

Intellectual Property Disclosure Form

1. **Title of the invention:**
2. **Innovator(s) who have contributed or conceived an essential element of the invention, either independently or jointly with others during evolution of the technology concept or reduction to practice:**

(i) Name:
Nationality:
Position:
Department Address:
Phone:
Email: (IITJ email ID is mandatory along with personal email ID for students)
Course: (For Students)

(ii) Name:
Nationality:
Position:
Department Address:
Phone:
Email: (IITJ email ID is mandatory along with personal email ID for students)
Course: (For Students)

(iii) Name:
Nationality:
Position:
Department Address:
Phone:
Email: (IITJ email ID is mandatory along with personal email ID for students)
Course: (For Students)

Inventors are requested to provide their Full Name (without initials**), Position (e.g **Professor / Associate Professor / Assistant Professor, Post Doc / Phd / M. Tech / B. Tech Student**), Phone Number (**Personal**), Email ID (**Official along with Personal**)*

Students are advised to provide their **home address as well.*

3. **Non-Confidential description of the invention in layman's Language:**

A. *Abstract in 100 words*

B. Use Case

Please consult examples provided in Annexure-1 for filling this section

C. Keywords

Please be noted that the above keywords will be utilized by the IPR Cell for preparing Patent Search Report

Note: *Please note that the above Information alone will be circulated to several agencies for technology commercialization purposes once the patent is filed. Thus the fields should be self-explanatory to highlight commercialization potential.*

4. How does this invention relate to new processes, machines, compositions of matter, etc.? Please cover the following points:

- (a) Describe the invention in detail for technical evaluation. Please use additional sheets for sketches, drawing, photographs and other materials that help to illustrate the description.
- (b) What is Novel in the invention?
- (c) What is the “inventive” step in your invention? Is the step non-obvious to a person from related fields?
- (d) What are the advantages of the present invention over comparable inventions available in patent literature? Please attach a summary of your patent search*.
- (e) NOTE: The inventors should go through the Patent Search report carefully and write the difference between his/her invention and each contents of the patent search. For Patent search please contact ipr_rnd@iitj.ac.in
- (f) Has the invention been tested experimentally? Are experimental data available?
- (g) Technology Readiness Levels (**TRL**) description (mention the applicable stage of TRL given below). Please Mark as Appropriate with adequate justification.

☐ **TRL-1**
Research Idea
(Potential Application/Basic Principles observed)

☐ **TRL-2**
Applied Research Idea
(Hypothesis testing and initial proof of concept is demonstrated in a limited number of trials)

- ☐ **TRL-3**
Project Plan
(Device Characteristics documents & project proposal completed, Proof-of concept phase)
- ☐ **TRL-4**
Design and Development
(POC & Safety of device demonstrated by prototype design)
- ☐ **TRL-5**
Standardization
(Validating the result of the prototype by testing in simulated environment)
- ☐ **TRL-6**
Preclinical Evaluation
(Clinical trials of functional prototype)
- ☐ **TRL-7**
Technology Transfer
(Technology transfer of the developed system)
- ☐ **TRL-8**
Clinical Evaluation
(Evaluation of the system by clinical trials or demonstration)
- ☐ **TRL-9**
Commercialization
(Commercialization & Post Market Surveillance)

- (h) **Need and Demand**
(Technology gaps addressed in domestic & international markets, pain points of Industry which are being resolved)
- (i) **Market Access Information**
(Current Global & domestic Scenario, market size & CAGR)
- (j) **Future Developments**
(Scope of future technology development and their application)
- (k) **Application/s of the invention**
(Please refer to Appendix-I)

5. IPR Ownership

- (a) Was the intellectual property created with the significant use of funds or facilities of IITJ?
- (b) Please describe any source of funding for the invention (Name of the funding agency and copy of agreement, letter of intent if any, must be enclosed with this form).

*Submission of IPDF soft copy is Mandatory at the time of Patent document submission.

- (c) What is the source of Salary/Remuneration of inventor/Co-inventor?
- (d) Have you presented in any conference, seminar, etc., if yes, please give details?
- (e) Have you published full/part of this invention, if yes, please give copy of publications?
- (f) Was the intellectual property created in the course of or pursuant to a sponsored/consultancy research agreement with IITJ? If yes, please enclose a copy of MOU with concerned project.
- (g) Was the intellectual property created as a part of academic research leading towards a degree or otherwise?
- (h) **REVENUE SHARING AMONG INVENTORS:** Please disclose the extent of contribution of each inventor in the invention in percentage terms for revenue sharing.

NAME OF THE INVENTOR	% SHARE*	SIGNATURE
1.		
2.		
3.		

