

#### JSS MAHAVIDYAPEETHA JSS ACADEMY OF TECHNICAL EDUCATION, BENGALURU Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka, INDIA

Approved by All India Council for Technical Education, New Delhi Accredited by NAAC with A+

# Research and Development Cell Research Policy at JSSATE Bengaluru

#### **Preamble:**

Research and development (R&D) is an essential first phase of innovation that plays a progressively significant role in scientific knowledge and inventive approaches. The institution's R&D activities aim to foster a research mindset and disseminate research-based education practices on campus to achieve technological self-sufficiency. Students and faculty conduct many research activities that include publications in reputed international and national journals, book publications, patents, projects, and the organization of conferences, workshops, and seminars in emerging domains of science and engineering. JSSATEB has achieved many R&D milestones and achievements, and we strive further for academic excellence through collaborative research with industries and institutions of national importance. To increase the number of publications, patents, industry institute interactions, internships, the visibility of the institution, and funded projects in the institute, the following guidelines are framed: All the faculty members are informed to adhere to these guidelines about research-related activities at JSSATE Bengaluru.

#### Vision

To be a leading organization that provides transformative learning to spawn leaders and visionaries and generates innovative knowledge for humanity and trade.

#### Mission

- 1. To advance excellent research and innovation across the disciplines in thrust areas.
- 2. To support research, innovation (patent), dissemination, and translation of discoveries to maximize impact.
- 3. To lead research initiatives and secure new resources for research scholars through funding from Government funding agencies and research grants.
- 4. To enhance science and engineering education with research orientation.

#### Strategy

- 1. Disciplinary, interdisciplinary, industrial, and academic collaboration
- 2. Create an advanced infrastructure and utilize the resources to their optimum level.
- Periodic presentations to the faculties and students on different funding agencies and IPRs
- 4. Increase the number of full-time research scholars with fellowships.
- 5. Involve the students in research-oriented projects with an idea of publications or patents.

#### **Expected Outcomes**

- 1. A minimum 10% increase in high-quality publications in Scopus (Science Direct), WOS (Clarivate Analytics), or SCI journals and patents will result in a position in the NIRF.
- 2. Financial assistance from funding agencies creates a state-of-the-art facility, which makes a platform for consultancy services, filing patents and transferring technologies to relevant industries.
- 3. Establishment of the link between industry and institution and get support from industries and forums.

#### 1. 1. Research Policy (RP) for publishing the research articles:

The research guides/ individual faculty members are responsible for the quality of research publications. Hence, the following guidelines shall be followed while publishing the paper.

1. The research paper shall be free from plagiarism (permissible up to 25%)

2. Publications shall be in peer-reviewed journals and indexed in WoS (Clarivate Analytics) / Scopus (Science Direct) or Science Citation Index (SCI).

3. The affiliations should contain the department name (viz., Department of Information Science and Engineering), College Name (JSS Academy of Technical Education (affiliated to Visvesvaraya Technological University, Belagavi)), and Address (Dr. Vishnuvardhan Road, Bengaluru-560060, India).

4. Any number of authors may be added from the department/college/collaborators; however, the first author and corresponding author from our college will be considered for purposes like annual increment, grade pay, and promotion. If the paper is from JSSATEB, the research scholar or the guide should be the first or corresponding author, respectively. The same condition applies to patent filing (applicate name: JSSATE Bengaluru, Inventors: students/faculties).

# Example:

Paper title	Authors	Affiliations	Author recognized
			by the institute
Inhibitory effect of	Kokila N R <sup>a</sup> ,	<sup>a</sup> Department of	Kathyayani D (first
gallic acid from	Kathyayani D <sup>a</sup>	Chemistry, JSS	in the series)
Thunbergia	Mahesh B <sup>a*</sup> ,	Academy of Technical	Mahesh B
mysorensis against	Chamaraja N A <sup>a</sup> , ,	Education,(Affiliated to	(corresponding
α-glucosidase, α-	Roopashree B <sup>a</sup> ,	Visvesvaraya	author)
amylase, aldose	Ramith Ramu <sup>b</sup> ,	Technological	
reductase and their	Mruthunjaya K <sup>c</sup> ,	University, Belagavi),	
interaction:	Bettadaiah B K <sup>d</sup> and	Dr. Vishnuvardhan	
Inhibition kinetics	Harishkumar	RoadBengaluru-560 060,	
and molecular	Madhyastha <sup>e</sup> ,	India	
simulations		<sup>b</sup> Division of	
		Biotechnology and	
		Bioinformatics, School	
		of Life Sciences, JSS	
		Academy of Higher	
		Education and Research,	
		Mysuru- 570015, India.	
		<sup>c</sup> Department of	
		Pharmacognosy, JSS	
		College of Pharmacy,	
		JSS Academy of Higher	
		Education and Research,	
		Mysuru- 570 015, India.	
		<sup>d</sup> Department of	
		Plantation Products,	
		Spices and Flavour	
		Technology, Central	
		Food Technological	

Research Institute,
Mysore 570 020.
<sup>e</sup> Department of
Cardiovascular
Physiology, Faculty of
Medicine, University of
Miyazaki, Miyazaki,
8891692, Japan
*Correspondence to:
Mahesh B (E-mail:
maheshb22@gmail.com)

**2. Research Target for faculties:** Irrespective of administrative or other responsibilities, the faculty members are advised to adhere to the following targets.

