

# **KALINGA INSTITUTE OF INDUSTRIAL TECHNOLOGY (KIIT)**

– Deemed to be University U/S 3 of the UGC Act, 1956 –

## GUIDELINES ON RESEARCH POLICY, SPONSORED RESEARCH, CONSULTANCY PROJECTS, RESEARCH ETHICS, AND RESEARCH COLLABORATION

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### **CHAPTER-I**

### **INTRODUCTION**

#### **RESEARCH AT KIIT DEEMED TO BE UNIVERSITY**

Based on the New Education Policy (NEP), 2020, the teaching and academic programs are highly integrated with research in the areas of physical, chemical, biological, mathematical, material, medical, engineering, environmental and management sciences. KIIT Deemed to be University (KIIT-DU) is involved in pioneering state-of-the-art academic and multi- and inter-disciplinary research covering all these areas. The research at KIIT-DU pursues big ideas, creates new knowledge and makes discoveries that truly matter. KIIT-DU fosters a rich research environment and community across disciplines that support the research pursuits of faculty members, masters' and Ph.D. scholars, visiting faculties along with other collaborative public and private academic and research organizations including industrial collaborations within India and abroad.

The mission and vision of KIIT-DUare to strengthen and accelerate basic, translational and clinical research and to establish new start-up and platform technology in the areas of engineering, biomedical, agriculture and environmental sciences. It promotes close interaction with Industries and other utility sectors and keeps abreast with state-of-the-art technology. KIIT-DU also provides Consultancy Services to both public and private sectors covering a wide range of thrust areas.

Accordingly, KIIT-DU has constituted a high-level Research Advisory Committee (RAC) and University-level Research Committee (URC).

#### **Research Advisory Committee (RAC):**

Vice-Chancellor, KIIT-DU	Chairperson
Pro Vice-Chancellor, KIIT-DU	Member
Prof. S. Nanda, Research Chair, KIIT-DU	Member
Prof. A. K. Singh, IIT Bombay	Member
Prof. Indranil Manna, Vice-Chancellor, BIT Mesra	Member
Prof. A. Tripathy, IIM, Ahmedabad	Member
Prof. V. Vetrivel, IIT Madras	Member

Prof. Gautam Barua, Ex Director, IIT Guwahati	
Prof. P. K. J. Mohapatra, Professor Emeritus, Public Policy Res, KIIT-DU	Member
Prof. Mrutyunjay Suar, DG R&D, KIIT-DU	
Prof. Jnyana Ranjan Mohanty, Registrar, KIIT-DU	Convener

#### **University Level Research Committee (URC):**

Vice-Chancellor, KIIT-DU	Chairperson
ProVice-Chancellor, KIIT-DU	Member
Prof. S. Nanda, Research Chair, KIIT-DU	Vice-chairperson and
	Convener
Prof. Jnyana Ranjan Mohanty, Registrar, KIIT-DU	Member
Prof. Damodar Suar, Chairman, Social Science Research	Member
Prof. Gopal C. Kundu, Director, R&D	Member
Prof. Ashok K. Sahoo, Director, R&D, SOT	Member
Prof. C. K. Panigrahi, Director, QA cell	Member
Prof. B. P. Panda, Director, KLS	Member
Prof. S. N. Mishra, Dean, KSOM	Member
Vice-Principal, KIMS	Member

#### AREAS OF RESEARCH (SCIENCE ANDTECHNOLOGY)

University is engaged in cutting-edge research themes in areas as diverse as labor law; health care policies and management; management of natural resources and waste utilization; climate change; basic and translational health research; communicable and non-communicable diseases; chemical and biological networks; advanced materials research and nanotechnology; energy; computational finance, mathematics, education and engineering science and technology; computer and information technology; management; education and social sciences, etc. with research findings having been published in high-impact national and international indexed journals.

#### **RESEARCH FACILITIES**

At KIIT-DU, we have established excellent research infrastructures at various Schools and Institutes. Moreover, the University also created the State of the Art Central Research Facilities (CRF) where we have high-end instrumentations including Nuclear Magnetic Resonance (NMR) Spectroscopy, Scanning Electron Microscopy (SEM), Field Emission Scanning Electron Microscopy (FESEM), X-Ray Diffraction Analysis (XRD), Particle Size Analyzer, Gleeble Thermal Mechanical Simulator, Raman Microscopy, Servo Hydraulic Dynamic Testing System, High energy Ball Mill, Vibrating sample Magnetometer, Nano Indenter, Rheometer, 3D Doppler Velocimetry & Phase Doppler Particle Size System, 2D Particle Image Velocimetry, Dynamic UTM, Transmission Electron Microscopy, Ion Chromatography, Elemental and Organic Carbon Analyser and CHN Analyser. Moreover, we have several other sophisticated instrumentations such as Confocal Microscopy, Flow Cytometry, Fluorescence Microscopy, HPLC, qPCR, Experimental Animal Facility, Image Analyzer, DC/RF Sputtering System, 3D Printing, 3000kN Servo Controlled UTM, Coordinate Measuring Machine (CMM), etc. at various other Schools and Institutes.

