



STU/DRO/BOM/21/2022 – 23

10/05/2022

Office Order

Order No.: STU/DRO/BOM/21/2022 – 23/14/14.21., Dated: 19/11/2021

A new policy with a goal to improve the research outcomes, support innovation activities, research collaborations, consultation and supporting entrepreneurship activities, JSS STU has formulated a new Research, Innovation and Entrepreneurship policy.

The same is approved in the Fourteenth Board of Management (Section 14.21), of JSS Science and Technology University.

Resolution:

The Board approved the new Research, Innovation and Entrepreneurship policy for JSS Science and Technology University.

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Enclosure:

- Research, Innovation and Entrepreneurship policy of JSS STU

Copy Submitted to:

1. The Vice Chancellor, JSS STU – through secretary for kind information
2. The Controller of Examinations, JSS STU
3. The Principal & Dean (E&T)
4. Dean (Academic/Science/Management/Research)
5. The Finance Officer, JSS STU
6. DR (i/c), DCOE, AR (Admn), AR (Examination), Ass. Deans (RAA/Research)
7. Technical Team – to disseminate the information on the University website
8. Office Copy

Research, Innovation and Entrepreneurship Policy

"Knowledge generated by research is the basis of sustainable development which requires that knowledge be placed at the service of development, be converted into applications and be shared so that everyone worldwide benefits" by Mary-Claire Kamey, Director of the UNESCO Forum on Higher Education, Research and Knowledge.



1.0 Preamble
The role of research, growth and innovation in our present and future principles behind research directly translates to the quality of teaching and learning in the classroom thereby advancing the growth of student society and the country. Hence the JSS Science and Technology University is committed to providing excellence in research, development and innovation as well as for providing an opportunity for entrepreneurship and continuous learning and up-skilling the knowledge of faculty in the contemporary arena and stand as a unique University.
Therefore, a comprehensive policy on Research, Innovation and Entrepreneurship has been brought out to encourage faculty and students in providing supportive research and innovation ecosystem in order to display and develop in every stage of their career as well as creating industry-ready professionals with requisite skill sets, a sense of social and moral responsibility and ability to address contemporary problems with innovative solutions through entrepreneurship.

The policy shall be applicable to all the stakeholders of JSSSTU, who are involved with the purpose of knowledge creation, traditional research, novel technologies and developing new products. Research, Innovation and Entrepreneurship research, academic faculty, students, staff and administrative personnel are the capacity as visiting subject or faculty or staff.

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Research, Innovation and Entrepreneurship Policy

"Knowledge generated by research is the basis of sustainable development, which requires that knowledge be placed at the service of development, be converted into applications, and be shared to ensure widespread benefits," by Mary-Louise Kearney, Director of the UNESCO Forum on Higher Education, Research and Knowledge.

1.0 Preamble

The role of research in an educational institution is important for its sustainability and growth, and it is significant to have knowledge-driven progress based on innovation in our present globalized world. The pursuit for knowledge is the fundamental basic principle behind research. From experiences, it has been seen that the quality of research directly translates to the quality of teaching and learning in the classroom, thereby advancing the growth of students, society and the country. Hence, the JSS Science and Technology University is committed to providing excellence in research & development and innovation as well as for providing an opportunity for entrepreneurship and continuous learning and up-skilling the knowledge of faculty in the contemporary arena and stand as a unique University.

Therefore, a comprehensive policy on Research, Innovation and Entrepreneurship has been brought out to encourage faculty and students in providing supportive research and innovation ecosystem in order to display and develop in every stage of their career as well as creating industry-ready professionals with requisite skill sets, a sense of social and moral responsibility and ability to address contemporary problems with innovative solutions through entrepreneurship.

The policy shall be applicable to all the stakeholders of JSSSTU, who are involved with the purpose of knowledge creation, translational research, novel technologies, and developing new products & solutions. Stakeholders include students, research scholars, faculty, staff or anyone else associated with JSSSTU or anyone in the capacity as visiting student or scholar, distinguished visiting/emergitus professor or faculty or alumni.