1. Professor should have any of the following

Research paper in WOS Journal-03, Scopus-01

# OR

Consultancy work not less than 10.00 Lakh per year

# OR

Sanctioned research project not less than 10.00 Lakhs. The revenue generated shall be deposited in the Institution account.

# 2. Associate Professor should have the following

Research paper in WOS Journal-02, Scopus-02

# OR

Consultancy work not less than 10.00 Lakh per year

# OR

Sanctioned research project not less than 10.00 Lakhs. The revenue generated shall be deposited in the Institution account.

#### 3. Assistant Professor should have the following

Research paper in WOS/Scopus -02

#### OR

Consultancy work not less than 5.00 Lakhs per year

#### OR

Sanctioned research project not less than 5.00 Lakhs. The revenue generated shall be deposited in the Institution account.

Further, as a speaker or session chair, the faculty shall actively represent the college at platforms like conferences, workshops, faculty development programmes, etc. They shall increase the institution's visibility (two slides about the college). Additionally, such programmes shall be arranged from individual departments (Max. 5). Each program's account is to be settled separately within 15 days of the program's start date.

#### 3. Guidelines for Research scholars and Supervisors

a. The supervisor will assign a topic to the student and guide them through writing the synopsis.

b. The synopsis may be presented to the department's faculty, and the candidate will incorporate the inputs (if any) before finalizing it.

c. After registration, the department or guide shall maintain the log book/attendance register for the entire tenure of their research period. HOD is advised to check and sign the log book at least twice a year.

d. The research scholar must maintain a research diary; experiments conducted and outcomes of the research may be recorded with date.

e. The visible outcomes (like research papers, patents, novel products, etc.) shall be displayed in the Research Centre.

f. The guide must ensure that the candidate clears all dues about fees and that the candidate is abiding by the guidelines of the institute in general.

g. The research scholar will submit the progress report per the university guidelines and pay the prescribed college fee.

h. After completion of the course, a copy of the hard copy of the thesis shall be submitted to the institution's library.

#### **3a. Terms & Conditions: consultancy work**

- Faculty should be self-motivated to conduct the consultancy work, and further students shall be encouraged to participate in industrial consultancy projects.
- The consultancy work shall be carried out under the Head (Principal) of JSS Academy of Technical Education, Bengaluru and strictly adhere to the terms and conditions of JSSATE Bengaluru.

#### **3b. Student Projects**

- The department shall have a student project committee under the chairmanship of the HOD.
- The projects shall be given in the 5th semester, and sufficient time shall be given to the students to set the objectives.
- After a month, students may be asked to submit the project title (after scrutiny from the inhouse guide) containing the title of the project: 1. Objectives, 2. Methodology, and 3. Possible outcomes for the project committee of the department.
- The committee shall, in turn, discuss and finalize the student project (3–4 students per batch) so that the same objectives shall be completed within 1.5–2 years as a mini-project up to the 6th semester and a significant project in the 8th semester.
- The project's outcome shall be a Scopus-indexed or UGC-care journal paper, or it may be a patent.
- The department should ensure a minimum of 20–25 student research papers (3–4 patents per 180 students' strength) and 10–12 student research papers, (2–3 patents per 60–90 students' strength).
- The project guides shall actively participate in guiding the students' project work, and they should be the corresponding authors of the publication. Inter-disciplinary project work involving faculties of other engineering departments and supporting departments' physics, chemistry, mathematics, and MBA/MCA).
- If the research work is highly innovative, they may apply for seed money from the institution, or it can be applied to any funding agencies such as KCST, DST, etc.
- The sound projects (having patent/publication/funding/winning the competition) shall be recognized by issuing an appreciation certificate to the students and a guide signed by the HOD, Dean R&D, and Principal during the annual project exhibition/Verve.

#### **4 Faculty Funded Projects**

- Faculty members must prepare project proposals and submit them to the HOD.
- HOD has to assess the project's suitability and then forward it to the Dean of Research.
- Dean Research consolidates all the projects and brings them to the attention of the principal. After initial discussion, the concerned faculty will be invited to present before the Research Advisory Committee under the chairmanship of the principal.
- The Research Advisory Committee shall review the proposal and give its opinion and recommendations in a meeting with authority for further discussion and decision.
- The committee shall convey the decision along with all the terms and conditions regarding the project proposal.
- The college may provide financial support as per institute policy for presenting a research paper at a national or international conference and participating in seminars, workshops, or competitions.

