RESEARCH POLICY

JUNE 20, 2011



Indian Institute of Technology Patna

Patliputra Colony, Navin Govt. Polytechnic Campus, Patna 800013, Bihar Website: www.iitp.ac.in

TABLE OF CONTENTS

1.	Mission and Objectives	3
2.	Principles Concerning Research	4
3.	Openness in Research	5
4.	Academic Freedom	6
5.	Research Support	7
6.	Responsibilities towards Fellow Researchers	7
7.	Dissemination of Research Results	8
8.	Academic Authorship	9
9.	Research Misconduct	12
10	. Conflict of Interest	15
11	. Maintenance of Research Data	17
12	. Intellectual Property Rights	18
13. Environmental safety and experiments with living organism		
		19
14	. Dispute Resolution Body	20
15	. Amendability	20
16	. Application	21

1. Mission and Objectives

1.1 Mission

The mission of Institute of Technology Patna (IITP) is to encourage, sustain, and advance excellence in the dissemination, creation, and preservation of knowledge in science, technology, and other areas that will best serve the nation and the world in future.

1.2 Objectives

- **1.2.1** The Indian Institute of Technology Patna strongly believes that Research, in all forms-experimental, theoretical, etc. and in all areas of interest, is of paramount importance in achieving this cherished goal. The Institute is committed to the highest standards of integrity in research in fundamental and applied aspects of all subjects and areas of interest to its faculty, students and academic staff. The Institute seeks to develop in each member of the IITP community the ability and passion to work wisely, creatively, and effectively for the betterment of humankind.
- **1.2.2** It is the purpose of the educational program to develop in each student that mastery of fundamentals, versatility of mind, motivation for learning, and intellectual discipline and self-reliance that is the best foundation for continuing professional achievement; to provide a liberal as well as professional education so that each student acquires a respect for moral values, a sense of the duties of citizenship, and the basic human understanding and knowledge required for leadership; and thereby to send forth men and women of the highest professional competence, with the breadth of learning and of character to deal constructively with the issues and opportunities of our time.
- **1.2.3** The Institute seeks through research and reflection to extend the boundaries of knowledge and the horizons of the human intellect. In so doing, it aims to create an atmosphere of intellectual excitement, a climate of inquiry and innovation in which each student develops a consuming interest in understanding for her/his own sake.
- **1.2.4** The Institute has therefore undertaken to define its policies and expectations with regard to integrity, in a manner consistent with encouraging the highest standards of research. The Institute puts forward, in this

document, its guiding philosophy with respect to various aspects of research and development.

In this document, the term "Principal Investigator" (PI) will mean the faculty member or any other academic staff principally responsible for carrying out an externally sponsored research project. In the context of research without external funding, the term will mean the faculty member(s) under whose supervision a specific research work is being conducted.

2. Principles Concerning Research

- **2.1** The Institute emphasizes that the relation between teaching and research should be symbiotic in nature, both suffer when dealt with separately. Research is not only encouraged for the purpose of creating knowledge but also for elevating teaching standards through the incorporation of new ideas and inventions in the process of transfer of knowledge and inspiring to the future generations.
- **2.2** The Institute also encourages development of innovative curricula, courses, and teaching tools for the dissemination of knowledge.
- **2.3** The Institute accentuates that the standards of research pursued should promote excellence at the highest international level. It strongly encourages research collaborations within the institute and also with other institutions and organizations within India and abroad. It expects that the research pursued by its academic community should contribute to the growth of knowledge across the globe in a professional way through publications, research reports, patents, and other forms of expression.
- **2.4** The Institute strongly believes that the academic community should maintain and evolve a healthy research atmosphere where presentation and exchange of ideas and results are furthered through regular seminars, colloquia, discussion meetings, workshops and conferences. The Institute hopes that such an atmosphere should exist at all levels—within its academic units and across institutes in this country and elsewhere.

