shrikhande and Aditya Manish Shrikhande EQD	202511030185 Dt. 28.03.2025	18.04.2025	16/2025
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Department of Earth Sciences

S. No.	Title of the Disclosure	Disclosure submitted by	Patent filed on	Published on	Publication No./ Journal No.
1.	A strong ground motion sensor	Govind Rathore, Dr. Ashok Kumar , Dr. Ravi Sankar Jakka , Dr. Mukat Lal Sharma , Dr. Kamal EQD & ES	202111061557, Dt 29.12.2021	04.02.2022	05/2022
2.	A low-cost earthquake early warning siren (EEWS) for home/office	Govind Rathore, Dr. Ashok Kumar , Dr. Ravi Sankar Jakka , Dr. Mukat Lal Sharma , Dr. Kamal EQD & ES	202111062011, Dt. 30.12.2021	04.02.2022	05/2022

3.	A low-cost earthquake early warning siren for public	Govind Rathore, Dr. Ashok Kumar , Dr. Ravi Sankar Jakka , Dr. Mukat Lal Sharma , Dr. Kamal EQD & ES	202211000637, Dt. 05.01.2022.	04.02.2022	05/2022
4.	A system and method for classifying and upscaling the DRP optimized parameters of porosity, pore types and aspect ratio to field values	Ravi Sharma , Shruti Malik and Adithya Shashidhara Shettar ES	202211039869, Dt. 12.07.2022	23.06.2023	25/2023
5.	A multi domain pipeline system and method to optimally identify recharge zone in arid craton	Pallavi Chattopadhyay and Ravi Shankar Dubey ES	202411020965, Dt. 20.03.2024	03.05.2024	18/2024
6.	SH wave source with mechanical hitter	Anand Joshi , Saurabh Sharma, Mohit Pandey, Jyoti Singh and Sanjay H. Upadhyay ES & MIED	202411062304, Dt. 16.08.2024	18.10.2024	42/2024

Department of Hydrology

S. No.	Title of the Disclosure	Disclosure Submitted By	Patent Filed on	Published on	Publication No./ Journal No.
1.	Synthesis of iron oxide Nano hybrids (maghemite phase) employing raw spend wash from distillery industry as a precursor material.	Himanshu Joshi , Anil Kumar and Ajay Kumar HYD, CY	201711035146, Dt. 04.10.2017	19.07.2019	29/2019
2.	A process for recovery of potash from biometanated distillery spent wash	Himanshu Joshi and Sunil Yadav HYD	201711035147 Dt. 04.10.2017	07.06.2019	23/2019
3.	A system comprising stable iron oxide nanoparticles (Maghemite) composite with pumice, for contaminant removal in water and its method of preparation thereof	Himanshu Joshi , Shashi Ranjan, Ajay Kumar and Brijesh Kumar Yadav HYD	202011037533, Dt. 31.08.2020	05.11.2021	45/2021
4.	A rainfall simulator for moving storm condition	Sumit Sen and Ravi Meena HYD	202111025193, Dt. 07.06.2021	10.09.2021	37/2021
5.	A superhydrophobic polystyrene/PVDF membrane coated with WO ₃ nanocomposite for membrane distillation application	Bhaskar Jyoti Deka , Gaurav Vaghela, Akshit Pushkar and Himanshu Joshi HYD	202211008575, Dt. 18.02.2022	25.11.2022	47/2022
6.	A method of fabrication of superhydrophobic membrane	Bhaskar Jyoti Deka , Gaurav Vaghela, Akshit Pushkar and Himanshu Joshi	202211008576, Dt. 18.02.2022	25.11.2022	47/2022

		HYD			
7.	Biodegradable nanocomposite superhydrophobic membrane for application in membrane distillation	Bhaskar Jyoti Deka , Gaurav Vaghela and Mohd Sahil HYD	202211068384, Dt. 28.11.2022	21.07.2023	29/2023
8.	A superhydrophobic membrane and method for fabrication of a biodegradable nanocomposite superhydrophobic membrane	Bhaskar Jyoti Deka , Gaurav Vaghela and Mohd Sahil HYD	202311007173, Dt. 03.02.2023	23.06.2023	25/2023
9.	Development of hybrid α -FeO(OH)- PES-PEOx blended hydrophilic forward osmosis membrane	Bhaskar Jyoti Deka , Gaurav Vaghela, Shubham Ketan Sharma and Priya Sonkar HYD	202311057597, Dt. 28.08.2023	Not published	
10.	A method for fabrication of a α -iron based composite hydrophilic membrane for forward osmosis application	Bhaskar Jyoti Deka , Gaurav Vaghela, Shubham Ketan Sharma and Priya Sonkar HYD	202311057602, Dt. 28.08.2023	Not published	
11.	A silane shield advanced superhydrophobic membrane for desalination	Bhaskar Jyoti Deka , Nagendra Kumar Jilagam and Gaurav Vaghela HYD	202311067499, Dt. 09.10.2023	11.10.2024	41/2024
12.	A method of preparing plasma-engineered fluorine free silanes for enhancing superhydrophobicity of membranes	Bhaskar Jyoti Deka , Nagendra Kumar Jilagam and Gaurav Vaghela HYD	202311067500, Dt. 09.10.2023	11.10.2024	41/2024
13.	A hybrid system and method for the treatment of electroplating effluent	Himanshu Joshi and Jagdeesh Kumar	202311070800, Dt. 17.10.2023	10.05.2024	19/2024

		HYD			
14.	A microbial consortium for simultaneous removal of nutrients and major organic pollutants from polluted water	Himanshu Joshi and Monika Simon HYD	202311072223, Dt. 23.10.2023	01.11.2024	44/2024
15.	A novel covalent organic framework adsorbent beads for Rhodamine B removal	Bhaskar Jyoti Deka , Ravindra Pandey , Yogesh Kumar and Shubham Ketan Sharma CHY, CON & HYD	202411055455, Dt. 20.07.2024	Not published	
16.	A method of synthesizing covalent organic framework based polymer beads	Bhaskar Jyoti Deka , Ravindra Pandey , Yogesh Kumar and Shubham Ketan Sharma CHY, CON & HYD	202411055456, Dt. 20.07.2024	Not published	
17.	Transforming pet waste into cutting-edge omniphobic membranes for sustainable membrane distillation	Bhaskar Jyoti Deka and Gaurav Vaghela HYD	202511021952, Dt. 11.03.2025	21.03.2025	12/2025
18.	An agro based coagulant from sugarcane bagasse for heavy metal sequestration from water and wastewater	Bhaskar Jyoti Deka , Prajwal Mallikarjun Timashetti and Nagendra Kumar Jilagam HYD	202511023605, Dt. 17.03.2025	04.04.2025	14/2025
19.	Fabrication of zirconium oxide-modified superhydrophobic poly(vinylidene fluoride-co-hexafluoropropylene) and poly(methylhydrosiloxane) membrane for wastewater treatment	Bhaskar Jyoti Deka and Shubham Ketan Sharma HYD	202511027249, Dt. 24.03.2025	04.04.2025	14/2025
20.	A process of sustainable modification of sugarcane bagasse via periodate oxidation and metal oxide-catalyzed hydroxylation	Bhaskar Jyoti Deka , Prajwal Mallikarjun Timashetti and Shubham Ketan Sharma HYD	202511027878, Dt. 25.03.2025	Not published	
21.	A hydroxy-modified biomass for rubidium adsorption	Bhaskar Jyoti Deka , Shubham Ketan Sharma and Prajwal Mallikarjun Timashetti HYD	202511033370, Dt. 04.04.2025	Not published	

Department of Hydro and Renewable Energy

S. No.	Title of the Disclosure	Disclosure Submitted By	Patent Filed on	Published on	Publication No./ Journal No.
1.	Hybrid biofilm-suspended photobioreactor for high density algae cultivation	Sanjeev Kumar Prajapati and Mohit Singh Rana HRED	202011028602, Dt. 06.07.2020	29.10.2021	44/2021
2.	An improved roller for felt making	R.P. Saini and S.K. Singal HRED	202111008121, Dt. 26.02.2021	10.09.2021	37/2021
3.	Variable speed solar powered wool spinning device	R.P. Saini and S.K. Singal HRED	202111008122, Dt. 26.02.2021	10.09.2021	37/2021
4.	A process for algal spent recycling and metabolites production	Sanjeev Kumar and Mohit Singh Rana HRED	202111043885, Dt. 28.09.2021	15.07.2022	28/2022
5.	A hybrid bidirectional conductive-inductive electric vehicle (EV) battery charger apparatus with maximum converter utilization	Deepak Ronanki and Harish Karneddi HRED	202211019295, Dt. 31.03.2022	08.04.2022	14/2022
6.	A four plate capacitive coupler for improving power transfer capability and reducing the field emissions in wireless power transfer systems	Deepak Ronanki and Pramod Patidar HRED	202211021693, Dt. 12.04.2022	22.04.2022	16/2022
7.	A universal bridgeless reconfigurable battery charger with wide output voltage range	Deepak Ronanki and Harish Karneddi HRED	202211021900, Dt. 12.04.2022	22.04.2022	16/2022

8.	An interoperable transmitter coil and reconfigurable power converter for wireless charging of electric vehicles	Deepak Ronanki and Priyanka Tiwari HRED	202211036252, Dt. 24.06.2022	05.01.2024	01/2024
9.	A clamping system and method for cylindrical fuel cells based on polymer electrolyte membrane technology	Amit Chandrakant Bhosale and Sunil Kumar Sethy HRED	202311027133, Dt. 12.04.2023	26.05.2023	21/2023
10.	A smart solid-state relay limiting the inrush current	Thanga Raj Chelliah , Sonal K. Thengane , Vishal undre, Vijay Mohale and Perwez Alam WRDM & HRED	202411005973, Dt. 30.01.2024	16.02.2024	07/2024
11.	A process for co-culturing microalgae and yeast in RO reject water for producing protein-rich biomass	Sanjeev Kumar Prajapati , Mamta Bhandari and Shailesh Kharkwal HRED	202411021100, Dt. 20.03.2024	26.04.2024	17/2024
12.	System and method for continuous oxidative torrefaction of biomass	Sonal K. Thengane and Abdul Rehman HRED	202411027656, Dt. 02.04.2024	03.05.2024	18/2024
13.	A solar-powered decentralized fertilizer production-cum-irrigation units	Pratham Arora , Rhythm Singh , Amit C. Bhosale and Nitish Srivastava HRED	202411052393, Dt. 09.07.2024	28.03.2025	13/2025
14.	A low-cost air cooled cabinet for vegetable vending carts	Sunil Kumar Singal , Manish Mishra and Sonal Keshawrao Thengane HRED, MIED	202411064064, Dt. 24.08.2024	20.09.2024	38/2024
15.	An adaptive controller for an off-grid solar powered electrolyzer and motor-driven loads	Rhythm Singh , Pratham Arora , Amit C Bhosale and Manish Kumar HRED	202511035491, Dt. 11.04.2025	02.05.2025	18/2025

16.	Automated fast frequency response controller for inverter-based motor loads	Himanshu Jain and Zarka Mirza HRED	202511045056, Dt. 09.05.2025	Not published	
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Institute Instrumentation Centre

S. No.	Title of the Disclosure	Disclosure Submitted By	Patent Filed on	Published on	Publication No./ Journal No.
1.	Dual reservoir multifunctional wristband	Vipin Chawla, Neha Sardana, K. Goyal and Ramesh Chandra IIC & IIT Ropar	202011045513, Dt. 19.10.2020	17.12.2021	51/2021
2.	A transparent, hydrophobic, and anti-corrosive gallium nitride coatings and method to fabricate gallium nitride on glass thin films	Ramesh Chandra , Ravikant Adalati, Ananya Bansal and Pramod Kumar IIC	202411027386, Dt. 02.04.2024	10.05.2024	19/2024
3.	Pulsed laser-deposited Ti-based MXene thin films and method thereof	Ramesh Chandra , Pramod Kumar, Ananya Bansal and Vipin Chawla IIC	202511003195, Dt. 14.01.2025	31.01.2025	05/2025
4.	Nitrogen dioxide (NO ₂) gas sensing composite sensor and process for preparation thereof	Vivek K. Malik , Ramesh Chandra , Prachi Gurawal and Somdatta Singh PHY & IIC	202511004541, Dt. 20.01.2025	31.01.2025	05/2025

Department of Management Studies

S. No.	Title of the Disclosure	Disclosure Submitted By	Patent Filed on	Published on	Publication No./ Journal No.
1.	A cam and follower mechanism for reducing the thread count variation in pedal-operated handlooms	Rajat Agrawal , Ashutosh Samadhiya and Tejas Pramod Naik DoMS & DIC	202011057535, Dt. 31.12.2020	10.09.2021	37/2021
2.	A manually operated, horizontally aligned, dual plunger based briquetting machine	Rajat Agrawal , Vinay Sharma , Kapil Joshi, Gajendra Giri, Mohit Barthwal and Gaurav Dixit DoMS	202211076015, Dt. 27.12.2022	13.01.2023	02/2023
3.	A dual action toaster and sandwich grill	Zillur Rahman and Bhukya Akshaya DOMS	202411077089, Dt. 10.10.2024	Not published	
4.	A portable dual action whey protein and paneer household device	Zillur Rahman and Kanav Gupta DOMS	202411098259, Dt. 12.12.2024	Not published	

5.	An improved grain-feeding system for uniform grain flow for gharat-based grinding mills	Vinay Sharma , Navneet Arora , Gajendra Giri, Kritika Sharma, Rakesh G. Nair, Prateek Sharma, Abhishek Shivakumar Pujar, Subham Kumar, Shubham Singh, Ayush Kishore and Shreyansh Jain DOMS, MIED and CED	202411103873, Dt. 27.12.2024	17.01.2025	3/2025
6.	An automatic fan blade cleaning system	Zillur Rahman and Anoop Thekkecheruvil Sasidharan DOMS	202511011976, Dt. 12.02.2025	Not published	

Department of Mechanical and Industrial Engineering

S. No.	Title of the Disclosure	Disclosure Submitted By	Patent Filed on	Published on	Publication No./ Journal No.
1.	A method of joining of bulk metallic materials by microwave hybrid heating	Apurbba Kumar Sharma , Pradeep Kumar and M. Srinath MIED	1994/Del/2009, Dt. 24.09.2009	01.04.2011	13/2011
2.	A method of cladding/coating metallic powder on metallic substrate by microwave irradiation	Apurbba Kumar Sharma and Dheeraj Gupta MIED	527/Del/2010, Dt. 09.03.2010	16.09.2011	37/2011
3.	A natural polymer abrasive media for the abrasive flow machining and a process for preparation thereof.	Apurbba Kumar Sharma , Pradeep Kumar, G. Venkatesh and Rajesha S. MIED	1349/Del/2011, Dt. 09.05.2011	16.11.2012	46/2012
4.	An improved ultrasonic abrasive flow machining and a advice therefor.	Apurbba Kumar Sharma , Pradeep Kumar and Rajesha S MIED	3578/Del/2011, Dt. 09.12.2011	14.06.2013	24/2013
5.	A system and method of micro-drilling with microwaves through metallic concentrator	Apurbba Kumar Sharma MIED with BARC	201621004759, Dt. 10.02.2016	29.04.2016	18/2016
6.	A device of In-situ microwave casting of metals and alloys	Apurbba K. Sharma , Radha R. Mishra, Mohit Choudhary and Saurabh Puri MIED	201611037834, Dt. 05.11.2016	11.05.2018	19/2018
7.	A flexible device for multiple ultrasonic machining operations	Akshay Diwedi , Apurbba Kumar Sharma and Manjot Singh Cheema MIED	201611041640, Dt. 06.12.2016	08.06.2018	23/2018

8.	An electrode for removal of debris during electric discharge machining	Inderdeep Singh and Ravinder Kumar MIED	201711005674, Dt. 17.02.2017	24.08.2018	34/2018
9.	High speed slurry pot tester apparatus	B.K. Gandhi MIED	201711029367, Dt. 18.08.2017	22.02.2019	08/2019
10.	Activating flux coating for symmetric weld bead profile	D.K. Dwivedi and Ravi Shanker Vidyarthi MIED	201811011433, Dt. 27.03.2018	04.10.2019	40/2019
11.	A novel Test-stand and method to measure the burning rate of flammable liquids	K.B. Mishra and Ankit Sharma MIED	201811016328, Dt. 01.05.2018	08.11.2019	45/2019
12.	Mechanical safety device for thread failure in power screw based heavy lifts	Apurbba K. Sharma , Nitesh Arora and Prabh Pal Singh Seerha MIED	201811028210, Dt. 26.07.2018	31.01.2020	05/2020
13.	A modified ceramic shell/body and its method thereof for investment casting process.	D. Benny Karunakar and Sanjay Kumar MIED	201811029896, Dt. 09.08.2018	14.02.2020	07/2020
14.	Stationary shoulder friction stir welding tool with extruded material breaker	Dheerendra Kumar Dwivedi and Sunil Kumar Sinhmar MIED	201811032273, Dt. 29.08.2018	06.03.2020	10/2020
15.	Adaptive shape control mechanism for planar membrane structure	S.H Upadhyay , Satish Kumar and Kripa S. Singh MIED (With ISRO)	201811037750, Dt. 05.10.2018	10.04.2020	24/2020

16.	Internal combustion engines with double acting piston arrangements	Arup Kumar Das , Rakesh Prakash Gakkhar and Prabh Pal Singh Seerha MIED	201811045503, Dt. 03.12.2018	12.06.2020	24/2020
17.	A device for pressurized multiphase flow during electrochemical discharge machining process	Akshay Dvivedi and Rajendra Kumar MIED	201911017291, Dt. 01.05.2019	06.11.2020	45/2020
18.	CMOS Compatible Micro-machined Piezoelectric Energy Harvester	Sanjeev Manhas , Sandeep Singh Chauhan and M.M. Joglekar MIED, ECE	201911020224, Dt. 22.05.2019	27.11.20.20	48/2020
19.	An adaptive feedback controlled electric hydro dissection device	Akshay Dvivedi and Rajendra Kumar Arya MIED	201911044036, Dt. 31.10.2019	07.05.2021	19/2021
20.	Modification of chemical composition and properties of A-TIG weld joints of dissimilar steels	D. K. Dwivedi , Anup Kulkarni, Pratishtha and Anagdha MIED	201911046518, Dt. 15.11.2019	21.05.2021	21/2021
21.	A system and method for the detection of physical exhaustion level of human beings	Arup Kumar Das , Vikas Kannojiya and Gunipe Prasanth Kumar MIED	201911047764, Dt. 22.11.2019	28.05.2021	22/2021
22.	A hydrogel based abrasive media for abrasive flow machining and process of preparation thereof	Varun Sharma , Pradeep Kumar and Nitin Dixit MIED	202011001189, Dt. 10.01.2020	16.07.2021	29/2021
23.	A device for rotatory disc grinding with adaptive feeding for electrochemical discharge machining process and a method thereof	Akshay Dvivedi , Rajendra Kumar Arya and Tarlochan Singh MIED	202011004766, Dt. 04.02.2020	06.08.2021	32/2021

24.	A dielectric elastomer based electrically tunable reflector with variable focal length	Manish M. Joglekar , Katik Kashyap, Nitesh Arora, Chinmay Jivani, Parmod Kumar and Atul Kumar Sharma MIED	202011005805, Dt. 11.02.2020	13.08.2021	33/2021
25.	A four valve for directional control and mixing of fluids	A.K. Sharma , M. Shah Faizan, Radha Raman Mishra and T.R. Chelliah MIED, WRDM, DIC	202011009048, Dt. 03.03.2020	10.09.2021	37/2021
26.	Method and apparatus for testing fire behaviour of façade materials	K. B. Mishra and Ankit Sharma MIED	202011010546, Dt. 12.03.2020	17.09.2021	38/2021
27.	A low cost portable mechanical ventilator with feedback control and respiratory monitoring with remote interface.	Akshay Dvivedi , Arup Kumar Das , Maran R. Lokesh Rohilla, Darshan M. B., Avik Saha, Vikas Kannojiya, Tanmay Tiwari, Anuj Vats, Sandeep Kumar, Subramanian G., Navin Chandra Rai, Gajanand Saini, Yashpal Singh, Shahwez, Debendra Kumar Tripathi and Abhishek Sehgal MIED, EE, ECE, Tinkering Lab and AIIMS(Rishikesh)	202011015014, Dt. 04.04.2020	16.09.2022	37/2022
28.	A tensioning and connecting device for the space-borne membrane reflector antenna.	S. H. Upadhyay and Shinde Swapnil Dipak MIED	202011017218, Dt. 22.04.2020	29.10.2021	44/2021
29.	An enhanced tube with plurality of micro-indentations on the inside surface for effective heat transfer.	Arup Kumar Das , Ravi Kumar and M B Darshan MIED	202011017219, Dt. 22.04.2020	29.10.2021	44/2021

31.	A low cost portable mechanical ventilator with feedback control and respiratory monitoring with remote interface.	Akshay Dvivedi , Arup Kumar Das , Maran R. Lokesh Rohilla, Darshan M. B, Avik Saha, Vikas Kannojiya, Tanmay Tiwari, Anuj Vats, SandeepKumar, Subramanian G., Navin Chandra Rai, Gajanand Saini, Yashpal Singh, Shahwez, Debendra Kumar Tripathi and Abhishek Sehgal MIED, EE, ECE, Tinkering Lab and AIIMS (Rishikesh)	202011019016, Dt. 04.05.2020	12.11.2021	46/2021
32.	A modular accessory for the mobility enhancement of manual wheel chairs by motorizing the manual wheelchair.	Akshay Dvivedi , Vaibhav Agarwal and Aditya Peshin MIED	202011019656, Dt. 09.05.2020	12.11.2021	46/2021
33.	An energy efficient variant of hot wire gas tungsten arc welding process	Navneet Arora , Degala Venkata Kiran, Tinku Kumar and Rajdev Singh MIED	202011037154, Dt. 28.08.2020	05.11.2021	45/2021
34.	Non-contact patient registration and monitoring system in multiple languages	P. M. Pathak and Ian Wilfred Noronha MIED	202011042436, Dt. 30.09.2020	05.11.2021	45/2021
35.	Deployable canister mechanism for an inflatable space-borne planar membrane reflector antenna	S.H. Upadhyay , Swapnil Shinde, Sammer Sakhare and Kripa Shanker Singh MIED with ISRO	202011055864, Dt. 22.12.2020	12.03.2021	11/2021
36.	Soft actuator for robotics manipulation and locomotion	P. M. Pathak , Yunus Pirjade, Ian Wilfred Noronha, J M Yang and Garima MIED	202011055865, Dt. 22.12.2020	05.03.2021	10/2021
37.	Untethered Soft Snake Robot	P. M. Pathak , Yunus Pirjade, J M Yang and Garima	202011055868, Dt. 22.12.2020	05.03.2021	10/2021