#### **CHANGE OF GUIDELINES**

The Academic Council of KIIT may revise, amend or change the regulations as per the necessity from time to time.

On any aspect, which is not covered under the Guidelines on Resarch Policy, Sponsored Research, Consultancy Projects, Research Ethics, And Research Collaboration or in case of any difficulty/ ambiguity arising out of interpretation or application of the Regulation, the decision of the Vice Chancellor shall be considered as final.

This will effect from\_\_\_\_\_.

### **CHAPTER - II**

### **UNIVERSITY RESEARCH POLICY**

The following principles and guidelines constitute the basis from which the other and upcoming policies regarding the development, promotion and carrying out of research could be initiated:

**Fundamental Principles:**As a fundamental part of its mission, KIIT-DUemphasizes its commitment to carrying out and disseminating the results of basic and applied research. This commitment shall be subject to fundamental principles, the diversity of scholarly endeavor, and research ethics.

**Freedom of Research:** In tune with the basic tenets of the liberal arts tradition of education, scholarly research shall be free, provided compliance with the principles of research ethics as described above and in concordance with the mission and interests of the University. The researchers at KIIT-DUare thus encouraged to carry out scholarly research in compliance with the New Education Policy 2020 (NEP 2020) as well as based on the national importance in any field of interest to them, and to seek funding for this research from any funding agency that seems to be appropriate.

University Support for Research:KIIT-DUcommits itself to the creation and promotion of a high-quality research ambiance that is highly integrated with the academic and teaching programs.KIIT-DU provides selective intramural research support on a priority basis to those faculties who start their research career at the early stages across different schools and institutions. Moreover, KIIT-DU also provides state-of-the-art research infrastructure and sophisticated high-end central instrumentation facility.

University level National & International Conferences/ Workshop/Seminars/FDP/ MDP: The KIIT DU conducts various national and international conferences, workshops, seminars, FDP and MDP across the University through out the year. The some of the events are funded by various external funding agencies and others are self financed by the University.

University-level academic and research positions under different category: The KIIT-DU encourage all the faculties across various schools and institutes to engage in inter- and multi-

disciplinary research. Moreover, the KIIT-DU inspires many women faculties to take part in research activities across various disciplines. Furthermore, the University nominates and recruits many research-oriented faculties through Ramanujam, Ramalingaswami, DST-INSPIRE and DBT-India Alliance Welcome Trust programs. The University also engages a large number of Research Associates and Post-doctoral fellows through SERB-National-Post-doctoral fellowship (N-PDF) and DBT-Research Associate programs; National Level Ph.D. fellowships through CSIR, UGC, DBT, ICMR, ICAR and GATE programs; through KIIT Entrance Examination (KIITEE), and Summer Research Fellowships (SRF) through association with all three National Academy of Sciences.

KIIT-Deemed to be University strongly encourages research networks among its various academic units in order to achieve the following:

- Secure optimal conditions which enable active members in the individual departments and units to do research.
- Support international research projects and cooperation between individual researchers and University research centers as well as international partners.
- Establish and promote national and international research funding by collaborating with many other national and international academic Universities and Institutions.
- Cooperate with the private and public sectors, nationally and internationally, in order to promote funded cooperative research.
- Ensure that the results of research carried out are integrated into the teaching process as far as possible.
- To accelerate industry-academia research collaboration through connecting with various industries within India and abroad.
- To organize various national and international conferences, workshop, seminars, FDP/MDP etc across the University throught the year.

### **CHAPTER-III**

### **SPONSORED RESEARCH**

#### a) STARTUP AND TECHNOLOGY DEVELOPMENT

This University has established one of the best Technology Business Incubation Centre (KIIT-TBI). Through this centre, KIIT-TBI has initiated a large number of Startup Programs and developed multiple platform technologies in the area of affordable Health Care, Agricultural and Plant Sciences, Environmental Science, Artificial Intelligence, Machine Learning, Deep Learning, Internet of Things (IoT), Augmented Reality (AR), Geopolymer for Highway Surface Coating, Additive Manufacturing, Controlling of Traffic Signaling and Management of Tribal Health Care, etc.

### b) GOVERNMENT-SPONSORED NATIONAL & INTERNATIONAL RESEARCH FUNDING

KIIT-DUhas created a strong ecosystem for conducting state of the art research at various laboratories across the University and generating funds through multiple national-level funding agencies such as the Department of Science & Technology (DST) including SERB, Ministry of Education (MoE), Defense Research & Development Organization (DRDO) including ARDB, Department of Biotechnology (DBT), University Grants Commission (UGC), Council of Scientific & Industrial Research (CSIR), Indian Council of Medical Research (ICMR), Department of Health Research (DHR), Department of Atomic Energy (DAE) including BRNS, All India Council for Technical Education (AICTE), Ministry of Mines, Indian Council of Agricultural Research (ICAR), Ministry of Road Transport & Highways (MoRT&H), Ministry of New & Renewable Energy (MNRE), Indian Council of Social Science Research (ICSSR), Institution of Engineers (IE), Indian Society of Heating, Refrigerating & Air Conditioning Engineers (ISHRAE), etc. In addition, the University also receives a large number of international funding including Indo-Japan, Indo-Norway, Indo-German, Indo-Australian, Indo-South Africa, Indo-Russian, UKERI, Swedish Research Council, ERASMUS, etc. Furthermore, many of our faculty members have received funding through Ramanujam Fellowship, DST Inspire Fellowship, Ramalingaswami Fellowship, DST Women Scientist, DBT Biocare Programs, etc.Many Ph.D. students have also

been awarded national-level fellowships through CSIR, UGC, AICTE, DBT, ICMR, ICAR, DST Inspire, N-PDF, etc. In addition, University is also providing selective Institutional level research Funding and Fellowships across all Schools and Institutes.