Type of conference	Nature of support	Frequency
For presenting papers in	Travel allowances,	Max. of one in a calendar
national	accommodation and	year
conferences/seminars outside	registration fees for	
Bengaluru	presenting author	
For presenting papers in	Registration fees for	Max. of one in a calendar
national	presenting author	year
conferences/seminars in		
Bengaluru		
For presenting papers in	Travel allowances,	Max. of one in a calendar
international	accommodation, and	year
conferences/seminars inside	registration fees for	
India	presenting author (subjected	
	to approval from the	
	management/committee)	

# Financial/SCL support for presenting research papers in conferences/attending FDP's/NPTEL Courses:

For presenting papers in	Travel allowances and	Max. of one in three years
international	accommodation or	
conferences/seminars outside	registration fees for	
India	presenting author, whichever	
	is lesser (subjected to	
	approval from the	
	management/committee)	
FDP/STTP/NPTEL Courses	SCL for attending	Max. of one in an academic
	examination	year

- A faculty must attend any two above such programmes per year and present the proceedings in their respective department.
- It is mandatory to have affiliation with the institute in publications of any form, including articles in magazines, papers in conference proceedings, journal papers, patents, and any other research project outcomes.
- Each program's account shall be settled separately within 15 days of the program's start date.

# 4a. Guidelines

- Before applying for funding from the institution, faculty shall apply to the funding agencies to obtain the travel grants (AICTE/UGC/DST etc).
- All departments must encourage faculty to apply for sponsored and consulting projects.
- Each research proposal must be submitted to the Principal through HOD and Dean (Research) in duplicate.
- If the funds are released, the principal investigator shall submit the progress report per the guidelines of the funding agency and a copy of the progress report shall be kept.
- On completion of the project, the principal investigator must submit a copy of the final project report and outcomes, besides budgetary records, to the principal or dean (research).

#### 5. Research Committee Rules and Guidelines

• They shall meet at least once a semester or as needed.

• Keeping accurate minutes of all meetings and interactions and reporting to appropriate authorities.

#### 6. Intellectual Property Rights (IPR)

- "Intellectual Property Rights (IPR)" is an essential legal process to claim the ownership (authority) of a new invention.
- All faculties and students are encouraged to work in this direction through Innovative projects and new Research findings.
- All the Departments are informed to deliberate on this and need to work with self-targets to file patents annually.
- Use of Invention Disclosure document and guidelines document for filing a patent.
- IPR coordinator shall work closely in association with NISP and IIC coordinators and plan the activities as per NISP/IIC calendar of events.

#### 6a. Guidelines

Through literature, a survey shall be conducted before beginning the research.

The inventions are to be documented, and the complete evidence shall be recorded.

It should contain a methodology describing all the modules, functions, parts and how they work together.

- While preparing the invention disclosure form, design drawings, figures, and flow charts so that it shall be easy to understand.
- Disclose your inventions as early as possible to IP Cell to protect the IPR.
- Do not publish the invention in any form, like presentations in seminars, conferences, journals, newspapers, magazines, customer meetings, TV shows, or any media.
- Inventions that are generated as part of customer projects are to be informed clearly, and this can be filed as joint IP if the customer agrees.
- Your invention will qualify for patenting only if it meets patentability conditions novelty, inventive step and industrial application.
- A formal letter and half a page of the abstract shall be submitted to the Principal through HOD and Dean Research informing the invention and intention to file the patent. The institute will guide the inventor to the IP solutions vendor to further the patent process.

# 6b. R&D Budget and Utilization

The HOD of the department shall prepare the R&D budget in discussion with all the department's faculty members/research guides. The allotted budget shall be utilized explicitly for Research purposes by the faculty for Procurement of equipment, electronic components, chemicals, etc. This fund shall not be used for other purposes such as students' project work, visits to other institutions, travel for research-related work, etc. However, the faculty may also utilize the funds for attending the conferences/workshops/FDPs.

# 6c. MOU's, Industry Institute interactions and Centers of excellence

The JSSMVP and JSSATEB intended to create an atmosphere for each department working in a specific research area and be known as a specialist organization. It will conduce to concentrate on particular research exercises in specialized areas. Through these efforts, the JSSMVP shall promote a specific department or an institution as the 'Centre of Excellence' in due course for a specialized thrust area through MoUs. The departments shall have active MOUs and conduct visible activities at the institute level. Further, to promote research-related activities and help the JSSATE wards, the departments must have international collaborations.

Dean-Research Dean - Research JSS Academy of Technical Education Bengaluru-560060

Principal

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