

S. P. Mandali's
RAMNARAIN RUIA AUTONOMOUS COLLEGE
Matunga, Mumbai, Maharashtra 400 019, India

**CODE FOR RESPONSIBLE
AND ETHICAL CONDUCT OF
RESEARCH**

1.0 Introduction

Ramnarain Ruia Autonomous College has a strong legacy of research culture which the institution has nurtured mainly through faculty driven research programs and industry sponsored projects. The College has successfully integrated research in teaching with active research based enquiry and problem solving practices. The institution has produced over 450 doctorates and they have contributed significantly in building a strong industry-academia linkage. The College currently offers 12 Ph.D programs (03 in Arts and 09 in Science faculties). Well-equipped laboratories and experienced research guides have resulted in the College receiving regular research grants from UGC, DBT, DST, DAE-BARC, BRNS, NMPB, AYUSH, MMRDA, NBPH, Asiatic Society of Mumbai, University of Mumbai etc. The College nurtures a very strong interaction with the industry for industrial research activities and the industrial services in R&D offered by the College, has enable it to be recognised as a Scientific & Industrial Research Organization by the Department of Scientific & Technology, Government of India. The College also has active research collaborations with other reputed institutions and organizations at local, regional and national levels. This document is a policy statement with guidance for responsible and ethical conduct of research at the College.

The Code for Responsible and Ethical Conduct of Research establishes the standards for the conduct of research at Ramnarain Ruia Autonomous College. This document forms the basis for formulating and implementing policies and regulations of research activities in the College. It is also the guidance document for the practice of research by the faculty, research students, alumni and learners in the College.

Research is defined for this document as any systematic investigational activity that is carried out with an aim to contribute to the current body of knowledge or theory. This definition is the basis on which more specific and detailed definitions have been formulated for various disciplines practiced in the College. Various academic units in the College are responsible for articulating definitions of research best suited to their respective disciplines.

The Code applies to all Departments in the College, and it articulates the standards in broad terms. Departments in the College may provide more specific guidance and regulations to address specific needs of research practices in their Departments and such guidance and regulations must complement this Code.

The Code complements and upholds the ethical research codes set by the University of Mumbai and University Grants Commission, Government of India or any reputed professional or regulatory body, and does not replace them. The Code also complements and upholds College policies for intellectual property, health and safety, management of finances and does not replace them.

The Code is a dynamic, evolving document, and is subject to periodic review, amendment, and revision, each period not to exceed five (5) years. The review, amendment, and revision process is initiated and conducted jointly by the Dean for Research, the College Committee on Ethics and Intellectual Property, which shall be validated by a full complement of College Management Committee.

SCOPE OF THIS CODE FOR RESPONSIBLE AND ETHICAL CONDUCT OF RESEARCH

This code shall be applicable to all research activities including projects and dissertations carried out at S. P. Mandali's Ramnarain Ruia Autonomous College. This Code is also applicable to all collaborative research and industrial research services conducted by the College. The Code shall be binding on all members of the faculty, staff, research students, research fellows and alumni who are involved in research activities and project / dissertation at the College. All collaborators in research

projects, all industrial research services and all research consultancies provided by the College / its faculty shall be implemented adhering to the guidelines of this Code.

2.0 General Guiding Principles for conducting Research

Ruia Autonomous College, as a centre for academic and industrial research, commits itself to the generation and propagation of new knowledge for human welfare and societal transformation. To meet this goal, the College shall provide opportunities, assistance and incentives to all, without bias or prejudice, at all levels, in all areas, and in all stages of the research process.

The conduct of research in the College is governed by a system of moral principles that aims to maintain the highest standards of duty, professionalism, and quality. These principles constitute the code of ethical research practices that guides and informs the pursuit of knowledge towards improving the quality of life in the country. This code is binding to the College, its management, its faculty, staff and students.

2.1 Strive for Excellence with Research

Departments and researchers at the College shall strive to enhance the reputation of the College and themselves through research work that shall match or surpasses the world standards of quality in their fields and disciplines. Research at the College shall be at the forefront of innovation and shall contribute significantly to nation-building, national progress, socio-economic development and societal upliftment.