2.0 The Purpose of the Policy

The purpose of the Research Policy is to create an enabling and stimulating research ecosystem among faculty, researchers and students in the University. The policy shall serve as an overall framework within which research and development as well as promotional activities including entrepreneurship may be undertaken.



3.0 Objectives of the Policy

- a) To create awareness and opportunities in Research and Development among the faculty and students and to develop a research and innovation atmosphere in every Department.
- b) To encourage faculty members to submit proposals and secure funded research projects from various funding agencies in India and abroad.
- c) To enhance collaboration and partnership with premier research institutes and industries, nationally and internationally.
- d) To encourage multidisciplinary and interdisciplinary research programs to address many of the major challenges faced by our society.
- e) To nurture innovations and Entrepreneurship/startups through the development of well-organized entrepreneurship strategies for the creation and transfer of knowledge as well as the development of products and obtain patents.
- f) To encourage staff members and students to publish technical papers in peer-reviewed indexed Journals with impact factor / national and reputed international conferences/ write books/articles and monographs
- g) To Organize conferences/seminars/workshops/faculty development programs/outreach/extension programs/idea contest/exhibition, extension activities and consultancy.

3.0 Research & Development and Innovation Schemes

With an overall goal to improve research performance, promote research and innovation activities, publication of research outcomes, collaboration in research and better learning process, consultation, extension and entrepreneurship activities, the University shall introduce the following schemes from the academic year 2021 -'22:

3.1 Seed Money for Research Promotion

Cultivating research is considered critical for the success and vibrancy of the higher education system. Furthermore, the very best teachers in the University, for imparting the skills of creative thinking, innovation, and a research mindset, are naturally those faculty who themselves are deeply involved in the knowledge-creation process. For creating opportunities for young faculty of the University to involve themselves in real-life research projects as well as to stimulate competitive research in strategic areas to promote innovative scientific applications or technology/product development, it is important that University provides seed money for researchers. Also, seed funding is essential for such of those researchers, whose research will potentially develop into creative ventures on their own through external funding either at

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regional, national, or international levels through public institutions, private industries, Non-Governmental Organizations (NGOs), international funding agencies.

For this purpose, seed money of ₹ 30 lakhs shall be made available annually, which will be provided to 15 - 20 investigators; with a maximum provision of ₹ 3 lakh per proposal to facilitate research programs, which will potentially develop into creative ventures on their own through external funding and for obtaining sponsorships or to promote inter-faculty collaboration in emerging areas.

3.2 Mobilization and Promotion of Research

The University believes that researchers are free to choose the subject of their research, to seek support from different funding agencies for their research work, which are expected to provide innovative academic experiences based on addressing real world challenges. The University shall create conducive environment for such research. However, due to limited resources, the University may not support fully all research likely to be undertaken, but it shall allocate the space, facilities, partial funding, and other resources for research programmes based on the scholarly and educational merits of the proposed research. It shall also provide development opportunities to researchers for writing research proposals and reports, publications, patent filing, etc.

University shall encourage mobilization and promotion of research from the external funding agencies such as Government (state and central) organizations/Departments like DST, DBT, MoE, AICTE, UGC, TDB, TIFAC, DSIR, CSIR, BIRAC, NSTEDB, NRDC, Startup India, Invest India, MeitY, MSDE, MSME, SERB, ICMR, ISRO, NAL, BEL, HAL, DRDO, RCI, ICSSR, VGST, KSCST, ITBT, other funding agencies as well as international funding agencies such as UNESCO, UNIDO, IDBI, WHO, WTO, World Bank, UNO etc., based on the invitation for call of proposals or through their regular channel of the process for proposals. Private and corporate sectors may be explored to generate funds, under Corporate Social Responsibility (CSR). Sponsorship and donations may be obtained from business entities and also alumni networks.

The University shall monitor the progress of all major research projects funded by an external agency, maintain its accounts and submit the utilizing certificate in time to the funding agency as per the requirement of the funding agency.