#### c) NON-GOVERNMENT SPONSORED RESEARCH PROJECT

The University has also received funding through non-government-sponsored research projects including projects from NALCO, Tata Steel, Ernst & Young, Charaka Hanf Pvt Ltd, RSP Global, etc.

#### **1. TERMINOLOGY:**

The followings are the terminology involved

#### 1.1 Sponsored Research Project

The projects funded by the agencies such as Government, public, private, national/international and autonomous bodies have specified time limits. The entire project cost including equipments, manpower, consumables and contingency are borne by the sponsor.

#### 1.2 Sponsor

The funding organization/body that offers the sponsored project to the University and gives necessary financial support for the successful completion of the project in time.

#### **1.3 ProjectCoordinator(PC)**

The role of the project coordinator is to coordinate the project if it is in the multi-centric mode.

#### **1.4 Principal Investigator (PI)**

Any faculty of the university who conceives and conceptualizesis the principal investigator of the project.

#### 1.5 Co-Principal Investigator (Co-PI)/Co-Investigator (Co-I)

The investigator who is partially providing support to submit and carryout the project along with the PI is the Co-Principal Investigator or Co-Investigator (Co-I)of the project. As per the Government of India and private sponsoring agency's policy, if the PI has a premature death or leaves the organization, the Co-PI or Co-I will be the official PI of the project in order to complete it.

#### 1.6 Project Employee

TheResearch Associate (RA), Senior Research Fellow (SRF), Junior Research Fellow (JRF), Project Associate-I, Project Associate-II, Project Assistant, and other supporting staffs in general are the employees who are hired as per the funding agency as well as the University guidelines.

#### **1.7 Industrial Consultancy**

The industrial consultancy-based project is a time-bound and specific problem-solving project sponsored by private industry with payment of consultancy fee/ honorarium to the investigator(s) in addition to all other expenses.

#### **1.8 Equipment Grant**

The sponsoring agency supports funding under the non-recurring head for the purchase of various instruments associated with the approved objectives of the project.

#### 1.9 Overhead

The funding agency supports the University with the expenditure associated with administration, accounting, infrastructure, electricity, water supply, etc.

#### 1.10 Consumable Grant

The funding agency provides support for the purchase of various chemicals, reagents, plastic, glassware, etc. associated with the approved objectives of the project.

#### 1.11 Contingency Grant

The contingency fund is used for the purchase of official and laboratory-related items associated with the project from the local market.

#### 1.12 Travel Grant

The travel fund is used for attending project-related meetings organized by the funding agency as well as national conferences and workshops by the PIs, Co-PIs and the project employees.

#### 2. DUTIES AND RESPONSIBILITIES OF THE PRINCIPAL INVESTIGATORS (PIs)

- **2.1** Each proposal will be prepared with the help of PI, Co-PI and Co-I and the final proposal shall be submitted to the office of the Director, Research and Development (R&D) for approval. The approved proposal will be forwarded to the office of the Registrar by Director, R&D, and the signed copy of the endorsement certificate will be issued to the PI by the office of the registrar. The approved copies of the full proposal with financial details and internal code number will be deposited to the office of the Director, R&D.
- **2.2** When the project is approved by the funding agency, the PI should submit the approved sanction order and the release order to the finance office, Head of the School, Quality Assurance Cell, Registrar's office, HR cell along with the office of the Director, R&D.
- **2.3**The PI should maintain all the scientific progress and financial expenditure-related files in coordination with the finance section.
- **2.4** It shall be the responsibility of the PI to get the Project work completed satisfactorily within the sanctioned grant and duration.
- 2.5 The PI should follow the proper guidelines for the purchase of equipments approved under the project and submit the required indent to the purchase section as per the University equipment purchase committee guidelines.
- **2.6** The PIs shall be responsible to submit the scientific and technical progress report on yearly basis to the funding agency.

- **2.**7 The PI should coordinate with the funding agency to receive the consecutive year release of funding after submitting the scientific progress report, UC and SoE, manpower and asset details. The interest accumulated during the particular year based on the funding received from the funding agency should be submitted through Bharatkosh and the acknowledgment received should be submitted to the funding agency in a timely manner.
- 2.8 After the completion of the project, the assets will be the property of the University.

#### **3. MANPOWER**

**3.1**The selection of Project Assistant/JRF/ SRF/ RA/ other supporting staff shall normally be made as per the guidelines provided by the sponsoring agency and with the approval of the competent authority of the University. Once the project is granted, the Principal Investigator (PI) may submit the advertisement to the Publication Cell of KIIT University by approval of HR and Registrar and advertise the post through the KIIT University website.