2.2 Upholding Beneficence and Non-maleficence during Research

Research at the College will be dedicated to the generation and propagation of new knowledge that will raise the quality of life and help to build a just, peaceful, stable and progressive India. The Departments and its researchers will ensure that no harm is done to the community that they serve and work with. They will be on alert against the misuse of their work in any context. They will uphold the dignity, protect the rights, guarantee the safety and preserve the wellbeing of all involved in or affected by the conduct of research.

2.3 Honesty and Transparency in Research

The conduct of research at the College is founded on strong commitment to honesty and transparency. The College, its Departments and researchers shall ensure that all their actions and activities are free from deceit and fraud, and shall inspire trust and confidence.

2.4 Integrity and Professional conduct of the Researcher

The Departments and researchers shall demonstrate a fundamental soundness of moral character. They shall strive to preserve the good reputation of the College and the high esteem of the public by honouring all obligations, agreements and commitments.

2.5 Cooperation and Collaboration among Researchers

In the pursuit of new knowledge, Departments and researchers shall allow the open exchange of ideas, methods, data, and analysis by working and acting collaboratively in the spirit of pluralism and inclusiveness. Opportunities for discussion and debate shall be initiated as ways of fostering excellence. The College administration shall support this thrust by providing avenues and mechanisms for its implementation.

2.6 Accountability of Researchers

The College, the Departments and researchers serve the general public and are thus obliged to report, explain, and justify all their actions and activities whenever necessary. They shall behave responsibly and comply with all terms, conditions, policies, agreements, and requirements applicable to their work.

2.7 Growth and Development of Researchers

The attitude towards research at the College shall be one of enabling, empowering, and endowing. The College and its Departments shall encourage and sustain the conduct of research and ensure excellence by providing training, opportunities for development and resources for researchers. Researchers and Departments shall impart knowledge and skills to other researchers in a cycle of mentorship that perpetuates the quality of research in the College. Researchers shall enhance their qualifications through continuous education and training to acquire new skills and capabilities. Various mechanisms within the College shall facilitate this process.

3.0 Ethical Standards in Research at the College

The research activities at the College shall be guided by the principles of excellence, beneficence and non-maleficence, truth, integrity, professionalism, cooperation, accountability, zeal and growth. The general standards for the ethical conduct of research in all its various aspects and elaborations of these general standards is provided below;

3.1 Collaborative Research

Researchers shall engage in research projects within the range of their competencies and collaborate with others to complement and / or synergise their expertise. In collaborative research, researchers not only shall take responsibility for the quality and integrity of their own contribution to the research project, but shall also ensure the same standards from their collaborators. All collaborative research projects shall have a documented Memorandum of Understanding, specifying the terms and scope of collaboration, duly signed by all collaborators.

3.2 Managing Conflicts of Interest

Guided by the principles of honesty, integrity, professionalism, and accountability, the conduct of research at Ruia Autonomous College shall proceed in an atmosphere of trust. Situations in which trust between participants in the research process is, could be, or perceived to be compromised due to personal, financial, professional, and/or institutional considerations, such situations shall be forthrightly disclosed and resolved in a transparent and fair manner.

3.3 Dealing with Participants and Communities in Research Process

Good ethical practices shall be ensured in dealing with participants of research that involve voluntary participation. Informed consent from such participants shall be obtained, ensuring the safety and security of the respondents, keeping the confidentiality of the respondents sacrosanct.

3.4 Dealing with Human Subjects in Research

Subjecting human beings or samples taken from their body to tests and experiments shall only be done when there is a likely benefit to society from the outcome of research. Voluntary participation and informed consent shall be enforced and researchers shall also uphold the dignity, protect the rights, guarantee the safety and preserve the well-being of the human subjects. All guidelines of ethics of research involving human subjects, as issued by the competent authorities, shall be adhered to.

3.5 Dealing with Animal Experimentation in Research

Animals shall be used in research when there is no other feasible alternative. As far as possible, higher animals shall be replaced by lower or insentient animals, insects, cell cultures or non-animal models. The research project shall be designed to utilize as few animals as possible and the procedures shall be refined to decrease or minimize potential pain, suffering, or distress for the animals and handle them in human manner. All guidelines of ethics of research involving animal experimentation, as issued by the competent authorities, shall be adhered to.