3.3 Collaborations

Academic and research collaboration is a very valuable tool that not only hastens progress but also improves the quality of research works. Both intra- and inter-institutional collaboration are being encouraged, wherein it can impact and improve the quality, resources and capabilities of faculty and students in research and better learning process as well as provide new ideas and scientific breakthroughs, particularly in interdisciplinary/multidisciplinary research. It also enables a space for effective communication, established partnerships and large networks between academics and industries. In recent years, collaborative research has been the order of the day to transform basic research into applied and socially relevant areas. Hence, special emphasis is to be given to Industry-Sponsored Research Projects,

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Interdisciplinary Research Collaborative programs between universities/institutes and collaborative International Research.

The university shall encourage and strengthen collaboration with industries, premier institutions and R&D organizations – both at the national and international level so as to create an enabling environment for faculty members, research scholars and students for being exposed to new environments, advanced research methodologies, tools, and techniques.

3.4 Mentoring Young Faculty Members for Research

Mentoring is considered to be a process in which a mentor coaches a mentee to develop and enhance the mentee's professional performance. A faculty-to-faculty mentoring program is considered a useful way to help faculty be successful in teaching, research and enhancing professional performance.

University shall initiate Faculty Mentoring Program wherein a senior faculty mentors within the respective domain, guide young faculty in research and enable them to identify research topics for funding from national and international sources as well as to encourage them to take up their Ph.D., for such of those who have not completed the doctoral program. Every Department shall organize a weekly meeting after college hours and continuously monitor the progress of such interactions. A monthly report shall be submitted to the University to review and monitoring of the progress.

3.5 Awards for Faculty

In higher education, greater emphasis is to be given to high-quality teaching, improving teaching quality and cultivating excellent teachers as well as their research and extension. In this regard, it is of prime importance for recognizing the best of talent at different age groups and honor those faculty members, who through their commitment have not only improved the quality of education but also enriched excellence in research in the University. This will go a long way in boosting their morale and encouragement to tap their best of unique contribution in the long run. Also, this will be beneficial to faculty at all stages of his/her career advancement as well as in obtaining project funding from external agencies.

University recognizes and honors outstanding faculty, who have dedicated time and energy and contributed significantly to teaching, research and services to the university. The award shall be given for three senior faculty in the name of "**Accomplished Guru**" between the age group of 45 and 55 and the other two for young faculty in the name of "**Rising Star**" between the age group of 30 and 45 years. The Accomplished Guru will be given a cash prize of ₹ 10,000 and a citation, while the Rising Star will be given a cash prize of ₹7,500 and a citation.

3.6 Faculty Improvement/Development Programme

Faculty Improvement Programme is a skill development program specially designed for academic staff with an aim for up-gradation of their research and pedagogical skills as well as knowledge in the advanced areas in science & technology, management or any other area of specialization at reputed institutions. This program can be 1 week to 4 months long, depending

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on the need and requirements. This programme will also help to provide an opportunity to the faculty to pursue their academic/research activities leading to the award of Ph. D. degree, besides enhancing their skills sets to improve the teaching-learning process. This scheme will be for faculty below the age of 45 years.

University shall sponsor maximum of five faculty members for a short duration of 2 to 3 weeks, while 2 faculty members for a longer duration ranging from 2 to 4 months annually based on the recommendations of the selection committee.

3.7 Participation of Teachers/Faculty in Academic Conferences

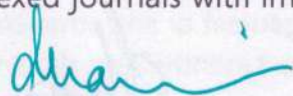
Attending conferences/workshops/seminars will provide space for creating collaborative links between academics and professional practitioners and their workplaces, as well as aiming at long-term sharing of knowledge and discussions on current issues and feedback. Also, it provides scope to improve the presentation and communications skills. Thus, the University will encourage faculty to attend conferences/seminars/workshops/training programs being organized nationally and internationally based on the relevance and the quality of work assessed through an expert committee. A sum of ₹ 10 lakhs will be allocated annually for sponsorship of faculty for academic conferences events.