Recruitment of such project employees will be made through a selection committee consisting of

- (i) PI/Co-PI as members
- (ii) Expert member from the University nominated by PI
- (iii) External expert member nominated by the VC.
- (iv) Head of the school as the Chairman.

The Merit list is approved by the Committee, followed by the Head of School and then HR.

- **3.2** All appointment letters shall be issued under the signature of the Registrar/Assistant Registrar or any competent authority of the University.
- **3.3**All project appointments will be on a temporary basis as per the Funding agency's guidelines.
- **3.4**Automatic transfer from one project to another either on completion or midway shall not be permitted.

- **3.5**The tenure of project appointment of the project staff will be dependent on the approved duration of project funding. The continuation of the project staff will be evaluated by the expert committee based on the performance of the project on a yearly basis.
- **3.6**If PI leaves the University, then Co-PI will take the responsibility for the execution of the project.If the Co-PI is not part of the same University/organization, then additional approval will be needed from the funding agency to include another Co-PI.
- **3.7**If the project JRF/SRF who has been recruited under the project is interested to pursue the Ph.D. through CSIR-LS/GATE/KIITEE entrance examination, the candidate should select PI as a guide and Co-PI as a co-guide, of the Ph.D. program.
- **3.8** However, if the PI is going to another institute, within India and if he/she desires for transferring the Project, University may consider the transfer subject to the approval of the Funding Agency along with the submission of NOC and other documents from the existing as well as the new organization.
- **3.9**The employees working under the project may avail the leave as per the guidelines of the University as well as the funding agency.
- **3.10**The project employee shall strictly follow the general code of conduct andethical guidelines for the generation and maintenance of scientific data associated with the project as per the University and funding agencyguidelines.
- **3.11**The Ph.D. studentworking under the project and if the project terminates before completing the Ph.D. program, he/she cannot claim the fellowship from the university. However, the candidate may apply for a Senior Research Fellowship (SRF) from the funding agencies like CSIR, ICMR, etc.
- **3.12**The regulation of the Ph.D. program is strictly controlled by the University as per the Ph.D. guidelines.

#### 4. FINANCE AND ACCOUNTS:

**4.1**The overhead shall be charged towards service charges for utilizing the infrastructural and other facilities of the University as per Government of India (GoI) policy. In the case of

non-government sponsored projects, the PI must include 15% as the overhead charge in the budget. However, if the sponsoring agency does not pay the overhead charge, University may consider the waiver.

- **4.2**The funds sanctioned under each project will be deposited to the specific bank account of the University and the finance office of KIIT along with the respective finance section of each school in conjunction with the purchase section and PI control all the purchase and the associated expenditure of the project with following university purchase guidelines.
- **4.3**All expenditures shall normally be made within the specified time frame of the approved project and the proposed date of completion of the project.
- **4.4**In the event of non-availability of the fund in a project, excess expenditure (if any) due to unforeseen reasons, the funding agency will be approached to sanction additional funds. If no additional fund is made available by the sponsor, the excess expenditure may be adjusted against the allotted overhead budget payable to the University with the approval of the Vice-Chancellor on a case-to-case basis.
- **4.5**A separate account shall be maintained by the finance section of the school as well as the University for each project. The audited utilization certificate (UC) and the statement of expenditure (SoE) shall be prepared by the finance section in coordination with PI and should be submitted to the funding agency after the completion of each year of the project.
- **4.6**The TA and DE will be provided to the PI, Co-PI and project staff under the project as per the University as well as the funding agency's guidelines.
- **4.7**The selective research work based on the approved objective of the project may be carried out through the outsourcing model and proper selection of outsourcing party and negotiation of expenditure will be followed as per the University as well as the funding agency's guidelines.

### **CHAPTER-IV**

### **CONSULTANCY PROJECTS**

#### **1. CONSULTANCY POLICY AND MECHANISM**

KIIT Deemed to be University extends to its academic staff the privilege of consulting with both public and private entities, whether national or international, because such activities can contribute to the professional development and stature of the faculty member, and thus may benefit the University as well as the faculty member. Such benefit may be, but is not limited to, enhancement of faculty professional expertise, establishing and maintaining professional contacts, associations and relationships, and developing opportunities for sponsored research. 'Consulting activity' is different from 'Sponsored Research' and is defined as professional work performed either inside or outside University auspices that is substantively related to a faculty member's area of expertise and duties at the University.

Professional consultancy is encouraged across the University; however, such activities should strictly adhere to the conflicts of interest policy of the University and restrict within specific time frame. The University has constituted a University level consultancy committee and the committee strictly follows all the regulatory issues related to the consultancy provided by the faculties of the University.

There are certain basic principles in the conduct of consultancy projects. The most fundamental is the maintenance of high ethical standards and deliberation of projects following professional practice or public policy. Consultancy at KIIT-DU is multi-dimensional and interdisciplinary. These are either referred to the University or are sanctioned based on specific project proposals submitted by the faculty members. Consultancy Services may be offered to Industries, Service sectors, Government Departments and other National and International agencies in niche areas of expertise available in the Institute. For details of the Consultancy programs, one should follow the University's "Regulations for the Consultancy Program".

