



**GURU NANAK INSTITUTE OF
PHARMACEUTICAL
SCIENCE AND TECHNOLOGY
(GNIPST)**



A JIS Group Educational Initiative
157/F, Nilgunj Road, Sodepur, Kolkata – 700114, West Bengal
Approved by PCI | Accredited by NAAC & NBA | Affiliated to MAKAUT, Kolkata

RESEARCH AND DEVELOPMENT (R&D) POLICY

“ADVANCING KNOWLEDGE, FOSTERING INNOVATION”

A framework for research, innovation and technology development at GNIPST

An Institutional Policy Document

Document Title	Research and Development (R&D) Policy
Applicable To	All faculty, researchers and students of GNIPST
Governing Framework	JIS Group R&D Policy Framework for constituent institutes
Document Owner	R&D Cell, GNIPST
Approving Authority	Governing Body / Director, GNIPST, on behalf of the Guru Nanak Education Trust and JIS Group
Version	As updated on 2 March 2024
Effective Scope	Academic, Research & Consultancy Activities of the Institute

CONTENTS

1 Introduction

2 Objectives

3 Governance & Structure

4 R&D Areas

5 Infrastructure

6 Training & Development

7 Ethics

8 Funding

9 Performance Evaluation

10 IP Management

11 Incentives

12 Policy Revision

13 Conclusion

14 Annexures

1. INTRODUCTION

- 1.1.** Welcome to the dynamic realm of research and development (R&D) at Guru Nanak Institute of Pharmaceutical Science and Technology (GNIPST). Our R&D policy stands as a testament to our unwavering commitment to advancing knowledge, fostering innovation, and contributing to societal progress. Rooted in the belief that a thriving academic institution is inseparable from a culture of rigorous inquiry and continuous exploration, our R&D policy provides a comprehensive framework that empowers our faculty, researchers, and students to push the boundaries of conventional wisdom.
- 1.2.** R&D stands as the cornerstone of academic progress and societal betterment. In the educational domain, R&D plays a pivotal role in shaping the landscape of learning and knowledge dissemination. It drives the evolution of teaching methodologies, ensuring that educators stay at the forefront of innovative pedagogies. By fostering a culture of inquiry and experimentation, R&D promotes curriculum development that reflects the dynamic needs of contemporary industries, particularly in technical, medical, legal, management, and scientific domains. Through R&D, educational institutions become incubators of creativity, producing graduates equipped not only with current knowledge but also with the critical thinking skills necessary to navigate an ever-changing world. R&D serves as a catalyst for addressing pressing societal challenges, providing solutions to complex issues ranging from healthcare disparities to environmental sustainability. The pursuit of knowledge through R&D empowers researchers and institutions to contribute meaningfully to the advancement of society, fostering a symbiotic relationship between academic progress and societal well-being.
- 1.3.** Realizing its responsibilities towards the nation and making it Atmanirbhar in its Amrit Kaal, quest for imparting the highest quality of education and research and mindful of its commitment to the stakeholders, GNIPST lays down this Policy for dedicating itself to R&D activities.

2. OBJECTIVES

- 2.1. R&D Objectives:** Aligned with the vision and mission of the JIS Group enunciated by it, the R&D objectives for the institution and the metrics for each are enumerated below:
- a) Increase Research Output:** Research publications are critical for an academic entity as they serve as a tangible and enduring record of scholarly contributions, showcasing the institution's commitment to advancing knowledge. These publications not only contribute to the academic reputation of the institution but also play a pivotal role in attracting funding, partnerships, and top-tier faculty. The number of peer-reviewed publications shall serve as key indicator and its annual growth will reflect the institution's commitment to elevating research productivity.
 - b) Enhance Interdisciplinary Research:** With a focus on fostering a collaborative and multidisciplinary research environment, the institution aims to increase the percentage of interdisciplinary research projects by 15% over the next three years. Progress will be measured by tracking the number of research projects involving collaboration between different disciplines or departments. The annual percentage increase in the number of interdisciplinary research projects, emphasizing the institution's dedication to holistic problem-solving shall be the index.
 - c) Strengthen External Collaborations:** This objective emphasizes expanding the institution's global network by establishing partnerships with at least five leading research institutions or industry organizations within the next two years. Success will be measured through data on the number of formal collaboration agreements and the outcomes of joint research initiatives. The metric for growth on this front will be the annual increase in the number of joint publications and patents.
 - d) Secure Research Funding:** To fuel research endeavors, the institution aims to increase total research grant funding by 25% annually. Monitoring the amount of external research funding secured through grants, industry partnerships, and government initiatives is crucial. The performance metric shall be the annual percentage increase in total research grant funding.

