



**KOMMURI PRATAP REDDY INSTITUTE OF TECHNOLOGY**  
**(UGC-Autonomous Institution)**  
**Ghanpur(V), Ghatkesar(M), Medchal(Dt), Hyderabad-500088**



**RESEARCH & DEVELOPMENT ROLES, RESPONSIBILITIES & OPERATIONAL FRAMEWORK**

**1. Vision of the R&D**

- **Build a Strong Research Culture:** Encourage every faculty member and student to engage in meaningful research from a simple project to a published paper or patent.
- **Promote Innovation & Industry Collaboration:** Partner with companies, start-ups and government labs to solve real-world problems and ensure research has practical value.
- **Achieve National & International Recognition:** Improve NAAC, NIRF and NBA scores through quality research. Get KPRIT listed among top research-active autonomous institutions in India.

**2. Strategic Responsibilities**

- **Prepare R&D Policies & Guidelines:** Write formal rules that tell faculty, students and departments how research should be planned, executed, published and rewarded at KPRIT.
- **Plan Yearly Research Activities & Budget:** Each academic year, prepare an Annual R&D Action Plan showing what will be done, by whom, with what funds. This is presented to the HOI and BOG for approval.
- **Align R&D with NAAC / NBA Requirements:** NAAC awards grades (A++, A+, A...) and NAAC criterion 3 (Research, Innovation & Extension) is directly improved by publications, patents, funded projects and MoUs. The Dean (R&D) ensures KPRIT scores well here.
- **Set Department-wise Research Targets:** Assign clear, measurable yearly publication and project targets to each department (CSE, ECE, Civil, H&S) and track progress monthly.
- **Represent Research at Academic Council & BOG:** Present R&D performance data, fund requirements and strategic proposals at official governing body meetings.

**3. Research Management**

**3.1 Monitoring Research Projects**

- Track the progress of every ongoing funded project at KPRIT. Ensure PIs (Principal Investigators) meet their timelines and milestones.
- Conduct monthly/quarterly project review meetings. Identify delays early and provide support to resolve issues.
- Ensure Utilization Certificates (UCs) are submitted to funding agencies on time. Delays can cause blacklisting of the institution.

### 3.2 Encouraging Faculty to Apply for Funded Projects

- Identify faculty members with the potential to lead research projects and personally motivate them to apply.
- Circulate funding calls from DST, SERB, DBT, AICTE, CSIR, DRDO, ISRO, and industry bodies. Provide templates and writing support for proposal preparation.
- Organize Proposal Writing Workshops so that faculty learn how to write winning research project proposals.

### 3.3 Maintaining Research Data & Records

- Maintain a centralized database recording all publications (SCI/Scopus/WoS), all patents filed/granted, all funded projects (ongoing/completed), all MoUs signed, all PhD scholars enrolled and awarded.
- This data is critical for NAAC Self-Study Report (SSR), NIRF data submission, NBA accreditation files and Annual Reports.

## 4. Department-wise Research Focus Areas

KPRIT has four departments. The Dean (R&D) coordinates with each Head of Department to define focused research areas based on faculty expertise and industry/national need.

<b>Dept.</b>	<b>Focus Research Areas</b>	<b>What This Means</b>	<b>Possible Funding Agencies</b>
<b>CSE &amp; AI/ML</b>	<b>AI, Data Science, Cybersecurity</b>	Artificial Intelligence (AI): teaching machines to think. Data Science: deriving insights from large datasets. Cybersecurity: protecting digital systems from attacks.	DST, MEITY, NASSCOM, TCS, Infosys, Google Research
<b>ECE</b>	<b>IoT, VLSI, Embedded Systems</b>	IoT (Internet of Things): connecting physical devices to the internet. VLSI: designing microchips with millions of transistors. Embedded Systems: mini-computers built into products.	DST, SERB, ISRO, DRDO, Qualcomm, Texas Instruments
<b>Civil</b>	<b>Sustainable Infrastructure &amp; Smart Construction</b>	Using eco-friendly materials, green building design, water management, structural safety and smart sensors to build better, safer infrastructure.	DST, Ministry of Housing, CSIR-CRRI, L&T, NHAI
<b>H&amp;S</b>	<b>Basic Sciences &amp; Interdisciplinary Research</b>	Physics, Chemistry, Mathematics and English faculty contribute to foundational research that cuts across multiple engineering domains.	DST, UGC, CSIR, SERB (CRG scheme)

## 5. Faculty Development for Research

A strong research institution needs research-ready faculty. The Dean (R&D) is responsible for continuously upgrading the research skills of the teaching staff.