		MIED			
38.	A solar assisted compact liquid desiccant comfort system	Sudhakar Subudhi , Geleta Fekadu Daba, Sajesh. M and Kalpana MIED	202011056779, Dt. 28.12.2020	12.03.2021	11/2021
39.	Copper oxide based cellulose modified chitosan bionanocomposite film and its method of synthesis thereof	Kaushik Pal and Nidhi Pal MIED	202111002071, Dt. 16.01.2021	12.03.2021	11/2021
40.	Copper doped tin oxide film and its method of preparation for fabrication of perovskite solar cell	Kaushik Pal and Jitendra Bahadur MIED & CON	202111034269, Dt. 29.07.2021	10.09.2021	37/2021
41.	A dual-chamber gas analysing system and method for selective gas sensing	Kaushik Pal , Keerti Rathi and A. Naveen Kumar MIED and CON	202111038777, Dt. 26.08.2021	05.11.2021	45/2021
42.	An ultrasonic assisted magnetic abrasive flow machining process and a device therefore	Varun Sharma , Pradeep Kumar and Nitin Dixit MIED	202111054926, Dt. 27.11.2021	31.12.2021	53/2021
43.	A tragacanth gum hydrogel-based polishing media for abrasive flow machining and its method of preparation	Varun Sharma , Pradeep Kumar and Nitin Dixit MIED	202211012670, Dt. 09.03.2022	18.03.2022	11/2022
44.	A system and method to localize a sound source and predict its 3 dimensional (3D) spatial coordinates	Sneha Singh and Shikha MIED	202211020183, Dt. 04.04.2022	15.04.2022	15/2022
45.	Pulse-assisted hybrid cryo lubrication system	Varun Sharma , Dungavath Narayana Swamy Naik and Ramandeep Singh	202211044497, Dt. 03.08.2022	19.08.2022	33/2022

		MIED			
46.	A planar to spatial tendon-driven under-actuated continuum arm mobile robot	Pushparaj Mani Pathak and Vipin Pachouri MIED	202211050172, Dt. 02.09.2022	21.10.2022	42/2022
47.	Cutting tool insert and method of fabrication cutting tool insert	Varun Sharma and Rohit Singh MIED and DRDO	202211050331, Dt. 02.09.2022	08.03.2024	10/2024
48.	A modular end-cooler of resistively heated tube	Andallib Tariq and Ankit Rajkumar Singh MIED	202211064575, Dt. 11.11.2022	25.11.2022	47/2022
49.	A continuous production of metal matrix composite sheets using twin roll continuous casting method	Pradeep Kumar Jha and Dheeraj Kumar Saini MIED	202211065567, Dt. 16.11.2022	02.12.2022	48/2022
50.	An energy efficient ground coupled retrofitted split ac for heating and cooling applications	Krishnan Murugesan and Satish Kumar MIED	202211065568, Dt. 16.11.2022	02.12.2022	48/2022
51.	Test method and apparatus for classification of alcohol-based formulations	Kirti Bhushan Mishra and Saumitra Mishra MIED	202311007094, Dt. 03.02.2023	10.02.2023	06/2023
52.	Method and apparatus for testing fuel blends in industrial burners	Kirti Bhushan Mishra and Saumitra Mishra MIED	202311019464, Dt. 21.03.2023	19.05.2023	20/2023
53.	Apparatus for fluid heat exchange	Manish Mishra and Suhas D. Jagtap	202311023710, Dt. 30.03.2023	23.02.2024	08/2024

		MIED			
54.	Frugal engineering-based machining device for compound machining	Akshay Dvivedi and Sahil Sharma MIED	202311026240, Dt. 07.04.2023	19.05.2023	20/2023
55.	Simultaneous electrochemical and electro discharge machining (SECDM) process	Akshay Dvivedi and Sahil Sharma MIED	202311026241, Dt. 07.04.2023	19.05.2023	20/2023
56.	Symmetrical labyrinthine acoustic metamaterial with unequal slit entries for improved low-frequency sound absorption	Sneha Singh and Golakoti Pavan MIED	202311030173, Dt. 26.04.2023	26.05.2023	21/2023
57.	Liquid tool based electrochemical machining texturing device and its process	Akshay Dvivedi and Maran R MIED	202311032529, Dt. 08.05.2023	09.06.2023	23/2023
58.	A nanoformulation and method of preparation thereof	Kaushik Pal and Swati Singh MIED and CON	202311038569, Dt. 05.06.2023	07.07.2023	27/2023
59.	A water-soluble acrylic-styrene co-resin formulation and its method of synthesis	Dharm Dutt , Anurag Kulshreshtha, Akshay Dvivedi , Millie Pant and Brahma Prakash DPT, MIED and AMSC	202311038948, Dt. 07.06.2023	21.07.2023	29/2023
60.	An apparatus and method for directional solidification in casting of metallic materials using microwave energy	Apurbba Kumar Sharma and Parvej MIED	202311041299, Dt. 16.06.2023	21.07.2023	29/2023
61.	A free form tool fabrication using flexible 3d printed mold and low melting fusible alloy for electrochemical machining process	Akshay Dvivedi and Maran R MIED	202311045661, Dt. 07.07.2023	04.08.2023	31/2023
62.	A spray coated graphene based material used for transparent electro-static dissipative coating and its method of preparation	Indranil Lahiri and Rita Joshi MIED, CON (With Visvesvaraya Technological University and ISRO)	202311071221, Dt. 19.10.2023	25.10.2024	43/2024

63.	A wireless edge computing-based adaptive traffic control system with real-time vehicle tracking and cloud integration	Amit Agarwal , Dhish Kumar Saxena , Karthik Krishnan and Dinesh Kumar R CED & MIED	202311079549, Dt. 23.11.2023	Not published	
64.	A system and method for a reaction hydraulic turbine operating at any load condition	Bhupendra Kumar Gandhi and Sandeep Kumar MIED	202411008044, Dt. 06.02.2024	01.03.2024	09/2024
65.	A four-point bend fatigue testing fixture with a large span of up to two meters	Vidit Gaur , Litton Bhandari and Abhinav Pandey MIED	202411018694, Dt. 14.03.2024	12.04.2024	15/2024
66.	A system and method for mitigation of rotating vortex rope in hydro turbines	Bhupendra Kumar Gandhi , Sandeep Kumar and Subodh Khullar MIED	202411048080, Dt. 22.06.2024	05.07.2024	27/2024
67.	S-shaped cross-section tape spring with enhanced deployment characteristics	S.H. Upadhyay and Priyankkumar Patel MIED	202411048081, Dt. 22.06.2024	05.07.2024	27/2024
68.	Ternary blends for improved performance and emissions characteristics in Spark Ignition (SI) engines	Kirti Bhushan Mishra and Rajeeb Kumar Upadhyay MIED	202411057302, Dt. 29.07.2024	16.08.2024	33/2024
69.	A method of modelling a human-body model of a 95 th percentile indian male	Shailesh Govind Ganpule and Vaibhav Kulkarni MIED	202411059097, Dt. 05.08.2024	18.10.2024	42/2024
70.	SH wave source with mechanical hitter	Anand Joshi , Saurabh Sharma, Mohit Pandey, Jyoti Singh and Sanjay H. Upadhyay ESD & MIED	202411062304, Dt. 16.08.2024	18.10.2024	42/2024
71.	A system and method of nano-carbon coating CI engine cylinder inner surface for improving wear resistance	Brainerd Samuel Sundar Daniel , Himanshu Panjiar and Rakesh Parkash Gakkhar MMED & MIED	202411062305, Dt. 16.08.2024	30.08.2024	35/2024

72.	An artificial intelligence (AI) based system and method to automate engineering design	Vidit Gaur and Abhinav Pandey MIED	202411062306, Dt. 16.08.2024	30.08.2024	35/2024
73.	A low-cost air cooled cabinet for vegetable vending carts	Sunil Kumar Singal , Manish Mishra and Sonal Keshawrao Thengane HRED, MIED	202411064064, Dt. 24.08.2024	Not published	
74	A method of reinforcing friction stir welded joints	Vidit Gaur and Sumit Choudhary MIED	202411080234, Dt. 22.10.2024	22.11.2024	47/2024
75	A method of chemical-free fiber extraction from water hyacinth	Inderdeep Singh , Bibhuti Ranjan Bhattacharjya and Pinki Kumari MIED & DoD	202411097941, Dt. 11.12.2024	10.01.2025	02/2025
76	An improved grain-feeding system for uniform grain flow for gharat-based grinding mills	Vinay Sharma , Navneet Arora , Gajendra Giri, Kritika Sharma, Rakesh G. Nair, Prateek Sharma, Abhishek Shivakumar Pujar, Subham Kumar, Shubham Singh, Ayush Kishore and Shreyansh Jain DOMS, MIED and CED	202411103873, Dt. 27.12.2024	17.01.2025	3/2025
77	A microcontroller governed led driver for automobile	Akshay Dvivedi and Sahil Sharma MIED	202511032363, Dt. 01.04.2025	Not published	
78	Concise and mesoscale-precision instrument for 3D cartesian coordinate measurement	Shamik Basak , Vinith S. S. and Sarthak Verma MIED	202511049960, Dt. 23.05.2025	Not published	

Department of Metallurgy and Material Engineering

S. No.	Title of the Disclosure	Disclosure Submitted By	Patent Filed on	Published on	Publication No./ Journal No.
1.	Iron based/copper based cermet friction materials/composites/brake elements with built-in backing plates	P.S. Mishra , Kamlesh Chandra and Lenin Singaravelu MMED	2421/Del/2006, Dt. 07.11.2006	05.09.2008	36/2008
2.	A process for manufacturing cermet friction materials/composites/brake elements with built in backing plates	P.S. Mishra and Kamlesh Chandra MMED	2420/Del/2006, Dt. 07.11.2006	16.05.2008	20/2008
3.	An improved process for preparation of magnesium based composite and an improved magnesium based in-situ composite	S. Ray , B.S.S. Daniel and D. Sivalingappa MMED	1384/Del/2007, Dt. 28.06.2007	16.01.2009	03/2009
4.	A process for controlling metal foam structure to obtain high strength	S. Ray and B.S.S. Daniel MMED	2166/Del/2008, Dt. 16.09.2008	02.04.2010	14/2010
5.	A process for dispersion of broken agglomerates of nanoparticles in viscous fluid	P. K. Ghosh , S. Ray and Sudipta Halder MMED	1554/Del/2008, Dt. 27.06.2008	31.08.2016	36/2016

6.	Aluminum powder based stator brake pads/disc for light, medium and heavy duty automobiles and the materials thereof	P.S. Mishra , Kamlesh Chandra and A. K. Chaturvedi MMED	152/Del/2010, Dt. 27.01.2010	29.07.2011	30/2011
7.	Manufacturing process for metallo-ceramic brake pads/disc for stators/rotors using powder perform forging	P.S. Mishra and Kamlesh Chandra MMED	151/Del/2010, Dt. 27.01.2010	29.07.2011	30/2011
8.	Gas nitrided titanium-aluminum and aluminum-chromium based coatings on ASTM-SA210 grade A-1 steel	Satya Prakash , D. Puri , Buta Singh Sandhu, Vikas Chawla and R.K. Tandon MMED	1235/Del/2010, Dt. 28.05.2010	02.03.2012	09/2012
9.	Gas nitrided aluminum-chromium coating on ASTM-SA213-T-22 boiler steel	Satya Prakash , D. Puri , Vikas Chawla and Buta Singh Sandhu MMED	1236/Del/2010, Dt. 28.05.2010	02.03.2012	09/2012
10.	A process for coating materials with Titanium-Aluminium based gas nitrided coatings	Satya Prakash , D. Puri , Vikas Chawla and Buta Singh Sandhu MMED	1237/Del/2010, Dt. 28.05.2010	02.03.2012	09/2012
11.	A process for coating materials with Aluminum-Chromium based gas nitrided coatings	Satya Prakash , D. Puri , Vikas Chawla and Buta Singh Sandhu MMED	1238/Del/2010, Dt. 28.05.2010	02.03.2012	09/2012

12.	A method of preparing a high energy density silicon graphite anode material and a high energy density silicon-graphite material	S. Ray , Anjan Sil and Kuldeep Rana MMED	392/Del/2010, Dt. 22.02.2010	26.08.2011	34/2011
13.	High Temperature oxidation resistant glassy coating	P.S Mishra and Kamlesh Chandra MMED	153/Del/2010, Dt. 27.01.2010	29.07.2011	30/2011
14.	Single seam multilayer narrow gap pulse current gas metal arc welding	P.K Ghosh and Banshi Prasad Agarwal MMED	1023/Del/2010, Dt. 29.04.2010	26.10.2012	43/2012
15.	Processing of alumina nano-particle reinforced cast metal matrix composite	S. Ray , S. Ghanaraja and Sumeer K. Nath MMED	1172/Del/2010, Dt. 19.05.2010	02.11.2012	44/2012
16.	A process for power forging of metals/alloys to obtain full density products	Ujjwal Prakash and V.V. Dabhade MMED	3270/del/2015, Dt. 12.10.2015	14.04.2017	15/2017
17.	Gas metal arc welding torch head for ultra-narrow gap welding of thick section	P. K. Ghosh and Ramkishor MMED	201611033570, Dt. 30.9.2016	06.04.2018	14/2018
18.	Morphological change from silicon carbide to silicon nitride	B.V. Manoj Kumar and V.M. Rajavel Muthaiah MMED	201711034924, Dt. 03.10.2017	05.04.2019	14/2019

19.	Orthopedic metallic implant for sustained drug release	Debrupa Lahiri , Partha Roy and Manoj Kumar Rangaswamy MMED, BT	201711024735, Dt. 13.07.2017	18.01.2019	03/2019
20.	Dissimilar metallic coating on steel by activated diffusion	B. V. Manoj Kumar , P.K. Ghosh and Sandan Kumar Sharma MMED	201711033207, Dt. 19.09.2017	22.03.2019	12/2019
21.	Nut shaped Li_3VO_4 having hierarchical mesoporous structure and its method of synthesis	Tapas Kumar Mandal , Anjan Sil , Paritosh Mohanty and Nishant Gautam CY, MMED	201711038135, Dt. 27.10.2017	03.05.2019	18/2019
22.	A biodegradable scaffold and its method of preparation	Debrupa Lahiri , Swati Haldar and Partha Roy MMED, BT, CON	201911007235, Dt. 25.02.2019	28.08.2020	35/2020
23.	Bioengineered regenerative scaffold for second and third burn wound healing	Debrupa Lahiri , Partha Roy , Swati Haldar, Isha Goel Souvik Ghosh and Viney Kumar MMED, BT, CON	201911026834, Dt. 04.07.2019	08.01.2021	02/2021
24.	Biosensor for detecting cancer using exhaled breath	Indranil Lahiri , Debrupa Lahiri , Partha Roy , Siddharth Sharma and Swati Haldar MMED, BT, CON	201911030871, Dt. 31.07.2019	05.02.2021	06/2021
25.	Development of porous alumina film on conducting glass substrate to enhance the voltage of silicon based thermophotovoltaic devices	Soumya Shankar Ghosh and Anjan Sil MMED	201911038839, Dt. 26.09.2019	02.04.2021	14/2021

26.	A novel electrode composite for high power and high energy application in rechargeable lithium-ion battery	Anjan Sil and Hari Raj MMED	201911044037, Dt. 31.10.2019	07.05.2021	19/2021
27.	A three terminal lithium ion battery-supercapacitor hybrid system consisting of bimaterial electrode.	Anjan Sil , Sobhit Saxena and Hari Raj MMED	202011017484, Dt. 23.04.2020	29.10.2021	44/2021
28.	A high performance composite electrode for Li-ion Battery	Anjan Sil and Hari Raj MMED	202011035788, Dt. 19.08.2020	05.03.2021	10/2021
29.	In-situ charging system for implantable pacemaker	Indranil Lahiri , Siddharth Sharma, Debrupa Lahiri and Partha Roy MMED, BT, CON	202011038412, Dt. 05.09.2020	05.11.2021	45/2021
30.	Sugar-based graphene foam and graphene synthesis process and applications thereof	Indranil Lahiri and Narasimha Vinod Pulagara MMED	202111024510, Dt. 02.06.2021	10.06.2022	23/2022
31.	A piezoelectric flexible polymer nanocomposite based energy harvester for charging battery or capacitor from limb movement	Indranil Lahiri , Satish Jaiswal, Divyam Sharma and Debrupa Lahiri MMED	202111031829, Dt. 15.07.2021	22.07.2022	29/2022
32.	A process of extraction of aluminium, titanium, scandium and iron values from the bauxite residue (red mud) using alkali baking	Nikhil Dhawan and Shrey Agrawal	202211034681, Dt. 17.06.2022	15.07.2022	28/2022

		MMED			
33.	A method for recovery of rare earth oxides from fluorescent lamp phosphor using microwave acid baking	Nikhil Dhawan , Neha Shukla and Shrey Agrawal MMED	202211037582, Dt. 30.06.2022	15.07.2022	28/2022
34.	A cold rolled bainitic steel with high strength and high elongation	Saurav Das , Sonu Yadav, Rajib Chowdhury and S. B. Singh MMED, CED and IIT Kharakpur	202211044546, Dt. 04.08.2022	02.06.2023	22/2023
35.	An organic photovoltaic cell for solar tile application	Anjan Sil and Soumya Shankar Ghosh MMED	202211049893, Dt. 01.09.2022	29.09.2023	39/2023
36.	A single step synthesis of hard carbon from agro-waste for sodium-ion battery	Anjan Sil and Bharat Verma MMED	202211051784, Dt. 10.09.2022	23.09.2022	38/2022
37.	Hydroxyapatite-nano crystal reinforced indigenous biopolymer-based composites for	Saugata Hazra , Preeti Tomer, Gireesh Kumar Shrotri, Satish	202211052660, Dt. 15.09.2022	30.09.2022	39/2022

	orthopedic implants and its method of preparation	Jaiswal and Debrupa Lahiri BSBE and MMED			
38.	A surface modified biodegradable and biocompatible Mg-Zn alloy for intramedullary pins and other temporary fracture fixing accessories	Debrupa Lahiri and Satish Jaiswal MMED	202211052661, Dt. 15.09.2022	13.10.2023	41/2023
39.	A biodegradable and biocompatible polymer-based functionalized bilayer scaffold for peripheral nerve and guided motor neuron regeneration	Debrupa Lahiri , Arabinda Majhi, Souvik Ghosh and Partha Roy MMED and BSBE	202211063139, Dt 04.11.2022	24.11.2023	47/2023
40.	A method for controlling the porosity and distribution in a sandwiched aluminum plate processed using friction stir processing	Brainerd Samuel Sundar Daniel , Deeksha Lohani and Dhanish Sidhik MMED	202211067703, Dt. 24.11.2022	09.12.2022	48/2022
41.	A multilayered regenerative scaffold for ultra-deep wound healing and method of preparation thereof	Debrupa Lahiri , Souvik Ghosh and Partha Roy MMED & BSBE (With DRDO)	202311020038, Dt. 22.03.2023	27.09.2024	39/2024

42.	A method for preparing dense boron carbide (B ₄ C) -silicon carbide (SiC) composite material at low temperature of sintering	B. V. Manoj Kumar and Sonali Vilas Jamale MMED	202311023113, Dt. 29.03.2023	19.05.2023	20/2023
43.	A hot-rolled continuously cooled bainitic steel composition and its method of preparation	Sourav Das and Sonu Yadav MMED (With IIT Kharagpur and Suresh Gyan Vihar University)	202311031490, Dt. 03.05.2023	06.10.2023	40/2023
44.	Biocompatible, bioresorbable and drug eluting porous magnesium scaffolds for repairing bone defects and method for its fabrication	Debrupa Lahiri , Partha Roy , Satish Jaiswal and Anshu Dubey MMED & BSBE	202311044943, Dt. 04.07.2023	04.08.2023	31/2023
45.	A bi-layered electrospun nanofibrous scaffold and its method of preparation	Debrupa Lahiri , Megha Dhiman, Souvik Ghosh and Partha Roy MMED	202311050829, Dt. 27.07.2023	31.05.2024	22/2024
46.	A method of recovery of palladium and silver from the waste multilayer ceramic capacitors	Nikhil Dhawan and Shaila Mir MMED	202311052935, Dt. 07.08.2023	Not published	
47.	Lightweight, multilayered all-polymer composite bullet-resistant armour	Debrupa Lahiri , Krishnakant Phand and Indranil lahiri	202311060562, Dt. 08.09.2023	Not published	

		MMED			
48.	A low-density steel with excellent strength-elongation combination and its method of preparation thereof	Sadhan Ghosh , Sourav Das , Pankaj Rawat and Sumit Bhan MMED	202311065276, Dt. 28.09.2023	15.12.2023	50/2023
49.	A polymeric drug-releasing system comprising a hydrogel and a method of developing the same thereof	Debrupa Lahiri , Chandra Khatua and Partha Roy MMED, CON & BSBE	202311088160, Dt. 22.12.2023	23.02.2024	08/2024
50.	Cutting tool geometry to enhance the machining performance of green compacts	Vikram Dabhade and Harshal Kulkarni MMED	202411000571, Dt. 03.01.2024	02.02.2024	05/2024
51.	A portable system and method for in-situ tensile testing in high pressure gas environment including hydrogen	Sourav Das , Sumeet Mishra , Rajib Chowdhury and Shardendu Shukla MMED & CED	202411008299, Dt. 07.02.2024	Not published	

52.	A biodegradable polymeric composite with enzymatic degradation for ureteral stent and its methods of preparation	Debrupa Lahiri , Gunjan Kaushik, Anil Mandhani and Partha Roy MMED & BSBE	202411011898, Dt. 20.02.2024	15.03.2024	11/2024
53.	A method for the recovery of mixed rare earth oxides from waste neodymium-iron-boron magnets	Nikhil Dhawan and Rohit Gahlot MMED	202411030942, Dt. 17.04.2024	31.05.2024	22/2024
54.	A system and method of nano-carbon coating CI engine cylinder inner surface for improving wear resistance	Brainerd Samuel Sundar Daniel , Himanshu Panjiar and Rakesh Parkash Gakkhar MMED & MIED	202411062305, Dt. 16.08.2024	30.08.2024	35/2024
55.	Inflatable parabolic reflector	S. H. Upadhyay and Vikas Rastogi MIED	202511035492, Dt. 11.04.2025	Not published	
56.	System and method for evaluating stress corrosion cracking in material specimens under controlled environmental conditions	Dheerendra Kumar Dwivedi and Saurabh Kumar Nishad MIED	202511036458, Dt. 15.04.2025	02.05.2025	18/2025