- e) **Widen R&D Footprints:** This objective focuses on actively engaging with regions or states requiring support and forming partnerships with local organizations. A record of collaborations and outcomes will be maintained, ensuring the benefits of research and innovation reach diverse populations. A key metric for growth is the annual increase in the number of successful collaborations, highlighting the institution's expanding influence in different geographical areas.
- f) **Improve Research Impact:** Improving research impact is crucial as it enhances the institution's visibility, credibility, and contribution to the broader academic and societal landscape. By increasing the average citation impact factor of research publications, the institution not only elevates its scholarly influence but also attracts attention from peers and collaborators, fostering a culture of excellence. With a goal to enhance the overall influence of research publications, the institution shall increase the average citation impact factor.
- g) **Promote Student Involvement in Research:** This objective seeks to actively involve students in research projects and prepare them for fuelling the research further. Documenting the number of undergraduate and postgraduate students engaged in research initiatives is crucial. The performance of the institute shall be recorded in terms of annual percentage increase in student participation.
- h) **Establish Centers of Excellence:** The institution aims to establish two centers focusing on relevant or emerging areas of importance within the next three years. Monitoring the establishment and growth of these centers in terms of research, academic contributions, skill development, training, revenue generation, and collaborations is vital. Sustainability of such centers is important in view of substantial upfront investments and therefore, revenue generation shall be the indicator.
- i) **Enhance Research Infrastructure:** Modernization of laboratories, equipment, and technology is crucial for ensuring that the institution's research infrastructure stays aligned with evolving research needs besides guaranteeing a conducive environment for cutting-edge research. This shall be measured in terms of investments over and above 10% of the annual budget in research infrastructure.
- j) **Promote Ethical Research Practices:** Through regular workshops and training sessions on research ethics for faculty and students, this objective aims to instill a culture of ethical research conduct. Monitoring attendance and feedback from these sessions is crucial. Performance on this objective shall be captured through the incidences of unethical practices promoting ethical research practices.
- k) **Knowledge Sharing and Dissemination:** This objective encourages faculty participation in conferences, both within and outside India, to foster knowledge sharing and collaboration. Additionally, inviting top Indian researchers contributing at the global level as international experts ensures a diverse and enriching academic environment. This promotes the institution's standing as a hub for global research exchange and collaboration. This objective shall be monitored through the annual percentage increase in faculty participation in international conferences and participation of international experts in conferences organized by the institution.

2.2. Other objectives: A robust and functional R&D system in an academic entity can have a far-reaching impact to augment its academic status, industry connect, sustenance, attraction for scholars and visibility in society. While the institute aims for excellence in R&D, it will also:

- a) **Aim Academic Excellence:** This objective aims to elevate the focus on research within Postgraduate (PG) and Undergraduate (UG) courses by assigning more credits and aligning them with structures and guidelines prescribed by concerned regulatory bodies like UGC/AICTE/NCTE/DCI/NDC/NMC/PCI. The growth in this area can be measured by monitoring the number of students actively involved in publishing papers and filing patents. The institution shall track these metrics and take strategic measures to enhance student engagement in research activities.
- b) **Promote Technology Transfer and Innovation:** This objective emphasizes the facilitation of successful commercialization or technology transfer from R&D activities taken up. Infrastructure and facilities required for technology translation towards commercialization will be created, with appropriate manpower allocated for its operation. The institution, in the process, will be able to bridge the gap between academia and industry, with measurable success through the number of patents filed, licenses issued, or products/services brought to market.

- c) Conduct Training/Skilling Programs:** This objective focuses on enhancing the research capabilities of the academic community through short-term courses and workshops. These initiatives will provide hands-on and experiential learning, emphasizing practical skills development. The growth in this area can be measured by tracking the number of researchers participating in these training programs.
- d) Offer Consultancy:** To maintain a dynamic connection with industry advancements, the institution aims to offer technical knowledge and expertise through consultancy services. This ensures that faculty members remain updated with the latest developments in their fields. The growth in this area can be measured by the number of consultancy projects initiated and the cost of consultancies rendered.
- e) Augment Research Communication:** Research communication and outreach are vital for an academic entity as they facilitate the dissemination of knowledge beyond the academic community, fostering engagement with a wider audience including intended beneficiaries. By organizing outreach programs and conferences, the institution not only raises awareness about its research activities but also contributes to building a scientific temperament and research acumen among stakeholders. Metrics such as the number of outreach programs and participants therein serve as key indicators for this.

3. GOVERNANCE & STRUCTURE

3.1. R&D Advisory Committee (RDAC): The institution shall establish an apex level R&D Committee — mandated to provide guidance to the institute in matters of R&D and approve its annual R&D plan. The Committee, with the following structure, will meet once every four months to approve/review of R&D activities — both ongoing and planned — and suggest corrective actions and directions for the future.

- An eminent industry person/scientist/entrepreneur/clinician (Chairperson)
- Experts from academics, industry & government research (one each as members)
- HOI (of a sister organization as a member)
- HOI (member)
- Dean (R&D) as Secretary

3.2. R&D Cell: In the institution, an R&D Cell shall be established and shall be the hub of research, development and innovation activities. It will:

1. Facilitate the R&D activities in the institute, including registering of researchers on the portal;
2. Manage updated information related to research papers, projects, funding, funding opportunities, industry linkages, training, outreach activities, etc.;
3. Serve as a nodal point for liaising with JIS Group, other institutions, industries, etc.;
4. Provide support to the departments organizing R&D related events, including IPR matters;
5. Render support to researchers submitting proposals for funding;
6. Facilitate review of internally supported activities/proposals through a Standing Committee to be constituted by HOI; the Committee should evolve norms for an objective review;
7. Oversee implementation of research ethics;
8. Provide support related to documents like MOU, IP filing, etc.;
9. Submit reports to RDAC & JIS Group;
10. Initiate the process of Policy revision whenever required;
11. Serve as Secretariat for the RDAC.

Dean (R&D) shall be the ex-officio head of this Cell, which will be staffed with full-time Manager(s) and DEOs (as per workload) to maintain the information and records related to institution R&D activities and liaise with all departments. It will periodically conduct training, awareness and outreach activities and maintain records of all research scholars.