- **Organize Research Methodology Workshops:** Teach faculty how to design experiments, collect data, analyze results and write research papers.
- **Conduct Patent Filing & IPR Awareness Programmes:** Many faculty have good ideas but don't know how to file a patent. IPR (Intellectual Property Rights) sessions explain the process step-by-step.
- **Encourage and Support Faculty for PhD Enrolment:** Faculty with a PhD can apply for higher funding, guide PhD scholars and qualify for promotions. The Dean (R&D) identifies and mentors non-PhD faculty.
- **Run Faculty Development Programmes (FDPs):** Organize or depute faculty to FDPs on emerging research topics such as AI/ML, IoT, sustainability and data analytics.
- **Provide Seed Money (Startup Research Fund):** Allocate a small fund (e.g., Rs.50,000 to Rs.2,00,000) to faculty starting a new research project, so they can conduct pilot studies before applying for larger grants.
- **Felicitate Faculty Achievements:** Publicly recognize and reward faculty who publish in top journals, get patents granted, complete PhD guidance or receive research awards.

## 6. Research Publications

Publications are the primary evidence of research activity. A paper published in a reputed journal (Scopus, WoS/SCI) earns points in NAAC, NIRF and NBA evaluations.

### 6.1 What to Promote

- **Scopus-indexed Journals:** Scopus is a large and trusted international database of peer-reviewed journals. Publishing here shows international quality.
- **WoS (Web of Science) / SCI Journals:** A more selective, premium database. SCI (Science Citation Index) journals have high impact factors and are counted heavily in NAAC.
- **Conference Papers in IEEE, Springer, Elsevier Proceedings:** Presenting and publishing at reputed conferences adds to the institution's research visibility.

### 6.2 What to Avoid

- **Predatory Journals:** These are fake or low-quality journals that charge a fee and publish anything without peer review. They damage the reputation of faculty and KPRIT. The Dean (R&D) must maintain an approved journal whitelist.
- **Duplicate or Plagiarized Publications:** All papers must be checked with plagiarism detection software (e.g., iThenticate, Turnitin) before submission.

### 6.3 How to Track

- Maintain a centralized Publication Register updated each month by all departments.
- Calculate and display each faculty member's h-index (a measure of research impact). Celebrate faculty crossing milestones.
- Submit accurate publication data to NIRF each January and to NAAC SSR as required.

## 7. Innovation & Patents (IP / IPR)

A patent is a legal right granted to an inventor that prevents others from using their invention without permission. For KPRIT, every patent filed improves NAAC score, brings prestige and can generate revenue.

- **Encourage Faculty and Students to Disclose Innovations:** Create a simple Innovation Disclosure Form so that any faculty member or student with a new idea can report it to the R&D office for evaluation.
- **Conduct IPR Awareness Programmes:** Teach the KPRIT community about: Types of IP (patents, copyrights, trademarks, trade secrets). How to search existing patents (using Indian Patent Office database, Google Patents). How to file a provisional patent application in India (through IP India portal).
- **Appoint a Patent Facilitator:** To help draft and file patent applications correctly and cost-effectively.
- **Maintain Patent Register:** Track all filed patents (provisional and complete), granted patents, and technology transfer / licensing agreements.
- **Promote Product Development & Prototyping:** Encourage faculty to go beyond paper publications and build actual working prototypes, models or software that can be demonstrated, patented or commercialized.
- **Link with TBI (Technology Business Incubator):** Support innovators who want to turn their research into a start-up or business.

## 8. Consultancy & Industry Linkage

As an autonomous institution, KPRIT can independently earn revenue through consultancy and establish industry partnerships that benefit both faculty and students.

### 8.1 Consultancy

- **Identify Faculty Expertise:** Map every faculty member's area of specialisation and create a KPRIT Expertise Directory that is published online and shared with industries.
- **Frame a Consultancy Policy:** Define clearly: How consultancy projects are approved, How revenue is shared (e.g., 60% Faculty : 30% Dept. : 10% Institution R&D Corpus), What records must be maintained.

### 8.2 Industry Linkage & MoUs

- Sign MoUs (Memoranda of Understanding) with companies, R&D laboratories and government agencies for: Joint research projects, Faculty internships in industry, Guest lectures and expert sessions, Student internships and placements, Sponsored projects and equipment donations.
- Review MoU effectiveness annually: A signed MoU that produces no activity is of no value. The Dean (R&D) tracks actual outcomes of each MoU.
- Connect with Local Industry in Telangana/Hyderabad: Leverage KPRIT location to partner with IT companies, pharma companies, infrastructure firms and public sector units (PSUs) nearby.

## 9. Research Infrastructure

Good research needs good infrastructure. The Dean (R&D) plans and manages the development of physical and digital research facilities at KPRIT.

- **Identify Infrastructure Gaps:** Conduct an annual audit of existing lab equipment, software tools and facilities. Identify what is missing or outdated.
- **Plan Phased Procurement:** Create a 3-year equipment procurement roadmap. Prioritize equipment that serves multiple departments or enables high-value research.
- **Apply for Equipment Grants:** Funding agencies like DST-FIST (Fund for Improvement of S&T Infrastructure) specifically provide funds for lab equipment. The Dean (R&D) prepares and submits such proposals.
- **Establish Centre of Excellence (CoE) Units:** Create focused research hubs in emerging areas such as AI & Machine Learning CoE, IoT & Embedded Systems CoE, Green Energy & Sustainability CoE.
- **Ensure Proper Maintenance:** Maintain a service record for all equipment. Ensure calibration, AMC (Annual Maintenance Contracts) and insurance are in place.
- **Develop a Research Park / Innovation Hub:** In future phases, plan for a dedicated space where students, faculty and industry partners can co-create and experiment.

