PARVATHANENI BRAHMAYYA (P.B) SIDDHARTHA COLLEGE OF ARTS AND SCIENCE VIJAYAWADA

Policy Name: Originating/Responsible Department: Approval Authority: Policy on the Responsible Conduct of Research Principal Academic Council

Preamble

Researchers enjoy important freedoms and privileges, which include freedom of inquiry and the right to disseminate the results thereof, freedom to challenge conventional thought and the privilege of conducting research with human participants, with public funds, college funds, and support. Along with these freedoms there are the responsibilities to ensure that research meets high scientific and ethical standards, is honest and thoughtful inquiry, involves rigorous analysis, and the application of professional standards.

Compliance with these standards and responsibilities in matters of research a policy that covers all principles related to research is in place. This policy applies to all researchers conducting research in the college.

The objective of the ethical and regulatory standards embodied in this policy is not to limit research activities, but to promote and facilitate the conduct of all research in ways that respect the dignity and preserve the well-being of the researcher, research participants, animals, and the environment. The college also strives, through the implementation of this document to adhere to the highest standards of compliance as articulated by national and international funding agencies.

The research policy of the college aims to create and support a research culture among its staff and students, enriching and enhancing the professional competence of the faculty members for developing and promoting scientific temper and research aptitudes of all learners. Realising the vision and missions of the college and for contributing to national development by establishing an institutional fund and plan for facilitating their participation in research and related activities and by providing the required resources and appropriate facilities is its goal. It also aims at ensuring that the research activities of the college conform to all applicable rules and regulation as well as to the established standards and norms relating to safe and ethical conduct of research.

Definitions

Research is defined in accordance with the specifications like the creation of new knowledge and/or the use of existing knowledge in a new and creative way so as to generate new concepts, methodologies and understandings. This could include synthesis and analysis of previous research to the extent that it is new and creative. This definition of research is consistent with a broad notion of research and development, one that recognizes research as comprising creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of humanity, culture and society, and the use of this stock of knowledge to devise applications.

Researcher means any individual who is engaged in research, as defined above, including staff, students and affiliates.

The Code means the Indian Code for the Responsible Conduct of Research.

"Agreements" includes all international project agreements, licensing agreements, research agreements, research contracts, research grant agreements, service agreements, shareholder agreements, clinical trial agreements, confidentiality agreements, material transfer agreements, partnership program agreements, collaborative research development agreements, interinstitutional research agreements and industrial research chair agreements and any document accessory to such agreements.

"Data" includes all information or records of any sort related to the application for, performance of, data obtained from, conclusions and outcomes reached in the research in question including but not limited to formulae, discoveries, inventions, raw numbers, algorithms, products, compositions, processes, protocols, methods, tests, patterns, interviews, transcripts, surveys, publications and reports.

"Hazardous Research" includes but is not limited to any research that involves hazardous materials which pose a significant physical or health hazard to individuals or facilities, any research which involves significant hazardous procedures or activities; any research that occurs in hazardous environments.

"Plagiarism" means the appropriation of another person's ideas, processes, results or words without giving appropriate credit. Of growing concern is the act of 'self-plagiarism which occurs when an author publishes a paper with passages or paragraphs that the same author has previously published, but without attribution.

"Regulatory Framework" includes National, state and municipal laws, the regulations, policies and guidelines of the college and of agencies relating to the conduct of research, as they may exist from time to time. http://www.pbsiddhartha.ac.in

"Research" includes all forms of funded and unfunded scholarly, scientific and related activities based on intellectual investigation aimed at discovering, interpreting, revising, disseminating or publishing knowledge, whether conducted on campus or off campus.

"Research Misconduct" includes, but is not limited to the definitions of the funding agencies for such misconduct, for example: fabrication, falsification, unlawful destruction of research records, plagiarism, redundant publications, invalid authorship, inadequate acknowledgement, mismanagement of Conflict of Interest: or any other conduct that constitutes a significant departure from the ethical and other standards that are commonly accepted within the relevant research community for proposing, performing, reporting or reviewing research or treating human and animal research subjects, but does not include honest errors or differences of interpretation or judgment relating to data or results that are reasonable in light of the circumstances in which they are made or reached.