57.	Recycling of discarded ternary Lithium-ion batteries (NMC532/NMC442) via biomass-assisted pyrolysis	Nikhil Dhawan and Ganesh Shanker Bhandari MMED	202511039179, Dt. 23.04.2025	Not published	
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Department of Paper Technology

S. No.	Title of the Disclosure	Disclosure Submitted By	Patent Filed on	Published on	Publication No./ Journal No.
1	Novel 2,4, m-Nitroaniline doped PES and an optically active guest-host polymer	Y.S. Negi , Chandra Vishwa Shanthi and R.C. Aiyer DPT	1083/Del/2008, Dt. 28.04.2008	06.05.2016	19/2016
2	A novel m-Nitroaniline doped PES and optically active guest host polymer	Y.S. Negi , Chandra Vishwa Shanthi and R.C. Aiyer DPT	1084/Del/2008, Dt. 28.04.2008	06.05.2016	19/2016
3	Preparation of nanoparticles from corn cobs	Y. S. Negi , J. S. Upadhayay and Samit Kumar DPT	1937/Del/2010, Dt. 17.08.2010	25.10.2013	43/2013

4.	A water based ink formulation for rotogravure printing ink medium and pigmented ink	Yuvraj Singh Negi , Anurag Kulshreshtha, Brahma Prakash and Millie Pant PPE, DPT and AMSC	202211053533, Dt. 19.09.2022	30.09.2022	39/2022
5.	A water based ink formulation for magenta pigment application for elongated engraved cells on rotogravure printing cylinder	Yuvraj Singh Negi , Anurag Kulshreshtha, Brahma Prakash and Sauraj Singh PPE and DPT	202211059665, Dt. 19.10.2022	25.11.2022	47/2022
6.	Method for preparing an edible ink for printing on edible and non-edible commodities	Kirtiraj K. Gaikwad and Lokman Hakim DPT	202311017518, Dt. 15.03.2023	31.03.2023	13/2023
7.	A water-soluble acrylic-styrene co-resin formulation and its method of synthesis	Dharm Dutt , Anurag Kulshreshtha, Akshay Dvivedi , Millie Pant and Brahma Prakash DPT, MIED and AMSC	202311038948, Dt. 07.06.2023	21.07.2023	29/2023
8.	An Acacia catechu (AC) and calcium carbonate (CC) based oxygen scavenging system (OSS)	Kirtiraj Kundlik Gaikwad and Prachi Jain DPT	202311044941, Dt. 04.07.2023	04.08.2023	31/2023
9.	A sustainable oxygen scavenging formulation and its method of preparation	Pradip Kumar Maji , Kirtiraj Kundlik Gaikwad , Dakuri Ramakanth, Shiva Singh and Konala Akhila PPE & DPT	202311045660, Dt. 07.07.2023	04.08.2023	31/2023
10.	A process for removing/ reducing odor and VOC from recycled polymer	Sampat Singh Bhati and Pragti Saini	202311047669, Dt. 10.07.2023	11.08.2023	3/2023

		DPT			
11.	Mixing of recycled colored open end spinning mill waste with recycled pulp to produce sustainable packaging material	Sampat Singh Bhati , Dharm Dutt , S. Vijaya Kumar and Kamal Kumar DPT	202311049821, Dt. 24.07.2023	11.08.2023	32/2023
12.	A composition and a process for hydrophobic coating on a substrate	Kirtiraj K Gaikwad and Praveen Kumar Kunam DPT	202311050133, Dt. 25.07.2023	25.08.2023	34/2023
13.	Biodegradable oxygen scavenging films and its preparation method thereof	Pradip K. Maji , kirtiraj K. Gaikwad , Dakuri Ramakanthand Akhila Konala PPE & DPT	202411003604, Dt. 18.01.2024	09.02.2024	06/2024
14.	A sustainable crosslinked shellac-based barrier coating on molded pulp products for rigid packaging	Vibhore Kumar Rastogi and Arihant Ahuja DPT	202411031910, Dt. 22.04.2024	31.05.2024	22/2024
15.	Method and system for developing edible cup	Kirtiraj K Gaikwad , Bhushan Meshram and Prachi Jain DPT	202411042149, Dt. 30.05.2024	07.06.2024	23/2024
16.	A mineral and clay-based ethylene scavenger for fruits and vegetable packaging application	Kirtiraj K Gaikwad and Pradeep Kumar DPT	202411101651, Dt. 21.12.2024	10.01.2025	02/2025
17.	A printable and environmentally friendly edible ink based on hibiscus flowers and guar gum and its method of preparation	Kirtiraj K. Gaikwad and Samiksha Bisht DPT	202411101652, Dt. 21.12.2024	10.01.2025	02/2025
18.	A process to enhance a wet strength of papers with bio-based wet strength additive for making papers	Vibhore Kumar Rastogi , Varsha Singh, Satish Kumar Bachala, Arihant Ahuja and Neelisetty Sesha Sai Baba DPT	202511030184, Dt. 28.03.2025	18.04.2025	16/2025
19.	A method of making a multi-layered coated paper with enhanced recyclability	Vibhore Kumar Rastogi , Sudhanshu Ranjan Singh, Manish Kumar shaw,	202511040938, Dt. 28.04.2025	16.05.2025	20/2025

		Arihant Ahuja and Neelisetty Sesha Sai Baba DPT			
20	Barnyard millets based edible straws and its method of preparation	Kirtiraj K. Gaikwad and Tejaswini Dhanaji Patil DPT	202511046631, Dt. 14.05.2025	Not published	

Department of Physics

S. No.	Title of the Disclosure	Disclosure Submitted By	Patent Filed on	Published on	Publication No./ Journal No
1.	Peristaltic pump with automated gear assembly fabrication and its method	Soumitra Satpathi and Ankit kumar PHY	201811031020, Dt. 20.08.2018	21.02.2020	08/2020
2.	A method of synthesizing pure phase sodium manganese silicate ($\text{Na}_2\text{MnSiO}_4$)	Yogesh Sharma and Harishpal Kumar PHY	201911032658, Dt. 13.08.2019	19.02.2021	08/2021

3.	Cell cytotoxicity assay device and method of manufacturing thereof	Soumitra Satapathi , Ankit Kumar, Partha Roy and Neeladrisingha Das BT, PHY, CON	201911036596, Dt. 11.09.2019	12.03.2021	11/2021
4.	An ultrafast resistive type humidity sensor based on nanohybrids	Atul Kumar, Anil Kumar and G.D. Varma CY, PHY, CON	202011007304, Dt. 20.02.2020	11.06.2021	24/2021
5.	A universal portable disinfectant chamber against wide spectrum microorganisms for sterilizing personal belongings	Soumitra Satapathi , Prathul Nath PP, Naveen Kumar Tailor, Tejaswini Sharma, Anshu Kumar, Neeladrisingha Das and Partha Roy BT, PHY, CON	202011026417, Dt. 23.06.2020	29.10.2021	44/2021
6.	A method of developing sodium-ion conductor for next generation solid-state sodium-ion battery	Yogesh Kumar Sharma , Allu Vinodh kumar and Brahma Prakash Dubey PHY	202011030681, Dt. 18.07.2020	Not Published	
7.	Protective ion-conducting flexible electrolyte-cum-separator sheet for solid-state battery having Li/Na metal- anodes and methods for producing the same	Yogesh Kumar , Asit Sahoo and Brahma Prakash Dubey PHY	202011051145, Dt. 24.11.2020	12.03.2021	11/2021
8.	A lithography free inverted pyramid arrays with controlled aspect ratio on monocrystalline/polycrystalline silicon wafers and its method of synthesis	Arup Samanta , Neeraj Joshi, Ravi kumar Verma and Mrinal Dutta PHY with NPL	202111011643, Dt. 18.03.2021	11.03.2022	10/2022
9.	Hybrid halide perovskite materials for photo-active electrodes for photo rechargeable supercapacitors and its method of preparation	Monojit Bag and Ramesh Kumar PHY	202111060124, Dt. 23.12.2021	18.11.2022	46/2022

10.	Compact air-coupled 2D ultrasound computed tomography (UCT) system	Mayank Goswami and Ankur PHY	202211003424, Dt. 20.01.2022	04.02.2022	05/2022
11.	A polymeric hydrogel lens for non-invasive drug delivery	Mayank Goswami , P. Gopinath and Rajkumar Sadasivam PHY, BSBE	202211042907, Dt. 27.07.2022	05.08.2022	31/2022
12.	A method of preparing biocompatible hydrogel for non-invasive drug delivery	Mayank Goswami , P. Gopinath and Rajkumar Sadasivam PHY, BSBE	202211042908, Dt. 27.07.2022	05.08.2022	31/2022
13.	A perovskite single crystal-based hand-held x-ray detector and its method thereof	Soumitra Satapathi , Partha Roy , Naveen Kumar Tailor, Mohammad Adil Afroz, Yukta, and Manisha Chatterjee PHY, BSBE	202211051569, Dt. 09.09.2022	16.09.2022	37/2022
14.	A system and method for the fabrication of hybrid halide perovskite asymmetric supercapacitors based on lithium (Li) ion electrolyte	Monojit Bag and Ankur Yadav PHY	202211057029, Dt. 04.10.2022	14.10.2022	41/2022
15.	Thick deposition of nanostructured materials with intimate solid-solid interface for all solid state batteries and method for producing the same	Yogesh Kumar Sharma , Brahma Prakash Dubey and Bhisma Narayan Mahanty PHY	202311005235, Dt. 26.01.2023	10.02.2023	06/2023
16.	Perovskite based flexible energy storage device	Monojit Bag and Ankur Yadav PHY	202311025776, Dt. 05.04.2023	19.05.2023	20/2023

17.	A controlled nanoscale doping process for nitrogen (N) in silicon	Arup Samanta and Pooja Yadav PHY	202311042239, Dt. 23.06.2023	21.07.2023	29/2023
18.	Flexible substrate with partially embedded back-contacts for robust electronic devices	Davinder Kaur and Habeebur Rahman PHY	202311049374, Dt. 21.07.2023	11.08.2023	32/2023
19.	Self-powered broad-range flexible photodetector	Davinder Kaur and Krishan Kumar PHY	202311045165, Dt. 05.07.2023	04.08.2023	31/2023
20.	A drug-eluting biopolymer-based lens and its method of preparation	Mayank Goswami , Gopinath Packirisamy and Babukuttan Sheela Unnikrishnan PHY & CON	202311045659, Dt. 07.07.2023	04.08.2023	31/2023
21.	A flexible ferromagnetic shape memory alloys (FSMA) based magnetoelectric heterostructure and its method of fabrication	Davinder Kaur and Pradeep Kumar PHY	202311049465, Dt. 21.07.2023	11.08.2023	32/2023
22.	A chromogenic fluorescent ink based rewritable paper and its method of preparation thereof	Soumitra Satapathi , Mohammad Adil Afroz and Pratul Nath P. P. PHY	202311049649, Dt. 24.07.2023	11.08.2023	32/2023
23.	A computed tomography (CT) imaging scanning system and methods using small number of detectors and single source	Mayank Goswami and Kajal Kumari PHY	202311052511, Dt. 04.08.2023	13.10.2023	41/2023
24.	A flexible supercapacitor of molybdenum nickel nitride for high-energy density storage application and preparation method thereof	Davinder Kaur and Bhanu Ranjan PHY	202311061534, Dt. 13.09.2023	13.10.2023	41/2023
25.	Flexible bulk acoustic resonator tunable with magnetic and electric fields	Davinder Kaur and Diksha PHY	202311073343, Dt. 27.10.2023	24.11.2023	47/2023

26.	Design and development of low-temperature processed hexagonal phase of NZSP for solid-state Na-ion batteries	Yogesh K Sharma , Brahma Prakash Dubey And Meetesh Singh PHY	202311067937, Dt. 10.10.2023	22.12.2023	51/2023
27.	A system and method for fabrication of all perovskites integrated photo-rechargeable energy storage device	Monojit Bag , Ankur Yadav and Ankush Saini PHY	202311071220, Dt. 19.10.2023	03.05.2024	18/2024
28.	A system and method for artificial intelligence (AI) driven fully automated compact 3D ultrasound computed tomography (UCT) system	Mayank Goswami and Ankur Kumar PHY	202311078074, Dt. 17.11.2023	29.12.2023	52/2023
29.	Pre-scanning assembly design method for computed tomography (CT) imaging	Mayank Goswami PHY	202311079548, Dt. 23.11.2023	29.12.2023	52/2023
30.	AI-driven intelligent process for multi-spectral non-invasive 3d imaging system	Mayank Goswami PHY	202411011899, Dt. 20.02.2024	08.03.2024	10/2024
31.	Antibacterial, superhydrophobic and highly transparent coated glass	Arup Samanta , Saugata Hazra and Deepika Singh PHY & BSBE	202411015039, Dt. 29.02.2024	08.03.2024	10/2024
32.	A flexible metasurface structure for large incident angles	Sachin Kumar Srivasta and Jhuma Pan PHY	202411038574, Dt. 16.05.2024	Not published	
33.	A graphene assisted surface plasmon resonance based refractive index sensor	Vipul Rastogi and Mohd Uwais Phy	202411043106, Dt. 03.06.2024	14.02.2025	07/2025
34.	A Poly Vinyl Alcohol (PVA)-based hydrogel lens for the management and treatment of VEGF related diseases its method preparation	Mayank Goswami and Sangita Mahapatra PHY	202411045159, Dt. 11.06.2024	21.06.2024	25/2024
35.	A machine learning enabled sers sensing system and method for single-shot, rapid detection and classification of respiratory viruses	Sachin Kumar Srivastava , Partha Roy , Arti Yadav and Rakesh Naik PHY & CSE	202411045160, Dt. 11.06.2024	Not published	

36.	Accidental quasi-bound states in the continuum with extremely high Q factors in visible range: sensing and switching applications	Sachin Kumar Srivastava and Swapnil Khurana PHY	202411046138, Dt. 14.06.2024 .	Not published	
37.	Method for inducing electrical and magnetic properties in a substrate	Vivek Kumar Malik , Parvesh Chander, Alisha and Nagendra Prasad Pathak PHY & ECE	202411051402, Dt. 04.07.2024	19.07.2024	29/2024
38.	Nasicon-type solid-state electrolyte for sodium- based batteries, and a method of preparing the same	Yogesh Sharma and Shubham Rawat PHY	202411052215, Dt. 08.07.2024	26.07.2024	30/2024
39.	Wien Velocity filter for broad ion beams	Puneet Jain , Manjeet and Manish Kumar Vishwakarma PHY	202411057836, Dt. 30.07.2024	18.10.2024	42/2024
40.	A method of electrochemical doping of hybrid halide perovskites and electrolyte gated optoelectronic device using the same	Monojit Bag , Tanuj Kumar, Ramesh Kumar and Mohit Kumar PHY	202411064063, Dt. 24.08.2024	20.09.2024	38/2024
41.	An electrocatalyst for hydrogen gas production and sulfur recovery and its method of preparation synthesis	Tapas Kumar Mandal , Rahul, Ritik Payak and Kunal Shaw CY, EE and PHY	202411066843, Dt. 04.09.2024	Not published	
42.	System and method for AI-based 3d assessment of pulmonary functions using electrical impedance tomography vest	Mayank Goswami and Vaishali Sharma Phy	202411084180, Dt. 04.11.2024	15.11.2024	46/2024
43.	A system and a method for determining bilirubin concentration	Soumitra Satapathi , Prathul Nath PP, Anken Dey, Tathagata Kundu and Partha Roy PHY & BSBE	202411097058, Dt. 09.12.2024	Not published	
44.	A method of synthesis of cathode material composition for sodium-ion batteries	Yogesh Sharma and Manish Kumar Sharma PHY	202511000599, Dt. 03.01.2025	24.01.2025	4/2025
45.	A method for automatically selecting process parameters for an additive manufacturing (AM) process	Mayank Goswami and Sunita Khod PHY	202511001549, Dt. 07.01.2025	31.01.2025	05/2025

46.	Nitrogen dioxide (NO ₂) gas sensing composite sensor and process for preparation thereof	Vivek K. Malik, Ramesh Chandra , Prachi Gurawal and Somdatta Singh PHY & IIC	202511004541, Dt. 20.01.2025	31.01.2025	05/2025
47.	A non-bonded method of manufacturing silicon-on-insulator wafers	Arup Samanta and Monika Dhiman PHY	202511019386, Dt. 04.03.2025	04.04.2025	14/2025

Department of Polymer and Process Engineering

S. No.	Title of the Disclosure	Disclosure Submitted By	Patent Filed on	Published on	Publication No./ Journal No
1.	A sealant composition	Gaurav Manik , Nityanshu Kumar, Shubham Mireja and Alok Kumar Yadav PPE	201721028537, Dt. 10.08.2017	10.08.2018	32/2018
2.	A process of preparing a sealant composition	Gaurav Manik , Nityanshu Kumar, Shubham Mireja and Alok Kumar Yadav PPE	201721028538, Dt. 10.08.2017	10.08.2018	32/2018
3.	An improved ferromanganese slag to oxidize arsenite and removal of arsenic from water	Abhijit Maiti and Nishant Jain PPE	201811043116, Dt. 16.11.2018	14.08.2020	33/2020

4.	Wound healing compositions, process of preparation and application thereof	N. C. Misra , Hemant Singh and Shiv Dutt Purohit PPE	201911037476, Dt. 17.09.2019	21.05.2021	21/2021
5.	An in-situ polymer-based drug loaded hydrogel system and method thereof	N.C. Mishra , Indus Yadav, Shiv Dutt Purohit, Hemant Singh and Sakchi Bhushan PPE	201911049671, Dt. 03.12.2019	03.09.2021	36/2021
6.	A thermal energy storage material using renewable sources and its method of preparation.	Sujay Chattopadhyaya and V. J Reddy PPE	202011016740, Dt. 18.04.2020	19.03.2021	12/2021
7.	Low cost reinforced bipolar membrane fabricated with interface layer	Sujay Chattopadhyaya and Bhuvanesh E PPE	202011020265, Dt. 14.05.2020	19.03.2021	12/2021
8.	Electro-membrane processes to recover caustic from green liquor of Agro-based paper mills	Sujay Chattopadhyaya , Priyabrata Mandal, Bhuvanesh E. and Priya Goel PPE	202011047687, Dt. 02.11.2020	05.03.2021	10/2021
9.	A cellulose nanofiber based composite aerogel for super thermal insulation	Pradip Kumar Maji and Pragya Gupta PPE	202111039047, Dt. 28.08.2021	05.11.2021	45/2021

10.	An electro-electrodialysis (EED) cell for periodic removal of precipitate	Sujay Chattopadhyaya , Priyabrata Mandal, Priya Goel, Bhuvanesh E. and Amit Suhag PPE	202111042858, Dt. 22.09.2021	05.11.2021	45/2021
11.	Surface functionalized hierarchical carbon fiber reinforced composites hybrid polypropylene composites and the method of preparation	Gaurav Manik and Rupam Gogoi PPE	202111050223, Dt. 02.11.2021	26.11.2021	48/2021
12.	A system and method for continuous caustic production and periodic precipitate removal	Sujay Chattopadhyaya , Priyabrata Mandal and Priya Goel PPE	202111054359, Dt. 24.11.2021	02.12.2022	48/2022
13.	A method of synthesis of novel ligands and Fe(II)-metallopolymer as functional materials	Anasuya Bandyopadhyay and Shubham Bawa PPE	202111056940, Dt. 08.12.2021	04.02.2022	05/2022
14.	A pelletized arsenic adsorbent and its method of preparation using the laterite rock and the ferromanganese slag	Abhijit Maiti , Nishant Jain and Anil Kumar PPE	202211001060, Dt. 07.01.2022	21.01.2022	03/2022
15.	A basalt fiber and fly ash reinforced hybrid polypropylene composites and method of preparation	Gaurav Manik and Atul Kumar Maurya PPE	202211035355, Dt. 20.06.2022	15.07.2022	28/2022

16.	A water based ink formulation for rotogravure printing ink medium and pigmented ink	Yuvraj Singh Negi , Anurag Kulshreshtha, Brahma Prakash and Millie Pant PPE, DPT and AMSC	202211053533, Dt. 19.09.2022	30.09.2022	39/2022
17.	A solvent-free method to synthesize bio-based pressure-sensitive adhesives (PSAS) for various applications	Gaurav Manik and Manjinder Singh PPE	202211058465, Dt. 13.10.2022	21.10.2022	42/2022
18.	A water based ink formulation for magenta pigment application for elongated engraved cells on rotogravure printing cylinder	Yuvraj Singh Negi , Anurag Kulshreshtha, Brahma Prakash and Sauraj Singh PPE and DPT	202211059665, Dt. 19.10.2022	25.11.2022	47/2022
19.	A fly ash reinforced waste plastics brick for the construction purpose and its method of preparation	Gaurav Manik , Atul Kumar Maurya and Sachin Kumar PPE	202211074970, Dt. 23.12.2022	08.03.2024	10/2024
20.	Polyamide top-coated forward osmosis membrane, composition and process for preparation thereof	Abhijit Maiti , Satish Kumar Singh and Aaditya Pandey PPE	202311031090, Dt. 01.05.2023	09.06.2023	23/2023
21.	An improved wood coating material	Yuvraj Singh Negi and Tulika Sharma PPE and ICFRE	202311033227, Dt. 11.05.2023	23.06.2023	25/2023