3.6 Ensuring Safety and Protection of the Environment

Researchers shall be responsible in not only taking care of their own safety but also that of their fellow workers, research subjects, participants, the community at large and the environment during the conduct of their research. They shall take extra measures to ensure safe handling and the proper disposal or storage of hazardous and biohazardous items, microorganisms, genetic materials, biological samples etc. The researchers shall take care to avoid over collection or unnecessary collection of wildlife specimens and shall avert the introduction of non-native species in their research locale. All guidelines of safeguarding Biodiversity and ensuring environmental safety, as issued by the competent authorities, shall be adhered to.

3.7 Dissemination of Research Information, Publication and Authorship

In fulfilling their responsibility to all stakeholders and the community at large, researchers shall make timely report of their research findings in an open, non-selective and unbiased manner. They shall report the research activities as they were actually carried out, and describe accurately and in adequate detail the research methods used to help ensure repeatability and replicability of the research findings.

Researchers shall refer to relevant findings of other researchers, to the best of their knowledge, in their reviews and duly acknowledge them when these works are used or referred to in research analysis.

Authorship shall be granted to all those who have made intellectual contribution that is substantial enough for him / her to take public responsibility in the conception, design, analysis and drafting of

the research report. Under the principle of accountability, all authors must give their final approval of the report before it is submitted for publication or presentation.

In research work, carried out as a part of curricular activity or as a part of dissertation or for doctoral degree, primary authorship will remain with guiding teacher or the mentor unless otherwise mutually agreed upon by the guiding teacher and the student researcher.

3.8 Avoidance of Plagiarism

Researchers shall not report the work of others in a manner that could misrepresent it as their own work. The researchers shall ensure that they do not reproduce verbatim copies of reports or any part of reports published by other researchers as part of their own research without due acknowledgement of the reference. The researchers shall take adequate care to ensure that their research reports, knowingly or unknowingly, are not copies of reports published earlier by other workers. The College shall take serious note of any lapses on the part of researcher in this regard. The College shall provide for adequate support to researchers enabling them to identify plagiarism in research reports before the reports are made public.

3.9 Management of Research Data

Researchers shall maintain confidential data securely and do not use such data for the personal advantage or for advantage of any party. Under the principle of truth, of beneficence and of cooperation, researchers shall retain their research data for an appropriate period of time (minimum of 180 days from the publication of research report) which would allow other researchers / referees to verify their results, if needed. The researchers shall try their best to bring their research findings into public domain by appropriate timely publication(s) for the furtherance of the research process.

3.10 Peer Review of the Research Work

Peer review is a process of review of research work by other researchers to nurture a culture of collegiality, uphold the principle of excellence and avoid plagiarism. Researchers who are part of Peer reviews shall do the reviews under the principle of honesty and transparency. Peer reviewers shall not derive unfair competitive advantage from their knowledge of other researcher's yet-unpublished ideas or research plans during the reviewing process. Researchers who are part of any peer review process shall be obliged to perform their task thoroughly and submit their reviews in a timely manner so as to enable other research workers, whose work they review, to benefit from the honest assessment.

4.0 Guidance to Support of Research

The Management and administration of the College shall provide for and ensure smooth conduct of research. To the best of possible means available, the College shall provide facilities in terms of infrastructure and logistics to the researchers. The general standards and guidance policies for the support of research, at the College, is provided below;

4.1 Research Team

A research team shall be identified as a group of two or more researchers working together on a single research project. A team shall be a cooperative organization of members who shall be competent and possess the necessary integrity for the conduct of research project. The research team shall have the professional expertise to work on a particular research project. Members of a research team are treated in accordance to the contribution they make to a project, rather than on the basis of seniority or experience.