University shall also encourage the organization of in-house conferences/seminars/workshops/training programs/special lecture series/ Faculty Development Programs/S&T outreach programs in collaboration and financial support of various national and international agencies.

3.8 Incentives for Publications:

There is great relevance to research and publication in higher education. Apart from ensuring in-depth knowledge over a topic, scientific research papers also contribute to the enhancement of teaching practices, improvement in the world of knowledge, providing tools for students/scholars tend to learn effectively and help in building a professional career of a researcher. Evidence has shown that teaching methodologies will certainly develop if the teachers tend to do more research and analysis over the topic, which is referred to as research-oriented teaching, where the educators are engaged in acquiring knowledge and information outside the textbook, to get modern and innovative information over a subject for the students. Also, these publications will be the helping hands for students in the future for guiding and helping them in research. Hence, faculty and scholars/students shall have to give more emphasis to research and publications as it plays an important role in society through dissemination of knowledge as well as a significant contribution of scientific research in education, which will ultimately reward them with high returns.

University shall encourage and motivate the faculty members and students to improve research performance through the publishing of their research findings in reputed indexed journals with impact factor/ national and reputed international conferences/



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write books/articles and monographs. Faculty publication either in WEB of science or SCOPUS indexed journals are encouraged with appropriate incentives.

Incentives for publications of textbooks and journals in relevant STEM (Science, Technology, Engineering and Management) discipline shall be as follows:

Text books published by :

International publishers : ₹. 50,000/-

National publisher : ₹ 20,000/-

Regional / Local publishers: ₹. 5,000/-

Paper published in Journals :

Reputed International, Peer Reviewed Journals : ₹ 6,000/-.

Reputed National, Peer Reviewed Journals : ₹ 3000/-

An expert committee shall ascertain the standing of the Journal and book publisher before the recommendation of the incentives.

3.9 University Merit Fellowship

The enrollment of full-time research scholars plays a vital role in enhancing the quality of research in the University. In support of our vision and to strengthen the quality of research and development in all our Departments University Merit Fellowship Scheme is implemented exclusively for full-time Ph.D. Scholar.

A fellowship amount of ₹.10,000/- per month is given to the Ph.D. Scholars after completion of coursework examinations based on their undergraduate and post-graduation academic performance.

3.10 Half Time Teaching Assistantship (HTTA)

HTTA is an opportunity to improve Research Scholars' expertise in the technical content of the course, enhance communication skills, obtain hands-on experience in handling the experiments in the laboratory and improve peer interactions. Only a full-time Research Scholar after the first year of completion of two semesters, as well as successful completion of the coursework examination, will be eligible to apply for HTTA. The selection will be based on post-graduation academic merit, the progress of research work, and aptitude to take up the responsibility as a teaching/research assistant. The selected research scholar shall have to work under an assigned Professor in the Department, where the candidate has been enrolled for Ph.D. for about 8 hours a week.

A provision of maximum 17 no. of HTTA/Teaching Research Assistant shall be considered annually based on the number of admissions of full-time research scholars

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and a stipend of ₹ 12500 per month per scholar will be paid based on the recommendations of the selection committee.

3.11 Postdoctoral Fellows/Research Associates

Generally, postdoctoral fellows with their own fellowships or through external funded projects will be encouraged to join University. Such PDFs/Research Associates shall be selected by a selection committee constituted by the University. The selected Research Associate shall have to work for about 8 hours a day for a stipend of ₹ 35000/- per month and shall have to work under the Head of the Department (HOD) of an assigned Department. Research Scientists from abroad are also encouraged to take up Research Associates for a tenure-based period ranging from 3 to 6 months. Remuneration for such Fellows shall be decided by the selection committee.

University shall consider providing five postdoctoral fellows (JSSSTU-PDFs) at any given academic year for both short and long term, but for a maximum tenure period of 3 years.