22.	A method of preparation of sustainable and multiple recycled nanogenerator using segregated mixed plastic waste	Yuvraj Singh Negi , Kaushik Parida and Nikhil Ram Patra PPE	202311041298, Dt. 16.06.2023	21.07.2023	29/2023
23.	Cellulose nanocrystals based photonic pigments from bagasse through structural coloration and its preparation thereof	Pradip K. Maji , Chhavi Verma and Chhajed Monika Surendra PPE	202311044842, Dt. 04.07.2023	28.07.2023	30/2023
24.	A one-step process to selectively isolate milk fat globules directly from milk using asymmetric polysulfone membrane via microfiltration	Srinivas Kiran Ambatipudi , Sujay Chattopadhyaya and Ayushi Kapoor BSBE & PPE	202311044942, Dt. 04.07.2023	27.10.2023	43/2023
25.	A sustainable oxygen scavenging formulation and its method of preparation	Pradip Kumar Maji , Kirtiraj Kundlik Gaikwad , Dakuri Ramakanth, Shiva Singh and Konala Akhila PPE & DPT	202311045660, Dt. 07.07.2023	04.08.2023	31/2023
26.	A superhydrophobic substrate and a process for preparation thereof for separation of aqueous and non-aqueous mixtures	Pradip K. Maji , Chhajed Monika Surendra and Chhavi Verma PPE	202311046379, Dt. 10.07.2023	04.08.2023	31/2023
27.	Wood sponge-based sustainable and degradable piezoelectric nanogenerator	Kaushik Parida , Vishu Verma, Arpita Sahoo and Chhavi Sharma PPE	202311047444, Dt. 14.07.2023	13.10.2023	41/2023
28.	Composition for anticounterfeit ink liquid comprising crystalline cellulose nanocrystal and method of preparation thereof	Pradip K. Maji , Shiva Singh and Shakshi Bhardwaj PPE	202311049376, Dt. 21.07.2023	11.08.2023	32/2023

29.	A flexible, durable, and fire-resistant cellulose nanofiber aerogel composites for thermal insulation applications	Pradip K. Maji , Shakshi Bhardwaj, Shiva Singh, Monika Chhajed and Keshav Dev PPE	202311082965, Dt. 05.12.2023	12.01.2024	02/2024
30.	Biodegradable oxygen scavenging films and its preparation method thereof	Pradip K. Maji , kirtiraj K. Gaikwad , Dakuri Ramakanth and Akhila Konala PPE & DPT	202411003604, Dt. 18.01.2024	Not published	
31.	A composite and method of preparation treated laterite loaded biochar composite to produce arsenic free food and removal of NO ₂ from air	Abhijit Maiti , Prashant Singh and Abhishek Verma PPE	202411030117, Dt. 15.04.2024	31.05.2024	22/2024
32.	A method for detecting antimicrobial resistant bacteria from environmental samples	Saugata Hazra , Kunal Dhankhar, Niteesh Kumar,, Subhecchha Bhaidya and Rajsekhar Adhikary BSBE & PPE	202411040598, Dt. 22.05.2024	07.06.2024	23/2024
33.	A protective coating for surfaces of wood and wood-based materials and its method of preparation	Gaurav Manik and Tulika Sharma PPE	202411043743, Dt. 06.06.2024	21.06.2024	25/2024
34.	A super hydrophilic/ super oleophobic cotton fabric for oil-water separation and its method of preparation thereof	Pradip K. Maji , Vinay Kumar Gupta, Dakuri Ramakanth and Shakshi Bhardwaj PPE	202411047641, Dt. 20.06.2024	05.07.2024	27/2024
35.	An agricultural waste-based biodegradable composition as an anticounterfeiting sensor or as a food freshness indicator	Pradip K. Maji , Shiva Singh, Keshav Dev, Shakshi Bhardwaj and Dakuri Ramkanth PPE	202411056370, Dt. 24.07.2024	16.08.2024	33/2024
36.	Corrosion resistance polymeric coating	Anasuya Bandyopadhyay PPE	202411057963, Dt. 31.07.2024	16.08.2024	33/2024

37.	A cellulose-based biodegradable hybrid adsorbent for selective phosphate and nitrate recovery from aqueous solutions	Sudipta Sarkar , Pradip K. Maji and Priya E CED & PPE	202411066297, Dt. 02.09.2024	Not published	
38.	A cellulose aerogel based composite and a process for its preparation	Pradip K. Maji , Shakshi Bhardwaj, Shiva Singh and Nitesh Choudhary PPE	202411077028, Dt. 10.10.2024	03.01.2025	1/2025
39.	A conjugated crosslinker enabled polyaniline hydrogel synthesis and its application as electrode material for supercapacitors	Anasuya Bandyopadhyay and Samareesh Ghosh PPE	202411088713, Dt. 16.11.2024	Not published	
40.	A two-component acrylic coating formulation	Pradip K. Maji , Amrita Chatterjee, Sushmit Sen, Shakshi Bhardwaj and Shiva Singh PPE	202411089223, Dt. 18.11.2024	07.03.2025	10/2025
41.	A functionalized graphene oxide nanoribbons and carbon fiber reinforced epoxy composites and its method of preparation	Gaurav Manik , Anurag Kulshreshtha, Sangita Tripathy and Ms. Vaishali Sharma PPE	202411098258, Dt. 12.12.2024	Not published	
42.	Development of a bio-based adhesive binder sourced from modified linseed oil for printing ink application	Gaurav Manik , Majinder Singh, Anurag Kulshreshtha and Brahma Prakash PPE	202511003290, Dt. 15.01.2025	31.01.2025	05/2025
43.	Ru-based electrocatalysts for hydrogen evolution reaction and its method of synthesis	Anasuya Bandyopadhyay and Sonal Sharma PPE	202511007354, Dt. 29.01.2025	21.02.2025	08/2025
44.	A topical formulation derived for skin tissue regeneration and its method of preparation	Saugata Hazra , Komal Singh, Narayan Chandra Mishra , Debabrata Sircar , Shiv Shakti Singh and Alaa Eddin Alhmeidi Alkhatib BSBE & PPE	202511015114, Dt. 21.02.2025	14.03.2025	11/2025

Department of Water Resource Development & Management

S. No.	Title of the Disclosure	Disclosure Submitted By	Patent Filed on	Published on	Publication No./ Journal No
1.	A System and Method for Energy Efficient Starting of Pump Turbine Equipped with Doubly Fed Induction Machine	Thanga Raj Chelliah , Anto Joseph, Raja Singh R, Karthik and Deepak Khare WRDM	201911019294, Dt. 15.05.2019	20.11.2020	47/2020
2.	A four valve for directional control and mixing of fluids	A.K. Sharma , M. Shah Faizan, Radha Raman Mishra and T.R. Chelliah MIED, WRDM, DIC	202011009048, Dt. 03.03.2020	10.09.2021	37/2021
3.	A fault tolerant control system and method for a paralleled power converter fed large rated asynchronous hydro-generating unit	Thanga Raj Chelliah , Raghu Selvaraj, Birudula Anil Kumar and Karthik Desingu WRDM (With CPRI)	202211061830, Dt. 31.10.2022	18.11.2022	46/2022
4.	A smart solid-state relay limiting the inrush current	Thanga Raj Chelliah , Sonal K. Thengane , Vishal undre, Vijay Mohale and Perwez Alam WRDM & HRED	202411005973, Dt. 30.01.2024	Not published	
5.	A sustainable roof-top harvested rainwater filtration system based on low-cost single stage vertical filter	Deepak Khare and Sakshi Gupta WRDM	202411044016, Dt. 06.06.2024	Not published	

6.	Self adaptive frequency support control and method of increasing efficiency for variable head pumped storage hydro-generation unit	Thanga Raj Chelliah , Abdul Saleem Mir , K.S Kasiviswanathan , Ritu Tiwari and Pattabiraman B WRDM & EE	202411054536, Dt. 17.07.2024	16.08.2024	33/2024
7.	Smart water quality monitoring and prediction system and method using IOT and machine learning	Basant Yadav , Veera Venkata Bhavani Sivannarayana Kola and Abhay Raj WRDM	202411060792, Dt. 12.08.2024	30.08.2024	35/2024
8.	A self-cleaning solar-enabled smart device for real-time surface water health monitoring	Anshul Yadav , Ellora Padhi , Bal Krishan and Nikhil WRDM	202511026994, Dt. 24.03.2025	04.04.2025	14/2025
9.	A power management unit for battery operated powertrain and a control method thereof	Thanga Raj Chelliah and Vidyasagar Tummakuri WRDM	202511050992, Dt. 28.05.2025	Not published	

Centre for Nanotechnology

S. No.	Title of the Disclosure	Disclosure Submitted By	Patent Filed on	Published on	Publication No./ Journal No
1.	A biodegradable skin scaffold for healing deep wounds	Debrupa Lahiri , Partha Roy and Swati Haldar MMED, BSBE, CON	201911007235, Dt. 25.02.2019	28.08.2020	35/2020

2.	Bioengineered regenerative scaffold for burn wound healing	Debrupa Lahiri , Partha Roy , Swati Haldar, Isha Goel, Souvik Ghosh and Viney Kumar BSBE, MMED, CON	201911026834, Dt. 04.07.2019	08.01.2021	02/2021
3.	Biosensor for detecting cancer using exhaled breath	Indranil Lahiri , Debrupa Lahiri , Partha Roy , Siddharth Sharma and Swati Haldar BSBE, CON, MMED	201911030871, Dt. 31.07.2019	05.02.2021	06/2021
4.	Cell cytotoxicity assay device and method of manufacturing thereof	Soumitra Satapathi , Ankit Kumar, Partha Roy and Neeladrisingha Das BSBE, PHY, CON	201911036596, Dt. 11.09.2019	12.03.2021	11/2021
5.	3-D Porous scaffolds for bone tissue engineering	P. Gopinath and Sarim Khan BSBE, CON	202011003365, Dt. 24.01.2020	30.07.2021	31/2021
6.	Impedimetric sensors for cytotoxicity analysis	Sanjeev Manhas , Rangadhar Pradhan, P. Gopinath and Ashish BSBE, ECE, CON	202011003839, Dt. 29.01.2020	30.07.2021	31/2021
7.	An ultrafast resistive type humidity sensor based on nanohybrids	Atul Kumar, Anil Kumar and G.D. Varma CY, PHY, CON	202011007304, Dt. 20.02.2020	11.06.2021	24/2021
8.	Fluorescence based cost-effective rapid diagnostic kit for detection of cancer biomarkers	P. Gopinath , Ashish and Rangadhar Pradhan BSBE, CON	202011010110, Dt. 09.03.2020	10.09.2021	37/2021

9.	A universal portable disinfectant chamber against wide spectrum microorganisms for sterilizing personal belongings	Soumitra Satapathi , Prathul Nath PP, Naveen Kumar Tailor, Tejaswini Sharma, Anshu Kumar, Neeladrisingha Das and Partha Roy BSBE, PHY, CON	202011026417, Dt. 23.06.2020	29.10.2021	44/2021
10.	In-situ charging system for implantable pacemaker	Indranil Lahiri , Siddharth Sharma, Debrupa Lahiri and Partha Roy MMED, BSBE, CON	202011038412, Dt. 05.09.2020	05.11.2021	45/2021
11.	Copper doped tin oxide film and its method of preparation for fabrication of perovskite solar cell	Kaushik Pal and Jitendra Bahadur MIED & CON	202111034269, Dt. 29.07.2021	10.09.2021	37/2021
12.	A dual-chamber gas analysing system and method for selective gas sensing	Kaushik Pal , Keerti Rathi and A. Naveen Kumar MIED and CON	202111038777, Dt. 26.08.2021	05.11.2021	45/2021
13.	A method of synthesis of tragacanth gum-based nano-nutraceuticals by encapsulation of beetroot juice and ocimum basilicum leaves as new health supplement	Gopinath Packirisamy and Dravin Pratap Singh CON	202311028625, Dt. 19.04.2023	28.07.2023	30/2023
14.	A nanoformulation and method of preparation thereof	Kaushik Pal and Swati Singh MIED and CON	202311038569, Dt. 05.06.2023	07.07.2023	27/2023
15.	A drug-eluting biopolymer-based lens and its method of preparation	Mayank Goswami , Gopinath Packirisamy and Babukuttan Sheela Unnikrishnan PHY & CON	202311045659, Dt. 07.07.2023	04.08.2023	31/2023

16.	A bio-polymeric film fabrication and its application thereof	P. Gopinath , Unnikrishnan B S and Asmita Mojumdar BSBE and CON	202311084237, Dt. 11.12.2023	12.01.2024	02/2024
17.	Three-dimensional (3D)-printed cell loading cassette	Gopinath Packirisamy , Soumyadeep Basak, Ayush Tiwari and Deepanshu Sharma BSBE & CON	202311085231, Dt. 13.12.2023	12.01.2024	02/2024
18.	A polymeric drug-releasing system comprising a hydrogel and a method of developing the same thereof	Debrupa Lahiri , Chandra Khatua and Partha Roy MMED, CON & BSBE	202311088160, Dt. 22.12.2023	23.02.2024	08/2024
19.	A 3D-printed, compact, wirelessly-controlled, uniaxial cyclic mechanical stretching device and method thereof	Gopinath Packirisamy , Soumyadeep Basak, Ayush Tiwari and Deepanshu Sharma BSBE & CON	202311089120, Dt. 22.12.2023	23.02.2024	08/2024
20.	Method for polyamine detection in oral cancer	Gopinath Packirisamy , Asmita Mojumdar and Unnikrishnan B.S BSBE & CON	202411031154, Dt. 18.04.2024	10.05.2024	19/2024
21.	A novel covalent organic framework adsorbent beads for Rhodamine B removal	Bhaskar Jyoti Deka , Ravindra Pandey , Yogesh Kumar and Shubham Ketan Sharma CHY, CON & HYD	202411055455, Dt. 20.07.2024	28.03.2025	13/2025
22.	A method of synthesizing covalent organic framework based polymer beads	Bhaskar Jyoti Deka , Ravindra Pandey , Yogesh Kumar and Shubham Ketan Sharma CHY, CON & HYD	202411055456, Dt. 20.07.2024	28.03.2025	13/2025
23.	Novel nanoplastic and its method of preparation thereof	Krishna Mohan Poluri , Emansi Yadav, Mukesh Kumar Meher and Jasasmita Das	202411059189, Dt. 05.08.2024	23.08.2024	34/2024

		BSBE & CON			
24.	A process for fabricating a self-powered near infrared photodetector	Santanu Pradhan and Akshaykumar Salunke CON	202411064616, Dt. 27.08.2024	18.10.2024	42/2024
25.	Edible coating composite, method of preparation and its application thereof	Gopinath Packirisamy and Dravin Pratap Singh BSBE & CON	202411084722, Dt. 05.11.2024	15.11.2024	46/2024
26.	A silica aerogel composite blanket for thermal insulation in space and method for preparing the same	Kaushik Pal and Gunjan Sharma CON	202511010683, Dt. 08.02.2025	Not published	
27.	Porphyrin derivatives, process for their preparation and test kits of porphyrin derivatives for cyanide detection	Muniappan Sankar and Rohit CY & CON	202511016931, Dt. 26.02.2025	Not published	
28.	Ni(II)-porphyrin derivatives, process for their preparation and test kit for visual colorimetric cyanide detection	Muniappan Sankar & Varusha Bhardwaj CY & CON	202511019387, Dt.04.03.2025	23.05.2025	21/2025
29.	Self-assembled biopolymer functionalized nanocomposite matrix as a dual signal probe for heparin detection	Krishna Mohan Poluri and Aakanksha Pathak CON & BSBE	202511047415, Dt. 16.05.2025	Not published	
30.	A device for analyte detection and method therefor	Gopinath Packirisamy , Deepanshu Sharma, Ayush Tiwari, Manoj Kumar Baghel, Ashish Kalkal and Rangadhar Pradhan CON	202511047428, Dt. 16.05.2025	Not published	

Miscellaneous Patents

Management Studies

S. No.	Title of the Disclosure	Disclosure Submitted By	Patent Filed on	Published on	Publication No./ Journal No.
1.	A stress relieving game equipment	Rajib Lochan Dhar (MBA)	201911013641 Dt. 04/04/2019	03/05/2019	18/2019
2.	Abdomen fitness device	Rajib Lochan Dhar (MBA)	201811022278 Dt. 14/06/2018	22/06/2018	25/2018
3.	Ankle Rehabilitation Device	Rajib Lochan Dhar (MBA)	201811006292 Dt. 19/02/2018	09/03/2018	10/2018
4.	Back, Waist, Liver and kidney Rehabilitation fitness Device	Rajib Lochan Dhar (MBA)	201811038787 Dt. 12/10/2018	26/10/2018	43/2018
5.	Belly and waist fitness exercising equipment device	Rajib Lochan Dhar (MBA)	201711032633 Dt. 14/07/2017	06/10/2017	40/2017
6.	Knee Rehabilitation Device	Rajib Lochan Dhar (MBA)	201811013850 Dt. 11/04/2018	04/05/2018	18/2018

7.	Menstrual cramp and pelvic floor rehabilitation and fitness device for men and women	Rajib Lochan Dhar (MBA)	201811026559 Dt. 17/07/2018	03/08/2018	31/2018
8.	A wrist rehabilitation and exercising device	Rajib Lochan Dhar (MBA)	201711042798 Dt. 29/11/2017	22/12/2017	51/2017

CED

S. No.	Title of the Disclosure	Name and dept. of the inventors	Patent Filed on	Published on	Publication No./ Journal No.
1.	Advance Universal RTK system	Kamal Jain (CED)	201811008489 Dt. 08/03/2018	16/03/2018	11/2018
2.	An Energy Efficient On-site Black Water Treatment System	Pradeep Kumar and Pramod Agarwal (CED) (EE)	201611041225 Dt. 02/03/2017	07/09/2018	36/2018
3.	Intelligent rover system	Adrish Kumar Mullick and Kamal Jain (CED)	201811005907Dt. 6/02/2018	09/03/2018	10/2018
4.	Interface for robotic total station and computer system with embeddable instruction set	Sushil Kumar and Kamal Jain (CED)	161/DEL/2012 Dt. 19/01/2012	12/06/2015	24/2015

5.	Laser Abney Level	Kamal Jain (CED)	171/DEL/2013 Dt. 23/01/2013	22/08/2014	34/2014
6.	Location based video synchronizer	Kamal Jain (CED)	201811016706 Dt. 03/05/2018	22/06/2018	25/2018
7.	Method of edge preservation in images	Kamal Jain (CED)	201841036623 Dt. 28/09/2018	05/10/2018	40/2018
8.	Offset GPS	Kamal Jain (CED)	201811000099 Dt. 02/01/2018	19/01/2018	03/2018
9.	Radio boosted RTKS system	Kamal Jain (CED)	201811009821 Dt. 17/03/2018	06/04/2018	14/2018
10.	RTK drone	Kamal Jain (CED)	201911003508 Dt. 29/01/2019	22/02/2019	08/2019
11.	Smart intruder surveillance and security system	Kamal Jain (CED)	201811008329 Dt. 07/03/2018	16/03/2018	11/2018
12.	Tyre grid reinforced embankment of pozzolanic materials	Vishwas A. Sawant (CED)	201821028112 Dt. 26/07/2018	10/08/2018	32/2018
13.	Universal RTK system	Adrish Kumar Mullick and Kamal Jain (CED)	201811002449 Dt. 22/02/2018	27/04/2018	17/2018

ECE

S. No.	Title of the Disclosure	Name and dept. of the inventors	Patent Filed on	Published on	Publication No./ Journal No.
1.	Development of nanocomposite microwave absorbing paint in the frequency range of 8-18 GHz	Vijaya Agrawala , S. Ray and Dharmendra Singh (MMED) (ECE)	553/DEL/2013 Dt. 26/02/2013	29/08/2014	35/2014

EE

S. No.	Title of the Disclosure	Name and dept. of the inventors	Patent Filed on	Published on	Publication No./ Journal No.
1.	A method of differential relay for power transformer protection using digital signal processor	N. P. Padhy (EE)	201641012033 Dt. 05/04/2016	27/10/2017	43/2017
2.	An integrated cooling system and hydrogen processing for power generation plants	Gyan Ranjan Biswal , Rudra Prakash Maheshwari and Mohan Lal Dewal (EE)	689/DEL/2012 Dt. 13/03/2012	21/08/2015	34/2015
3.	An automatic flushing and floor cleaning system	Pramod Agrawal (EE)	201611041368 Dt. 02/03/2017	07/09/2018	36/2018
4.	Single stage boost inverter	M. K. Pathak (EE)	201641038706 Dt. 12/11/2016	30/12/2016	54/2016
5.	An Energy Efficient On-site Black Water Treatment System	Pradeep Kumar and Pramod Agarwal (CED) (EE)	201611041225 Dt. 02/12/2016	07/09/2018	36/2018

Sl. No.	Title of the Disclosure	Name and dept. of the inventors	Patent Filed on	Published on	Publication No./ Journal No.
1.	A method for inhibiting gas hydrate formation by a novel green kinetic inhibitor	Amit Arora and Chandrajit Balomajumder (CHED)	201611007370 Dt. 02/03/2016	08/09/2017	36/2017

MMED

Sl. No.	Title of the Disclosure	Name and dept. of the inventors	Patent Filed on	Published on	Publication No./ Journal No
1.	Development of nanocomposite microwave absorbing paint in the frequency range of 8-18 GHz	Vijaya Agrawala , S. Ray and Dharmendra Singh (MMED) (EC)	553/DEL/2013 Dt. 26/02/2013	29/08/2014	35/2014

PPE

Sl. No.	Title of the Disclosure	Name and dept. of the inventors	Patent Filed on	Published on	Publication No./ Journal No
1.	Scaffold for wound healing and/or other tissue engineering applications	N.C. Mishra (PPE)	201611036300 Dt. 24/10/16	27/04/2018	17/2018

Details of granted patents

S. No.	Title of the Disclosure	Inventor's name	Patent number & granted on
1.	Iron based/copper based cerement friction materials/composites/brake elements with built-in backing plates	P.S. Mishra , Kamlesh Chandra and Lenin Singaravelu MMED	Patent no. IP 260479, Dt. 30.04.2014
2.	An improved process for preparation of magnesium based composite and an improved magnesium based in-situ composite	S. Ray , B.S.S. Daniel and D. Sivalingappa MMED	Patent no. IP 261746, Dt. 11.07.2014
3.	A process for manufacturing cerement friction materials/composites/brake elements with built in backing plates	P.S Mishra and Kamlesh Chandra MMED	Patent no. IP 262314, Dt. 13.08.2014
4.	A natural polymer media for abrasive flow machining process	Apurbba K. Sharma , Pradeep Kumar, G. Venkatesh and Rajesha S. MIED	Patent no. IP 283675, Dt. 29.05.2017
5.	Catalytic asymmetric ring-opening of epoxides: enantioselective synthesis of vesicular acetylcholine transporter inhibitors vesamicol and its analogues	Rama Krishna Peddinti , Arun Sharma and Jyoti Agarwal CY	Patent no. IP 290258, Dt. 04.12.2017
6.	A process for dispersion of broken agglomerates of nanoparticles in viscous fluid	P. K. Ghosh , S. Ray and Sudipta Halder MMED	Patent no. IP 292158, Dt. 25.01.2018
7.	A novel process for the synthesis of vesicular acetylcholine transporter inhibitors vesamicol, and its analogues	Rama Krishna Peddinti and Jyoti Agarwal CY	Patent no. IP 296060, Dt. 24.04.2018
8.	Novel 2,4, M-Nitroaniline doped PES and an optically active guest-host polymer	Y.S Negi , Chandra Vishwa Shanthi and R.C. Aiyer DPT	Patent no. IP 296441, Dt. 02.05.2018