3. Openness in Research

- **3.1** The principle of openness in research is appreciated by the Institute. Accordingly, the vast majority of on-Institute research projects can be conducted in a manner fully consistent with the principles of freedom of inquiry and open exchange of knowledge. The Institute desires that all interested persons should have access to the data, the processes, and to the final results of the research conducted in the Institute without violating the Intellectual Property Right (IPR) pertaining to them.
- **3.2** The Institute desires that the students aspiring for degrees that involve thesis/dissertation work as part of the curriculum shall not normally take up research programme involving secrecy. However, exception to this can be made at the discretion of the Institute on a case-to-case basis and after signing the non-disclosure agreement with the institute as per its existing IP policy.
- **3.3** The Institute also reserves the right to conduct research that requires research data and outcome to remain confidential.
- **3.4** Confidentiality, may be maintained while making provision to protect
- (i) the rights of privacy of individuals in research projects involving human subjects,
- (ii) the secrecy of input data where the research programme has to depend on information that is otherwise classified as sensitive by the state or is so perceived, and
- (iii) the secrecy of private papers, documents, diaries and other analogous materials, both in writing and in digital form, which might be provided to the members of the research project, if deemed necessary.
- **3.5** A research programme, either sponsored or contractual, shall be regarded as requiring secrecy if any document pertaining to the sponsorship or contract

establishes that any part of data, processes, or final results of such work is not freely publishable or can only have restricted access.

3.6 Since the implementation of research in the Institute would drastically change the academic environment of the Institute, it is essential that each project be reviewed and acted upon in light of its impact on the Institute as a whole.

4. Academic Freedom

- **4.1** The Institute's central function of teaching, learning, and research depend upon an atmosphere in which freedom of thought, enquiry, expression, initiative, belief, publication, and peaceful assembly is crucial for nurturing an environment of highest-quality research, learning and scholarship.
- **4.2** Expression of the widest range of viewpoints should be encouraged, free from institutional orthodoxy and from internal or external coercion. All academic and research personnel are given full freedom in conducting research, publishing papers, and teaching subjects in classrooms without any interference from any quarters, while conforming to the standards maintained by the academic and research community, worldwide.
- **4.3** Decisions concerning academic benefits like support of scholarly research, academic exchange, etc that are extended to academic and research personnel are made without any regard to a person's social, political or any other view.
- **4.4** The Institute provides every research person the scope for representation if she (or he) feels that any action of the Institute has infringed on her (or his) academic freedom. In such cases, the Senate/IAPC will appoint a committee of faculty members to look into the case and report the findings, for further action.

5. Research Support

- **5.1** To carry out Institute's research mission efficiently, the research personnel are guaranteed certain freedoms. They have the right to academic freedom in the pursuit and support of research. They also have the right to disseminate the results and findings of your research without suppression or modification from external sponsors beyond those provisions explicitly stated in the policy on Openness in Research. Furthermore, they are guaranteed the right, within the framework of the Institute's regulations, to engage in external sponsored research, inter-institute (international/national) collaborative research and consulting activities, to visit Institutes in India and abroad during vacation and other granted periods to open up broader possibilities of academic and industrial collaboration through visiting research and teaching assignments, to avail sabbatical leave, EOL, etc., as per Institute norms, and to engage in entrepreneurship activities.
- **5.2** The Institute shall endeavor to provide space, funds, and facilities for the research programmes by its faculty members as a measure of support towards excellence in research.
- **5.3** The Institute also provides research funds and fellowship to the selected Institute-scholars. It also allows research for the selected per-time and self-funded researchers.
- **5.4** Independent of external funding agencies, funds are also made available through the academic units, based on genuine needs and merits, aiming to provide new directions in thrust areas of research based on Institutional priorities.
- **5.5** The Institute is also committed to create special incentives, recognitions, awards etc to promote and sustain a very conducive research climate.

