



KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE

Warangal – 506 015, Telangana, INDIA. (An *AUTONOMOUS INSTITUTE* under *Kakatiya University, Warangal*)

కాకతీయ సాంకేతిక విజ్ఞాన శాస్త్ర విద్యాలయం, వరంగల్ – 506 015.

KITSW Research Policy

Kakatiya Institute of Technology and Science

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Vision and Mission of KITSW

Vision

To make our students technologically superior and ethically strong by providing quality education with the help of our dedicated faculty and staff and thus improve the quality of human life

Mission

- To provide latest technical knowledge, analytical and practical skills, managerial competence and interactive abilities to students, so that their employability is enhanced
- To provide a strong human resource base for catering to the changing needs of the Industry and Commerce
- To inculcate a sense of brotherhood and national integrity

Preamble

This policy establishes the research environment within which academic staff, Research scholars and postgraduate research students carry out their Research. It also provides an overarching framework for the development and implementation of all research management at Kakatiya Institute of Technology and Science Warangal (KITSW).

Research can flourish only in a climate of academic freedom which includes freedom of inquiry and the right to disseminate the results thereof, freedom to challenge conventional thought, freedom from institutional censorship, and the privilege of conducting research on human subjects. However, with academic freedom comes the responsibility to ensure that all research and scholarship: is informed by the principles of honesty, integrity, trust, accountability and collegiality; meets high scientific and ethical standards; is conducted with honest and thoughtful inquiry, rigorous analysis, and accountability for the use of professional standards; and seeks to increase knowledge in ways that do not harm but which benefit society. The cultivation of these values in the teaching staff, research scholars and postgraduate student community are advanced by the ongoing education of its members in matters of research integrity, and by adopting and following appropriate policies within which research should be conducted, policies which all major funding agencies require institutions to have in place.

This Regulation, therefore, establishes a general framework for the conduct of research. It is premised on individual responsibility for the selection and conduct of research as individual members of the institute are best positioned, through special knowledge, to be aware of both the manner in which their Research and scholarly activity is being conducted and the consequences of such activity. Special responsibility rests with Researchers to remain aware of the consequences of their Research and to balance the potential benefits against the possibility of harmful applications. This Regulation should be interpreted in a manner that is consistent with the vision of the institute as a research and scholarly community committed to the principles of academic freedom, honesty, integrity, trust, accountability and collegiality, and the idea that fair play must prevail at all times.

This Regulation does not replace the policies and guidelines of agencies sponsoring research or which have oversight of particular research activities. It would encourage quality research relevant to societal needs.

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1. Field of Application

The policy is applicable to the research work carried out by the Academic Staff, Research Scholars, Post Graduate and Under Graduate Students of the institute; the framed rules are applicable to all the employees and the students of the institute.

2. Scope and Objectives:

Complying with Kakatiya University policy the KITSW research policy is applicable to all the Academic Staff, Research Scholars Post Graduate and Under Graduate Students of the institute. The policy extends to visiting speakers, professor emeriti, and persons who conduct research within the jurisdiction or under the auspices of the KITSW.

The institute will facilitate, host and conduct research in areas where latest developments promise to offer new knowledge or address problems constraining development initiatives in the country and it can complement and add values to other regional and global activities. The research scope shall facilitate the sharing of information through conferences, workshops, seminar and other modes of national & international exposures.

The objectives of research would be fair and honest reporting of scientific findings. The researchers are expected to maintain the highest degree of intellectual honesty in design, experimentation, data analysis, reporting of research findings and acknowledging significant contributions made by other researchers.

3. Institution's Research Objectives and Research Priorities

Specific Objectives

The following are the specific research policy objectives:

- a) To enhance research skills among staff.
- b) To enhance research capacity & capabilities.
- c) To institutionalize research ethics.
- d) To enhance post-graduate research and training.
- e) To increase the quantity and relevance of research output.
- f) To utilize research results.
- g) To protect intellectual property rights (IPR).