3.2 (contd.) Responsibilities: HOI shall be the Chief Mentor of the R&D Cell with overall responsibility for implementation of the R&D plan & activities of the institution. Dean (R&D) shall be the Secretary of the RDAC and functional head of the institutional R&D Cell, and shall also be responsible for maintaining the exclusive portal of the R&D Cell; all faculty, research scholars and students doing research-based projects shall cooperate with the R&D Cell by providing timely information. Each faculty must submit at least two proposals each year, giving preference to multi-/inter-disciplinary areas and involving co-researchers from other institutions. The Financial Support and Leave Rules delineated in Annexure I shall be applicable to the faculty.

3.3. Portal for R&D Cell: The portal shall be maintained by the R&D Cell and updated on a continuous basis. This will showcase the activities, achievements, meritorious researchers, opportunities for researchers and industry, etc., with a footprint on social media also.

4. AREAS OF R&D

4.1 Academic: Based on the diverse disciplines within the institution, such as technical, medical, legal, management, education, humanities, sciences, etc., or as announced by the governments from time to time.

4.2 Inter-/Multi-disciplinary: As far as possible, problems for research shall be such that they address complex societal challenges and require knowledge of multiple domains.

4.3 Industrial research: Faculty shall be encouraged to take projects from industry to consolidate industry-academia interaction and enhance the quality of research. Industrial consultancy shall not be treated as research, but for health science disciplines where company-funded research/trials like dental/pharmaceutical products/devices are undertaken, it shall be considered as research.

4.4 Society-centered research: Faculty shall be encouraged to submit proposals under schemes targeting specific populations, like SC, ST, Women, Elderly, Children, Rural, Persons-with-disabilities, or against special/thematic/problem-solving calls for proposals issued by government.

5. INFRASTRUCTURE

5.1 Facilities and Laboratories: The institute is committed to providing state-of-the-art facilities and laboratories to support research activities. This includes:

- **Well-equipped Laboratories:** Maintain specialized laboratories with the necessary infrastructure, equipment, and tools to facilitate research in various disciplines. Regularly upgrade and modernize the laboratories to ensure they meet the evolving needs of researchers.
- **Research Centers and Schools:** Establish research centers and schools focused on specific disciplines or interdisciplinary research areas. These centers shall provide dedicated spaces, resources, and collaborative environments for researchers.
- **Experimental Facilities:** Provide access to specialized experimental facilities, such as cleanrooms, fabrication facilities, testing facilities, or animal research facilities, as required by the research projects.

5.2 Equipment and Technology: Well aware of the importance of advanced equipment and technology in conducting high-quality research, the institute shall ensure the following:

- **Procurement and Maintenance:** Regularly update and acquire state-of-the-art research equipment and technologies to support cutting-edge research. Develop a process for procurement, maintenance, calibration, and repair of research equipment.
- **Access to Specialized Equipment:** Ensure researchers have access to specialized equipment and instrumentation necessary for their research projects. Establish guidelines and procedures for equipment usage, booking, and training.

- **Technology Infrastructure:** Maintain a robust technology infrastructure, including high-speed internet connectivity, secure data networks, and advanced computing resources, to support data-intensive research, computational modeling, and simulations.
- **Registration on I-STEM portal:** All equipment purchased shall be registered by the institution on the portal of Indian Science, Technology and Engineering Facilities Map (I-STEM); mandatory for all equipment purchased out of government funds. It is a dynamic and interactive national portal for students, faculty and researchers in S&T institutions facilitating access to government-funded facilities distributed across institutions in the country. Details can be accessed at www.istem.gov.in

6. TRAINING & DEVELOPMENT

6.1 Research Skills Development Programs: The institution shall offer research skills development programs to enhance the capabilities of the research community through the following approaches:

- **Research Workshops and Seminars:** Organize workshops and seminars on various research methodologies, data analysis techniques, literature review, and other essential research skills.
- **Research Training Courses:** Offer research training courses covering research design, data collection methods, data analysis, and research project management, tailored to different disciplines.
- **Research Collaboration and Networking:** Facilitate opportunities for researchers to engage in collaborative research projects, interdisciplinary collaborations, and networking events.

6.2 Research Methodology Training: The institution shall provide research methodology training to equip researchers with the necessary tools and techniques. This includes:

- **Research Design:** Training on experimental design, survey design, case study design, and qualitative research methods.
- **Data Collection Techniques:** Training on interviews, surveys, observations, experiments, and focus groups, and best practices for collecting reliable and valid data.
- **Data Analysis Methods:** Training on statistical and qualitative data analysis techniques and commonly used software tools.

6.3 Research Ethics Training: The institution shall provide training on research ethics to ensure that researchers adhere to ethical principles throughout the research process. This includes:

- **Responsible Conduct of Research:** Training on ethical considerations in research design, data collection, analysis, and reporting, emphasizing integrity and transparency.
- **Human Subjects Research Ethics:** Training on ethical guidelines related to research involving human subjects, informed consent, confidentiality, and risk/benefit considerations.
- **Animal Research Ethics:** Training on ethical principles for research involving animals and compliance with institutional and regulatory requirements.

6.4 Grant Writing Workshops: The institution shall encourage and support researchers in securing external research funding through grant writing workshops, which include:

- **Grant Writing Techniques:** Training on proposal structure, content development, budget preparation, and evaluation criteria.
- **Funding Agency Guidelines:** Familiarizing researchers with the guidelines and requirements of various funding agencies.
- **Peer Review Process:** Educating researchers on the peer review process and strategies for addressing reviewer feedback.