9.	A novel m-Nitroaniline doped PES and optically active guest host polymer	Y.S Negi , Chandra Vishwa Shanthi and R.C. Aiyer DPT	Patent no. IP 305837, Dt. 17.01.2019
10.	A method of cladding/coating metallic powder on metallic substrate by microwave irradiation	Apurbba Kumar Sharma and Dheeraj Gupta MIED	Patent no. IP 306568, Dt. 30.01.2019
11.	A method of joining of bulk metallic materials by microwave hybrid heating	Apurbba Kumar Sharma , Pradeep Kumar and M. Srinath MIED	Patent no. IP 309058, Dt. 12.03.2019
12.	Manufacturing process for metallo-ceramic brake pads/disc for stators/rotors using powder perform forging	P.S. Mishra and Kamlesh Chandra MMED	Patent no. IP 324854, Dt. 11.11.2019
13.	A method for inhibiting gas hydrate formation by a novel green kinetic inhibitor	Amit Arora and Chandrajit Balomajumder ChED	Patent no. IP 311303, Dt. 16.04.2019
14.	System and method for reliable and flexible mobile agent computing	Kumkum Garg ECE	Patent no. IP 261138, Dt. 06.06.2014
15.	Synthesis of iron-oxide nanohybrids (Maghemite phase) employing raw spent wash from distillery industry as a precursor material	Himanshu Joshi , Anil Kumar and Ajay Kumar HYD, CY	Patent no. IP 340010, Dt. 30.06.2020
16.	An integrated cooling system and hydrogen processing for power generation plants	Gyan Ranjan Biswal, Rudra Prakash Maheshwari and Mohan Lal Dewal EE	Patent no. IP 348978, Dt. 09.10.2020
17.	A virus removal/recovery membrane and its preparation method	Saurav Datta , Ayushi Agarwal and Anju Kumari BSBE	Patent No. IP 352016, Dt. 23.11.2020
18.	Functionalized membrane-based process for selective isolation and enrichment of milk fat globules (MFGs)	Ambatipudi Srinivas Kiran , Saurav Datta and Aparna Verma BSBE	Patent No. IP 357223, Dt. 29.01.2021

19.	A sealant composition	Gaurav Manik , Nityanshu Kumar, Shubham Mireja and Alok Kumar Yadav PPE	Patent No. IP 352393, Dt. 26.11.2020
20.	A process of preparing a sealant composition	Gaurav Manik , Nityanshu Kumar, Shubham Mireja and Alok Kumar Yadav PPE	Patent No. IP 352006, Dt. 23.11.2020
21.	An improved ultrasonic abrasive flow machining and a advice therefor.	Apurbba Kumar Sharma , Pradeep Kumar and Rajesha S. MIED	Patent No. IP 358173, Dt. 10.02.2021
22.	An Energy Efficient On-site Black Water Treatment System	Pradeep Kumar and Pramod Agarwal CED, EE	Patent no. IP 358538, Dt. 12.02.2021
23.	Morphological change from silicon carbide to silicon nitride	B.V. Manoj Kumar and V.M. Rajavel Muthaiah MMED	Patent No. IP 362136, Dt. 19.03.2021
24.	An improved ferromanganese slag to oxidize arsenite and removal of arsenic from water	Abhijit Maiti and Nishant Jain PPE	Patent No. IP 368154, Dt. 31.05.2021
25.	A system and method for simultaneous removal of arsenic and fluoride from contaminated water using novel hybrid adsorbent.	Prasenjit Mondal and Vineet Kumar Rathore ChED	Patent No. IP 367902, Dt. 28.05.2021
26.	Copper-zinc-magnesium catalyst for highly selective conversion of glycerol to 1,2-propanediol in liquid phase	Prakash Biswas , Al Ameen A, Smita Mondal, Satayanarayana M. Pudi and Nitin Naresh Pandhare ChED	Patent no. IP 373960, Dt. 06.08.2021
27.	A method of differential relay for power transformer protection using digital signal processor	N. P. Padhy EE with NIT Tiruchilappali	Patent no. IP 380676, Dt. 28.10.2021

28.	Nut shaped Li_3VO_4 having hierarchical mesoporous structure and its method of synthesis	Tapas Kumar Mandal , Anjan Sil , Paritosh Mohanty and Nishant Gautam CY, MMED	Patent no. IP 382774, Dt. 26.11.2021
29.	A system method of synthesis of gold-iron oxide and gold zinc oxide nanocomposites in aqueous medium at room temperature	Kalyan Kumar Sadhu and Shahbaz Ahmad Lone CY	Patent no. IP 383507, Dt. 02.12.2021
30.	A process for recovery of potash from biomethanated distillery spent wash	Himanshu Joshi and Sunil Yadav HYD	Patent no. IP 383019, Dt. 29.11.2021
31.	Dissimilar metallic coating on steel by activated diffusion	B. V. Manoj Kumar , P.K. Ghosh and Sandan Kumar Sharma MMED	Patent no. IP 390919, Dt. 01.03.2022
32.	A method for synthesis of nitrogen-doped reduced graphene oxide (N-RGO) for high performance supercapacitor	Anil Kumar and Sahil Thareja CY	Patent no. IP 391742, Dt. 11.03.2022
33.	Ni-Fe bimodal catalyst for syngas production from carbon dioxide reforming of methane and process for the preparation thereof	Prasenjit Mondal and Mumtaj Shah ChED	Patent no. IP 391874, Dt. 14.03.2022
34.	Activating flux coating for symmetric weld bead profile	D.K. Dwivedi and Ravi Shanker Vidyarthi MIED	Patent no. IP 393302, Dt. 29.03.2022
35.	A hybrid iron sulphide impregnated anion exchanger (HISIIX) for selective removal of hexavalent chromium from contaminated water	Sudipta Sarkar and Laiju A. R. CED	Patent no. IP 393640, Dt. 30.03.2022
36.	Upflow septic tank	A.A Kazmi , Sudipta Sarkar and Meena Kumari Sharma CED	Patent no. IP 395747, Dt. 28.04.2022

37.	A dual-chamber gas analysing system and method for selective gas sensing	Kaushik Pal , Keerti Rathi and A. Naveen Kumar MIED & CON	Patent no. IP 396484, Dt. 09.05.2022
38.	A method for the synthesis of amides from various carboxylic acids and amine derivatives	Debasis Banerjee and Shuvojit Halder CY	Patent no. IP 397387, Dt. 23.05.2022
39.	A synthesis process for the development of calcium silicate hydrate (C-S-H) based concrete hardening accelerator	Sonalisa Ray , Saikat Das and Sudipta Sarkar CED (with NBCC)	Patent no. IP 397480, Dt. 24.05.2022
40.	A method of synthesis of aldehyde and ketones from dicyanovinyl derivatives using photochemical method for C=C bond cleavage of dicyanovinyl derivatives and NBS under light irradiation	K.R. Justin Thomas and Anupam Das CY	Patent no. IP 397930, Dt. 27.05.2022
41.	A method of synthesizing pure phase sodium manganese silicate ($\text{Na}_2\text{MnSiO}_4$)	Yogesh Sharma and Harishpal Kumar PHY	Patent no. IP 398875, Dt. 09.06.2022
42.	A Ni(II)-pincer complex for catalytic amination of alcohols	Debasis Banerjee and Atanu Bera CY	Patent no. IP 399507, Dt. 20.06.2022
43.	A novel electrode composite for high power and high energy application in rechargeable lithium-ion battery	Anjan Sil and Hari Raj MMED	Patent no. IP 400066, Dt. 27.06.2022
44.	Low cost reinforced bipolar membrane fabricated with interface layer	Sujay Chattopadhyaya and Bhuvanesh E. PPE	Patent no. IP 400162, Dt. 28.06.2022
45.	Surface functionalized hierarchical carbon fiber reinforced composites hybrid polypropylene composites and the method of preparation	Gaurav Manik and Rupam Gogoi PPE	Patent no. IP 400382, Dt. 29.06.2022
46.	Cobalt-based boron-nitride supported heterogeneous-catalysts involving nitrogenligand and its method of preparation thereof	Debasis Banerjee and Shuvojit Halder CY	Patent no. IP 400786, Dt. 05.07.2022

47.	A novel system and method providing advanced web search for multimedia contents	Sandeep Kumar , Shikhar Srivastav and Kuldeep Kumar CSE	Patent no. IP 403126, Dt. 05.08.2022
48.	Method of ultrasound induced catalytic detoxification of acrylonitrile from aqueous solution	Basheshwer Prasad and Arvind Kumar ChED	Patent no. IP 404050, Dt. 22.08.2022
49.	Sono-electrochemical method for the degradation of the recalcitrant pollutants in wastewater	V C. Srivastava and Ritesh Patidar ChED	Patent no. IP 404097, Dt. 22.08.2022
50.	Novel equipment for the dissociation of gas hydrates	Anupama Kumari, Shadman Hasan Khan, Monika Gandhi, Chandrajit Balomajumder , Amit Arora and Gaurav Dixit ChED & ONGC	Patent no. IP 405121, Dt. 30.08.2022
51.	A process for power forging of metals/alloys to obtain full density products	Ujjwal Prakash and V. V. Dabhade MMED	Patent no. IP 406547, Dt. 14.09.2022
52.	An in-situ polymer-based drug loaded hydrogel system and method thereof	N. C. Mishra , Indus Yadav, Shiv Dutt Purohit, Hemant Singh and Sakchi Bhushan PPE	Patent no. IP 406639, Dt. 14.09.2022
53.	Method of fabrication of dual/asymmetric dielectric constant spacers in multigate fet devices	S. K. Manhas , Anand Bulusu and Saurabh Kumar Nema ECE	Patent no. IP 406675, Dt. 15.09.2022
54.	A system comprising stable iron oxide nanoparticles (Maghemite) composite with pumice, for contaminant removal in water and its method of preparation thereof	Himanshu Joshi , Shashi Ranjan, Ajay Kumar and Brijesh Kumar Yadav	Patent no. IP 410075, Dt. 27.10.2022

		HYD	
55.	A biodegradable skin scaffold for healing deep wounds	Debrupa Lahiri , Partha Roy and Swati Haldar MMED, BSBE, CON	Patent no. IP 410999, Dt. 04.11.2022
56.	A flame retardant natural fibre reinforced composite material and its method of preparation thereof	Shishir Sinha and Jyoti Jain ChED	Patent no. IP 411980, Dt. 21.11.2022
57.	Knee Rehabilitation Device	Rajib Lochan Dhar DoMS	Patent no. IP 412703, Dt. 28.11.2022
58.	Development of nanocomposite microwave absorbing paint in the frequency range of 8- 18 GHz	Vijaya Agrawala , S. Ray and Dharmendra Singh MMED, EC	Patent no. IP 413060, Dt. 30.11.2022
59.	An anti-viral composition of tamarind Chi-like lectin and uses thereof	Shailly Tomar , Pravindra Kumar , Ramanjit Kaur, Neetu Chaudhary and Vedita Anand Singh BSBE	Patent no. IP 413264, Dt. 01.12.2022
60.	A method for the dissociation of gas hydrates	Anupama Kumari, Shadman Hasan Khan, Monika Gandhi, Chandrajit Balomajumder , Amit Arora and Gaurav Dixit ChED	Patent no. IP 415416, Dt. 26.12.2022
61.	Magnetic biochar manufactured from industrial effluent treatment plant (ETP) sludge for the removal of pollutants	V C. Srivastava and Vikash Singh ChED	Patent no. IP 417506, Dt. 10.01.2023
62.	A process for the capture of carbon dioxide from flue gas	Basheshwer Prasad ChED	Patent no. IP 418108, Dt. 16.01.2023

63.	A Novel fractionating hydrolysis process for production of fermentable sugar from lignocellulosic biomass of Kans grass (Saccharum Spontaneum)	S Ghosh, C B Majumdar and Mr. L.K Singh BT, ChED	Patent no. IP 419371, Dt. 27.01.2023
64.	A process for production of bio CNG from biogas	B. Prasad ChED	Patent no. IP 421709, Dt. 15.02.2023
65.	A process for immobilization of metal oxide/ metal hydroxide nanofillers in paper matrices by a rapid microwave assisted method.	Paritosh Mohanty , Raees Muhammad and Anuj Rawat CY	Patent no. IP 423481, Dt. 28.02.2023
66.	Methods and compositions for identification of novel anti-persister activity of GRAS compounds	Ranjana Pathania , Timsy Bhando and Ananth Casius BT	Patent no. IP 424983, Dt. 14.03.2023
67.	A system and method of micro-drilling with microwaves through metallic concentrator	Apurbba Kumar Sharma MIED (with BARC)	Patent no. IP 426457, Dt. 23.03.2023
68.	A method of recovering sulfur from industrial solid wastes/sludge	Vimal Chandra Srivastava and Vikash Singh ChED	Patent no. IP 426783, Dt. 24.03.2023
69.	A natural fiber reinforced polymer composite film consisting PVA and Moringa Oleifera seed filler (MOSF)	Shishir Sinha and Kajal Mishra ChED	Patent no. IP 426960, Dt. 27.03.2023
70.	Polyclonal human LINE-1 ORF2p antibody and method thereof	Prabhat Kumar Mandal , Koel Mukherjee and Debpali Sur BSBE	Patent no. IP 428643, Dt. 10.04.2023

71.	Fluorescence based cost-effective rapid diagnostic kit for detection of cancer biomarkers	P. Gopinath , Ashish and Rangadhar Pradhan BSBE, CON	Patent no. IP 428729, Dt. 11.04.2023
72.	Sliding mass floor system for seismic response control	Manish Shrikhande EQD	Patent no IP 428890, Dt. 13.04.2023
73.	A method of synthesis of nano porous polymeric adsorbents from polycyclic aromatic hydrocarbons by microwave assisted method	Paritosh Mohanty , Raeesh Muhammad and Anuj Rawat CY	Patent no IP 429535, Dt. 20.04.2023
74.	A method for screening NSP1 capping enzyme inhibitors of chikungunya	Shailly Tomar , Pravindra Kumar and Ramanjit Kaur BSBE	Patent no IP 429557, Dt. 20.04.2023
75.	Highly-directional compact semicircular angular-phased antenna array in 9.35GHZ-42.89 GHz	Amalendu Patnaik and Tushar Goel ECE	Patent no. IP 430540, Dt. 28.04.2023
76.	Earthquake resistant viscoelastic energy dissipator link elements	Pankaj Agarwal and Amit Goyal EQD	Patent no. IP 430618, Dt. 28.04.2023
77.	Molybdenum Vanadium Niobium Tellurium Oxide (Mo-V-Nb-Te-O) catalyst for the ammoxidation of propane to acrylonitrile	Prakash Biswas and Shishir Sinha CHED, CEPC	Patent no. IP 431112, Dt. 04.05.2023
78.	Magnetic-field actuated hybrid nanofiber scaffold and apparatus for 4D tissue engineering	P. Gopinath and S. Uday Kumar BSBE	Patent no. IP 431344, Dt. 09.05.2023

79.	Protective ion-conducting flexible electrolyte-cum-separator sheet for solid-state battery having Li/Na metal- anodes and methods for producing the same	Yogesh Kumar , Asit Sahoo and Brahma Prakash Dubey PHY	Patent no. IP 431595, Dt. 11.05.2023
80.	Stationary shoulder friction stirs welding tool with extruded material breaker	Dheerendra Kumar Dwivedi and Sunil Kumar Sinhmar MIED	Patent no. IP 432021, Dt. 17.05.2023
81.	Biosensor for detecting cancer using exhaled breath	Indranil Lahiri , Debrupa Lahiri , Partha Roy , Siddharth Sharma and Swati Halder BSBE, CON, MMED	Patent no. IP 432433, Dt. 22.05.2023
82.	A bioconversion process to produce bioactive cordyceps species from food waste	Ambatipudi Srinivas Kiran and Aparna Verma BT	Patent no. IP 434095, Dt. 08.06.2023
83.	A modified ceramic shell/body and its method thereof for investment casting process	D. Benny Karunakar and Sanjay Kumar MIED	Patent no. IP 434139, Dt. 08.06.2023
84.	A method for removing Acrylonitrile from aqueous solution heterogenous catalysts	Basheshwer Prasad and Arvind Kumar ChED	Patent no. IP 434526, Dt. 14.06.2023
85.	Colorimetric assay for testing the presence of antimicrobial resistance	Saugata Hazra and Niteesh Kumar Pandey BSBE	Patent no. IP 435256, Dt. 19.06.2023
86.	A method for direct synthesis of nanometal carbon composites and Hydrogen rich fuel gas mixture using biomass and aqueous metal effluent	N. Siva Mohan Reddy and Pankaj Kumar ChED	Patent no. IP 435979, Dt. 28.06.2023

87.	A pelletized arsenic adsorbent and its method of preparation using the laterite rock and the ferromanganese slag	Abhijit Maiti , Nishant Jain and Anil Kumar PPE	Patent no. IP 436203, Dt. 28.06.2023
88.	A method of synthesis of lithium vanadate on graphene oxide	Tapas Kumar Mandal and Nishant Gautam CY	Patent no. IP 437948, Dt. 10.07.2023
89.	A system and method of simultaneous denitrification and oxidation of industrial wastewaters	V.C. Srivastava and Rohit Chauhan CHED	Patent no. IP 438774, Dt. 13.07.2023
90.	Synthesis of N&P enriched hybrid material made from cyclophosphazene and 2,6-diaminopyridine for supercapacitor and gas sorption applications	Paritosh Mohanty and Nisha Dhiman CY	Patent no. IP 439650, DT. 20.07.2023
91.	Navigation system for an autonomous terrestrial vehicle	Jayanta Kumar Ghosh and Sharwan Ram CED	Patent no. IP 439895, Dt. 21.07.2023
92.	Process for synthesis nitrogen enriched high surface area nanoporouspolytriazines and their multi-functional applications	Paritosh Mohanty and Monika Chaudhary CY	Patent no. IP 440279, DT. 24.07.2023
93.	A portable sensing device and a method for rapid and non-destructive determination of the quality of coconut	Debabrata Sircar , Partha Roy , Nagendra P. Pathak , Mukund Kumar, Bhairavnath Waghmode, Komal Kushwaha and Arun Kumar Varshney	Patent no. IP 441113, DT. 28.07.2023

		BSBE & ECE (with CDB)	
94.	A system and method for continuous caustic production and periodic precipitate removal	Sujay Chattopadhyaya , Priyabrata Mandal and Priya Goel PPE	Patent no. IP 441221, Dt. 28.07.2023
95.	A system method to reduce KT/C noise-reduction by using negative capacitance FETS	Ishant, Swarga Mandal and Sudeb Dasgupta ECE	Patent no. IP 442041, Dt. 01.08.2023
96.	A method of preparing biocompatible hydrogel for non-invasive drug delivery	Mayank Goswami , P. Gopinath and Rajkumar Sadasivam PHY, BSBE	Patent no. IP 442924, Dt. 04.08.2023
97.	Copper doped tin oxide film and its method of preparation for fabrication of perovskite solar cell	Kaushik Pal and Jitendra Bahadur MIED & CON	Patent no. IP 444141, Dt. 10.08.2023
98.	A hydrogel based abrasive media for abrasive flow machining and process of preparation thereof	Varun Sharma , Pradeep Kumar and Nitin Dixit	Patent no. IP 447268, Dt. 25.08.2023

		MIED	
99.	Deployable canister mechanism for an inflatable spaceborne planar membrane reflector antenna	S. H. Upadhyay , Swapnil Shinde, Sammer Sakhare and Kripa Shanker Singh MIED (with ISRO)	Patent no. IP 447197, Dt. 25.08.2023
100.	A process of extraction of aluminium, titanium, scandium and iron values from the bauxite residue (red mud) using alkali baking	Nikhil Dhawan and Shrey Agrawal MMED	Patent no. IP 447808, Dt. 28.08.2023
101.	Development of porous alumina film on conducting glass substrate to enhance the voltage of silicon based thermophotovoltaic devices	Soumya Shankar Ghosh and Anjan Sil MMED	Patent no. IP 448162, Dt. 29.08.2023
102.	Impedimetric sensors for cytotoxicity analysis	Sanjeev Manhas , Rangadhar Pradhan, P. Gopinath and Ashish BSBE, ECE, CON	Patent no. IP 447915 , Dt. 29.08.2023
103..	Single stranded nucleotides sequences specific for binding to Acinetobacter baumannii and uses thereof	Naveen K Navani , Shah Nawaz A. Baba and Piyush Kumar	Patent no. IP 448501, Dt. 30.08.2023

		BSBE	
104.	An ultrasonic assisted magnetic abrasive flow machining process and a device therefore	Varun Sharma, Pradeep Kumar and Nitin Dixit MIED	Patent no. IP 450601, Dt. 11.09.2023
105.	A System and Method for Energy Efficient Starting of Pump Turbine Equipped with Doubly Fed Induction Machine	Thanga Raj Chelliah, Anto Joseph, Raja Singh R, Karthik D and Deepak Khare WRDM	Patent no. IP 450798, Dt. 12.09.2023
106.	A solvent-free method to synthesize bio-based pressure-sensitive adhesives (PSAS) for various applications	Gaurav Manik and Manjinder Singh PPE	Patent no. IP 451063, Dt. 12.09.2023
107.	Cost effective solution for cranking of diesel generator in low power autonomous DC micro grid	Sanjeev Pannala, N. P. Padhy and Pramod Agrawal EE	Patent no. IP 451190, Dt. 13.09.2023
108.	A high performance composite electrode for Li-ion Battery	Anjan Sil and Hari Raj	Patent no. IP 451440, Dt. 13.09.2023

		MMED	
109.	Belly and waist fitness exercising equipment device	Rajib Lochan Dhar DoMS	Patent no. IP 451499, Dt. 14.09.2023
110.	A cam and follower mechanism for reducing the thread count variation in pedal-operated handlooms	Rajat Agrawal , Ashutosh Samadhiya and Tejas Pramod Naik DoMs & DIC	Patent no. IP 452613, Dt. 19.09.2023
111.	Time interleaved digital transmitter using multi-level digital quantization	Karun Rawat and Nishant Kumar ECE	Patent no. IP 454291, Dt. 25.09.2023
112.	Hybrid halide perovskite materials for photo-active electrodes for photo rechargeable supercapacitors and its method of preparation	Monojit Bag and Ramesh Kumar Phy	Patent no. IP 455720, Dt. 29.09.2023
113.	A device for pressurized multiphase flow during electrochemical discharge machining process	Akshay Dvivedi and Rajendra Kumar	Patent no. IP 456238, Dt. 03.10.2023