"Researcher" means any college faculty member, staff, student, and paid and unpaid research associates and assistants, and any person in a like position, who conducts or advances research in that capacity, or (b) who accesses college students or staff as human research participants; (c) any other person who conducts or advances research as connected with the college; and (d) any person who conducts research using college resources (whether research space, materials, equipment, or human resources).

Scope of the Research Policy

This policy shall apply to all the researchers of the college and for the purpose of this policy 'researchers' are defined to include

- 1. All staff, temporary and permanent, who are active in teaching, research, administration and provision of any form of support to the core functions of the college
- 2. All students registered with the college
- 3. All mentors, guides, external experts and sponsors associated with any of the research activities of the college
- 4. All academic and administrative departments of the college

Objectives of the Research Policy

- 1. To create and administer a research fund for supporting and facilitating research initiatives and projects of faculty members and students
- 2. To develop rules, procedures and guidelines for granting research support, instituting awards, and supporting all other related activities

- 3. To provide a modality for proper coordination of all research activities of the college and aligning these to the vision and missions of the college and national development goals.
- 4. To guide faculty members in the effective integration research projects with the regular curriculum implementation and curriculum enrichment activities
- 5. To identify and inform researchers about the appropriate research opportunities announced by different academic, research, industry or government organisations
- 6. To promote interdisciplinary research and establish modalities for preparing and undertaking joint research projects covering more than one knowledge domain as well as policies for involving external agencies/experts in such projects
- 7. To encourage and facilitate the publication of the research work/projects in reputed academic journals
- 8. To encourage and facilitate the presentation/communication of the research work/projects as well as their findings and recommendations through academic events such as workshops/seminars/guest lectures or the media
- 9. To draw up and adopt a research code, which informs all researchers about the ethical and legal norms and principles to be followed in the conduct of research
- 10. To prepare and implement a research quality assurance mechanism for ensuring that all research activities of the college conform to standard quality specifications

Roles and Responsibilities

The primary responsibility for the conduct of research shall rest with the researcher and to this end he or she shall:

- 1. maintain the highest standards of honesty, integrity and ethical behavior in all research;
- 2. familiarize himself or herself with and abide by the *Regulatory Framework* within which his or her research must be conducted;
- 3. not to misrepresent his or her academic, professional or employment credentials or experience;
- 4. obtain all necessary approvals including, but not limited to, specific licenses and permits, ethics approvals, protocol and standard operating procedure approvals, before embarking on any research and as may be necessary while engaged in research;
- 5. use a high level of rigor in proposing and performing research; in recording, analyzing, and interpreting data; and in reporting and publishing data and findings;
- 6. keep complete and accurate records of data, methodologies and findings, including graphs and images, in accordance with the applicable funding agreement, institutional policies and/or laws, regulations, and professional or disciplinary standards in a manner that will allow verification or replication of the work by others;

- 7. reference and, where applicable, obtain permission for the use of all published and unpublished work, including data, source material, methodologies, findings, graphs and images.
- 8. include as authors, with their consent, all those and only those who have materially or conceptually contributed to, and share responsibility for, the contents of the publication or document, in a manner consistent with their respective contributions, disciplinary norms, and authorship policies of relevant publications.
- 9. acknowledge, in addition to authors, all contributors and contributions to research, including writers, funders and sponsors.
- 10. appropriately manage any real, potential or perceived conflict of interests in accordance with policy on Conflict of Interest in Research.

The college will support the responsible conduct of research by:

- 1. promoting awareness of relevant legislation and guidelines relating to research conduct;
- 2. establishing clear policies and procedures based on the code;
- 3. actively encouraging mutual cooperation with open exchange of ideas between peers, and respect for freedom of expression and inquiry; and
- 4. maintaining an environment in which responsible and ethical behavior in research is expected.