6.5 Research Publication and Dissemination Training: The institution shall organize training programs on research publication and dissemination, including:

- **Scientific Writing Skills:** Training on writing research articles, conference papers, and book chapters.
- **Journal Selection and Publication Process:** Guidance on selecting appropriate journals and understanding the publication process.
- **Presentation Skills:** Training on effective presentation for conferences, seminars, and other dissemination events.

6.6 Research Support Services: The institution shall provide comprehensive research support services, including:

- **Research Administration:** Administrative support in managing research grants, budgets, and compliance with funding agencies' requirements.
- **Research Ethics and Compliance:** Guidance and support in navigating research ethics requirements.
- **Grant Writing and Funding Support:** Workshops and resources to assist in developing competitive grant proposals.
- **Statistical and Data Analysis Support:** Access to statistical and data analysis support services and software resources.
- **Intellectual Property Support:** Guidance in matters related to IP protection, patent filing, technology transfer, and commercialization.

6.7 Data Management and Storage: The institution recognizes the importance of robust data management and storage infrastructure for research projects, and shall ensure:

- **Data Management Plans:** Encourage researchers to develop data management plans outlining collection, storage, sharing, and retention practices.
- **Data Storage and Backup:** Secure and reliable data storage facilities, onsite and offsite, with regular backup procedures.
- **Data Security and Privacy:** Protocols for data encryption, access controls, anonymization, and compliance with data protection regulations.
- **Data Sharing and Collaboration:** Platforms and tools for secure data sharing and collaboration with external partners.

6.8 Access to Research Resources: The institute is committed to facilitating access to research resources for its faculty members and researchers. This includes:

- **Library and Information Resources:** A comprehensive library with physical and digital resources, including access to online research databases and scholarly journals.
- **Research Materials and Samples:** Access to research materials, samples, and repositories, within the institution and through collaborative networks.
- **Interlibrary Loan Services:** Collaboration with other libraries and institutions to provide interlibrary loan services.
- **Plagiarism check software:** Access to software crucial to maintaining academic integrity and originality in scholarly work.

7. ETHICS

7.1 Institutional Research Governance Structure: The institution's governance structure shall have a mechanism to ensure ethical conduct, compliance with regulations, and effective management of research activities, including:

- **Research Ethics Committee:** Responsible for reviewing and approving research proposals involving human subjects, ensuring ethical considerations and participant protection.
- **Institutional Review Board (IRB):** Oversees the ethical aspects of research involving human subjects. For healthcare institutes, the IRB checks scientific rigour, merit and strength of study before placing it before the Research Ethics Committee.

- **Research Compliance Office:** Monitors and enforces compliance with regulatory requirements, including research ethics, data protection, and intellectual property.
- **Research Integrity Officer:** Serves as a point of contact for addressing research misconduct and ensuring compliance with research integrity standards.

7.2 Research Ethics and Integrity: The institution shall be committed to upholding the highest standards of research ethics and integrity, ensured through:

- **Ethical Review and Approval:** All research involving human subjects, sensitive data, or potential ethical implications shall undergo thorough ethical review. For healthcare institutions, registration of Research Ethics Committees must be done through CDSCO and with NECRBHR, DHR, Government of India, via naitik.gov.in
- **Informed Consent:** Researchers shall obtain informed consent from participants as per their age, ensuring understanding of purpose, procedures, risks, benefits, and rights.
- **Confidentiality and Privacy:** Data shall be handled in a secure and anonymized manner, protecting personal identifiable information.
- **Conflict of Interest:** Researchers shall disclose any potential conflicts of interest arising from their research activities.
- **Publication and Authorship Ethics:** Adherence to ethical standards including acknowledgment of contributions, transparent authorship, and avoidance of plagiarism. Healthcare institutes shall follow ICMJE guidelines; biomedical experiments shall follow EQUATOR guidelines.

7.3 Human Subjects Research: When conducting research involving human subjects, the institution shall follow ethical guidelines to ensure participant welfare and protection, which includes:

- **Informed Consent:** Obtaining and documenting informed consent, ensuring clear understanding of purpose, procedures, risks, benefits, and rights.
- **Risk Assessment and Minimization:** Thorough risk assessment to identify and mitigate potential risks, ensuring benefits outweigh harm.
- **Confidentiality and Anonymity:** Secure and anonymized storage and handling of data, complying with data protection regulations.
- **Vulnerable Populations:** Special consideration and additional safeguards for children, the elderly, individuals with disabilities, or those with diminished decision-making capacity. Clinical trial registration is mandatory for healthcare institutions.

7.4 Animal Research: When conducting research involving animals, the institution shall follow ethical guidelines to ensure welfare and humane treatment, including:

- **Institutional Animal Care and Use Committee (IACUC):** Responsible for reviewing and approving animal research protocols.
- **Animal Welfare:** Adherence to the principles of the Three Rs — Replacement, Reduction, and Refinement — and ethical review and approval before commencing any animal research.
- **Training and Expertise:** Ensuring researchers and staff involved in animal research receive appropriate training.

7.5 Data Protection and Privacy: The institution values the importance of protecting data and privacy in research activities, ensured through:

- **Data Security:** Robust measures including encryption, restricted access controls, and secure data storage practices.
- **Data Privacy:** Compliance with data protection regulations, informed consent, and clear information on data handling practices.
- **Data Sharing and Transparency:** Responsible data sharing practices that safeguard participant privacy and confidentiality.
- **Research Data Management:** Protocols ensuring data integrity, quality, and long-term preservation throughout the research lifecycle.