6. Responsibilities Towards Fellow Researchers

6.1 Research personnel must be aware of their obligations to their coresearchers working as part of the research team.

- **6.2** It is particularly important that, at least annually, each faculty member should review intellectual and tangible property rights and responsibilities, with all members of the group under her/his supervision, including staff, students, postdocs, and visiting scholars.
- **6.3** At the individual level, the best interest of each co-researcher should be of particular concern. Each member has the right to know who is sponsoring the research and supporting her or his salary or stipend.
- **6.4** The Institute is committed to demonstrate support and appreciation to its staff and students. To that extent, faculty members are encouraged to provide staff and students development opportunities and a mentor relationship for those in their group.
- **6.5** The Institute emphasizes that Research personnel are responsible for training members of her/his team in appropriate health and safety procedures for that particular research area, and for management of those procedures in her/his laboratory or other workplace. PIs are also responsible to assure the periodic inspection of lab facilities, and to cooperate in any inspections by internal or by external agencies.

7. Dissemination of Research Results

7.1 The scientific community has established specific procedures for making one's research result known to the rest of the research community and to the general public. For a research work that does not involve secrecy or intellectual property (IP) protection requirements, the output is normally expected to be first published in a reputed, international, peer-reviewed scientific journal, thus exposing it to the scientific community at large, for their critical evaluation and subsequent use for new work. If the piece of work passes this test, it is recognized as contribution to body of human knowledge. This process takes time, and recognition comes only after researchers, worldwide, accept the results. Any attempt to sidestep this process is strongly discouraged.

- **7.2** In particular, research personnel are not allowed to issue press statements regarding their research results on their own. If any researcher feels the need to make public announcement of an important development in view of the urgency of the situation, she (or he) should contact the concerned functionaries of the Institute. Such a public announcement through print and electronic media may be organized by the institute only after a critical evaluation of the validity of the results.
- **7.3** The research personnel, however, have full freedom to contribute articles to newspapers and magazines on scientific and technological issues for the information of the common people.
- **7.4** There are situations where reporters from print and electronic media approach the members of the faculty, requesting for information on the research work carried out in a laboratory, by a group, or in a department. In such a case, the concerned faculty member or researcher may disclose the details of the research work and may give interview only after obtaining approval from the competent Institute authority, while ensuring that (i) IP norms are not violated and (ii) untested claims are not made.
- **7.5** There are certain areas of research which are not very relevant to scientific journals, but are highly relevant in the Indian context. These are related to the scientific issues directly affecting the Indian people's lives (such as environmental degradation, change in rainfall pattern, falling groundwater table, etc.). The outcome of studies on these issues can be brought to the notice of the general public through print and electronic media only after a thorough discussion on the same at the respective academic units.

8. Academic Authorship

8.1 Faculty-student groups

8.1.1 A majority of research in the Institute is carried out by groups, each comprising a faculty member and her (or his) supervised students. In some cases more than one faculty member may guide a student. The principle governing the order of authorship of papers that result from such a work

should be to recognize the relative weightage of the contribution from the individuals participating in a specific piece of work.

- **8.1.2** In the initial stage of research association with a faculty member, a student normally undergoes the phase of becoming familiar with the broad research area, learning the methodology of research, making literature survey, identifying the problem, learning the operation of any relevant equipment, and absorbing the 'culture' of the discipline. In this phase, the student's contribution may be in the form of simulating systems, writing programs, collecting data, or helping in the execution of experiments formulated by the The student's contribution in this phase may be recognized faculty member. through co-authorship in papers resulting from the work. If the student makes a major contribution in a piece of work, then her/his contribution should be recognized by granting him (or her) the first authorship. After the end of that phase, it is expected that the greater share of the intellectual contribution comes from the student, so that the student can logically become the first author.
- **8.1.3** If a student carries out a part of the research work independently without any intellectual support from her (or his) supervisor, she (or he) may communicate the work as single-authored paper. But in such a case, prior written consent of the thesis supervisor(s) is necessary. If such a work needs to be considered for inclusion in the student's dissertation/thesis, it can only be done with the approval of the concerned supervisor(s). Also see the document on Research Ethics.
- **8.1.4** All the members of any research group shall have access to the experimental/observational/ computational results and should be able to check if the manuscript does adequately and accurately reflect the same. After a paper is published, if any dispute arises regarding the validity of the results, the responsibility shall be of all the authors of the paper.
- **8.1.5** The data generated by an earlier work may be used in any subsequent work with due reference and acknowledgement. But such data cannot be reported in a dissertation/thesis in a manner implying to have been generated by the student's own research.
- **8.1.6** All researchers must keep a record of all experiments conducted by them and data thereof in a laboratory log-book with date, and get them duly authenticated by their corresponding supervisors periodically. When a student