Research Policy Implementation Mechanism

The Research Cell of the college shall be responsible for implementing this research policy of the college by working closely with the college management. The specific roles and functions of the research cell will be as follows

- 1. Facilitate the faculty in undertaking research and will work with the college management to set up a research fund for providing seed money
- 2. Provide research facilities in terms of laboratory equipment, research journals and research incentives etc. required by the faculty.
- 3. Encourage and promote a research culture
- 4. Encourage the faculty to undertake research by collaborating with other research organizations/ industry.
- 5. Facilitate the establishment of specific research units/ centres by funding agencies / university.
- 6. Organise workshops/ training programmes/ sensitization programmes are conducted by the institution to promote a research culture on campus.
- 7. Prepare budgets for supporting students' research projects.
- 8. Invite industry to use the research facilities of the college and sponsor research projects.

- 9. Approach National and international organizations such as UGC, ICSSR, ICHR, ICPR, DST, DBT, UNESCO, UNICEF to fund major and minor research projects undertaken by the faculty / students
- 10. Make efforts to improve the availability of research infrastructure requirements to facilitate research.
- 11. Develop and implement an official Code of Ethics to check malpractices and plagiarism in research.
- 12. Facilitate Interdepartmental / interdisciplinary research projects.
- 13. Create incentives for the faculty who receive state, national and international recognition for research contributions as well as research awards and recognition from reputed professional bodies and agencies.
- 14. Encourage and promote the publication of research articles by the faculty in reputed/ refereed journals.

Research Data

- 1. A researcher shall collect data concerning human and animal subjects in accordance with the Regulatory Framework governing the use of such subjects, and shall organize his or her data in a manner that accurately reflects, and allows for verification by third parties.
- 2. A researcher shall respect the laws governing access to personal information and privacy in his or her collection and use of data.
- 3. In some circumstances, a researcher may engage in research in which access to certain kinds of data, in the custody of a government or other person, is restricted in order to protect the privacy of persons.
- 4. A researcher shall not knowingly use or publish data known to be false or of unknown provenance.

Retention of Research Data

A researcher shall retain all data that would be required to allow third parties to validate the results or audit the findings for at least the greater of the following periods:

- 1. the period specified by the agency supporting the research; or
- 2. the period recognized as "best practice" by the researcher's discipline for the type of research at issue; or
- 3. a period of seven (7) years from publication of the data.

Data shall be retained by the researcher or the department or research unit in which they were generated as appropriate. A researcher who retires from the college shall leave a copy of his

or her original published data with the department or research unit where the data was generated.

A researcher who is the principal investigator and who resigns from the college shall leave a copy of any published data with the department or unit where the data was generated.

Access to Research Data

Subject to exceptions based on a duty of confidentiality and the laws respecting intellectual property and access to information, a researcher shall make his or her data available after publication to a person presenting a reasonable and legitimate written request to examine the data.

In cases where there is a disagreement over access to data between the researcher and the person requesting the data, the disagreement shall be referred for resolution

- 1. first to the Committee;
- 2. then, if necessary, to the Dean; and
- 3. finally, if necessary, to the principal.

Ownership of Research Data

Research collaborators, at the commencement of their collaboration, shall make reasonable efforts to reach agreement preferably in writing on the ownership and future use of data. In the absence of an agreement between research collaborators, the ownership and future use of the data shall be governed by college policies and the laws relating to intellectual property. In the event that a dispute should arise between research collaborators concerning the ownership and future use of the data the college shall assist in facilitating the resolution of dispute.

Use of Others' Work

A researcher shall not engage in plagiarism. A researcher shall not use the unpublished work or data of another, whether with or without proper attribution, without the prior preferably written permission of the author. A researcher shall not use new information, concepts or data obtained through access to confidential information or documents including material obtained by him or her as part of processes such as peer review without the prior written permission of the author. A researcher shall not enter into, or participate in, any arrangement whereby an agency or other person may have exclusive use of, or access to, the data of a research collaborator, whether with or without proper attribution, without the research collaborator's prior written informed consent. A researcher shall use archival material in accordance with the rules of the archival source.