* If this column is not filled and signed then it will be assumed that all inventor(s) have equal contribution

6. Commercial potential

Give brief description of potential commercialization by specifying

- a) Why should the individual(s)/organization may consider procuring this innovation?
- b) These questions are related to the question (i) above:

i. In your opinion what are the steps/processes must be undertaken by the procurer to commercialize the use of this innovation?

ii. How long may it take to reach the commercial stage by the procurer?

- c) Please give specific list of companies and contact details of concerned person who can be contacted for initiating Technology Licensing

Sr. No.	Name of Companies	Name of the contact person	Contact no.

(*Unsigned & Incomplete IPDF forms shall not be accepted).

*PCT/ International filing is subject to support from the Project funds of the Inventor.

d) Do you want to file Patent under PCT Route in other countries?

Yes ☐

No ☐

*PCT & Foreign filing is subject to monetary support from the inventor(s) Project / Personal Account. If the above option is marked "yes", kindly provide the Project Account Details from which the filing cost could be reimbursed.

Project Account Name:

Project Account No.:

***The institute shall file patent under PCT route only in those cases wherein industry/company has exhibited interest for commercialization.**

Disclaimer: *I/We declare that before the submission of this disclosure form or/and during the process of filing this invention as an IPR prospect, I/We will not publish the above information in public domain.*

I/We also give consent to IIT Jodhpur being the applicant of this IPR prospect, that they may use this disclosure upon their discretion, which will not be limited to publication on e-auction website, Industry meets & different portals for promotional & licensing purposes.

Signature of Inventor with date

Signature of Inventor with date

Signature of Inventor with date

Signature of Inventor with date

Annexure- I

Illustrated examples for mentioning use case of Product/ Process

1. “Classification of Hard and Soft Taps on Capacitive Touch Screen” having application in below mentioned use case:

We all use capacitive touch screens, on a series of devices starting with smart watches, smartphones tablets laptops and desktops. The only thing you can do on the present touch screens is to indicate a location, by touching it there. It doesn't matter whether you touch it hard or lightly - the touch is definitely not 3D. iPhone X has attempted to introduce this feature (force touch) by including expensive special pressure-sensitive hardware. We adopt a different approach, that requires you to only install an app on the existing device. With this the same touch screen that you have been using now becomes sensitive to at least two levels of pressure, light and heavy. Every other app developer can now exploit this feature and provide more sophisticated user interfaces which can distinguish levels of touch. The possibilities are limited only by the imagination. As the technology matures, a larger number of levels of touch is likely to be supported.

2. “Antibacterial Nano breathing Nasal Filter” having application in

Many people use face mask for breathing pollution free air, but the main constraint in breathing is decrease in breathing flow rate. The innovation described herein relates to a nasal air filter, and more particularly, the invention relates to a nasal air filter based on nanotechnology for breathing by human beings that has antibacterial feature, which can mimic the natural breathing process i.e. 12-15 lpm and is comfortable to use. The nasal filter will be useful for people living in polluted cities as well persons having allergy and suffering from Asthama & Bronchitis.

3. “A method of measuring BMP signaling using BMP responsive reported cell line” having application in

Bone Morphogenetic Protein (BMP) signaling is necessary and sufficient for bone formation. It is present in several biological samples measurement of which may have diagnostic value. However, at present there is no sensitive method of detecting BMP proteins in a biological sample. In this disclosure we describe creation of a cell line based sensitive and accurate method of estimating BMP proteins in any specimen.

4. A unique device for plasma processing to simulating magnetospheres in the laboratory

The dipole plasma device would be helpful in industry for plasma processing of samples such as in the semiconductor industry, where energetic electrons (or ions) are required to impinge on a substrate and to bring about desired changes in the substrate such as plasma assisted ion doping, etching, or creation of nanostructures on metallic surfaces, the device would be helpful in understanding the physics of plasmas confined in a magnetic dipole.

5. Large area micro-texturing on free-form surfaces using flexible-electrode through-mask electrochemical machining

Surface micro-texturing deals the issues pertaining to various fields of engineering for enhancing the essential functions such as tribological, wetting, biocompatibility, sustainability, cleanliness etc. Among all the aforementioned sectors, micro-texturing of free-form large areas is getting huge attention, e.g. micro-textures on artificial biomedical implants enhances sustainability and life cycle by better implant-tissue interface, cell-adhesion and cell proliferation. Micro-textures on cylindrical surfaces (both internal and external) of bearings,

<https://iitj.ac.in/office-of-research-development/en/ipr>

piston rings, hypodermic needles assists in reducing the coefficient of friction and facilitating lubrication.

**This page is for reference purpose, no need to print this page.*

**Submission of IPDF soft copy is Mandatory at the time of Patent document submission.*