#### 2. TYPES AND EXECUTION OF CONSULTANCY PROJECTS

Consultancy services offered may cover a variety of activities such as Technology Assessments; Evaluating project feasibility; Analytical studies; Preparation of Detail Project Reports (DPR); Maintenance Engineering; Assessment & Validation of designs/ drawings and / or Current Manufacturing Process; Testing and calibration; Material, Energy, Environmental and Manpower Audits; Product Design; Structural and machine condition monitoring; Development of new alloy; Process Development; Software Development; General Troubleshooting, Retrofitting Exercises; Development of next-generation LED lamps for improving light quality; Intensive efforts for transfer of highly focused skills and expertise to select groups in specific organizations; vision and strategy statement; Development and Validation of Medical Device; Establishment and testing of Drugs at the preclinical level; Development of new technology for the improvement of palliative care; Development of tele-medicine and tele-nursing based approach; Development of AI-based platform for management of patient care both in rural and urban areas; Development of non-toxic soft material for next-generation of root canal therapy; Development of software driven platform for management of better traffic signal and accident related issues; Skill development; handling of legal compliance and so on.

The consultancy assignments of faculties may be encouraged and implemented, provided they do not have any adverse impact on the ongoing academic, research and related activities such as their primary functions and responsibilities to the University. The postgraduate and Ph.D. students who are interested to engage in the consultancy projects may be permitted to discuss with the University level consultancy committee.

The consultancy projects will be evaluated by the University level consultancy committee prior to submission. After the approval of the project by the funding agency, a Memorandum of Understanding (MoU) will be signed between the University and the funding agency which describes the details of the contract such as deliverables, milestones, payment schedules, role and responsibilities of the parties, non-disclosure of confidential information, disputes resolution, liability, IPR matters, arbitration, and applicable law. A Non-disclosure Agreement (NDA) may be signed between the parties to protect the confidentiality of the project.

#### **3. COSTING OF CONSULTANCY PROJECTS**

The costing of the consultancy project will be finalized by PI in discussion with the University level consultancy committee along with the finance officer. These include consultancy fees,

charges for personnel engaged in services, project staff salaries, operational expenses, capital equipment and overheads. Service and other taxes shall be applicable as per the tax guidelines. These guidelines will be applicable to all consultancy projects on a case-to-case basis.

#### **4. FINANCIAL BENEFITS**

For consultancy projects, if University infrastructure, laboratory and staff are used, the consultancy fees will be 60% for the PI and the associated team members and 40% for the University. If the faculty does not use any University facility, the sharing of remuneration will be decided by the competent authority.

### **CHAPTER -IV**

### **RESEARCH ETHICS AND PUBLICATIONS**

#### **1. RESEARCH ETHICS**

Research Ethics is an act of moral principles that the researcher has to follow while conducting research to ensure the rights and welfare of individuals, groups or communities under study. Research ethics is fundamental to research practice, education and the development of evidence. In conducting research, it is important to plan for and anticipate any potential or actual risks. Ethical principles, as determined by the University's rules governing human rights, animal protection, and respect for the environment, shall be observed at all times in any kind of research activity at KIIT-DU. The researcher must adhere to the principles of justice, beneficence, non-malfeasance, accountability, fidelity, autonomy and veracity.

The vibrancy of research programs at the University is accentuated by the high-quality publications including original research articles, review articles, books, book chapters and creative write-ups published by the faculty members of different schools and institutes of the University. The intellectual contribution of a University to the community at large can be gleaned from the quality of publications by the faculty members. While conducting the research, certain ethical values like human dignity, autonomy in decision making, privacy, justice, precision and accuracy in caring, commitment, sympathy, human relationship, honesty and individual and professional competency must be considered. The University constituted a University Level Ethics Committee which handles all the ethics-related issues related to research, publications, patents, etc. conducted by undergraduate, postgraduate and Ph.D. studentsas well as faculties.

#### **University Level Ethics Committee**

Vice-Chancellor, KIIT-DU	Chairperson
Pro Vice-Chancellor, KIIT-DU	Member
Prof. S. Nanda, Research Chair, KIIT-DU	Member
Prof. Mrutyunjay Suar, Director General, R & D	Member

Prof. P.K. Pattnaik, Director General, KIMS	Member
Prof. Gopal C. Kundu, Director, R&D	Member
Prof. Ashok Sahoo, Director R & D (SoT)	Member
Vice-Principal, KIMS	Member
Prof. P. K. Sarkar, Professor, School of Law	Member
Prof. Jnyana Ranjan Mohanty, Registrar	Convenor

Institutional Ethics Committee (IEC) has been constituted at KIIT-DUwith internal and external members as regulated by the Government of India to use human patient specimens and biofluids involved in research to protect the welfare of human subjects conducted by the University. The committee reviews and approves all types of research proposals involving human participants, looking into the aspects of the informed consent process, risk-benefit ratio, distribution of the burden, etc. The study related to clinical trial is also monitored by IEC after following all the guidelines of the Indian Council of Medical Research (ICMR) and the Ministry of Health and Family Welfare (MoHFW).