- h) To promote corporate image and promote social responsibility.
- i) To ensure that research results and technologies are effectively disseminated to all stakeholders.
- j) To equip, encourage and motivate researchers and collaborators to conduct quality research
- k) To develop a framework to upscale and commercialize research outputs and innovations.

3.1 Objective policy statements.

Specific Objective	Policy Statement
To enhance research skills among staff	(i) Train staff in research methods and paradigms especially proposal writing (ii) Establish research skills (iii) Strengthen research infrastructure
To enhance research capacity	(i) Provide modalities for institutional and collaborative research (ii) Enhance academic linkage (iii) Allocate research funding
To institutionalize research ethics	(i) Develop and conduct research ethically
To enhance post-graduate research and training	(i) Inculcate research culture (ii) Encourage to take up potential projects
To increase the quantity and relevance of research output	(i) Develop guidelines for attracting competitive research grants and pursue them aggressively
To utilize research results	(i) Covert successful projects in to sustainable business models (ii) Encourage and provide facilities to file IPRs
To protect intellectual property rights (IPR)	(i) Comply with IPR legislation
To ensure that research results and technologies are effectively disseminated to stakeholders	(i) Provide a forum for presentation of research finding and innovations (ii) Set modalities for sharing research information through electronic and print media (iii) Create a forum of interactive feedback mechanism
To equip, encourage and motivate researchers and collaborators to conduct research	(i)) Improve researchers' capacity to write research proposals (ii) Mentor young teachers to conduct high quality research
To develop a framework to upscale and commercialize research outputs and innovations	(i) mobilize and harness resources for scaling-up and commercialization of viable research outputs (ii) Set up guidelines for intellectual property management and sharing of benefits arising from research

3.2 Department specific Research Priority Areas

Sr. No.	Department	Areas of Expertise/ Research
1.	CE	Structures, Geo Technical, Transportation, Environmental Engg. Construction Engg.
2.	ME	Non-conventional Energy, Composite materials, Non-conventional machining, Alternative Fuels, Optimization Techniques.
3.	EIE	Medical Electronics, Virtual Instrumentation, Signal and Image Processing, VLSI and Embedded systems
4.	EEE	Power Systems, Industrial drives, High Voltage Transmission Lines, Micro Grids
5.	CSE	Big Data Analytics, Cloud computing, Virtual Reality, Artificial Intelligence, Machine Learning, Cryptography
6.	ECE	Image Processing, Wireless Networks, VLSI
7.	IT	Big Data Analytics, Cloud computing, Cryptography Web Technologies
8.	PSS	Polymer Chemistry, Nano Materials, Crystalline structures, Processing of e-waste
9.	M&H	Fluid mechanics problems
10.	MBA	Public policy, Urban development, Impact surveys

4. Organizational Frame Work and Support

4.1 The Institute Research Committee (IRC)

IRC shall be responsible for the strategic management of research at the Institute.

a) Composition of the Institute Research Committee (IRC)

The Institute Research Committee shall comprise of:

- i) Head of the Institution
- ii) Dean, Research and Development
- iii) HoDs
- iv) Dean, Academic Affairs
- v) Controller of Examinations
- vi) Dean, Administration
- vii) Chief Librarian
- viii) Professor in-charge, Industrial Consultancy Cell (ICC)
- ix) Professor In-charge, Industry Institute Interaction Cell (I³C)
- x) Chief Coordinator, Entrepreneurship Development Cell (EDC)
- xi) Professor In-charge, Alumni Affairs & External Relations Cell (AA&ERC)

b) Terms of Reference for the Institute Research Committee

- i) To periodically review and make recommendations to the Administrative Committee on the Institute Research Policy.
- ii) To establish research priorities for the institute
- iii) To coordinate all research activities in the institute
- iv) To make recommendations to the administration on matters related to research
- v) To undertake and facilitate fundraising from external sources in support of research at the institute
- vi) To allocate research funds and monitor their use
- vii) To produce an annual report on research activities in the institute
- viii) To receive and evaluate research reports from recipients of research grants through Departmental Research Committees