4.2. The Principal Investigator/Researcher

In general, a research team is headed by a full-time faculty member as the project's Principal Investigator/Researcher and may be supported by faculty colleagues, students, or individuals inducted / hired as per the need and stated qualifications for the project. The Principal Investigator/Researcher shall be the chief researcher who shall be the leader of the research team by virtue of being the originator of the project or the chief collaborator for the research project. The Principal Investigator/Researcher shall be primarily responsible for the selection, hiring, and termination of members of the research team. The Principal Investigator/Researcher shall define their duties and responsibilities, as well as the remuneration of the team members. The remuneration shall be agreed upon within a documented contract or terms of reference mutually agreed upon and signified by those hired or selected. A Co-Principal Investigator / Researcher will have similar responsibilities as the Principal Investigator. Both the Principal Investigator and the Co-Principal Investigator will work as a cohesive team in the management of the research team members. A Co-Investigator / Researcher will be responsible for assisting the Principal Investigator and shall also be the chief manager of the research team in the absence of the Principal Investigator / Researcher.

4.3 Training of Researchers.

Researchers shall undergo the necessary training to fill any gaps in skill and ensure that their skills are up to date. The College shall provide adequate infrastructure / logistics / support for the training of researchers at appropriate time so that the faculty and students are competent in carrying out research projects. Training shall include, but shall not be limited to, the information, methods, and skills required by the research project. The training shall familiarize the team with research ethics, this document, the research policies of the College in general and the regulators / sponsors in particular, e.g., policies on work schedules, field expenses, liquidation procedures, submission of reports etc.

4.4 Mentor and External Consultants.

To guarantee that the research is conducted professionally and rigorously, mentors with special expertise and / or external consultants shall be appointed, if needed, to ensure that the methods and outcomes of the research project meet the standards set by the College. These mentors / external consultants shall be appointed in areas where the College has limited or no expertise. These appointments shall be made in consultation with the Department and College Administration.

4.5 Appreciation of contribution.

The Principal Investigator shall ensure that team members receive appropriate credit for their contributions to the research project. All members of the research team shall be given due credit with mention in the publications. The College shall appreciate the contribution of researchers at appropriate fora.

4.5 Threats and risks

To protect the integrity of the College, researchers shall inform the College of any issues related to the research project and/or arising out of the implementation of the research project which may damage the College's interests and/or reputation. In such cases, or in ambivalent situations, that a project may compromise the good name of the College, the research organization or researcher concerned should take guidance on the project from the College Ethics Committee.

4.6 Financial management and accounting

Research funds in Ruia Autonomous College are sourced internally and externally. Departments and researchers shall comply with College policies on the processing, use, and management of funds related to research projects. The Principal Investigator / Researcher shall cooperate with any monitoring and auditing, internal and external of finances involved in research projects, and report any concerns or irregularities to the appropriate person(s) as soon as they become aware of them. The research funds will be utilized in accordance with the conditions laid down by the sponsors in the sanction letter, as applicable. All research funds coursed through the College shall be deposited with the Accounting Office of the College. Withdrawals shall be made through the standard disbursement process and approved subject to the terms and conditions of the research funding agreement / Sanction Letter. The Principal Investigator / Researcher shall be responsible for regular reconciliation of usage of research funds with the records at the Accounting Office so as to ensure timely and correct disbursement of funds. The Accounting Office shall be responsible for safe-keeping of all financial documents and records. The Accounting Office, upon the request of the Principal Investigator / Researcher shall collate all the supporting documents, certifies the fund balance, and submits all the required documents to the Principal Investigator/Researcher, who submits the Utilization Report to the funding agency unless otherwise provided for in the funding agreement.

4.7. Seed money for initial funding at the formative stages of Research project

The College will make arrangements from its internal financial sources, for providing seed money as initial financial support at the formative stage of research projects. The seed money shall be made available to the faculty / research student / alumni of the College to conduct preliminary work for formulation of research proposals for funding. The seed money shall be provided to research projects after peer review by an expert panel appointed by the College and the final decision will be made solely by the Principal of the College.

4.8 Collaborators in Collaborative Research

The College shall support researchers in finalising collaborations by providing relevant information, documents and testimonials as may be needed for reaching an Agreement / Memorandum of Understanding. Such an agreement / MoU shall adhere to College policies and procedures pertinent to the agreement and observe the general principles of this Code, including integrity, honesty, and excellence. All contracts and memoranda of agreement that require institutional support shall be executed in writing. They shall cover, but not limited to, intellectual property, confidentiality, copyright issues, sharing of commercial returns and responsibility for ethics and safety clearances, reporting to appropriate agencies and other related legal matters. They shall address the protocols to be followed by the partners when disseminating the research outcomes, the responsibilities of collaborating partners and the management of primary research materials and research data.