8. FUNDING

8.1 Institutional Funding: The institution will allocate 10% of the annual budget for R&D activities.

- The institution will provide a seed grant of up to Rs. 2 lakh to a new faculty member joining the institute to initiate R&D activities, against a proposal submitted for consideration to the R&D Cell, which will evaluate it before funding. The amount can be spent on equipment and consumables. Permanent faculty not having any external project can also avail this opportunity. The proposal shall follow the format given in Annexure II.
- Research Scholars not receiving any scholarship shall be given a consolidated monthly stipend of Rs. 20,000 for 12 months, during which they must qualify UGC/CSIR/GPAT/GATE JRF NET; the duration can be extended by another year if the research work has potential to result in a research paper/patent, otherwise the student can continue through own resources. The number of research scholars shall be fixed by the institution based on faculty available to guide. Such research scholars shall be selected on the basis of academic credentials and an entrance test conducted by the JIS Group.

8.2 External funding: All faculty shall submit at least two proposals a year for research funding from government funding agencies and other possible sources, information about which shall be maintained by the R&D Cell. Financial support of alumni or alumni batches and philanthropists shall also be explored, in which case facilities can be named after donors.

- **Government Grants and Funding:** Explore funding opportunities from government agencies, research councils, and foundations supporting projects aligned with the institution's focus areas.
- **Industry Partnerships and Collaborations:** Seek partnerships with industry organizations and enterprises interested in supporting research; collaborative projects can attract funding from industry sponsors.
- **Philanthropic Organizations and Foundations:** Identify philanthropic organizations and foundations providing grants aligned with the institution's research priorities.
- **Donations and Alumni Contributions:** Engage alumni, donors, and supporters interested in contributing to research activities, and establish mechanisms to facilitate such contributions.

9. PERFORMANCE EVALUATION

9.1 Key Performance Indicators: The institution shall establish key performance indicators (KPIs) to assess research performance. These KPIs serve as quantitative metrics to measure and evaluate the institution's research output, impact, productivity, and collaboration. A suggestive list of 20 KPIs is given below, out of which the institute shall choose at least 15 relevant ones and seek approval from RDAC for adoption:

S.No.	Performance Indicator	Action	Formula
1	Research Output Growth	Measure the percentage increase in the number of research publications from the previous year.	$((\text{Current Year Publications} - \text{Previous Year Publications}) / \text{Previous Year Publications}) \times 100$
2	Interdisciplinary Collaboration	Track the percentage of research projects that involve collaboration between different disciplines.	$(\text{Interdisciplinary Research Projects} / \text{Total Research Projects}) \times 100$
3	External Collaboration Effectiveness	Measure the percentage of successful outcomes from external collaborations.	$(\text{Successful Collaborative Projects} / \text{Total Collaborative Projects}) \times 100$
4	Research Funding Growth	Assess the percentage increase in research grant funding from the previous year.	$((\text{Current Year Funding} - \text{Previous Year Funding}) / \text{Previous Year Funding}) \times 100$
5	Technology Transfer Success	Measure the percentage success rate in commercializing or transferring technology.	$(\text{Successful Technology Transfers} / \text{Total Attempts}) \times 100$

S.No.	Performance Indicator	Action	Formula
6	Regional Engagement	Assess the effectiveness of engaging with local organizations in different regions.	$(\text{Successful Regional Collaborations} / \text{Total Regional Collaboration Attempts}) \times 100$
7	Citation Impact Improvement	Measure the percentage improvement in the average citation impact factor.	$((\text{Current Year Impact Factor} - \text{Previous Year Impact Factor}) / \text{Previous Year Impact Factor}) \times 100$
8	Student Research Involvement	Track the percentage of students actively involved in research projects.	$(\text{Student Research Participants} / \text{Total Students}) \times 100$
9	Sustenance of Centers of Excellence	Measure the year-on-year growth in revenue.	$((\text{Current Year Revenue} - \text{Previous Year Revenue}) / \text{Previous Year Revenue}) \times 100$
10	Research Infrastructure Quality	Assess the improvement in the quality of research infrastructure.	$(\text{Current Year Infrastructure Quality} - \text{Previous Year Infrastructure Quality}) / \text{Previous Year Infrastructure Quality}$
11	Ethical Research Awareness	Measure the percentage of faculty and students attending ethical research workshops.	$(\text{Ethical Research Workshop Attendance} / \text{Total Faculty and Student Population}) \times 100$
12	Knowledge Sharing Impact	Track the percentage of faculty engaged in international conferences for knowledge sharing.	$(\text{Faculty Participation in Conferences} / \text{Total Faculty}) \times 100$
13	Patent Filing Rate	Assess the rate at which the institution is filing patents.	$(\text{Patents Filed in a Year} / \text{Total Research Projects}) \times 100$
14	Research Project Success Rate	Measure the percentage success rate of research projects.	$(\text{Successful Research Projects} / \text{Total Research Projects Initiated}) \times 100$
15	Consultancy Project Revenue	Assess the financial impact of consultancy services offered by the institution.	Amount of Revenue Generated from Consultancy Projects
16	Research Project Completion Timeliness	Track the percentage of research projects completed within the scheduled timeframe.	$(\text{Projects Completed on Time} / \text{Total Research Projects}) \times 100$
17	Research Facilities Utilization	Measure the percentage utilization of research facilities.	$(\text{Research Facility Usage Hours} / \text{Total Available Hours}) \times 100$
18	Research Impact on Curriculum	Assess the utilization of research facilities in the courses.	$(\text{Students doing internship or projects} / \text{Total students}) \times 100$
19	Global Collaboration Index	Track the percentage of collaborations with international institutions.	$(\text{Global Collaborations} / \text{Total Collaborations}) \times 100$
20	Innovation Commercialization Rate	Measure the success rate in bringing innovations to the market.	$(\text{Innovations Successfully Commercialized} / \text{Total Innovations}) \times 100$