completes the requirements of a degree and leaves the Institute, she (or he) can take a copy of the data/results obtained through her (or his) own work; and, can use these for her (or his) future research only if they are not needed to be kept confidential under contractual obligation with the sponsors of the research project. The original data shall be maintained by the concerned faculty members within the Institute, and can be used for their future work. See the document on Maintenance of Research Data and Results for details.

8.2 Interdisciplinary research

- **8.2.1** Multi-investigator research teams may consist of colleagues from different disciplines who perform different, specialized functions in an integral research plan.
- **8.2.2** It is possible that the participants do not have full knowledge or understanding of parts of the work performed by their colleagues. In such situations, the following guidelines will apply.
- **8.2.2.1** The Principal Investigators involved in the project have special responsibilities to ensure the overall cohesiveness and validity of the work and the resultant publications on which they appear as co-authors. The PIs shall be accountable in case of disputes regarding the validity of the results.
- **8.2.2.2** All authors in a group effort should have a shared responsibility for the veracity and the originality of the published result and the methodology as well as the data acquisition and analysis procedures.
- **8.2.2.3** Each author in group should have access to the manuscript prior to its submission for publication, and should agree to her/his inclusion as a coauthor. It is the responsibility of the corresponding author to ensure that all the participants in the programme know that the paper is being prepared for publication in a target journal.
- **8.2.2.4** Early in the project, each research group should define appropriate practices for the maintenance of data publication of the papers. See the document on Maintenance of Research Data and Results.
- **8.2.2.5** If a student researcher participates in an interdisciplinary collaborative work (in which some parts of the work are carried out by others), she (or he) can include it in her (or his) Ph.D dissertation/thesis only after clearly

demarcating her (or his) own contribution from the others, and with due acknowledgement of the contributions of the others. See the document on Research Ethics for details.

8.3 Collaborative work with other institutions

- **8.3.1** Collaborative work means where one or more faculty members of the Institute, along with their students, carry out research work jointly with one or more faculty members and/or researchers of another organization. In such situations, the guidelines listed in section 8.2 shall apply and shall be interpreted accordingly.
- **8.3.2** In case of collaborative research, formal or informal, researchers at the Institute are obliged to acknowledge or include (as co-author) the contribution of their collaborators in an appropriate manner.
- **8.3.3** If a student/scholar is a part of collaboration, she (or he) may include in her (or his) thesis (with due acknowledgement of the contribution of the others) an appropriate part of that report or paper arising out of the collaboration if she (or he) is included as a co-author.
- **8.3.4** The IP rights in such work shall however be guided by the Intellectual Property Policy of the Institute and subsequent revision thereof.

9. Research Misconduct

9.1 Research misconduct means and includes fabrication, distortion, or plagiarism in proposing, performing, or reviewing research, or in reporting research results, breach of confidentiality, and interference with other researcher's work.

The following meaning of the individual terms shall apply.

