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IIT Bombay invites all the entrepreneurs/members of the Association to review the patents / technologies available for possible commercialisation, expanding the scope of industrial practices to tackle the global challenges effectively.

Parties with suitable experience and ideas and interested in availing of license to specific technologies listed, are invited to submit their brief profile and details of request in the form attached overleaf and post it to the given address. Alternatively, they may register the details on [www.iitb.ac.in/licensing](http://www.iitb.ac.in/licensing).

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Code	Title of patent	Application no
EE 1	A novel mechanical energy storage and release device	607/MUM/2004
EE 2	Absorption module	155/MUM/2002
EE 3	An improved process for water treatment to remove Arsenic, Iron and Phosphate by zero valent Iron and a reactor therefore	2336/MUM/2008
EE 4	Biological treatment of aqueous effluents containing non aqueous phase liquid pollutants	2177/MUM/2006
EE 5	Contacting device	153/MUM/2002
EE 6	Cryogen free superconducting transformer	1401/MUM/2008
EE 7	Energy efficient regeneration process	767/MUM/2002
EE 8	Freeze concentration system	1000/MUM/2002
EE 9	Hybrid cooling system	154/MUM/2002
EE 10	Multi utility vapour compressing system	613/MUM/2003
EE 11	Porous gas diffusion for fuel cell and related electrochemical applications	959/MUM/2006
EE 12	Process for energy efficient conditioning of air using liquid dessicant	272/MUM/2003
EE 13	Reactor for reductive conversion reactions using palladized bacterial cellulose.	691/MUM/2007
EE 14	Refrigeration cum water heating system	151/MUM/2002
EE 15	Switchable heat pipe	152/MUM/2002
EE 16	Tube - Tube Heat Exchanger	1082/MUM/2002

## Healthcare

Code	Title of patent	Application no
HC 1	A clinical electrodiagnostic digital instrument for electromyography (EMG) and/or nerve conduction measurement	14/MUM/2001
HC 2	A dry method for surface modification of SU-8 for immobilization of biomolecules using a hotwire induced pyrolytic process	1267/MUM/2004
HC 3	A exogenous protein free pulmonary surfactant composition for adult respiratory distress syndrome and a process for preparing the same	1223/MUM/2005
HC 4	A facile and efficient synthesis of $\alpha$ -hydrazine- $\alpha$ , $\beta$ -unsaturated nitroalkenes via Morita-Baylis-Hillman reaction	1410/MUM/2005
HC 5	A mechanical device for harvesting energy from a joint movement	1167/MUM/2008
HC 6	A nanoparticle exogenous protein free micronutrient added pulmonary surfactant composition for neonatal respiratory distress syndrome (NRDS) and a process for preparing the same	1222/MUM/2005
HC 7	A novel approach to stabilize Fluvastatin drug with improved properties	2093/MUM/2008
HC 8	A novel process for the extraction of nutraceutical concentrate enriched with active ingredients using supercritical fluids	545/MUM/2004
HC 9	Head mounted device for semantic representation of the user surroundings	133/MUM/2006
HC 10	Novel anticancer hydrazino derivatives of Curcumin and process for preparation thereof	1568/MUM/2008
HC 11	Novel ferrofluid preparation	475/MUM/2004
HC 12	Pharmaceutical composition for therapeutic or prophylactic treatment of bacterial infections and associated diseases	2345/DEL/2008

## ICT

Code	Title of patent	Application no
ICT 1	A bidirectionally accessible mobile wireless communication system	1111/MUM/2002
ICT 2	Architectural framework of communication network and a method of establishing QoS connection	2471/MUM/2007
ICT 3	Communication system with novel bus shorting	386/MUM/2004
ICT 4	Device and method for advertising through video display system	1338/MUM/2006
ICT 5	Method and apparatus for the encoding and decoding of speech at bit rates below 2kbps	273/MUM/2003
ICT 6	Nonvolatile floating gate analog memory cell	2217/MUM/2008
ICT 7	Stylus based device for text and command input	273/MUM/2004