		MIED	
114.	A method of fabrication of superhydrophobic membrane	Bhaskar Jyoti Dekha , Gaurav Vaghela, Akshit Pushkar and Himanshu Joshi HYD	Patent no. IP 456366, Dt. 03.10.2023
115.	Modification of chemical composition and properties of A-TIG weld joints of dissimilar steels	D. K. Dwivedi , Anup Kulkarni, Pratishtha and Anagdha MIED	Patent no. IP 456846, Dt. 05.10.2023
116.	A one pot, two -step electrochemical method for the synthesis of graphene oxide and graphene oxide metal composite	V. C. Srivastava and Navneet Kumar ChED	Patent no. IP 457738, Dt. 10.10..2023
117.	Wound healing materials in the form of powered particles, get and porous sheet	N. C. Mishra , Hemant Singh and Shiv Dutt Purohit PPE	Patent no. IP 458158, Dt. 11.10.2023

118.	A method for the synthesis of primary amides	Debasis Banerjee and Shuvojit Haldar CY	Patent no. IP 458972, Dt. 13.10.2023
119.	An automatic flushing and floor cleaning system	Pramod Agrawal EE	Patent no. IP 459071, Dt. 13.10.2023
120.	Silk fibroin nanofiber based edible coating for enhancing the shelf life of horticulture products	P. Gopinath and Dravin Pratap Singh BSBE	Patent no. IP 459111, Dt. 16.10.2023
121.	A four valve for directional control and mixing of fluids	A. K. Sharma , M. Shah Faizan, Radha Raman Mishra and T. R. Chelliah MIED, WRDM, DIC	Patent no. IP 459108, Dt. 16.10.2023
122.	A thermal energy storage material using renewable sources and its method of preparation.	Sujay Chattopadhyaya and V. J Reddy	Patent no. IP 459239, Dt. 16.10.2023

		PPE	
123.	A modular accessory for the mobility enhancement of manual wheel chairs by motorizing the manual wheelchair.	Akshay Dvivedi , Vaibhav Agarwal and Aditya Peshin MIED	Patent no. IP 459625, Dt. 17.10.2023
124.	High speed slurry pot tester apparatus	B. K. Gandhi MIED	Patent no. IP 461869, Dt. 25.10.2023
125.	Abdomen fitness device	Rajib Lochan Dhar DoMS	Patent no. IP 462281, Dt. 26.10.2023
126.	A method for determination of performance grade of unmodified asphalt binder using rheometer	Gondaimei Ransinchung Rongmei Naga , Ankit Sharma and Praveen Kumar CED	Patent no. IP 463154, Dt. 30.10.2023

127.	Menstrual cramp and pelvic floor rehabilitation and fitness device for men and women	Rajib Lochan Dhar DoMS	Patent no. IP 463745, Dt. 30.10.2023
128.	Reconfigurable concurrent multi-band digital transmitter using delta sigma modulator and augmented shaping	Karun Rawat and Nishant Kumar ECE	Patent no. IP 465802, Dt. 04.11.2023
129.	Orthopaedic metallic implant for sustained drug release	Debrupa Lahiri , Partha Roy and Manoj Kumar Rangaswamy MMED, BSBE	Patent no. IP 467777, Dt. 09.11.2023
130.	An adaptive feedback controlled electric hydro dissection device	Akshay Dvivedi and Rajendra Kumar Arya MIED	Patent no. IP 468378, Dt. 10.11.2023
131.	Method and apparatus for testing fire behaviour of façade materials	K. B. Mishra and Ankit Sharma MIED	Patent no. IP 469636, Dt. 16.11.2023

132.	Dielectric elastomer based variable focal length reflector	Manish M. Joglekar , Katik Kashyap, Nitesh Arora, Chinmay Jivani, Parmod Kumar and Atul Kumar Sharma MIED	Patent no. IP 470274, Dt. 18.11.2023
133.	Adaptive shape control mechanism for planar membrane structure	S. H Upadhyay , Satish Kumar and Kripa S. Singh MIED (With ISRO)	Patent no. IP 470584, Dt. 20.11.2023
134.	A traffic-light control system and method utilizing the deep reinforcement learning technique to balance the traffic flow and prevent congestion	Neetesh Kumar CSE	Patent no. IP 471049, Dt. 21.11.2023
135.	A process for the synthesis of luminescent citrate stabilized gold nanoparticles with high stokes shift	Kalyan Kumar Sadhu and Meenaxi CY	Patent no. IP 471096, Dt. 21.11.2023

136.	A low-cost ecofriendly process for the recycling of waste polyethylene packets to prepare paver blocks and wall tiles	Prasenjit Mondal , Hemant Goyal and Navneeta Lal ChED	Patent no. IP 471200, Dt. 21.11.2023
137.	NPA: A multilevel high power factor AC-DC converter	Pramod Agrawal , Naveen Yalla and Narendra Babu Avalamandu EE	Patent no. IP 471267, Dt. 21.11.2023
138.	Peristaltic pump with automated gear assembly fabrication and its method	Soumitra Satpathi and Ankit Kumar PHY	Patent no. IP 471302, Dt. 21.11.2023
139.	A rainfall simulator for moving storm condition	Sumit Sen and Ravi Meena HYD	Patent no. IP 471419, Dt. 22.11.2023
140.	Friction based energy dissipation device for seismic protection	Manish Shrikhande EQD	Patent no. IP 471575, Dt. 22.11.2023

141.	Probiotic formulation for growth enhancement of livestock and method thereof	Naveen Kumar Navani , Ajmal Hussain, Krishna Shankar, Rekha Sharma and Arun Beniwal BSBE	Patent no. IP 472167, Dt. 23.11.2023
142.	Electromagnetic radiation reduction box (EMR2B) in the communication bands (0.5 to 3.0GHz)	Dharmendra Singh , Varsha Mishra and Smitha Puthucheri ECE	Patent no. IP 473572, Dt. 28.11.2023
143.	Baseband controlled linearization of High Power Amplifiers	Meenakshi Rawat and Girish Chandra Tripathi ECE	Patent no. IP 474568 Dt. 29.11.2023
144.	CMOS Compatible Micro-machined Piezoelectric Energy Harvester	Sanjeev Manhas , Sandeep Singh Chauhan and M.M. Joglekar ECE, MIED	Patent no. IP 475536, Dt. 30.11.2023

145.	Calcite filled biodegradable ribbons made from a blend of polypropylene, PBAT and PLA for cement packaging applications	Patit Paban Kundu and Thirumalazhagan D. K ChED (With JSW Cement Pvt. Ltd., Mumbai)	Patent no. IP 476144, Dt. 01.12.2023
146.	A basalt fiber and fly ash reinforced hybrid polypropylene composites and method of preparation	Gaurav Manik and Atul Kumar Maurya PPE	Patent no. IP 476253, Dt. 01.12.2023
147.	A pot process for synthesis of nanometal carbon hybrids and bio-oils from metal contaminated waste water and biomass	N. Siva Mohan Reddy and Priyanka Yadav ChED	Patent no. IP 476778, Dt. 05.12.2023
148.	Cost-Effective Isolated operation of the DFIG wind system supported by the DC microgrid	Gururaj M. V., Narayana Prasad Padhy, Bandla Krishna Chaithanya and Rashmi Prasad EE	Patent no. IP 476919, Dt. 05.12.2023
149.	A superhydrophobic polystyrene/PVDF membrane coated with WO ₃ nanocomposite for membrane distillation application	Bhaskar Jyoti Deka, Gaurav Vaghela, Akshit Pushkar and Himanshu Joshi	Patent no. IP 477779, Dt. 06.12.2023

		HYD	
150.	An electrode for removal of debris during electric discharge machining	Inderdeep Singh and Ravinder Kumar MIED	Patent no. IP 478226, Dt. 07.12.2023
151.	Non-contact patient registration and monitoring system in multiple languages	P. M. Pathak and Ian Wilfred Noronha MIED	Patent no. IP 479029, Dt. 08.12.2023
152.	A device for rotatory disc grinding with adaptive feeding for electrochemical discharge machining process and a method thereof	Akshay Dvivedi , Rajendra Kumar Arya and Tarlochan Singh MIED	Patent no. IP 479784, Dt. 09.12.2023
153.	Fabrication of biodegradable triple layered nanofibrous bandages and applications thereof	P. Gopinath and Vinay Kumar BSBE	Patent no. IP 480589, Dt. 11.12.2023

154.	A single stage multi-spectral image and video dehazing system and its method thereof	Brajesh Kumar Kaushik , Gaurav Sharma and Rahul Kumar ECE	Patent no. IP 481812, Dt. 13.12.2023
155.	A system and method for the fabrication of hybrid halide perovskite asymmetric supercapacitors based on lithium (Li) ion electrolyte	Monojit Bag and Ankur Yadav PHY	Patent no. IP 482171 , Dt. 13.12.2023
156.	A system and method for through wall imaging	Dharmendra Singh , Bambam Kumar and Smitha Puthucheri ECE	Patent no. IP 482215, Dt. 13.12.2023
157.	A flexible device for multiple ultrasonic machining operations	Akshay Dvivedi , Apurbba Kumar Sharma and Manjot Singh Cheema MIED	Patent no. IP 483135, Dt. 15.12.2023
158.	An electro-electrodialysis (EED) cell for periodic removal of precipitate	Sujay Chattopadhyaya , Priyabrata Mandal, Priya Goel, Bhuvanesh E. and Amit Suhag PPE	Patent no. IP 483209. Dt. 15.12.2023

159.	Continuous flow (pass-through) ultraviolet light illuminated disinfection system	Vimal Chandra Srivastava and Navneet Kumar CHED	Patent no. IP 483317, Dt. 15.12.2023
160.	Dual reservoir multifunctional wristband	Vipin Chawla , Neha Sardana, K. Goyal and Ramesh Chandra IIC, IIT Ropar	Patent no. IP 483986, Dt. 18.12.2023
161.	A cylindrical extension device	Rachit Birla DIC	Patent no. IP 485338 , Dt. 19.12.2023
162.	3-D Porous scaffolds for bone tissue engineering	P. Gopinath and Sarim Khan BSBE, CON	Patent no. IP 486957, Dt. 21.12.2023

163.	A solar assisted compact liquid desiccant comfort system	Sudhakar Subudhi , Geleta Fekuda Daba, Sajesh M. and Kalpana MIED	Patent no. IP 488395, Dt. 23.12.2023
164.	Photosensitizer based antimicrobial tunnel device for disinfection	P. Gopinath and Soumya Deep Basak BSBE	Patent no. IP 488649, Dt. 26.12.2023
165.	Sugar-based graphene foam and graphene synthesis process and applications thereof	Indranil Lahiri and Narasimha Vinod Pulagara MMED	Patent no. IP 489363, Dt. 26.12.2023
166.	An ultrafast resistive type humidity sensor based on nanohybrids	Atul Kumar, Anil Kumar and G. D. Varma CY, PHY, CON	Patent no. IP 488912, Dt. 26.12.2023
167.	Tilt meter with liquid-liquid measuring unit.	M. L. Sharma and Govind Rathore EQD	Patent no. IP 489653, Dt. 27.12.2023

168.	Back, Waist, Liver and kidney Rehabilitation fitness Device	Rajib Lochan Dhar DoMS	Patent no. IP 489724, Dt. 27.12.2023
169.	A cellulose nanofibers based composite aerogel for super thermal insulation	Pradip Kumar Maji and Pragya Gupta PPE	Patent no. IP 492269, Dt. 30.12.2023
170.	Untethered Soft Snake Robot	P. M. Pathak , Yunus Pirjade, J. M. Yang and Garima MIED	Patent no. IP 492402, Dt. 01.01.2024
171.	An enhanced tube with plurality of micro indentations on the inside surface for effective heat transfer.	Arup Kumar Das , Ravi Kumar and M. B. Darshan MIED	Patent no. IP 492814, Dt. 01.01.2024

172.	A strong ground motion sensor	Govind Rathore, Dr. Ashok Kumar, Dr. Ravi Sankar Jakka , Dr. Mukat Lal Sharma , Dr. Kamal EQD, DES	Patent no. IP 496293, Dt. 09.01.2024
173.	A small sized reactor to produce biodiesel from nonedible oil	Raj Kumar Verma, Sumana Ghosh and P. Mondal ChED	Patent no. IP 496396, Dt. 09.01.2024
174.	A manually operated, horizontally aligned, dual plunger based briquetting machine	Rajat Agrawal , Vinay Sharma , Kapil Joshi, Gajendra Giri, Mohit Barthwal and Gaurav Dixit DoMS	Patent no. IP 496458, Dt. 09.01.2024
175.	Offset GPS	Kamal Jain CED	Patent no. IP 497623, Dt. 11.01.2024
176.	An improved roller for felt making	R. P. Saini and S. K. Singal HRED	Patent no. IP 499007, Dt. 13.01.2024

177.	An energy efficient variant of hot wire gas tungsten arc welding process	Navneet Arora, Degala Venkata Kiran, Tinku Kumar and Rajdev Singh MIED	Patent no. IP 499008, Dt. 13.01.2024
178.	A wrist rehabilitation and exercising device	Rajib Lochan Dhar DoMS	Patent no. IP 499721, Dt. 6.01.2024
179.	A method of developing sodium-ion conductor for next generation solid-state sodium-ion battery	Yogesh Kumar Sharma, Allu Vinodh kumar and Brahma Prakash Dubey PHY	Patent no. IP 501087, Dt. 19.01.2024
180.	A lifetime enhancer for non-rechargeable battery powered wireless sensor node	Pyari Mohan Pradhan and Ritesh Garg ECE	Patent no. IP 501093, Dt. 19.01.2024

181.	A Therapeutic composition for the treatment of resistant and persistent bacterial infections	Ranjana Pathania and Timsy Bhando BSBE	Patent no. IP 501363, Dt. 19.01.2024
182.	Ankle Rehabilitation Device	Rajib Lochan Dhar DoMS	Patent no. IP 501398, Dt. 19.01.2024
183.	A piezoelectric flexible polymer nanocomposite based energy harvester for charging battery or capacitor from limb movement	Indranil Lahiri , Satish Jaiswal, Divyam Sharma and Debrupa Lahiri MMED	Patent. no. IP 502137, Dt. 23.01.2024
184.	A system and method for active reactive power based speed and/or Torque control of multiphase asynchronous machines	M.K. Pathak and Harshit Mohan EE	Patent. no. IP 502057, Dt. 23.01.2024
185.	A formaldehyde modified thermoplastic starch and its blending with low density polyethylene (LDPE) for preparing biodegradable film	Patit Paban Kundu ChED	Patent. no. IP 503713, Dt. 25.01.2024

186.	A tragacanth gum hydrogel-based polishing media for abrasive flow machining and its method of preparation	Varun Sharma , Pradeep Kumar and Nitin Dixit MIED	Patent no. IP 504185, Dt. 29.01.2024
187.	Electro-membrane processes to recover caustic from green liquor of agro-based paper mills	Sujay Chattopadhyaya , Priyabrata Mandal, Bhuvanesh E. and Priya Goel PPE	Patent no. IP 504423, Dt. 29.01.2024
188.	A discrete energy dissipating damper device with adaptive yield link elements	K. V. Naveen kumar, Nidhin S. Pachappoyyi and Pankaj Agrawal EQD	Patent no. IP 505108, Dt. 30.01.2024
189.	An energy efficient ground coupled retrofitted split ac for heating and cooling applications	Krishnan Murugesan and Satish Kumar MIED	Patent no. IP 505322, Dt. 30.01.2024
190.	Compact air-coupled 2D ultrasound computed tomography (UCT) system	Mayank Goswami and Ankur	Patent no. IP 507890, Dt. 07.02.2024

		PHY	
191.	An iron and manganese oxide double impregnated modified alumina supported catalyst and its method of preparation	Taraknath Das and Vijendra Kumar Yadav CHED	Patent no. IP 507958, Dt. 07.02.2024
192.	A system and method for seismic retrofitting of severely damaged reinforced concrete frame buildings using coupler-box section	Pankaj Agrawal , K. V Naveen Kumar and R. Siva Chidambaram EQD	Patent no. IP 508358, Dt. 08.02.2024
193.	A system and method to localize a sound source and predict its 3 dimensional (3D) spatial coordinates	Sneha Singh and Shikha MIED	Patent no. IP 508381, Dt. 08.02.2024
194.	A system and method for estimation of pore-size distribution in carbonates using spectral induced polarization (SIP)	Ravi Sharma and Neha Panwar ESD	Patent no. IP 509976, Dt. 13.02.2024
195.	Multi-Octave modes for switching power amplifiers	Karun Rawat and Yericharla Ashalatha	Patent no. IP 509990, Dt. 13.02.2024

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196.	A system and method of allocation of communication resources for DVB-RCS compliant satellite terminals and implementation thereof	Sandeep Garg and Abhishek Kumar Roy CSE	Patent no. IP 509994, Dt. 13.02.2024
197.	A scalable balun filter	Gowrish B. ECE	Patent no. IP 510886, Dt. 15.02.2024
198.	A system and method for adjusting analog predistortion linearizer for linearizing wideband high-power amplifiers	Meenakshi Rawat and Ashish Kumar ECE	Patent no. IP 511724, Dt. 16.02.2024
199.	A method of synthesis of novel ligands and Fe(II)-metallopolymer as functional materials	Anasuya Bandyopadhyay and Shubham Bawa PPE	Patent no. IP 511932, Dt. 19.02.2024

200.	A method for recovery of rare earth oxides from fluorescent lamp phosphor using microwave acid baking	Nikhil Dhawan , Neha Shukla and Shrey Agrawal MMED	Patent no. IP 513227, Dt. 21.02.2024
201.	In-situ charging system for implantable pacemaker	Indranil Lahiri , Siddharth Sharma, Debrupa Lahiri and Partha Roy MMED, BSBE, CON	Patent no. IP 513843, Dt. 22.02.2024
202.	Pulse-assisted hybrid cryo lubrication system	Varun Sharma , Dungavath Narayana Swamy Naik and Ramandeep Singh MIED	Patent no. IP 514116, Dt. 22.02.2024
203.	An isolated single-stage AC-AC converter suitable for a solid-state transformer	M.K Pathak and Wajahat Khan EE	Patent no. IP 514220, Dt. 22.02.2024
204.	Location based video synchronizer	Kamal Jain	Patent no. IP 514488, Dt. 23.02.2024

		CED	
205.	A continuous production of metal matrix composite sheets using twin roll continuous casting method	Pradeep Kumar Jha and Dheeraj Kumar Saini MIED	Patent no. IP 515594, Dt. 27.02.2024
206.	A three terminal lithium ion battery-supercapacitor hybrid system consisting of bimaterial electrode.	Anjan Sil, Sobhit Saxena and Hari Raj MMED	Patent no. IP 515661, Dt. 27.02.2024
207.	A prophylactic and therapeutic antiviral composition and method thereof.	Shailly Tomar, Pravindra Kumar, Debabrata Sircar, Dr. Ravi Kumar and Vedita Anand Singh BSBE	Patent no. IP 516546, Dt. 28.02.2024
208.	Real-time fog removal system and its method thereof	Rahul Kumar, Brajesh Kumar Kaushik, Balasubramanian Raman and Gaurav Sharma ECE, CSE and University of Rochester	Patent no. IP 516819, Dt. 28.02.2024

209.	A novel bio reactor system for solid state fermentation and process of operation thereof	Sanjoy Ghosh , Richa Rani and Sidharth Arora BSBE	Patent no. IP 517060, Dt. 29.02.2024
210.	Gas metal arc welding torch head for ultra narrow gap welding of thick section	P. K. Ghosh and Ramkishor MMED	Patent no. IP 517902, Dt. 29.02.2024
211.	A method for photocatalyzed knoevenagel condensation	K. R. Justin Thomas and Anupam Das CY	Patent no. IP 518185 , Dt. 01.03.2024
212.	Internal combustion engines with double acting piston arrangement	Arup Kumar Das , Rakesh Prakash Gakkhar and Prabh Pal Singh Seerha MIED	Patent no. IP 519569, Dt. 05.03.2024
213.	A one-pot synthesis method of heteroatom(s)-doped porous reduced graphene oxide as electrode material by the reduction of graphene oxide for the fabrication of high voltage aqueous symmetric supercapacitor	Anil Kumar and Ikrar Ahmad CY	Patent no. IP 520307, Dt. 05.03.2024

214.	A device of In-situ microwave casting of metals and alloys	Apurbba Kumar Sharma , Radha R. Mishra, Mohit Choudhary and Saurabh Puri MIED	Patent no. IP 521301, Dt. 07.03.2024
215.	A water based ink formulation for magenta pigment application for elongated engraved cells on rotogravure printing cylinder	Yuvraj Singh Negi , Anurag Kulshreshtha, Brahma Prakash and Sauraj Singh PPE and DPT	Patent no. IP 521629, Dt. 07.03.2024
216.	An antiviral composition against alphaviruses	Shailly Tomar , Rajat Mudgal and Aakriti Dubey BSBE	Patent no. IP 522710, Dt. 09.03.2024
217.	A modular end-cooler of resistively heated tube	Andallib Tariq and Ankit Rajkumar Singh MIED	Patent no. IP 525637, Dt. 14.03.2024
218.	A hybrid bidirectional conductive-inductive electric vehicle (EV) battery charger apparatus with maximum converter utilization	Deepak Ronanki and Harish Karneddi HRED	Patent no. IP 525738, Dt. 14.03.2024

219.	A universal bridgeless reconfigurable battery charger with wide output voltage range	Deepak Ronanki and Harish Karneddi HRED	Patent no. IP 526703, Dt. 14.03.2024
220.	Variable speed solar powered wool spinning device	R. P. Saini and S. K. Singal HRED	Patent no. IP 527442, Dt. 15.03.2024
221.	Low-cost, autoclavable and multifunctional biomaterial based nanofibrous permeable hanging cell culture insert and fabrication thereof	P. Gopinath , Vinay Kumar and Soumyadeep Basak BSBE	Patent no. IP 527760, Dt. 15.03.2024
222.	A copper oxide based cellulose modified chitosan bio nanocomposite film and its method of synthesis thereof.	Kaushik Pal and Nidhi Pal MIED	Patent no. IP 527844, Dt. 15.03.2024
223.	Soft actuator for robotics manipulation and locomotion	P. M. Pathak , Yunus Pirjade, Ian Wilfred Noronha, J. M. Yang and Garima MIED	Patent no. IP 528732, Dt. 18.03.2024