9.1.1 Fabrication: Willfully making up fake data or results and recording or reporting them.

- **9.1.2 Distortion:** Purposefully manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.
- **9.1.3 Plagiarism:** The appropriation of another person's ideas, processes, results (including formulas and computer codes) or expressions without giving appropriate credit to him (or her). Publishing or communicating the same content to multiple journals/conferences amount to self-plagiarism.
- **9.1.4 Breach of Confidentiality:** Making public data of confidential nature (such as personal data or those under contractual obligation from the sponsors).
- **9.1.5 Interference:** Unnecessarily creating hurdles for another researcher's work by willfully damaging or concealing materials, processes, hardware, data, text or similar research objects.
- **9.2** Research misconduct does not include honest error or honest differences in interpretations or judgments of data. Inadvertent errors, experimental mistakes or programming bugs are not considered to be research misconduct.
- **9.3** A finding of research misconduct means that:
- **9.3.1** There is a significant departure from accepted practices followed by the relevant research community;
- **9.3.2** The misconduct is committed intentionally, or knowingly, or recklessly; and
- **9.3.3** The allegation is proven by a significant volume of evidence.
- **9.4** The following situation will also be treated as research misconduct:
- **9.4.1** Any researcher publishes another co-researcher's work without including him (or her) as coauthor.
- **9.4.2** A student communicates a paper containing the work carried out as part of the thesis/project/ dissertation without the supervisor's consent.

See the document on Research Ethics for details.

9.5 Applicability

The Institute's policy regarding research misconduct will be applicable to:

- **9.5.1** Research conducted or reported by researchers of the Institute including but not limited to, faculty, academic, staff, students, postdoctoral scholars, visiting scholars making significant use of Institute resources (including participation in any sponsored project);
- **9.5.2** Research conducted or reported elsewhere by researchers of the Institute as part of their normal duties or activities;
- **9.5.3** Where any research work is claimed, cited or implied to have been done at the Institute, or where appointment or official affiliation with the Institute is claimed, cited or implied in connection with the research.

9.6 Arbitration Procedure

In the event of claim arising out of the matters related to plagiarism, authorship, including but not limited to sequence of name, omission, deletion, lack of acknowledgement, unethical practices such as falsehood, claim without evidence, willful misinterpretation, failure to discharge expected normal responsibilities by any researcher and maintaining appropriate level of ethics, standard, integrity and commitment, a committee comprising will be formed, which shall arbitrate the dispute and recommend the course of action. The inquiry shall be performed in full knowledge of, and with prior notification to, the involved persons alleged of misconduct, so as to provide them adequate opportunity to defend. Depending on the seriousness of the case, the Director may appoint an external committee to recommend the action to be taken by the Institute in such a case.

9.7 Individual reporting responsibility

- **9.7.1** Any individual having evidence of an act of research misconduct occurred, or occurring, should notify the relevant competent person of the Institute.
- **9.7.2** Reporting such concerns in good faith is a service to the Institute and to the larger academic community, and shall not jeopardize anyone's employment.
- **9.7.3** Institute prohibits retaliation of any kind against a person who, acting in good faith, reports or provides information about suspected or alleged research misconduct.

9.7.4 However, reporting a baseless allegation against somebody, if found, will be considered as a misconduct.

10. Conflict of Interest

A conflict of interest may arise when an individual's professional commitment and obligations clash with the overall interest and policy of the Institute. Any action may amount to this kind of a conflict if an independent or external observer might reasonably question whether the individual's professional actions or decisions are determined or influenced by considerations of personal gain, financial or otherwise, that might amount to violation of, or be at variance with, the interest of the Institute. Faculty members should conduct their affairs so as to avoid or minimize such conflicts of interest, and must respond appropriately should any conflict of interest arises or tends to arise.