9.2 Impact Indicators: An impact indicator measures the broader and often long-term outcomes or effects resulting from an organization's activities. It goes beyond performance indicators, which typically assess immediate outputs and activities. In the realm of R&D, prioritizing impact indicators becomes paramount as they offer a comprehensive evaluation of the institution's influence, significance, and contributions to the advancement of knowledge and societal well-being. Some impact indicators are suggested below:

S.No.	Impact Indicator	Action	Formula
1	Research Influence Index	Evaluate the average influence of each research paper based on citation counts.	$(\text{Total Citations of Published Papers} / \text{Total Papers Published})$
2	Societal Impact Score	Assess the percentage of research projects contributing to societal impact.	$(\text{Number of Research Projects with Societal Impact} / \text{Total Research Projects}) \times 100$

S.No.	Impact Indicator	Action	Formula
3	Educational Impact Ratio	Measure the percentage of courses influenced by research (internships/projects).	$(\text{Research-Informed Courses} / \text{Total Courses Offered}) \times 100$
4	Knowledge Transfer Effectiveness	Assess the effectiveness of transferring knowledge and technology through collaborations.	$(\text{Successful Technology Transfers} / \text{Total Collaborative Projects}) \times 100$
5	Innovation Adoption Rate	Evaluate the percentage of innovations successfully adopted in the market.	$(\text{Adopted Innovations in the Market} / \text{Total Innovations}) \times 100$

10. IP MANAGEMENT

10.1 Intellectual Property Rights Policy: The institute has an Intellectual Property Rights (IPR) policy in place to protect and manage intellectual property generated through research activities. Key elements include:

- **Ownership of Intellectual Property:** Clarifies ownership rights of IP generated by faculty, researchers, and students, including in cases of collaborative or externally funded research.
- **Disclosure and Protection:** Outlines the process for disclosing inventions and innovations to the institution, emphasizing timely disclosure and mechanisms for protection.
- **Assignment and Licensing:** Defines procedures for assigning or licensing IP rights to third parties, including terms for revenue sharing and royalty distribution.
- **Confidentiality and Non-Disclosure:** Guidelines for maintaining confidentiality during research collaborations or technology transfer activities.

10.2 Patent Filing and Commercialization Process: The institution supports researchers in patenting and commercializing their inventions through a structured process, including:

- **Evaluation of Inventions:** Assessing patentability and commercial potential through expert evaluation and market analysis.
- **Patent Filing:** Guiding researchers through drafting patent applications and coordinating with patent attorneys or agents.
- **Patent Portfolio Management:** Monitoring patent applications, prosecution, maintenance, and licensing.
- **Commercialization Support:** Connecting researchers with industry partners and supporting technology transfer agreements and spin-off creation.

10.3 Technology Transfer and Licensing: The institute facilitates transfer of research outcomes and IP to industry partners through:

- **Technology Disclosure and Evaluation:** Encouraging disclosure to the technology transfer office and evaluating market potential and commercial viability.
- **Technology Marketing and Licensing:** Developing marketing strategies and negotiating fair licensing agreements.
- **Industry Engagement and Collaboration:** Fostering relationships to identify technology needs and facilitate joint ventures and co-development.

10.4 Spin-off Companies and Start-ups: The institution supports the creation of spin-off companies and start-ups through:

- **Entrepreneurship Support:** Programs, workshops, and mentoring for researchers commercializing research outcomes.
- **Incubation and Acceleration:** Collaboration with incubators and accelerators for space, mentorship, and networks.
- **Funding and Investment Support:** Facilitating access to funding sources, venture capital, and angel investors.

10.5 IP Protection and Enforcement: The institution takes the following measures:

- **Intellectual Property Awareness:** Regular training sessions on IP rights, infringement risks, and best practices.
- **Monitoring and Surveillance:** Mechanisms to monitor potential infringement, in collaboration with legal experts.
- **Legal Support:** Legal guidance in cases of IP disputes, infringement claims, or licensing negotiations.