4.9 Conflicts of Interests

The College, through its research organizations shall provide mechanisms at various levels for identifying, addressing, and managing conflicts of interests. These mechanisms shall be governed by the College Ethics Committee, which is the body of last resort in such cases. Conflicts of interest shall be resolved at the lowest level possible and the resolutions documented accordingly. Concerned parties must comply with the resolutions, in consultation with relevant authorities, to manage or eliminate conflicts of interest. Research shall be conducted above and beyond the influence of concerns other than those pertaining directly to the research project. Cases in which commercial concerns become involved in any stage of the research process (from the design of the research project to the gathering and analysis of data to dissemination and publication), shall be addressed by the College management on a case to case basis.

4.10 Breaches in the Responsible and Ethical Conduct of Research

All faculty and staff members of the College are duty-bound to formally report misconduct in research to the heads of the appropriate and/or pertinent units. Allegations made against a College staff member or employee shall be handled in accordance with College regulations. Complaints that a researcher has not acted responsibly in the conduct of research shall be made in the following steps:

- The complainant submits a written complaint to the appropriate and/or pertinent unit head.
- The Department head conducts a discreet investigation of the particulars of the complaint.
- The Department head and/or the Department's ethics committee set a formal inquiry.
- The Department head and/or the Department's ethics committee impose a sanction or a penalty after thorough investigation and deliberation.
- The Department head and/or the Department's ethics committee recommend action to remedy the situation.
- The Department head advises the Principal and the Principal makes appropriate public statements related to the case.

In some cases, such as when the complaint cannot be sustained or when the researcher concerned concedes, the response may not require all of the above steps. If the complaint cannot be settled to everyone's satisfaction at this level, the formal complaint or allegation may be elevated to a higher level mutually agreed upon by the parties concerned. At this higher level, the authority concerned may consult the College Committee on Ethics and Intellectual Property on the appropriate or necessary process for determining whether a prima facie case exists.

The term breach shall apply to less serious deviations from this Code that are appropriately remedied within the College. The term research misconduct is used for more serious, deliberate deviations. For the purposes of this Code, misconduct in research includes any deviation of this Code that includes, but is not limited to: fabrication of results; falsification or misrepresentation of results; plagiarism; misleading ascription of authorship; unauthorized use of another person's research data, materials, or writing; unjustified destruction of research materials; deception/misrepresentation in relation to research proposals; financial fraud; misuse of research funds; failure to declare and/or manage serious conflicts of interest; falsification or misrepresentation to obtain funding; risking the safety, security, and/or well-being of research participants, whether human or non-human, and/or the environment; deviations from this Code that occur through gross or persistent negligence; and/or wilful concealment or facilitation of research misconduct by others.

4.11 The College Committee for Ethics in Research

***Code for Responsible and
Ethical Conduct of Research***

The College Committee for Ethics in Research shall be the highest body tasked to govern the ethics of research across the College. Cognizant of the College's pursuit of its research function, the Committee ensures the protection of the rights, dignity, health, safety and privacy of human subjects, the welfare of animals, and the integrity of the environment. In the same vein, it strictly upholds the health, safety, rights and academic freedom of researches and the reputation of the College as an institution of high-quality research.

The College Committee for Ethics in Research shall be headed by the Principal of the College as the Chairperson and the Dean for Research and Consultancy shall be the Convenor. The Committee shall have following members the Vice Principal for Academics, two senior most College Research students / Research Fellows, College Legal Counsel, two members from the Research and Advisory Committee of the College, an external expert on ethics and an invited senior subject expert of relevant area. The Committee shall have the right to formulate further guidelines and procedures for securing ethical review and clearance. The Committee may seek advice and assistance from experts involved in the field or area of research of a proposal under consideration or knowledgeable about contentious issues arising from current trends and developments. The Chairperson of the Committee shall ensure that experts have no conflict of interest in relation to the proposal or issues to be taken up.

-Prepared by

Prof. Sunita Shailajan

Dean, Research, Development and Innovation