## 10. Monitoring & Reporting

The Dean (R&D) is the custodian of all R&D data and is responsible for timely, accurate reporting to the institution's leadership and external bodies.

Report / Review	Frequency	Submitted To	Key Contents
Quarterly R&D Progress Report	Every 3 months	HOI (Director/Principal)	Project status, publications this quarter, patents filed, MoUs signed, upcoming events
Annual R&D Report	Every April	BOG + Academic Council	Full-year KPI data; feeds directly into NIRF submission (due January) and NAAC SSR
Project-wise Progress Reports	As per funding agency (usually 6-monthly)	Funding Agency + HOI	Technical progress, funds utilized, milestones achieved, next steps
Research Committee Minutes	Quarterly	HOI + Academic Council	Resolutions, targets set, issues raised, action items assigned
Dean (R&D) Annual Appraisal	Once a year	HOI + BOG	KPI achievement vs. targets; renewal or revision of Dean's R&D mandate

## 11. Student Research & Innovation

- **Student Research Scheme (SRS):** A KPRIT-funded mini-project programme where UG students, guided by a faculty mentor, carry out a 6–12-month research project with a small budget (e.g., Rs.5,000–20,000 per project).
- **Smart India Hackathon (SIH):** A national-level government-organized event where student teams solve real problems posed by ministries and companies. Dean (R&D) coordinates KPRIT's participation.
- **Internships at Research Labs:** Facilitate student internships at IITs, NITs, CSIR labs, DRDO, ISRO and industry R&D centres to expose them to real research environments.
- **Paper Publication Support:** Encourage final-year students to publish their project work in Scopus-indexed conference proceedings or journals. Provide editing and formatting guidance.
- **Research Club:** Form a student body that organizes ideation sessions, prototype demonstrations, paper presentations and technical talks.
- **PhD Feeder Pipeline:** Identify academically strong PG faculty and motivate them to pursue PhD.

## 12. Key Performance Indicators (KPIs)

KPIs (Key Performance Indicators) are measurable targets that tell us whether KPRIT's R&D programme is on track. These are reviewed quarterly and reported annually.

S.No	KPI / Metric	How Measured / Linked To
1	<b>Externally Funded Projects Secured</b>	Funding agency sanctions; tracked in R&D database
2	<b>Publications in Scopus / WoS / SCI</b>	Scopus/WoS faculty profiles; NIRF submission
3	<b>Patents Filed (Provisional + Complete)</b>	IP India portal; R&D patent register
4	<b>MoUs Signed with Industry / Institutions</b>	MoU register; activity log per MoU
5	<b>PhD Scholars Enrolled / Guided</b>	University registration records
6	<b>Consultancy Revenue Generated</b>	Finance records; consultancy register
7	<b>National / Intl. Conferences Organized</b>	Event reports; participant feedback
8	<b>Seed Grants Disbursed to Faculty</b>	Finance disbursement records
9	<b>UG/PG Student Research Projects</b>	Department project registers
10	<b>NAAC Criterion 3 score Improvement</b>	NAAC SSR Criterion 3 self-assessment

## 13. Additional Duties

Beyond the core R&D mandate, the Dean (R&D) plays a vital cross-functional role in the overall quality and reputation of KPRIT.

- **Support NAAC Accreditation:** NAAC Criterion 3 (Research, Innovations & Extension) is directly under the Dean (R&D)'s responsibility. Prepare data, evidence files (SSR Criterion 3), and coordinate visits.
- **Support NBA Accreditation:** For programs seeking NBA accreditation, research outputs of faculty in that department are evaluated. The Dean (R&D) ensures department-wise research data is well maintained.

- **Support NIRF Ranking:** KPRIT's rank in NIRF is significantly influenced by the 'Research and Professional Practice' parameter. Accurate publication, patent, and project data must be submitted annually in January.
- **Collaborate with Placement & Industry Relations Cell:** Research collaborations and MoUs often open recruitment pipelines. Dean (R&D) coordinates with the Placement Cell to convert industry partnerships into placement opportunities.
- **Perform Any Duties Assigned by Management:** As a senior leader, the Dean (R&D) may be called upon to lead committees, represent the institution at conferences, or assist in administrative decisions.

### Approval & Authorisation

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<b>Dean (R&amp;D)</b> KPRIT	<b>Head of Institution</b> (Principal / Director)	<b>Chairperson</b> Board of Governors (BOG)
Name: _____	Name: _____	Name: _____
Date: _____	Date: _____	Date: _____