4.2 Mandate of the Dean, Research and Development

The Dean, Research and Development shall:

- a) Plan, develop and recommend policies governing research and development programs.
- b) Provide leadership for collaborative research including capacity building, mentorship, assessing needs and identifying areas of priority.
- c) Mobilize financial and other resources for research and development.
- d) Coordinate all research activities, publication, production and innovation.
- e) Promote dissemination of research findings.
- f) Initiate and maintain local and international collaboration for research programs.
- g) Promote academic linkages, interchange, contact and co-operation with the public and private sectors.
- h) Identify and advice on resource requirement for research and development.
- i) Organize, encourage and support public lectures, seminars and conferences related to research.
- j) Produce annual reports on research and extension and academic linkages.
- k) Gather and disseminate information on research and funding opportunities to academic staff.
- l) Provide assistance to departments on writing competitive research project proposals so that they produce competitive research project proposals of good quality.

- m) Develop a strong multidisciplinary research culture and encourage synergy.
- n) Promote knowledge sharing with stake holders for accelerated development.
- o) Coordinate with individual faculty members or in teams, for preparation of research project proposals.
- p) Provide assistance to departments on writing competitive research project proposals
- q) Start and maintain a quarterly research and development bulletin.
- r) Work out modalities of implementing funded research projects.
- s) Disseminate information on research funding opportunities to departments.
- t) Assist departments to market their research proposals to funding agencies.

4.3 Departmental Research Committees

There shall be departmental research committees comprising HoD as Chairperson, a senior faculty member as convener and all the research supervisors as members. The committee shall administer all the issues related to research and development with terms of reference outlined by the concerned HoD.

5. Research administration

5.1 Approval, Monitoring and Control of Research Projects

- a) Academic staff shall be well aware of the national and international research agenda and participate in the process of defining the research agenda for their areas of expertise.
- b) Priority shall be given to projects within the institute research thematic areas when approving research proposals. All proposals, including those initiated by prospective donors, have to demonstrate that the projects will contribute towards the overall research objectives of the department.
- c) The research proposals shall follow the research initiation, approval, execution and conclusion process as described in the KITSW research policy.
- d) All research proposals follow the prescribed process of KITSW.

- e) All projects shall be evaluated through peer review, on the basis of the four key measures of performance - relevance, necessity and in-built internal efficiency and effectiveness.

- f) Collaboration shall be promoted and facilitated at individual, institutional, national, regional and international levels, with special consideration for networking.
- g) There shall be one general framework guiding the process of preparation and approval of research projects.
- h) All research proposals shall be subject to the IRC approval process before they are accepted for funding or submitted to a prospective donor Irrespective of the source of funding.
- i) KITSW shall enter into a research contract with the researcher(s) when the project has been approved. Where there is an interest of joint ownership of research results/output, the contract shall be between the researcher(s) as one party, the joint financiers as the second party and the KITSW as the third party.
- j) Any project whose progress is found unsatisfactory on three consecutive evaluations shall be wound up prematurely to save resources.

5.2 Creating a Conducive Research Environment

- a) The Institute shall establish and strengthen administrative and financial management support to research, in order to relieve researchers of such non-research burdens.
- b) Research support services shall include continuous improvement and modernization of management information systems and access to international literature and databases.
- c) Researchers and research administrators shall be encouraged and facilitated to improve their capabilities in program formulation and fundraising and in routine project management.
- d) The Institute shall be proactive in working towards a stable research environment by responding positively to staff needs, providing equitable compensation and by providing and maintaining basic research infrastructure and accessories.
- e) Research collaboration shall be encouraged.
- f) Strategies for disseminating research results shall aim at promoting a scholastic environment within the Institute.