10.1 Responsibility of a faculty member and a researcher

The primary responsibility of the faculty of the Institute is both teaching and research. These two activities should go hand in hand and should complement each other. Excellence in teaching (inculcating fundamentals, supervising projects and thesis, writing books, designing experiments, innovating techniques), and research (new knowledge, high quality publications, and intellectual property) is extremely demanding in terms of time and commitment. In order to pursue and achieve excellence, a faculty member, is often engaged in several additional and supplementary activities and responsibilities. Some of these additional activities could be, but not limited to:

- **10.1.1** Sponsored research and collaboration, both for individual and common programmes of the institute;
- **10.1.2** Consultancy and technical service to industries and research organizations;
- **10.1.3** Academic leadership and guidance to professional bodies, national academies and government agencies;

- **10.1.4** Initiating and signing of memorandum of understanding (MoU) or agreement (MoA) with industries, institutions and organizations for research, collaboration and related activities;
- **10.1.5** Collaborative research both in national and international level (bilateral or multi-partner collaborative programmes);
- **10.1.6** Entrepreneurship promotion and founding of start-up industries or companies;
- 10.1.7 Writing textbooks, reviews, lecture notes and academic materials; and
- **10.1.8** Administrative services to the institute, national bodies, and government agencies.

10.2 Obligation of a faculty member and a researcher

- **10.2.1** Any outside research (sponsored or otherwise) and consulting activities of a faculty member are subject to Institute's approval and the faculty member must take prior permission from the Institute regarding the same.
- **10.2.2** Faculty members must maintain a significant physical presence on campus throughout each semester.
- **10.2.3** Faculty members must not allow other professional activities to detract from their primary allegiance to the Institute.
- **10.2.4** Faculty members should ensure that their advising of research students is free from personal commercial interests, and should inform students and colleagues about outside obligations that might influence the free exchange of scholarly information between them and the faculty member (see the relevant clause on secrecy).
- **10.2.5** No researcher shall use any confidential information of the Institute for any other purpose except for those purposes expressly approved by the Institute.

10.3 Obligation of the Institute

The Institute expects it s faculty and research staff to excel in research and teaching. In order to facilitate this pursuit:

- **10.3.1** The Institute will provide adequate assistance (In terms of infrastructure, space, resources, technical support and logistics) and encouragement (in matters related to load distribution, quota of leave, library, communication facility, traveling support) to its all faculty members and researchers within the framework of Institute rules. This is to encourage the faculty members and researchers to bring funds through sponsored research and consultancy, establish new laboratories, facilities and instruments, train manpower, and to earn laurels and recognitions for the Institute.
- **10.3.2** In order to promote the above culture, the Institute will strive to devise a mechanism to account for the time devoted to research (publication, guidance, and sponsored research and consultancy) while determining or allocating academic and other loads for a given semester/year.
- **10.3.3** The Institute will consider travel related to, and necessary for, sponsored projects and consultancy (such as field work, meetings and conferences, project defense/review and experiments) as part of Institute duty (when approved by competent authority). Expenses related to such travel may be borne from the concerned projects.
- **10.3.4** The Institute will maintain a faculty development fund out of the money earned through project overhead for the concerned faculty members, and will offer suitable academic/research support in due course.
- **10.3.5** The Institute will take initiative to develop, install and maintain major research facilities (capital equipment that are needed by a large number of users and are too expensive to purchase from individual projects).
- **10.3.6** The Institute will provide adequate support and encouragement to the faculty members and researchers to publish papers in highly rated journals and to file patents.

11. Maintenance of Research Data

11.1 In a sponsored project, the PI is responsible for the collection, management and retention of research data. PIs should adopt an orderly system of data organization and should communicate the chosen system to all

members of a research group and to the appropriate administrative personnel, where applicable. For long-term research projects, in particular, PIs should establish and maintain procedures for the protection of essential records in the event of a natural disaster and other emergency.