The Institutional of Bio-Safety Committee (IBSC) has been formedat KIIT-DUwith internal and external members as regulated by the Government of India to review, approve and monitor research activities involving recombinant DNA (rDNA) technology and genetic manipulation of microorganisms, plants or animals. The committee reviews and approves projects involving manipulations before the commencement of the research activity for the safe use of rDNA technology and genetically modified organisms.

Institutional Animal Ethical Committee (IAEC) has been constituted at KIIT-DUwith internal and external members as regulated by the Committee for the Purpose of Control and Supervision of Experiments on Animals (CPCSEA), Ministry of Environment, Forests and Climate Change, Government of India to review, approve and monitor research activities involving experimental animals. The IEAC reviews, approves and monitors the projects involving animal research. In the case of clinical research, which may lead to the development of new diagnostic methods or new drugs, the standard national guidelines framed by the Central Drugs Standard Control Organization (CDSCO), Ministry of Health and Family Welfare, Government of India should be strictly followed.

The institutional approval of IEC, IBSC and IAEC should be submitted to the funding agency prior to the release of the fund by the funding agency. The University and its researchers have a responsibility to ensure the safety related to biological, chemical and radioactive hazardous materials associated with the research. It is also essential that the design of projects takes into account of any relevant ethical guidelines. Enough personal care should be taken to maintain safety and minimize accidents while conducting research with hazardous chemicals/flammable solvents/living organisms etc. The University level safety committee should look into the safety matter pertaining to these issues. Extra care should be taken to ensure that various research activities of KIIT-DU do not compromise other common men who are residing near the University or the environment.

Gender-based harassment and sexual misconduct at KIIT-DU are strictly unacceptable. It is crucial for all researchers to proactively sensitize the scientific community on these issues and develop a gender-friendly work environment.

#### **2. PUBLICATION**

- 2.1 The original reproduced data generated through research at KIIT-DU should be published in peer-reviewed journals. The intra- and inter-institutional collaborative data can also be published in these journals. Both the text and generated data should be analyzed through specific software such as iThenticate or Turnitin before the submission to the journal.
- 2.2 Similarly, every Ph.D./M.Phil./M.Tech./MSc/MD/DM/MS thesis submitted to KIIT-DUshall also be scrutinized for plagiarism by the above software.
- 2.3 An author should not submit substantially similar work to more than one publisher for publication.
- 2.4 As a general principle, research findings should not be reported in the public media before publication except where there is a contractual arrangement.

#### **3. DATA STORAGE AND RETENTION**

3.1 Raw data produced in the laboratory must be noted in the laboratory notebook/computer on a daily basis and date-wise.

- 3.2 It should not be tampered at any time as this raw data forms the basis of future analysis and results/conclusions.
- 3.3 Data (including electronic data) must be recorded in a durable and appropriately referenced form. The University will establish procedures for the retention of data and for the keeping of records of data and will promulgate information about these procedures. All the raw data (printed record book and soft copy) should be stored at the research cell of each school/institute of the KIIT-DU at least for a period of 10 years. All unpublished data should be maintained with confidentiality till the date of publication by all the authors.
- 3.4 When the data are obtained from limited access databases, or via a contractual arrangement, a written indication of the location of the original data, or key information regarding the database from which it was collected, must be retained by the researcher and should be acknowledged properly.
- 3.5 Researchers must be responsible for ensuring appropriate security for any confidential material, including that held in computing systems. Where computing systems are accessible through networks, particular attention to the security of confidential data is required. Security and confidentiality must be assured in a way that copes with multiple researchers and the departure of individual researchers.
- 3.6 Any tampering of stored E-data or any data should be reported immediately to the research supervisor/Dean/Director for further action in written form.

#### 4. AUTHORSHIP

4.1 Authorship signifies that an individual has made a significant contribution to the work and is accountable for it. It also carries significant value for a researcher. At KIIT-DU therefore it is important that authorship is attributed accurately. The authorship can be decided on various criteria like substantial contribution in conceiving the idea, generating and analysis of data, drafting the work and article, accountability, agreement to all the other authors, etc. It is not appropriate to offer guest authorship to anybody who does not make any significant contribution.

- 4.2 Authorship of research output should be discussed between researchers at an early stage in a research project and reviewed whenever there are changes in participation. Any dispute about authorship will be referred to the University level research committee and the final decision will be made by the chairperson of this committee.
- 4.3 When more than one author is contributing to the major component of the study, both these authors can act as joint first authors (contributed equally). Similarly, there can be more than one corresponding author in a single paper based on their contribution.
- 4.4 Where the research is published, including electronically, all co-authors of a publication must acknowledge their authorship in writing in terms of, at least, the minimum acceptable definition. This signed statement of authorship must specify that the signatories are the only authors according to this definition. It must state that the signatories have seen the version of the paper submitted for publication. On behalf of all authors, the corresponding author has the right to submit the article to the journal after taking permission from all other authors.
- 4.5 The authors must ensure that others who have contributed to the work are recognized in the research output. It is customary that the funding agencies and other individuals/organizations that provide funding and other supports should be acknowledged in the publication.