Collaborative Research

Collaborative research within the college, between institutions and across borders gives rise to a range of issues such as authorship, ownership of intellectual property, conflicts of interest and commercialization of findings. There should be agreement on such matters at the outset of the collaboration and arrangements must be consistent with relevant policies and procedures as well as relevant legislation and codes of practice. All agreements between researchers and partners, collaborators or sponsors must be clearly articulated in writing and be executed in accordance with policy regarding the exercise of contractual authority.

Authorship

A researcher shall recognize the substantive contributions of all research collaborators including students and postdoctoral fellows. A researcher shall ensure that where a co-authored publication is based primarily on the work of a student, including a dissertation or thesis, or a postdoctoral fellow, the student or postdoctoral fellow is granted due prominence in the list of co-authors in accordance with the established practices of the discipline. A researcher shall ensure that authorship of published work:

- 1. includes all those who have materially contributed to, and share responsibility and accountability for, the contents of the published work;
- 2. includes only those who have materially contributed to, and share responsibility and accountability for, the contents of the published work.

In the absence of an agreement between research collaborators, the following rules shall govern the order of attribution of authorship:

- 1. authorship shall be attributed to all those researchers who have made significant scholarly contributions to the work and who share responsibility and accountability for the results;
- 2. attribution of authorship shall be determined according to:
 - i. the quality and quantity of a researcher's contribution;
 - ii. the extent of a researcher's responsibility and accountability for the results; andiii. the customs of the discipline;

A person who provides only administrative and/or managerial services to a collaborative research endeavour shall not normally qualify for co-authorship.

Responsibilities of Corresponding Author

In the absence of an agreement between research collaborators, the co-author(s) who accepts responsibility for submitting a manuscript for publication shall be the corresponding author(s).

Prior to the submission of a manuscript for publication, the corresponding author shall:

- (i) ensure all persons who are entitled to co-authorship are included as co-authors;
- (ii) make a reasonable attempt to obtain the consent of the co-authors to the order of attribution of authorship;
- (iii) ensure that persons who have made useful contributions to the research which do not qualify them for co-authorship, are appropriately acknowledged in accordance with the standards of the discipline and the publisher;
- (iv) provide each co-author an opportunity to comment on the manuscript prior to its submission for publication; and
- (v) provide each co-author with a copy of the manuscript submitted for publication.

Ownership of Intellectual Property

Research collaborators shall endeavor to reach an agreement, consistent with the goals established in the *Collective Agreement negotiated between college authorities and the College Academic Staff Association* concerning the allocation of copyright.

In the absence of agreement between research collaborators, the allocation of copyright shall be governed by the laws relating to intellectual property.

Disputes Resolution in Collaborative Research

The college shall assist in facilitating the resolution of disputes between research collaborators ("the disputants"). The college, however, has no obligation to ensure that such disputes are resolved.

Disputants shall first seek to resolve their dispute amicably between themselves as facilitated by the principal investigator if he or she is not a party to the dispute.

In the event that an amicable resolution of the dispute is not or cannot be the disputants shall refer the dispute to the Research committee or the Dean, if it is one without departments, who shall attempt to resolve the dispute. The Committee or Dean, as the case may be, may appoint a senior member of the academic staff of the department or faculty acceptable to the disputants to act in his or her stead.

In the event that the dispute is not resolved, the disputants shall seek the assistance of the principal in achieving a resolution. The principal may appoint a senior member of the college staff acceptable to the disputants to act in his or her stead.

The principal or appointee may assist the disputants in selecting an internal or external mechanism, including conciliation, mediation or binding or non-binding arbitration, for the resolution of their dispute on the understanding that their involvement in any of these processes is without prejudice to the disputants' rights in any subsequent internal or external process.

In the event that a resolution acceptable to the disputants is reached:

- (i) it shall be acknowledged by them in writing and in sufficient detail to allow for its implementation; and
- (ii) it shall be deemed to be final and the disputants thereby waive any further internal and external recourse based on the facts having given rise to the dispute.