- **11.2** In case of research conducted without external funding (including research by Institute scholars) the responsibility of the maintenance of research data lies with the scholar as well as her (or his) supervisor. Research data must be archived for a minimum three years after the final project closeout, with original data retained wherever possible. In addition, any the following circumstances may justify longer period of retention:
- **11.2.1** Data must be kept for as long as necessary to protect any intellectual property resulting from the work;
- **11.2.2** If any charges regarding the research arise, such as allegations of scientific misconduct or conflict of interest, data must be retained until such charges are fully resolved; and
- **11.2.3** If a student involved, data must be retained at least until the degree is awarded or it is clear that the student has abandoned the work.
- **11.2.4** Records will normally be retained in the unit where they are produced. Research records must be retained at the Institute or at its designated facilities, unless specific permission to do otherwise is granted by the competent authority for all academic research.
- **11.3** Beyond the period of retention specified here, the destruction of the research record is at the discretion of the Principal Investigator and her or his department or laboratory.

See Maintenance of Research Data and Records for details.

12. Intellectual Property Rights

- **12.1** All participating student, researchers, and visiting scholars must abide by the IP Policy of the Institute in connection with any of their research activities.
- **12.2** Since the IP policy protects against unauthorized reproduction of copyrighted materials and the law directly impinges upon the activities of researchers, it is important that all researchers are aware of the pertinent law and acquaint themselves with the IP Policy.
- **12.3** It may be noted that the doctrine of 'fair use', permits certain limited copying for educational or research purposes without the permission of the owner. Under this interpretation, the researchers are permitted to photocopy and distribute limited portions of copyrighted works purely for academic use only if conditions for 'fair use', are met.
- **12.4** Providing copies from copyrighted materials of others as study materials is not a 'fair use', see the document on <u>Research Ethics</u> etc., for details.

13. Environmental Safety and Experiments with Living Organisms

Faculty conducting any research work shall have to take all precautions against hazards especially when the research work involves experiments using explosives, hazardous chemicals and hazardous bio-degradable waste materials. Permission or clearance must be taken from the Institute authorities. PIs and the research supervisors have the responsibility of seeking such permission.

13.1 There are a few unavoidable steps to be taken for environmental safety and for maintaining safe and healthy working conditions among users and laboratory conditions when handling (i) Chemical and Biochemical waste (ii) Living organism growth with/without DNA techniques and transgenomics (iii) Radioisotope and Heavy metal toxicity (iv) Radiation like X-ray, Gamma ray, UV etc., (v) Flammable solvents and super-cooled liquid (vi) Broken glass (vii) Odour and fire (viii) Pathogen and air/blood borne diseases and (ix) Inhalation

of poisonous gas. The Principal Investigator shall keep constant personal care to minimize the risk of accident. One has to remember that University Laboratories do come under Workmen Compensation Act.

- **13.2** The Institute has Institutional Bio-Safety Committee (IBSC) concerning (i) Research works using Human subjects, (ii) Animal related research works, and (iii) Recombinant DNA research works. Every research proposal related to recombinant DNA, animal experiments and human subjects is placed before the respective committee for approval.
- **13.3** The following are the general important steps to be taken with regard to the safety of individuals and of the environment.
- **13.3.1** Periodic compulsory health and safety training programmes should be conducted in the Institute and the Departments for the students, staff and the faculty.
- **13.3.2** All students, faculty and staff should participate in health and safety training programmes and learn the basic precautions and preventive measures to avoid accidents, and the steps to be taken in the event of accidents.
- **13.3.3** The student and staff should report to their supervisors immediately in case of accidents and report all unsafe conditions, accidents, and work related injuries and illnesses (every occupational accident or injury) immediately.
- **13.3.4** A safety cell should be established so that they can train the students, staff and faculty members for time to time and implement applicable measures and directives assuring that the work environment and operations comply with applicable requirements.

14. Dispute Resolution Body

Unless explicitly mentioned in this document, the resolution of disputes on issues, mentioned here, will be carried out by the Senate/IAPC or by a committee appropriately appointed by the Director.

15. Amendability

The Policy, as a whole or any part or provision thereof, may be amended at any time by the Senate/IAPC.

16. Application

The Policy shall be followed by faculty, staff, students and other functionaries of the Institute with effect from the date the Senate/IAPC accepts this Research Policy Document.