#### 5. RESEARCH SUPERVISORS/RESEARCH SCHOLARS

- 5.1 The faculty of KIIT-DU who is supposed to guide masters and Ph.D. students should be recognized as an official guide of KIIT-DU. The Ph.D. candidate may also select one recognized co-guide along with the guide.
- 5.2 As per KIIT-DU as well as UGC guidelines, the Professor should take a maximum number of Ph.D. students with a limit of 8 at a time whereas Associate and Assistant Professors can take 6 and 4, respectively. For details on the Ph.D. program, one should follow the University's "Regulations for the Ph.D. Program".
- 5.3 Supervisors should advise the research students on all the University level guidelines for the conduct of research including those covering ethical requirements for human, animal, rDNA and genetically modified organisms related studies, occupational health and potentially hazardous safety issues including handling biological, chemical and radioactive waste.

- 5.4 Supervisors should be the primary source of guidance to research students in all matters of good research practice. The supervisor must ensure, as far as possible, the validity of research data obtained by a student under his/her supervision.
- 5.5 The supervisor should strictly instruct the students to maintain their original research notebook and its soft copy including raw and final data.

#### 6. DISCLOSURE OF POTENTIAL CONFLICTS OF INTEREST

- 6.1 The KIIT-DU is committed to ensure that anybody's individual and personal interest should not influence the overall decision-making of any research-related issues. All researchers are encouraged to strictly follow the standard research ethics guidelines of the University. The University must handle all conflict of interest-related issues in a highly professional and ethical manner.
- 6.2 The University strictly follows standard international guidelines in terms of authorship of publications. The researchers who are actively involved in conceiving the idea, performing experiments, and analyzing the data should be the first, middle and corresponding authors depending on their contributions after strictly following the conflict of interest.
- 6.3 Any research findings which are novel, the authors and co-authors should first file a patent application and submit the manuscript for publication.
- 6.4. The authors should acknowledge the funding agency if that work is supported by intramural and extramural funding.

#### 7. MISCONDUCT IN RESEARCH

7.1 "Misconduct" or "Scientific Misconduct" is taken here to mean fabrication, falsification, plagiarism, or other practices that seriously deviate from those that are commonly accepted within the scientific community for proposing, conducting, or reporting research. It includes the misleading ascription of authorship including the listing of authors without their permission, attributing work to others who have not contributed to the research, and the lack of appropriate acknowledgment of work primarily produced by a research student/trainee or

associate. It does not include honest errors or honest differences in interpretation or judgments of data.

- 7.2 Examples of research misconduct include but are not limited to the followings:
- 7.2.1 **Misappropriation:** A researcher or reviewer shall not intentionally or recklessly:
  - plagiarize, which shall be understood to mean the presentation of the documented words or ideas of another as his or her own, without attribution appropriate for the medium of presentation;
  - make use of any information in breach of any duty of confidentiality associated with the review of any manuscript or grant application; or
  - intentionally omit reference to the relevant published work of others for the purpose of inferring personal discovery of new information.
- 7.2.2 **Interference:** A researcher or reviewer shall not intentionally and without authorization take or materially damage any research-related property of another, including without limitation the apparatus, reagents, biological materials, writings, data, hardware, software, or any other substance or device used or produced in the conduct of research.
- 7.2.3 **Misrepresentation:** A researcher or reviewer shall not with the intent to deceive, or in reckless disregard for the truth:
  - state or present a material or significant falsehood; or
  - omit a fact so that what is stated or presented as a whole state or presents a material or significant falsehood.
- 7.3 It is necessary while conducting research, jointly or independently, that the data collected including the raw data are reliable, properly recorded and stored carefully. Falsification and fabrication of data including the data of relatively less importance to the research outcome are clearly defined as scientific misconduct.
- 7.4 On receipt of a complaint regarding misconduct in research, the Dean/Director/Principal of the school where misconduct took place shall inform the Vice-Chancellor of the nature of the complaint.Complaints of misconduct in research are to be made to the Board consisting of:

- 1. The Dean/Director/Principal of the School where misconduct took place, if Dean is involved then he will be replaced by the nominee of VC.
- 2. A Professor in the related subject area (but not Guide/Professor whose student or who is involved).
- 3. The Dean/Director, Quality Assurance
- 4. The Registrar (Convener)
- 5. An invitee with the approval of VC(if Chairman feels necessary).

The report will be submitted to VC for necessary action.

7.4 There will be a preliminary investigation of any allegation of research misconduct. Such preliminary investigation will make provision for a written statement of any allegations to be provided to the person(s) against whom such allegations are directed, and for a written response from that person to be received and considered. The preliminary investigation will be conducted under the direction of the Chairmanand the committee to whom the complaint was made.

#### 8. INTEGRITY IN RESEARCH

The research conducted at various schools and institutes of KIIT-DU should allow other researchers to have confidence and trust in the way they conduct their research and find the results and publish the research articles.

#### 9. SCIENTIFIC DISCIPLINARY COMMITTEE AND SCIENTIFIC COMMITTEE

To establish research integrity and maintain the research discipline, the role of the Scientific Disciplinary Committee is very much essential at KIIT-DU. Based on the experience and expertise of the Scientific Committee, different scientific issues may be resolved, and alternative methods can be suggested for the greater interest of KIIT Deemed to be University.