This cannot be applicable to disputes that may arise because of alleged research misconduct or disagreement as to the ownership of intellectual property rights which disputes shall be resolved respectively in accordance with:

- (i) the Academic and Research Misconduct Policy
- (ii) relevant legislation on Intellectual Property

Research Funds

A researcher shall ensure that all research funds administered by him or her, or through delegation to staff, will be in compliance with the general terms and conditions governing agreements and any terms and conditions specific to each grant or granting program, contract or contribution agreement established by the Agency. A researcher shall effectively manage the finances of the research project complying with relevant Institutional policies and program guidelines. Over expenditures on research funds are generally not permitted unless approved in advance by a Committee or Dean. A researcher shall make up the over-expenditure in the event that, due to their actions, the expenditure of a research project exceeds the value of the funding award. A researcher, and those with oversight of funds and their use, shall comply with the Regulatory framework relating to the management and disbursement of funds and reimbursements for expenses. A researcher shall inform college and the relevant agency as appropriate, of changes in (i) eligibility status (ii) if the nature of the research has changed such that it may have an impact on the certification or approval for research involving humans, animals or biohazards, environmental assessments, financial reporting and other related policies.

A researcher shall acknowledge, in all published works resulting from his or her research, all agencies and other public and private funding sources which supported his or her research. A researcher shall adhere to any agreement between the college and a research sponsor who has legitimately and in good faith requested anonymity. Researchers must submit all applications for external research funding through the Research Committee, constituted in the college, in accordance with relevant guidelines and procedures. All relevant documentation must be

provided and all formal funding agreements must be provided for signing by the authorized delegate of the college. Applications to funding bodies that have not specified a requirement for formal college authorization are not exceptions to this requirement. Researchers must comply with all conditions specified by funding bodies with regard to their research.

Research Integrity

Conflicts of interest may arise from time to time but researchers must ensure that such conflicts are acknowledged and disclosed, and that appropriate steps are taken to manage them. Researchers must comply with the requirements of the *Conflict of Interest Policy* of the college. Respect for participants is fundamental to all research undertaken by college researchers. This includes both human and animal participants. Researchers must seek approval from **human and animal ethics committees** as required, and may only commence a relevant research activity after final **ethics committee** approval for that activity has been received. The college is committed to a positive, productive, supportive and respectful relationship with Indigenous Indian, cultures and communities. Where appropriate, the college encourages and supports consumer involvement in research in line with the principles set out.

Research Misconduct

In order to ensure the continued integrity of research the college will maintain appropriate and rigorous mechanisms for responding to allegations concerning breaches of the Code or research misconduct. All staff and students must comply with the provisions set out in the *Research Misconduct Policy* and associated procedures of the college

Safety

The college will ensure that a safe work environment is provided for the conduct of research. All researchers must comply with the **Work Health and Safety Policies and Procedures of the college**. Where a research project may involve significant hazards, for example hazardous chemicals, advice should be sought from the principal and the Work Health and Safety Unit of the college. Research projects involving radiation or radioactive materials must be conducted according to relevant National legislation. Researchers working with gene technology, including genetically-modified organisms, and in relevant areas of microbiological research, must seek approval from the Biosafety organizations of the country. When dealing with quarantine status material, researchers have a responsibility to comply with the *Biosecurity Act of the nation*, and all associated regulatory requirements, before and after the importation or exportation of materials. Researchers must comply with their responsibilities under the *relevant act and* any other relevant legislation, with regard to the export, supply, brokering and publication of goods, software and technology.

Training and Supervision

The college acknowledges the importance of appropriate mentoring, supervision and training of research trainees for the promotion of a research culture that demonstrates excellence, integrity, respect and recognition. All research trainees and their supervisors must comply with relevant policies and procedures as well as relevant legislation and the Code.

Commercialization

Research conducted for commercial purposes, or research that is to be commercialized or conducted under a contractual arrangement, must be conducted in accordance with relevant college policies and procedures.

Responsibilities

Principal is responsible for oversight of research ensuring that college policies and procedures relating to the conduct of research are promulgated and implemented. Researchers are responsible for conducting research in accordance with the Code, relevant legislative and regulatory requirements, and all relevant College policies and procedures. Dean, HoDs and the Research committee are responsible for promoting and facilitating the expectations regarding the responsible conduct of research set out in this policy and associated College policies and procedures.