Code	Title of patent	Application no
MC 1	A method of making nanocarbon structures from cashew nut shell pyrolysis vapours	899/MUM/2008
MC 2	A compact drive machine of a reciprocating machine	480/MUM/2000
MC 3	A method and a scanner for three dimensional focused laser beam spot scanning	1847/MUM/2007
MC 4	A method for coating steel components with diamond by chemical vapour deposition (CVD) and steel components obtained thereby	377/MUM/2000
MC 5	A novel method for design process using sheet metals	474/MUM/2004
MC 6	A novel process for production of nanoparticles using subcritical carbon dioxide	544/MUM/2004
MC 7	A novel process for sterilizing of bio-materials using supercritical fluid	543/MUM/2004
MC 8	A process for cyclic supercritical fluid (SCF) CO <sub>2</sub> extraction of fragrances (absolute or essential oils) from jasmine flowers	72/BOM/96
MC 9	A process for selection of material specification for sheet metal products	808/MUM/2006
MC 10	An improved protective coating composition for hot dip galvanization of steel	247/MUM/2008
MC 11	Asymmetric synthesis of $\gamma$ -nitrophosphonates in the absence of any other chiral catalysts	2359/MUM/2007
MC 12	Clays as cell openers in polyurethane foam	1213/MUM/2004
MC 13	Device and method for mitigating magnetic core saturation in a current transformer	592/MUM/2008
MC 14	Flyer for a jute spinning machine	661/MUM/2006
MC 15	Functionalised bis homocubyl systems as novel ligands and catalysts in asymmetric reactions	98/MUM/2008
MC 16	Malonic acid based monomers and polymers	664/MUM/2006
MC 17	Method for improving particulate mixing and heat transfer in tumbling mixers and rotary kiln	809/MUM/2003
MC 18	N-alkylation of amino acids and its application in designer functional biopolymers	775/MUM/2006
MC 19	Novel 3,4-propylenedioxythiophene derivatives with pendant functional	302/MUM/2005
MC 20	Novel polymers of 3,4-propylenedioxythiophene derivatives with pendant functional groups	347/MUM/2005
MC 21	O-alkylation of bis-methyl propionic acid and its application	776/MUM/2006
MC 22	Reinforced industrial type woven fabric	162/MUM/2005
MC 23	Sterling coolers	299/MUM/2006

## Other Technologies

Code	Title of patent	Application no
OT 1	A constant long period vibration-protective pendulum isolator for structures	15/MUM/2001
OT 2	A diagnostic method for determining deformations in a transformer or reactor winding	1893/MUM/2007
OT 3	A hybrid transmission system	1075/MUM/2004
OT 4	A method of depositing an amorphous-SiC:H barrier layer on a low dielectric material layer	4/MUM/2006
OT 5	A method of making a fluid separation material such as membrane of nanopore structure	12/MUM/2001
OT 6	A method of treating a low k dielectric material	5/MUM/2006
OT 7	A novel method for multiple object tracking	1278/MUM/2003
OT 8	A variable period vibration protective pendulum isolator for structures	867/MUM/2001
OT 9	An electronic explosive detector	1590/MUM/2008
OT 10	An environment and user friendly and efficient method and formulation for cleaning cloths	24/MUM/2001
OT 11	An on-line diagnostic method for health monitoring of transformer	1893/MUM/2007
OT 12	Colored thermal imaging using uncooled opto-thermo mechanical device without electronics or electronics	541/MUM/2005
OT 13	Haptic Based Virtual Snooker Game	--
OT 14	Inverted switched reluctance motor as hub drive for electric vehicle	365/MUM/2007
OT 15	Lipoxygenase inactivated and sterilised legumes and cereal products	540/MUM/2005
OT 16	Novel device to aid learning of fractions and mathematical operations	1167/MUM/2003
OT 17	Novel strength enhancing insert assemblies	496/MUM/2004
OT 18	Reticulated vitreous carbon controlled pore size and enhanced electrical conductivity	1111/MUM/2005
OT 19	Text input device for Indic languages	720/MUM/2003



Further details are available at [www.iitb.ac.in/licensing](http://www.iitb.ac.in/licensing).  
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