224.	Universal RTK system	Adrish Kumar Mullick and Kamal Jain CED	Patent no. IP 531081, Dt. 29.03.2024
225.	A novel test stand and method to measure the burning rate of flammable liquids	K.B. Mishra and Ankit Sharma MIED	Patent no. IP 531620, Dt. 03.04.2024
226.	Antimicrobial coating system and method thereof	Naveen Kumar Navani , Pardeep Kumar, Arun Beniwal and Ajmal Hussain BSBE	Patent no. IP 533342, Dt. 16.04.2024
227.	A single step synthesis of hard carbon from agro-waste for sodium-ion battery	Anjan Sil and Bharat Verma MMED	Patent no. IP 533398, Dt. 16.04.2024
228.	A low cost portable mechanical ventilator with feedback control and respiratory monitoring with remote interface.	Akshay Dvivedi , Arup Kumar Das , Maran R., Lokesh Rohilla, Darshan M B, Avik Saha, Vikas Kannojiya, Tanmay Tiwari, Anuj Vats, Sandeep Kumar, Subramanian G., Navin Chandra Rai, Gajanand Saini, Yashpal Singh, Shahwez, Debendra Kumar Tripathi and Abhishek Sehgal	Patent no. IP 533904, Dt. 21.04.2024

		MIED, EE, ECE, Tinkering Lab and AIIMS (Rishikesh)	
229.	A fault tolerant control system and method for a paralleled power converter fed large rated asynchronous hydro-generating unit	Thanga Raj Chelliah , Raghu Selvaraj, Birudula Anil Kumar and Karthik Desingu WRDM (With CPRI)	Patent no. IP 534582, Dt. 24.04.2024
230.	Catalyst free method for C-2 alkylation in Heteroarene-N-Oxides using katritzky salts	Anuj Sharma , Nihal Singh and Shivani Sharma CY	Patent no. IP 534656, Dt. 24.04.2024
231.	A universal portable disinfectant chamber against wide spectrum microorganisms for sterilizing personal belongings	Soumitra Satapathi , Prathul Nath PP, Naveen Kumar Tailor, Tejaswini Sharma, Anshu Kumar, Neeladrisingha Das and Partha Roy BSBE, PHY, CON	Patent no. IP 536043, Dt. 30.04.2024

232.	A biodegradable and water repellent polypropylene based coating material for packaging applications and its method of preparation	Patit Paban Kundu and Deepak Kumar ChED	Patent no. IP 536393, Dt. 30.04.2024
233.	Chikungunya virus protease inhibitors and used thereof	Shailly Tomar, Pravindra Kumar, Harvijay Singh and Rajat Mudgal BSBE	Patent no. IP 536426, Dt. 01.05.2024
234.	A polymeric hydrogel lens for non-invasive drug delivery	Mayank Goswami, P. Gopinath and Rajkumar Sadasivam PHY, BSBE	Patent no. IP 536567, Dt. 02.05.2024
235.	Cell cytotoxicity assay device and method of manufacturing thereof	Soumitra Satapathi, Ankit Kumar, Partha Roy and Neeladrisingha Das BSBE, PHY, CON	Patent no. IP 536895, Dt. 06.05.2024
236.	A solid-state transformer (SST) with reduced switch count	Mukesh Kumar Pathak and Karthik Singh Parihar	Patent no. IP 537594, Dt. 10.05.2024

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237.	Add-on device and its method to prevent breaker-failure mal-operations	Bhaves R. Bhalja and Soumitri Jena EE	Patent no. IP 538149, Dt. 15.05.2024
238.	Aurivillius perovskite photocatalysts, their preparation method and process of persistent organic pollutants removal from contaminated water	Tapas Kumar Mandal and Shubham Kumar CY	Patent no. IP 538247, Dt. 16.05.2024
239.	Photosensitizer-based highly efficient, rapid antimicrobial device and applications thereof	P. Gopinath and Soumyadeep Basak BSBE	Patent no. IP 538611, Dt. 20.05.2024
240.	A stress relieving game equipment	Rajib Lochan Dhar DoMS	Patent no. IP 538936, Dt. 22.05.2024
241.	Polyacrylonitrile-graphene-oxide-silver nanocomposite based fibrous for air purification.	P. Gopinath, Sadasivam Raj Kumar and Abhishek Sharma BT	Patent no. IP 539789, Dt. 29.05.2024

242.	Mechanical safety device for thread failure in power screw based heavy lifts	Apurbba Kumar Sharma , Nitesh Arora and Prabh Pal Singh Seerha MIED	Patent no. IP 540147, Dt. 30.05.2024
243.	A system and method for enhancing the performance of SDR and DPD	Meenakshi Rawat and Girish Chandra Tripathi ECE	Patent no. IP 541066, Dt. 07.06.2024
244.	Development of epoxy composites reinforced by waste Kans grass (Saccharum Spontaneum) filler by hand layup method	Shishir Sinha and G. L. Devnani ChED, HBTU Kanpur	Patent no. IP 541455, Dt. 11.06.2024
245.	Bioinspired skirted footing and its method of installation	Ravi S. Jakka and Khalid Bashir EQD	Patent no. IP 542117, Dt. 19.06.2024

246.	A low-cost earthquake early warning siren for public	Govind Rathore, Dr. Ashok Kumar , Dr. Ravi Sankar Jakka , Dr. Mukat Lal Sharma and Dr. Kamal EQD, DES	Patent no. IP 543662, Dt. 28.06.2024
247.	Perovskite based flexible energy storage device	Monojit Bag and Ankur Yadav PHY	Patent no. IP 545990, Dt. 25.07.2024
248.	A nanoformulation and method of preparation thereof	Kaushik Pal and Swati Singh MIED and CON	Patent no. IP 546426, Dt. 30.07.2024
249.	A low-cost earthquake early warning siren (EEWS) for home/office	Govind Rathore, Dr. Ashok Kumar, Dr. Ravi Sankar Jakka , Dr. Mukat Lal Sharma , Dr. Kamal EQD, DES	Patent no. IP 546838, Dt. 31.07.2024
250.	A system and method for the detection of physical exhaustion level of human beings	Arup Kumar Das , Vikas Kannojiya and Gunipe Prasanth Kumar MIED	Patent no. IP 547144, Dt. 06.08.2024

251.	A wideband ferrite transformer based power divider	Gowrish Basavarajappa ECE	Patent no. IP 547641, Dt. 13.08.2024
252.	Design and development of low-temperature processed hexagonal phase of NZSP for solid-state NA-ion batteries	Yogesh K Sharma , Brahma Prakash Dubey And Meetesh Singh PHY	Patent no. IP 548625, Dt. 26.08.2024
253.	A perovskite single crystal-based hand-held x-ray detector and its method thereof	Soumitra Satapathi , Partha Roy , Naveen Kumar Tailor, Mohammad Adil Afroz, Yukta, and Manisha Chatterjee PHY, BSBE	Patent no. IP 548659, Dt. 27.08.2024
254.	System and method for estimating void ratio of soil using digital image processing	B.K. Maheshwari and P. Gowtham EQD	Patent no. IP 548753, Dt. 27.08.2024
255.	A web application, user interface based automatic mobile robot (WAMR) to carry payload with obstacle avoidance feature	Samsaptak Ghosh, Sohom Chakrabarty , Ujjwal Gupta and Etta Dheeraj Kumar Reddy EE	Patent no. IP 548886, Dt. 28.08.2024

256.	A system and method for detecting catalase negative lactobacillus using dnzyme and differentiate it from catalase positive bacteria	Maya S. Nair and Aishwarya Shukla BSBE	Patent no. IP 549499, Dt. 02.09.2024
257.	Personalized comfort system	E. Rajasekar , Krishan Upadhyay, Lalit Mohan Sharma and Ganesh Kalanidhi APD	Patent no. IP 550278, Dt. 13.09.2024
258.	Real time in-situ single optical density probe for biomass, substrate and product dynamics measurements in photobioreactor/bioreactor	Sanjoy Ghosh and Shailendra Singh Khichi BSBE	Patent no. IP 551023, Dt. 25.09.2024
259.	A system and method to improve post LVRT/MVRT performance of wind turbines with coupling slippages	Jishnu Kavil Kambrath and Anil Kumar Tiwari EE	Patent no. IP 551538, Dt. 30.09.2024
260.	Polyamide top-coated forward osmosis membrane, composition and process for preparation thereof	Abhijit Maiti , Satish Kumar Singh and Aaditya Pandey PPE	Patent no. IP 551273, Dt. 27.09.2024

261.	A controlled nanoscale doping process for nitrogen (N) in silicon	Arup Samanta and Pooja Yadav PHY	Patent no. IP 551476, Dt. 30.09.2024
262.	Method for production of biodiesel from chlorella sp.	B. R. Gurjar , Vikas Pruthi and Richa Katiyar CED, BSBE, CoEDMM	Patent no. IP 551791, Dt. 01.10.2024
263.	A method of producing the polyhydroxyalkanoate (PHA) using waste water	Saugata Hazra and Girish Shroti BSBE	Patent no. IP 552280, Dt. 14.10.2024
264.	An enhanced advanced driver assistance systems (ADAS) based real-time transportation safety system and method through IoT and deep learning	Rahul Dev Garg and Neerav Sharma CED	Patent no. IP 552790, Dt. 21.10.2024
265.	Scaffold for wound healing and/or other tissue engineering applications	N. C. Mishra PPE	Patent no. IP 555346, Dt. 28.11.2024
266.	A process for algal spent recycling and metabolites production	Sanjeev Kumar and Mohit Rana	Patent no. IP 555644, Dt. 02.12.2024

		HRED	
267.	Production of bio-oil and amorphous silica nanoparticles from rice husk	Shushil Kumar , Manvendra Singh and Ankit Chauhan ChED	Patent no. IP 555350, Dt. 28.11.2024
268.	A low radar cross section (RCS) circularly polarized (CP) reflectarray	Debidas Kundu ECE	Patent no. IP 556522, Dt. 18.12.2024
269.	A novel system and method for automatic generation of Wikipedia articles	Sandeep Kumar , Vikrant Yadav, Faisal Khan, Anshul Singhal, Devendra Pratap Singh and Kuldeep Kumar CSE	Patent no. IP 556573, Dt. 19.12.2024
270.	An organic photovoltaic cell for solar tile application	Anjan Sil and Soumya Shankar Ghosh MMED	Patent no. IP 557071, Dt. 30.12.2024

271.	A smart bi-directional charger for simultaneous charging of multiple electric vehicles	Avanish Tripathi , Sangeet Yadav and Roshan Raja Samuel A EE	Patent no. IP 557338, Dt. 01.01.2025
272.	A cold rolled bainitic steel with high strength and high elongation	Saurav Das , Sonu Yadav, Rajib Chowdhury and S. B. Singh MMED, CED and IIT Kharakpur	Patent no. IP 557569, Dt 08.01.2025
273.	Frugal engineering-based machining device for compound machining	Akshay Dvivedi and Sahil Sharma MIED	Patent no. IP 560241, Dt. 13.02.2025
274.	A water based ink formulation for rotogravure printing ink medium and pigmented ink	Yuvraj Singh Negi , Anurag Kulshreshtha, Brahma Prakash and Millie Pant PPE, DPT and AMSC	Patent no. IP 560347, Dt. 14.02.2025
275.	An intelligent rainfall intensity measurement system and method	Rajib Kumar Panigrahi and Amrita Joshi	Patent no. IP 560513, Dt. 18.02.2025

		ECE	
276.	A composition comprising of 2-aminoperimidine and polymyxin B for the treatment of multidrug-resistant bacterial topical infections	Ranjana Pathania and Mahak Saini BSBE	Patent no. IP 561188, Dt. 25.02.2025
277.	A phthalate binding protein (PhtE) from Comamonas testosteroni KF1 N	Pravindra kumar , Jai Krishna Mahto, Kamble Amith Kumar and Arpan Kayastha BSBE	Patent no. IP 561227, Dt. 25.02.2025
278.	A method of synthesis of Graphene Quantum Dots (GQD) from a waste unburnt carbon	Shishir Sinha and Devendra Rai ChED	Patent no. IP 562039, Dt. 06.03.2025
279.	Bactericidal metal nanoparticles and its method of preparation	N. Siva Mohan Reddy and Utsav Dalal ChED	Patent no. IP 562080, Dt. 07.03.2025
280.	Chikungunya virus titration and detection kit	Shailly Tomar , Parvindra Kumar , Neetu, Vedita Anand Singh and Shweta Choudhary	Patent no. IP 562959, Dt. 20.03.2025

		BSBE	
281.	A process for removing/ reducing odor and VOC from recycled polymer	Sampat Singh Bhati and Pragti Saini DPT	Patent no. IP 563513, Dt. 25.03.2025
282.	A one-step process to selectively isolate milk fat globules directly from milk using asymmetric polysulfone membrane via microfiltration	Srinivas Kiran Ambatipudi, Sujay Chattopadhyaya and Ayushi Kapoor BSBE & PPE	Patent no. IP 563719, Dt. 26.03.2025
283.	Bioengineered regenerative scaffold for burn wound healing	Debrupa Lahiri, Partha Roy , Swati Haldar, Isha Goel, Souvik Ghosh and Viney Kumar BSBE, MMED, CON	Patent no. IP 564020, Dt. 27.03.2025
284.	System and method for data-assimilated geophysical site investigation	Ritesh Kumar EQD	Patent no. IP 564421, Dt. 28.03.2025
285.	A water-soluble acrylic-styrene co-resin formulation and its method of synthesis	Dharm Dutt , Anurag Kulshreshtha, Akshay Dvivedi , Millie Pant and Brahma Prakash	Patent no. IP 564891, Dt. 03.04.2025

		DPT, MIED and AMSC	
286.	A system and method for classifying and upscaling the DRP optimized parameters of porosity, pore types and aspect ratio to field values	Ravi Sharma , Shruti Malik and Adithya Shashidhara Shettar ES	Patent no. IP 564989, Dt. 07.04.2025
287.	Asparaginase and its variants	Naveen Kumar Navani and Tamoghna Ghosh BSBE	Patent no. IP 565190, Dt. 16.04.2025
288.	A system and method for drive cycle for railway vehicles	Bhaveshkumar Rameshchandra Bhalja , Ashtabhuj Kumar Srivastava and Saran Satsangi EE	Patent no. IP 565256, Dt. 17.04.2025
289.	Hybrid biofilm-suspended photobioreactor for high density algae cultivation	Sanjeev Kumar Prajapati and Mohit Singh Rana HRED	Patent no. IP 565621, Dt. 18.04.2025

290.	A three phase four wire cascaded H-bridge based reduced switch hybrid shunt active power filter	Avik Bhattacharya , Muneer V and Arkabrata Dattaroy EE	Patent no. IP 565688, Dt. 29.04.2024
291.	Layered double hydroxide-based nanocomposite for electrochemical hydrogen storage and method of preparation thereof	Ashish Yadav and Himanshu Chauhan ChED	Patent no. IP 566053, Dt. 07.05.2025
292.	A clamping system and method for cylindrical fuel cells based on polymer electrolyte membrane technology	Amit Chandrakant Bhosale and Sunil Kumar Sethy HRED	Patent no. IP 566116, Dt. 09.05.2025
293.	A hot-rolled continuously cooled bainitic steel composition and its method of preparation	Sourav Das and Sonu Yadav MMED (With IIT Kharagpur and Suresh Gyan Vihar University)	Patent no. IP 566130, Dt. 09.05.2025
294.	A planar to spatial tendon-driven under-actuated continuum arm mobile robot	Pushparaj Mani Pathak and Vipin Pachouri MIED	Patent no. IP 566274, Dt. 15.05.2025

295.	Thick deposition of nanostructured materials with intimate solid-solid interface for all solid state batteries and method for producing the same	Yogesh Kumar Sharma , Brahma Prakash Dubey and Bhisma Narayan Mahanty PHY	Patent no. IP 566437, Dt. 20.05.2025
296.	A superhydrophobic membrane and method for fabrication of a biodegradable nanocomposite superhydrophobic membrane	Bhaskar Jyoti Deka , Gaurav Vaghela and Mohd Sahil HYD	Patent no. IP 566705, Dt. 27.05.2025
297.	A system and method for extracting shikimic acid from chir pine needles	Vimal Kumar , Gaurav Kumar Silori and Naveen Kushwaha ChED	Patent no. IP 566950, Dt. 29.05.2025
298.	Device and method for human thermal stress assessment using wearable kit	E. Rajasekar , Kapil Sinha, Sanjeev Krishnan R. and Subramanian G. APD	Patent no. IP 566975, Dt. 30.05.2025

List of PCT Applications

S. No.	Title of the Disclosure	Disclosure Submitted By	Publication No.	PCT International Application No.	International Classification
1.	High speed slurry pot tester	B.K. Gandhi MIED	WO2019/034939, Dt. 21.02.2019	PCT/IB2018/051688, Dt.14.03.2018	G01N 3/56 (2006.01)
2.	A highly Sensitive NSP1 enzyme assay and kit for determining inhibitors of Alpha virus/Chikungunya virus	Shailly Tomar , Pravindra Kumar and Ramanjit Kaur BSBE	WO2019/092510, Dt. 16.05.2019	PCT/IB2018/051760, Dt. 16.03.2018	C12Q 1/70 (2006.01); C12Q 1/18 (2006.01); C12Q 1/48 (2006.01)
3.	A sealant composition	Gaurav Manik , Nityanshu Kumar, Shubham Mireja and Alok Kumar Yadav PPE	WO2019/030715, Dt.14.02.2019	PCT/IB2018/056034, Dt. 10.08.2018	C09K 3/12 (2006.01); B29C 73/16 (2006.01)
4.	A process of preparing a sealant composition	Gaurav Manik , Nityanshu Kumar, Shubham Mireja and Alok Kumar Yadav PPE	WO2019/030716, Dt.14.02.2019	PCT/IB2018/056036, Dt. 10.08.2018	C09K 3/12 (2006.01); B29C 73/16 (2006.01)

5.	A system and method for through wall imaging	Dharmendra Singh , Bambam Kumar and Smitha Puthucheri ECE	WO/2020/161626, Dt. 13.08.2020	PCT/IB2020/050893, Dt. 05.02.2020	G01S 13/89 (2006.1), H01Q 1/22 (2006.1), H01Q 21/06 (2006.1), H01Q 17/00 (2006.1)
6.	Bioinspired skirted footing and its method of installation	Ravi S Jakka and Khalid Bashir EQD	WO/2023/131936, Dt. 13.07.2023	PCT/IB2023/051788, Dt. 27.02.2023	E21B 15/00 (2006.1), E02D 27/14 (2006.1), E02D 27/12 (2006.1), E02D 27/32 (2006.1), E02D 7/00 (2006.1)
7.	Method of application of MICP to improve the life and strength of natural fiber-reinforced soils	Ravi S Jakka and Jithin P Zachariah EQD	WO/2025/041089, Dt. 27.02.2025	PCT/IB2024/058208, Dt. 24.08.2024	E02D 3/12 2006.1
8.	A synergistic plant-based formulation as an alternative of antibiotics for poultry and its method of preparation	Naveen Kumar Navani , Ranjana Pathania and Amit Gaurav BSBE		PCT/IN2025/050594, Dt. 14.04.2025	

List of International Patents

S. No.	Title of the Disclosure	Disclosure Submitted By	Name of Collaborating Institutes	International patent filed on	Publication no. and Date
1.	Coated nano ZnO as the systemic delivery system for antimicrobial biomolecules for controlling vascular plant disease	Swadeshmukul Santra, Ali Ozcan, Pranav Kumar, Ashwani Kumar Sharma , Sunil Kokane and Dilip Kumar Ghosh BSBE	University of Central Florida (UCF), Orlando, USA, ICAR- Central Citrus Research Institute, India, Indian Institute of Technology Roorkee, India	USPTO's application number: - US16/776014A Dt. 01/29/2019 (Provisional application)	
2.	Crew Pairing Optimization of Large-scale and Complex Flight Networks	Divyam Aggarwal and Dhish Kumar Saxena MIED	Leiden University, Netherlands, Indian Institute of Technology Roorkee, India	Netherlands Patent Application No 2025010 Dt. 27/02/2020	
3	Method and system for aging aware modeling and static timing analysis of circuits	Anand Bulusu , Sudeb Dasgupta , Lomesh Chandra Acharya and Sai Shabarish Nayakanti ECE	Indian Institute of Technology Roorkee, India Texas Instruments India Pvt. Ltd.	USPTO's application number: - US18/128,381 Dt. 30.03.2023 (Publication no. 2024/0330555, Published on 03.10.2024)	

4.	Facilitating secured access to protected resources hosted in one cloud from another cloud	Sandeep Kumar Garg and Manish Agrawal CSE (With Oracle)	Oracle International Corporation, USA, Indian Institute of Technology Roorkee, India	USPTO's application number: - US18/296,401 Dt. 06/04/2023	US2024/0338471 A1, Dt. 10.10.2024
5.	Wideband Doherty Power Amplifier with Device Parasitic Compensation & Impedance Inversion	Karun Rawat , Mohammad Abdul Shukoor and Ahmad Zakaria Ahmad ECE	Indian Institute of Technology Roorkee, WIPRO	USPTO's application number: - 181677,046 Dt. 29.05.2024	
6.	Techniques for a self-learning scalable event broker	Sandeep Kumar Garg and Manish Agrawal CSE (With Oracle)	Indian Institute of Technology Roorkee and Oracle International Corporation	USPTO's application number: US18/750,340 Dt. 21.06.2024	
7.	Bioinspired skirted footing and its method of installation	Ravi S Jakka and Khalid Bashir EQD	Indian Institute of Technology Roorkee	USPTO's application number: US 18/726,586 Dt. 03.07.2024	
8.	Bioinspired skirted footing and its method of installation	Ravi S Jakka and Khalid Bashir EQD	Indian Institute of Technology Roorkee	EPO's application number: EP 23737255.2 Dt. 05.08.2024	4460615, Dt. 13.11.2024
9.	Routing diverse incoming requests to optimal computing options while satisfying requisite performance metrics	Sandeep Garg and Manish Manish Agrawal CSE (with Oracle)	Oracle International Corporation, USA, Indian Institute of Technology Roorkee, India	USPTO's application number: US18/986,852, Dt. 19.12.2024	