3.12 Establishment of Research Chairs

The University shall create research chairs and a scheme for appointment of Professor Emeritus for a particular term, where very senior scientists or professors from premier institutes shall be appointed for chairs and they shall guide young faculty on writing of research projects of important topics, which are socially relevant and nationally important. The research chair professors shall take some teaching load in line with the principle of integrating the research and teaching.

3.13 Entrepreneurship and Startup

In recent years, a greater emphasis is being laid in Universities on benefits of entrepreneurship-focused education, instilling confidence in students to turn ideas into reality, contributing to enhanced levels of innovation and employment generation. Recognizing the importance of the potential role of the academic community in the area of innovation, the Ministry of Education, Govt. of India has established an 'Innovation Cell' with the purpose of systematically fostering the culture of Innovation in all Higher Education Institutions (HEIs) across the country. Accordingly, JSSSTU Innovation Council was established under the Govt's initiative of the Innovation Cell in the year 2018. Its primary role is to engage a large number of faculty, students and staff in various innovation and entrepreneurship related activities such as ideation, problem solving, proof of concept development, design thinking, IPR, project handling and management at pre-incubation/incubation stage, etc., so that innovation and entrepreneurship ecosystem gets established. With an aim to further strengthen this activity, the University shall promote and support active participation of faculty

members and students in Innovation and Entrepreneurship (I&E) related activities through the existing Sri Jayachamarajendra College of Engineering Science & Technology Entrepreneurs Park (SJCE-STEP), and by linking the perspectives of Ministry of Education, Government of India initiatives including Digital India, Make in India, Standup & Startup India and Skill India. Encouragement shall also be given for involvement of the institute's alumni, and local industry in the entrepreneurship and startup activities to create a holistic and sustainable ecosystem.

University shall encourage creativity among faculty, students and stakeholders to make original contributions through development and growth of innovation and entrepreneurial/startup enterprises.

3.14 Patent and IPR

The University proposes to sustain and grow creativity in an ethical environment, that recognizes the importance of innovations and assists in translating them into products, processes and services for commercial exploitation and to achieve the widest public good. The University shall strengthen the research, leading to filing of patents for which the separate cell has already been in existence. If any innovation is done, the University shall encourage the researchers and scholars to patent it.

An incentive maximum of ₹ 25,000/- for international and maximum of ₹ 12500/- for Indian patent shall be given for successfully granted patent. JSSSTU-KSCST IP Cell established in the University shall safeguard the intellectual properties created by the faculty, researchers and students.

3.15 Scheme for Consultancy

Consultancy is important for developing research with public and private organizations so as to create a longer term research collaborations. It also helps to promote external engagement, enterprise and innovation. Hence, consultancy is being recognized as an effective way for universities to disseminate knowledge and make an early and direct impact on society.

All faculty members are encouraged to take up consultancy services individually or as Departmental work. The University shall provide its infrastructure and expertise of its faculty and technical staff to offer specialized consultancy services to individuals and organizations. When the consultancy service does not involve use of University facilities, it is considered as individual consultancy and otherwise, institutional consultancy.

The University shall grant incentives based on case to case basis in the ratio of 50:50 depending on the net profit from the consultancy project between the Principal Investigator/Project Team and the University.

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3.16 Extension Activities

In our society, there has been a gap between what is-the actual situation and what ought to be-the desirable situation. This gap shall have to be improved by the application of science and technology in their initiatives and bringing appropriate changes in their performance. The objective of our university extension shall have to be extending support for community services to take the educational advantages of universities to ordinary people.

The range of extension activities such as teaching for the underprivileged, environmental activities, career orientation for rural college students, sensitizing students to the social issues, adoption of sustainable practices of rural people in their daily lives, science outreach programs, creating awareness on gender inequalities, social inequality shall be encouraged.

4.0 Curator of the Policy

The Research Policy shall function under the guidance of Research and Innovation Council of the University. All research proposal projects/claiming of incentives /conducting research activities /organization of programs/consultancy/extension activities shall be submitted to University Research and Innovation Council after the peer review by an expert committee for implementation.

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