#### **10. INTELLECTUAL PROPERTY RIGHTS POLICY AND MECHANISM**

The Intellectual Property Rights (IPR) Policy of the KIIT-DU aims at familiarizing all faculty, staff and students with the process of filing patent applications on their innovations,

and associated issues, to encourage and facilitate the transfer of technologies, which may offer shared benefits to both KIIT-DU and the inventors and have positive impacts on the society.

Confidentiality agreements to protect IPR may be agreed upon between theUniversity, the researchers and the funding agency. Where such agreements limit free publication and discussion, limitations and restrictions must be explicitly agreed. For further details, the university-level IPR policy can be referred.

#### **11. RESEARCH COMPLIANCES**

The University-level research committee monitors the overall research activities of all the schools and institutes across the KIIT-DU in association with the School level Research committee (SLRC).

#### 12. SCHOOL LEVEL RESEARCH COMMITTEE (SLRC)

KIIT-DUconstituted the SLRC across various schools and institutes and the SLRC coordinates all day-to-day based research activities of its schools and institutes.

### **CHAPTER -VI**

#### **RESEARCH COLLABORATIONS AND VISITING FACULTIES**

#### **1. RESEARCH COLLABORATIONS**

KIIT-DU provide ideal platforms for conducting collaborative research and development work with many other University and Research Institutions within India and across the globe. The collaborations providea strong research ambianceamong UG and PG students, Ph.D. and Postdoctoral scholars, junior and mid-level as well as senior faculties of KIIT-DU, and strengthen students and faculty exchange programs, enhance teaching and academic activities and accelerate high-end basic, translational and clinical research, develop platform technologies, and augments high-quality publications in peer-reviewed international journals, review articles, book chapters, national and international patents, national and international conferences, workshops and seminars, and help to create new startups in the area of engineering sciences, medical science, physical and chemical sciences, biological sciences and management sciences. The KIIT-DU has initiated a multi-model Ph.D. program along with the Institute of Life Sciences (ILS), Bhubaneswar, Regional Medical Research Center (RMRC), Bhubaneswar, Reginal Center for Biotechnology (RCB), New Delhi, International Centre for Genetic Engineering and Biotechnology (ICGEB), New Delhi, Institute of Bioresources and Sustainable Development (IBSD), Imphal. Similarly, B.Tech. minor degree program and industrial internship programs have been established with the Indian Institute of Metals (IIM), National Highway Authority of India (NHAI), National Council for Cement and Building Materials (NCCBM), Larsen & Toubro (L&T), High Radius, Amazon, Simplex Infrastructures Ltd, SKF India Ltd, GSK Pharmaceuticals, Lupin Ltd, Huwel Scientific, Redcliffe Life Sciences, Medgenome, Mercedes-Benz, TCS, Microchip, National Instruments, etc. In addition, many new research laboratories and Center of Excellence have been established in KIIT-DU in collaboration with industries such as Autodesk, Siemens, National Instruments, Robert Bosch, Mitutoyo South Asia Ltd, Schneider Electric, Preva System, etc.

As an Institute of Eminence (IoE), KIIT has collaborated with leading institutions and organizations from across the world. At present, KIIT has academic tie-ups with approximately **140** world-class Universities and research institutions across the globe and industrial collaboration with **15** corporate houses.

# 2. VISITING FACULTIES(National and International, Professor of Emeritus and Professor of Eminence)

The KIIT-DU has taken multiple steps and recruited a large number of visiting faculties from Indian academic organizations such as IITs, NITs, IISER, Central Universities, Indian Institute of Science (IISC), Bengaluru, AIIMS, IIM, National Research Institutes, Industries, and many other International Universities as a short-, mid- and long-term process. Moreover, the KIIT-DU also created multiple new positions at the level of Professor of Emeritus and Professor of Eminence, Professor of Practice. Through these mechanisms, both the teaching and research activities of KIIT-DU will be enhanced drastically in the next 5 to 10 years.

The KIIT-DU has constituted the following selection committees to recruit international visiting and adjunct faculties, guest lecturers and resource persons.

For 1 month or higher duration:

1. Vice Chancellor	- Chairperson
2. Director, SoM	- Member
3. Director, Collaborative Learning	- Secretary

For less than 1 month duration:

- 1. Director, Collaborative Learning
- 2. Head of the Concerned School

The Nationallevel visiting and adjunct faculties, guest lecturers and resource persons can be selected by the head of the concerned school. The following process shall be followed for inviting visiting faculties:

Identifying the external faculty	<ul> <li>School will identify the external faculty member(s) with help of course coordinator(s) or the course committee within 15 days of allocation of the subject(s)</li> </ul>
Approval	<ul> <li>Final proposal to be sent to the Director Academics for approval by the Screening committee (if any) as per the guidelines</li> <li>This activity to be completed before the commencement of the classes</li> </ul>
Course coordination& Payment	<ul> <li>School will invite and coordinate the teaching with External member till completion of the process</li> <li>A report along with the payment documents to be sent to Director Academics for approval by the Registrar and payment</li> </ul>