10.	Validating predicate-based filters used in asynchronous messaging systems	Sandeep Garg and Manish Manish Agrawal CSE (with Oracle)	Oracle International Corporation, USA, Indian Institute of Technology Roorkee, India	USPTO's application number: US19/090,493, Dt. 26.03.2025	
11.	Techniques for scaling an event broker via two-way traffic learning	Sandeep Garg and Manish Manish Agrawal CSE (with Oracle)	Oracle International Corporation, USA, Indian Institute of Technology Roorkee, India	USPTO's application number: US19/092,926,Dt. 27.03.2025	

List of Registered Designs

S. No.	Name of Design	Disclosure Submitted By	Application no. & Filing date	Registered Design No. & date of issue
1.	Unit dose device	Anurag Kulshreshtha, Yuvraj Singh Negi and Raj Kumar PPE	300497, Dt. 19.12.2017	300497, Dt. 04.06.2019

2.	Piston type unit dose device	Anurag Kulshreshtha, Yuvraj Singh Negi and Raj Kumar PPE	300498, Dt. 19.12.2017	300498, Dt. 04.06.2019
3.	Cooked food preservative box	Anurag Kulshreshtha, Yuvraj Singh Negi and Raj Kumar PPE	295421, Dt. 10.07.2017	295421, Dt. 29.07.2019
4.	Deployable canister mechanism for an inflatable space-borne planar membrane reflector antenna	S.H. Upadhyay , Swapnil Shinde, Sammer Sakhare and Kripa Shanker Singh MIED (with ISRO)	337084-001, Dt. 01.01.2021	
5.	Trapezoidal with fin as Float Design of Point Absorber Wave Energy Convertor	Sumana Ghosh , Ravi Prakash, Ranjana Ranthaur and Shivam Gupta CHED	354261-001, Dt. 04.12.2021	354261-001, Dt. 18.05.2023
6.	Compact air-coupled 2D ultrasound computed tomography (UCT) scanner assembly	Mayank Goswami and Ankur PHY	357044-001, Dt. 20.01.2022	357044-001, Dt. 17.07. 2023
7.	A slanted square pyramid shaped array consisting of five acoustic sensors for sound source localization	Sneha Singh and Shikha MIED	364475-001, Dt. 20.05.2022	

8.	Cylindrical Electrical Extension (Two Pin, Three Pin & USB Points)	Rachit Birla DIC	365808-001, Dt. 09.06.2022	
9.	An acoustic metamaterial with sound absorption more than 70% between 380 to 600 Hz	Sneha Singh and Golakoti Pavan MIED	366049-001, Dt. 14.06.2022	366049-001, Dt. 10.04.2024
10.	An acoustic metamaterial with sound absorption more than 70% between 950 to 1300 Hz	Sneha Singh and Golakoti Pavan MIED	366050-001, Dt. 14.06.2022	
11.	A material for absorbing lower middle frequency sounds	Sneha Singh and Golakoti Pavan MIED	366051-001, Dt. 14.06.2022	366051-001, Dt. 08.05.2023
12.	Twisted elliptical tube-in-tube helically coiled heat exchangers	Vimal Kumar and Naveen Kushwaha ChEd	370616-001, Dt. 10.09.2022	370616-001, Dt. 25.01.2023

13.	Design of a rigid packaging bottle	Kirtiraj K Gaikwad , Pragya Srivastava and Sampat Singh Bhati PT	376109-001, Dt. 24.12.2022	376109-001, Dt. 07.02.2023
14.	Three legged spacer for double pipe heat exchanger	Krishnan Murugesan and Satish Kumar MIED	379028-001, Dt. 09.02.2023	379028-001, Dt. 03.05.2023
15.	Twisted leg spacer for double pipe heat exchanger	Krishnan Murugesan and Satish Kumar MIED	379029-001, Dt. 09.02.2023	379029-001, Dt. 11.05.2023
16.	A lab-based electromechanical pneumatic spray coating device	Gopinath Packirisamy , Ashish Kalkal, Rangadhar Pradhan, Deepanshu Sharma and Ayush Tiwari CON	382992-001, Dt. 04.04.2023	382992-001, Dt. 03.07.2023

17.	Integrated electronic nose system for non-invasive lung cancer detection	Gopinath Packirisamy , Ashish Kalkal, Rangadhar Pradhan, Deepanshu Sharma and Ayush Tiwari CON	382993-001, Dt. 04.04.2023	382993-001, Dt. 30.06.2023
18.	Multipurpose device for sustainable agriculture practices	Gopinath Packirisamy and Dravin Pratap Singh CON	387411-001, Dt. 31.05.2023	387411-001, Dt. 17.10.2023
19.	Dental implants (set) having porous TPMS architecture of Schwarz D	Varun Sharma and Deepak Sharma MIED	395364-001, Dt. 18.09.2023	395364-001, Dt. 18.04.2024
20.	A 3D-printed cell loading cassette	Gopinath Packirisamy , Soumyadeep Basak, Ayush Tiwari and Deepanshu Sharma BSBE & CON	399901-001, Dt. 14.11.2023	399901-001, Dt. 16.05.2024

21.	A 3D-printed, compact, wirelessly-controlled, uniaxial cyclic mechanical stretching device	Gopinath Packirisamy , Soumyadeep Basak, Ayush Tiwari and Deepanshu Sharma BSBE & CON	399902-001, Dt. 14.11.2023	399902-001, Dt. 16.05.2024
22.	A novel S-shaped cross-section tape spring	S.H. Upadhyay and Priyankumar Patel MIED	418328-001, Dt. 29.05.2024	
23.	SH wave source with mechanical hitter	Anand Joshi , S.H. Upadhyay , Saurabh Sharma, Mohit Pandey and Jyoti Singh ES and MIED	421487-001, Dt. 27.06.2024	
24.	Instrument for three-dimensional cartesian coordinate point measurement	Shamik Basak , Vinith S. S. and Sarthak Verma MIED	429360-001, Dt. 05.09.2024	
25.	A re-configurable power electronics converter	Pramod Agarwal , Jyoti Ranjan Dash, Rohit Raj and Asad Hussain EE	430839-001, Dt. 18.09.2024	
26.	Cross-legged support chair	Sonal Atreya , Abhishek Srivastava and Prakhar Singh Chauhan	431004-001, Dt. 19.09.2024	431004-001, Dt. 19.11.2024

		DOD		
27.	A 3D-printed, wirelessly controlled, in-vitro, magnetic actuation device	Gopinath Packirisamy and Soumyadeep Basak BSBE	431848-001, Dt. 26.09.2024	
28.	Continuous supercritical water oxidation reactor unit	N. Siva Mohan Reddy ChED	434341-001, Dt. 15.10.2024	
29.	Garbage cleaning bot	Bibhuti Ranjan Bhattachariya, Akshay Dvivedi , Kamlesh Arya and Amandip Dutta DoD & MIED	438848-001, Dt. 28.11.2024	
30.	Modular kinetic facade	Saptarshi Kolay and Vinay Pravinbhai Limbani Arc	450579-001, Dt. 06.03.2025	
31.	Clamp	Saptarshi Kolay and Vinay Pravinbhai Limbani Arc	450580-001, Dt. 06.03.2025	

32.	Clamp	Saptarshi Kolay and Vinay Pravinbhai Limbani Arc	450581-001, Dt. 06.03.2025	
33.	3D printed hexagonal packaging material for handling & distributing	Kirtiraj K Gaikwad , Harsh Satiya and Sampat Singh Bhati DPT	453696-001, Dt. 31.03.2025	
34.	Healthcare humanoid robot	Pushparaj Mani Pathak , Vijay Saini and Rudra MIED	454576-001, Dt. 07.04.2025	
35.	Inflatable parabolic reflector	S. H. Upadhyay and Vikas Rastogi MIED	455020-001, Dt. 11.04.2025	

Self-Filed Design applications

National Design

S. No.	Name of Design	Disclosure Submitted By	Application no. & Filing date	Registered Design No. & date of issue
1.	Smart Rain Gauge Device	Ashutosh Sharma HYD (with NIET Noida)	386453-001, Dt. 17.05.2023	
2.	Hybrid energy powered vehicle	Barjeev Tyagi and Maneesh Kumar EE	396845-001, Dt. 06.10.2023	396845-001, Dt. 27.12.2023

International Design

S. No.	Name of Design	Disclosure Submitted By	Application no. & Filing date	Registered Design No. & date of issue
1.	Cutting-edge Rotor Copter Blades for Amplified Thrust and Endurance in	Dara Singh Vohra, Pradeep Kumar Garg , Sanjay Kumar Ghosh CED	6305739, Dt. 25.08.2023	6305739, Dt. 28.09.2023 (UK Design)

List of Copyright Application

S. No.	Title of the disclosure	Disclosure Submitted By	Class of Work	Diary Number	Registered Certificate No.
1.	Design and development of a low cost automated guided vehicle for Indian industries.	Sohom Chakrabarty , Ujjwal Gupta, Rahesh Pramod Hudiya, Etta Dheeraj Kumar Reddy, Sarthak Gupta and Samsaptak Ghosh EE	Literary/ Dramatic	20061/2019-CO/L, Dt. 13.12.2019	<u>L-91858/2020</u>
2.	BoMiProt-A database of bovine milk proteins	Kiran Ambatipudi , Aadil Hussain Bhat, Sudipa Maity and Kuldeep Giri BT	Computer Software	2327/2020-CO/SW, Dt. 04.02.2020	<u>SW-13450/2020</u>
3.	Resource allocation technique for DVB-RCS compliant satellite terminals and implementation thereof	Abhishek Kumar Roy and Sandeep Kumar CSE	Computer Software	7016/2020-CO/SW, Dt. 27.05.2020	<u>SW-13557/2020</u>
4.	Method for panorama image stitching from wide area surveillance video and software implementation thereof	Deepak Singh and Sandeep Kumar CSE	Computer Software	7358/2020-CO/SW, Dt. 04.06.2020	<u>SW-13565/2020</u>
5.	A user interface for automated guided vehicle	Samsaptak Ghosh, Vinay Maida and Sohom Chakrabarty EE	Literary/ Dramatic	18085/2020-CO/L, Dt. 09.11.2020	<u>L-98327/2021</u>

6.	A web-based research project management system	Sohom Chakrabarty , Prateek Agrawal and Vaibhav Singh EE	Literary/ Dramatic	20863/2020-CO/L, Dt.18.12.2020	<u>L-101463/2021</u>
7.	A web-based research project management system	Sohom Chakrabarty , Prateek Agrawal and Vaibhav Singh EE	Computer Software	20866/2020-CO/SW, Dt. 18.12.2020	<u>SW-14191/2021</u>
8.	Software system for real-time management of sitting posture	Sandeep Kumar , Anuj Gupta, Bhaskar Garg, Devjit Menghani and Ishan Pandey CSE	Computer Software	21673/2020-CO/SW, Dt.29.12.2020	<u>SW-14385/2021</u>
9.	Deep neural network explainability technique with application in multimodal emotion recognition	Puneet Kumar, Vishesh Kaushik and Balasubramanian Raman CSE	Literary/ Dramatic	13261/2021-CO/L, Dt. 17.06.2021	<u>L-106713/2021</u>
10.	Deep neural network explainability technique with application in multimodal emotion recognition	Puneet Kumar, Vishesh Kaushik and Balasubramanian Raman CSE	Computer Software	13305/2021-CO/SW, Dt. 17.06.2021	<u>SW-14956/2021</u>
11.	DisDSS: A Web-Based Decision-Support System to Predict the Disaster-Related Social Media Messages	Rajat Agrawal and Annie Singla DoMS	Computer Software	21060/2021-CO/SW, Dt. 02.09.2021	<u>SW-15177/2022</u>
12.	Reactive ion etching and implantation free gallium nitride transistors	Biplab Sarkar and Aakash Jadhav ECE	Literary/ Dramatic	29401/2021-CO/L, Dt. 06.12.2021	<u>L-112036/2022</u>
13.	Retrieval of urban canopy parameters from very high	Kshama Gupta	Literary/ Dramatic	61/2022-CO/L, Dt.01.01.2022	<u>L-113996/2022</u>

	resolution satellite optical stereo and multi-spectral data	DAP			
14.	A holistic sustainable development model incorporating spirituality	Rajat Agarwal and Kanupriya Gupta DOMS	Literary/ Dramatic	21613/2022-CO/L, Dt. 14.10.2022	<u>L-122374/2023</u>
15.	QULIB-DJ: Python API for Deutsch-Jozsa Algorithm	Sandeep Kumar , Vatsal Tiwari and Sugata Gangopadhyay CSE	Software Work	23457/2022-CO/L, Dt. 15.11.2022	<u>SW-16319/2023</u>
16.	Mobile application assisted health id for students	Niraanjan Umesh Bhore, Niraj Popatrao Thorat and Hardeep Singh Manhas DOD	Literary Work	2646/2023-CO/L, Dt. 30.01.2023	<u>L-124022/2023</u>
17.	Scorecard for assessing effectiveness of technology and business incubation program in indian heis	Rajat Agrawal , Rahul Singh Rathore DOMS	Literary Work	12937/2023-CO/L, Dt. 17.05.2023	<u>L-127975/2023</u>
18.	FL-Noise Map: A federated learning-based privacy-preserving urban noise-pollution measurement system	Dheeraj Kumar and Ayshika Kapoor ECE	Literary/ Dramatic	32267/2023-CO/L, Dt. 05.12.2023	<u>L-144422/2024</u>

19.	BSD-MTSP Solver	Millie Pant and Shanu Kumar AMSC	Literary/ Dramatic	32269/2023-CO/L, Dt. 05.12.2023	<u>L-143289/2024</u>
20.	MATComp	Millie Pant and Shanu Kumar AMSC	Literary/ Dramatic	32271/2023-CO/L, Dt. 05.12.2023	<u>L-143633/2024</u>
21.	Coupling matrix generator software (CMGS) an essential design tool: RF and microwave band pass filter	Gowrish Basavarajappa ECE	Computer Software	4175/2024-CO/SW, Dt. 06.02.2024	<u>SW-19990/2025</u>
22.	Decision support system for integrated operation of hydropower plants	Kasiviswanathan K S and Thanga Raj C WRDM	Computer Software	6504/2024-CO/SW, Dt. 29.02.2024	<u>SW-18922/2024</u>
23.	An end-to-end privacy preserving framework for user privacy, model reliability, and fair incentivization for federated learning based urban sensing system	Dheeraj Kumar and Ayshika Kapoor ECE	Literary Work	11592/2024-CO/L, Dt. 15.04.2024	<u>L-150298/2024</u>
24.	An end-to-end privacy preserving framework for user privacy, model reliability, and fair incentivization for federated learning based urban sensing system	Dheeraj Kumar and Ayshika Kapoor ECE	Computer Software	11608/2024-CO/SW, Dt. 15.04.2024	<u>SW-18890/2024</u>

25.	Branding Pathways for Creating Wealth From Waste	Zillur Rahman and Avishek Paul DOMS	Literary /Dramatic	20554/2024-CO/L, Dt. 24.06.2024	<u>L-152853/2024</u>
26.	Hindi dysarthic speech database	Manoj Tripathy , R. S. Anand, Raj Kumar EE	Literary/ Dramatic	8007/2025-CO/L, Dt. 08.03.2025	
27.	A software tool for the difficulty analysis of stack overflow questions	Sandeep Kumar Garg , Aman Swaraj, Neha Gujar, Manmashree Kalode, Bhoomi Bonai and Krishna Agarwal CSE	Computer Software	11960/2025-CO/SW, Dt. 29.03.2025	
28.	Development of computer software for weighing the ingredients of different grade of concrete mixes	G.D Ransinchung R. N. and Gaurav Verma CED	Computer Software	14649/2025-CO/SW, Dt. 15.04.2025	
29.	Intelligent android malware detection framework using graph convolutional networks and swarm-based feature optimization	Sateesh Kumar Peddoju and Amogh Babu K A CSE	Computer Software	SW-21610/2025-CO, Dt. 28.05.2025	

List of Register Trademark

S. No.	Trade Mark Registration on the Name	Application No. and Filing date	Class	No. of Class	Certificate No.
1.	IITR-Roorkee (Logo)	3451776, Dt. 06.01.2017	41	1	Registered
2.	INTERNATIONAL RELATIONS (IR LOGO)	5083550, Dt. 11.08.2021	41	1	
3.	RAJBHASHA PRAKOSTH (Hindi Cell LOGO)	5083551, Dt. 11.08.2021	41	1	3672274
4.	RETHINK-THE TINKERING LAB (TL LOGO)	5114534, Dt. 02.09.2021	41	1	3674322
5.	Chairperson Diversity and Inclusion Committee (DInC)	5742008, Dt. 28.12.2022	41	1	5742008
6.	IPR Cell Logo	5743728, Dt. 28.12.2022	41	1	5743728
7.	International Centre of Excellence for Dams (LOGO)	6033106, Dt. 21.07.2023	41	1	6033106
8.	GATE 2025 (LOGO)	6578852, Dt. 16.08.2024	41	1	

9.	HAZARD BUSTERS	6590761, Dt. 24.08.2024	42	1	
10.	ruTAge (Logo)	6638579, Dt. 24.08.2024	31,39,41,42	4	
11.	Aarti Accelerating Innovation (Logo)	6638580, Dt. 24.08.2024	31,41,42	3	

Patent Applications of DIVYASAMPARK iHUB ROORKEE FOR DEVICES MATERIALS AND TECHNOLOGY FOUNDATION

Filed Patent

Sl. No.	Title of the Disclosure	Inventor	Application no.	Filing date	Publication date	Publication No./ Journal No.
1.	A low cost, portable and centralized ventilator system to be used for more than one patient	Ashmit Verma, Deepak Singh Chauhan and Ayush Tiwari iHUB, CON and Université de Montréal	202211023177	20.04.2022	17.06.2022	24/2022
2.	Intelligent Hydro turbine control system for variable speed hydro generating units	Rupesh Kumar, Thanga Raj Chelliah and Koothu	202211023178	20.04.2022	17.06.2022	24/2022

		Kesavan Prabhakaran WRDM				
3.	Anti-rotational pads for helmet	Shailesh Ganpule and Abhilash Singh MIED	202211027222	11.05.2022	17.06.2022	24/2022
4.	A System and method for the Detection of Cyber attack on automatic generation control signal of Electric Power plant	Chandrasekaran Subramanian, Mayur and Thanga Raj Chelliah WRDM	202211052352	13.09.2022	21.10.2022	42/2022
5.	Landslide Alerting System for Hilly Areas' Drivers'	Raushan Kumar	202231061045	26.10.2022	02.06.2023	22/2023
6.	Control system to dampen SSO in Variable Speed Pumped Storage Units Connected with Extra High Voltage Transmission Lines	Thanga Raj Chelliah, Vijay Pandurang Mohale, Yogesh Vijay Hote, Sunny Sardar Sonandkar and Javed Ali WRDM	202211069377	01.12.2022	19.05.2023	20/2023

7.	Fully Wireless Traffic Control System based on Crowd Source Data	Amit Agarwal, Mohd. Ikhlakh and Saurabh Mishra	202211074732	22.12.2022	19.05.2023	20/2023
8.	MXene Graphene nanohybrid thin film based electrochemical biosensors for analyte detection and applications thereof	Gopinath Packirisamy, Ashish Kalkal, Deepanshu Sharma, Ayush Tiwari and Rangadhar Pradhan BSBE & iHUB	202311012554	24.02.2023	30.06.2023	26/2023
9.	Grid Parameter Based System and Method for Detecting Cyber Hacking of Automatic Generation Control in Electric Power Plant	Thanga Raj Chelliah, Mayur Chandrasekaran and Subramanian WRDM	202311035002	18.05.2023	14.07.2023	28/2023
10.	Development of magnetic metamaterial 'add-on' for improving the signal-to-noise ratio of Magnetic Resonance Imaging at 1.5T	Priyanka Das Divyasampark iHUB Roorkee	202311037880	01.06.2023	14.07.2023	28/2023
11.	A metasurface-inspired flexible structure c for boosting the signal-to-noise ratio (SNR) in 1.5TMRI scans	Priyanka Das iHub with IITG	202311058391	31.08.2023	22.12.2023	51/2023
12.	A system and method forecasting for solar photovoltaic power using machine-learning	Rhythm Singh, Raksha Sharma, Abhijeet Rathore and Priya Gupta HRED & CSE	202311059664	05.09.2023	02.02.2024	05/2024

13.	An IoT based system and method for head kinematics monitoring	Parul Taneja, Syeed Mohammad Anas, Alaa Aldin Ghazal and Shailesh Ganpule MIED	202311076725	09.11.2023	05.01.2024	01/2024
14.	A System, method and device for the detection of drug resistant pathogen: Advanced BL Tester	Saugata Hazra, Devesh Bhimsaria, Subhecchha Baidya, Kunal Dhankhar and Niteesh Kr. Pandey BSBE & PPE	202411001056	05.01.2024	09.02.2024	06/2024

Granted Patent

Sl. no.	Title	Inventor	Application no. and Filed on	Patent number & granted on
1.	A low cost, portable and centralized ventilator system to be used for more than one patient	Ashmit Verma, Deepak Singh Chauhan and Ayush Tiwari iHUB, CON and Université de Montréal	202211023177, Dt. 20.04.2022	Patent no. IP 534799, Dt. 25.04.2024
2.	Intelligent Hydro turbine control system for variable speed hydro generating units	Rupesh Kumar, Thanga Raj Chelliah and Koothu Kesavan Prabhakaran WRDM	202211023178, Dt. 20.04.2022	Patent no. IP 530242, Dt. 26.03.2024
3.	MXene Graphene nanohybrid thin film based electrochemical biosensors for analyte detection and applications thereof	Gopinath Packirisamy, Ashish Kalkal, Deepanshu Sharma, Ayush Tiwari and Rangadhar Pradhan BSBE & iHUB	202311012554, Dt. 24.02.2023	Patent no. IP 516421, Dt. 28.02.2024

International Patent

No.	Title of the Disclosure	Disclosure Submitted By	Name of Collaborating Institutes	International patent filed on
1.	TECHNIQUES FOR A SELF-LEARNING SCALABLE EVENT BROKER			ORC24137950-US-NPR for USA /ORC24137950-IN-NPR for India

Copyright application

No.	Title of the disclosure	Disclosure Submitted By	Class of Work	Diary Number	Registered Certificate No.
1.	HUMAN-WILDLIFE CONFLICT MANAGEMENT SOFTWARE VERSION 1.0 (HWCM VER1.0) (Copyright)		Computer Software	619/2024-CO/SW	