5.3 Research Funding

- a) Research funding shall be solicited from bilateral multilateral, international and local sources, both public and private. Solicitation of funding shall be encouraged and facilitated at individual, departmental, institute and inter-institutional levels.
- b) Projects for the Institute funding shall be selected on the basis of research priority themes subject to well-defined approval criteria.
- c) Although applied research leading to tangible technologies shall be given priority, upstream basic research shall not be overlooked. An appropriate share of research funding shall be reserved to support such activities.
- d) The Institute shall provide seed money to support initial project development and proposal preparation activities; such activities shall include background data collection, planning workshops and project write- up.
- e) The institute shall encourage the Academic Staff, Research Scholars, Post Graduate and Under Graduate Students of the institute to carryout research project by supporting with matching grant on need basis as per the recommendations of IRC.

5.4 Research staff appointment

All the research staff appointments are to be governed by the IRC. As per the requirements of various research groups the IRC shall follow the institute appointment rules and regulations in vogue. All such appointments are time bound fulfilling the requirement of research projects.

5.5 Collaborative Research

KITSW shall encourage and support collaborative research within the institute among different departments and also nationally and internationally. The external research collaborations shall begin with a proper agreement/MoU, covering ownership of IPRs confidentiality and copyright, sharing commercial returns, responsibility of ethics and research safety.

5.6 Research Information

Research information assets support both research and operational needs. This includes administrative information and records produced for analytic or evidentiary purposes. Research records include those documents and records and materials captured by or for a

researcher that are necessary to document, reconstruct, evaluate, and validate research results and the events and processes leading to the acquisition of those results. Research records may be in many forms including but not limited to laboratory notebooks, survey documents, questionnaires, interview notes, transcripts, machine-generated data or performance outputs, recruitment materials, consent forms, correspondence, other documents, computer files, audio or video recordings, photographs including negatives, slides, x-ray films, samples of compounds, and components of organisms.

6. General Principles

6.1 Financial and other Support for Researchers

The Academic Staff, Research Scholars, Post Graduate and Under Graduate Students of the institute are allowed to attend conferences, symposia or any other technical events related to research and development as per the administrative manual of the institute.

The faculty, research scholars and post graduate students are financially supported by the institute for attending various technical events related to research and development such as attending conferences, symposia, etc., after the approval of IRC and as per the rules and regulations mentioned in administrative procedures of the institute.

6.2 Code and Ethics

Research Involving Human Subjects

Researchers must comply with all ethical requirements in conducting research at KITSW.

Where research procedures involve humans as research subjects, approval must be sought from the appropriate Human Research Ethics Committee (or Human Research Advisory Panel).

The design and conduct of projects must take account of: “The National Statement on Ethical Conduct in Research involving Humans; The Rules Governing Human Research Projects at the University and the Indian Code of Practice for the Care and Use of Humans for Scientific Purposes must be strictly followed”.

6.3 Dissemination of Research Results

The information and results in the form of data are strictly made accessible for other researchers of the institute after obtaining proper permissions from the research and development management committee.

6.4 Intellectual Property Rights

The institute shall provide an enabling environment that encourages knowledge and product creation. In order to protect discoveries and inventions by researchers, the institute shall extend support in obtaining IPRs.

6.5 Incubation Center/Fab Lab/Mentoring

The institute shall nurture talent and facilitate the incubation of new ideas and mentoring of incubates. To facilitate this, the institute shall enable technology transfer through commercialization of technology. In this regard, researchers shall be required to take cognizance of procedures of technology business incubation including mentoring of incubates as espoused in the institute procedures.

6.6 Plagiarism

The institute shall endeavor to nurture academic integrity among staff and students. Specifically, the institute considers academic dishonesty as a serious matter. The institute shall have zero tolerance towards plagiarism and shall take deterrent measures to ensure academic honesty.

7. Implementation, Evaluation and Revision of the Policy

KITSW research policy is implemented under the supervision of Head of the Institution; the policy shall be evaluated by IRC periodically and shall revise it after every three years.

8. Conclusion

The Research Policy is in line with the overall Vision and Mission of the organization. It is hoped that the creation of this policy and its rigorous implementation would enhance the status of the institution as an upcoming Research Center of Global proportions.

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