11. INCENTIVES

11.1 R&D Incentives: The Institute shall follow a unique incentive scheme to recognize and reward faculty & staff for research, appreciating all-round involvement, delivery, contribution and recognition in R&D activities. The following table identifies the points awarded for a particular step/achievement:

S.No.	Parameter	Points	Information/Documents Required
1	Submission of proposal	200	Title of project; Co-PI(s)/PI; project duration; project cost; funding agency; Acknowledgement (Application No.) from funding agency
2	Sanction of project	300	Sanction Letter from the funding agency
3	Completion of project	500	Project Completion Report; Fund Utilization Certificate; Proof of submission of Report
4	Before-time (≥ 1 month) completion & submission of Report	200	Project Completion Report; Fund Utilization Certificate; Proof of submission; Declaration mentioning both dates
5	Paper submitted (Scopus/WoS/PubMed only)	200	Manuscript; Co-authors; Name of Journal; Acknowledgement of receipt
6	Publication of the paper	500	Letter of Acceptance; Volume, Year, Impact Factor
7	Publication of chapter in a book	200	Chapter topic; Book title; Publisher; ISBN
8	Publication of a book	1000	Book title; Publisher; ISBN
9	Filing of patent	200	Title of invention; Co-inventors & affiliation; Acknowledgement of filing
10	Grant of patent	1000	Title of invention; Co-inventors & affiliation; Patent/Publication number
11	Ph.D. student registered	100	Title of thesis; Supervisor/Co-Supervisor; University
12	Ph.D. thesis submitted by student	500	Acknowledgement of receipt of thesis by university
13	Ph.D. awarded to student	500	Provisional degree issued by University
14	Submission of proposal for International Conference funding	100	Title, organizers, dates; estimated budget; acknowledgement of submission
15	Sanctioning of grant by funding agency	200	Sanction Letter issued by funding agency
16	Industry sponsorship ($\geq 10\%$ of conference budget)	200	Sponsorship Letter from Industry
17	Organizing an International Conference	1000	Report to Funding Agencies/Sponsors; Convenor/Co-convenor/Secretary/Joint Secretary names
18	Organizing National Conference	400	Report to Funding Agencies/Sponsors; Organizer names
19	Acceptance of paper in a national conference	100	Letter of acceptance; co-author names from JIS institutions
20	Acceptance of paper in an international conference	300	Letter of acceptance; co-author names from JIS institutions
21	Presentation of the paper (international/national)	100	Letter/certificate issued by organizer

S.No.	Parameter	Points	Information/Documents Required
22	Organizing hands-on Workshop/Training (min. 20 participants)	300	Report incl. feedback of participants; Organizer/Co-organizer
23	Award to a paper/student thesis	500	Certificate issued by event organizer; co-supervisor name
24	Transfer of Technology	2000	MoU/Agreement/document in support of transfer; team member names

Incentive scheme conditions:

- Scheme is for faculty of JIS institutions only.
- The relevant information has to be uploaded on the portal, to get points.
- Points will be split equally when multiple applicants/investigators/authors/inventors/organizers/convenors are involved, and credited to researchers.
- A monthly statement of points accumulated will be shared with the faculty.
- Top three scorers in a month will be notified on the portal.
- Annual performance-based recognition will be done at institutional & Group level.
- The points accrued ($\times 10$) can be redeemed/monetized once a year. Institutions may check physical documents before redemption.
- Any researcher found fudging data, giving wrong information, or using unfair/unethical practices to secure points shall forfeit all points accrued in the past.
- Points distribution shall be reviewed after a year.

11.2 Incentives for Consultancy and Training Programs: The Institute allows faculty and researchers to engage in consultancy assignments to an extent that does not interfere with the discharge of their duties, and to conduct training programmes for industry persons/faculty from other institutions. Such assignments enrich the experience and knowledge of faculty through interactions in the professional sphere. Consultancy charges for an assignment, taken with approval of HOI and routed through the R&D Cell, shall be shared as follows:

Consultancy Type	Faculty/Staff	Procurement of Material/Consumables	Institutional Development	Institutional Overheads
Advisory (by individual & no institutional facilities used)	50%	0%	40%	10%
Service or training programme (by team*, requiring no consumables)	60%	0%	30%	10%
Service or training programme (by team*, requiring consumables)	60%	20%	10%	10%

* Names of team members, role and the proportion of fee shall be declared to the R&D Cell before undertaking the consultancy.

The cost of consultancy shall be worked out factoring in:

- Cost of consultant's time, including intellectual fee;
- Cost of man-days of the staff taking part in the project, excluding the consultant(s);
- TA and DA (as per agreement with the client);
- Cost of inputs (chemicals, raw material and other consumables) and equipment;
- Usage charges on equipment (including depreciation);
- Payments to outside consultants;

- Cost of stationery, printing & binding of report copies;
- Miscellaneous; and
- Administrative charges (10% of the above).

12. POLICY REVISION

12.1 Policy Review Cycle: The institution recognizes the importance of revising policy to ensure that research policies remain relevant, effective, and aligned with evolving needs and goals. The review cycle includes:

- **Timeframe:** A predetermined timeframe for policy review, typically annual or biennial, allowing systematic and timely updates.
- **Policy Review Committee:** A dedicated committee of key stakeholders — faculty members, researchers, administrators, legal/compliance experts — overseeing the review process.
- **Documentation and Tracking:** A comprehensive record of all research policies, including review dates, changes made, and rationale, facilitating transparency and accountability.

12.2 Policy Revision and Approval: To revise and update research policies, the institution shall follow a structured process, with responsibility entrusted to the R&D Cell:

- **Policy Proposal:** Any member of the institution can propose a policy revision, with a detailed justification.
- **Internal Review:** The proposed revision undergoes internal review by the policy review committee, assessing feasibility, impact, and compliance.
- **Stakeholder Consultation:** Feedback is solicited from relevant stakeholders to ensure diverse perspectives are considered.
- **Approval and Adoption:** Once finalized, the revision undergoes an approval process involving relevant institutional authorities before official adoption and implementation.

13. CONCLUSION

In conclusion, our commitment to fostering a thriving culture of Research and Development (R&D) at GNIPST stands as a testament to our dedication to intellectual growth, innovation, and societal progress. This R&D policy encapsulates our vision for the future — a future where the pursuit of knowledge knows no bounds, where innovation becomes a way of life, and where our academic community actively contributes to solving global challenges. As we embark on this collective journey, let us be guided by the principles of curiosity, collaboration, and impact. Together, we will continue to push the boundaries of what is known, inspire transformative discoveries, and make meaningful contributions to the world. The R&D policy is not just a document; it is a roadmap to excellence, and we invite every member of our academic family and stakeholders to play a vital role in shaping the future through the lens of R&D.

14. ANNEXURES

- Annexure I: Leave Rule (to be finalized and added)
- Annexure II: Template for Research Plan
- Annexure III: Any supplementary documents, guidelines, or templates relevant to the R&D policy

ANNEXURE I

(Annexure to the R&D Policy for GNIPST)

Financial Support and Leave Rules for Faculty

1. Attending R&D related events

- The faculty can use the points earned under the Incentives Scheme to meet expenditure involved in attending a conference/seminar/symposium; each point carries a value of Rs. 10. No additional financial support will be provided by the institution.
- The faculty shall have to seek permission for attending a Conference. The paper and event shall be assessed for quality by a Standing Committee, facilitated by the R&D Cell, before approval by the Vice Chancellor.
- The faculty will be permitted to annually attend two events within the country.
- The faculty will be permitted to attend one event abroad, in a block of two years. The faculty must sign a bond committing to a minimum two-year service period post-conference, with repayment required upon early resignation.
- The faculty proceeding to attend the event shall make arrangements for substitute teaching to ensure minimal disruption to students.
- The faculty shall, post-conference, present the paper in an open session to faculty, research scholars, and students.
- The faculty without external projects shall have to prepare at least one proposal for submitting to a funding agency within three months of returning from a conference. Non-compliance shall be noted by the R&D Cell.

2. Attending FDP/STP/Workshop/Summer or Winter School

- The faculty may attend such programs at their own expense once per year, excluding summer, winter, and Durga Puja vacations.
- The programs must be organized by recognized institutes/organizations, including IITs, NITs, IIITs, NITTTRs, central/state universities, and other government or top 100 NIRF-ranked institutions.

3. Leave Provisions/Stipulations

- A faculty member shall be entitled to 20 days of leave per calendar year (combinable with holidays) for events, with an additional 5 days for externally funded projects. For faculty joining mid-year, entitlement shall be calculated pro-rata.
- Leave shall be permitted for faculty invited as guest/keynote speakers.
- No leave shall be granted solely for conference attendance.
- During academic semesters, leave shall typically be limited to 15% of the department's regular faculty strength, with exceptions where courses are complete and no academic activities are scheduled.
- Leave rules shall apply also to faculty presenting papers with student co-authors.
- Leave approval authority lies with the Vice-Chancellor, with financial approval by the Director of the JIS Group wherever required.
- All faculty interactions external to the institution, requiring leave, are accommodated under these rules.

ANNEXURE II

(Annexure to the R&D Policy for GNIPST)

Format for In-House Research Project Proposal

#	Field
1	Title of the Project
2	Principal Investigator* (Department, Mobile No., Official Email ID/ORCID & Vidwan ID)
3	Co-Investigator*, ** (Department, Mobile No., Official Email ID/ORCID & Vidwan ID)
4	About the project: (a) Intra-disciplinary or Inter-/Multi-disciplinary? (b) Objectives; (c) Novelty; (d) Benefit to user organization/industry or society; (e) 5 institutions where work is ongoing in the chosen area; (f) Justification for in-house/institutional funding; (g) Prospective sources of future funding (Scheme & Funding agencies); (h) Keywords (max. 5)
5	Project Summary (not to exceed one page)
6	Project implementation: (a) Duration (not more than two years); (b) Quarterly Implementation Plan (with tentative milestones/accomplishments); (c) Expected outcomes
7	Equipment available for research: (a) within institution; (b) sister institutions
8	Resources & Funding requirement: (a) Equipment required, with estimated cost; (b) Consumables; (c) Charges for using I-STEM portal (www.istem.gov.in) or other data, if required
9	Plan to involve current students

* Attach Bio-data as per format given. ** There can be more than one Co-Investigator.

Signature of the PI

Place: _____

Name: _____

Date: _____

Designation: _____

Format for Bio-Data of Investigator (PI/CI)

1. Name

2. Gender

3. Date of Birth

4. E-mail ID

5. Qualifications

Degree	Institution	Year	Division/Class

6. Employment Experience

S.No.	Position & Organisation	Nature of Job	Period

7. Selected List of Ten Best Publications (relevant to the proposed project)

8. Patents Filed/Granted with details (relevant to the proposed project)

9. Books Published / Chapters Contributed (relevant to the proposed project)

10(a). Completed/Ongoing Sponsored Research Projects (last five years)

S.No.	Title	Sponsoring Agency	Period	Amount	Achievements

10(b). Completed and Ongoing Consultancy Projects (last five years)

S.No.	Title	Sponsoring Agency	Period	Amount

10(c). Submitted Sponsored Research/Consultancy Projects

S.No.	Title	Sponsoring Agency	Period	Amount

11. Awards and Honours: (A) National list (B) International list

12. Technologies Developed / Transferred (please provide details of technologies transferred to industry, technologies commercialized)

Date: _____

(Name & Signature)